

Bulletin 2004–05

Indiana University



University Graduate School

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Contents

Mission and History of the University Graduate School.....	6
Admission.....	8
Academic Regulations	10
General Requirements for Advanced Degrees	14
Student Financial Aid	20
Degree Conferral.....	22
Special Opportunities.....	22
African American and African Diaspora Studies (Bloomington).....	24
African Studies (Bloomington)	28
American Studies (Bloomington)	31
Anatomy and Cell Biology (Indianapolis)	35
Ancient Studies (Bloomington)	38
Animal Behavior (Bloomington)	39
Anthropology (Bloomington)	41
Anthropology and Health (Indianapolis).....	48
Apparel Merchandising and Interior Design (Bloomington).....	48
Applied Communication (Indianapolis).....	50
Applied Statistics (Indianapolis).....	52
Arts Administration (Bloomington).....	53
Astronomy (Bloomington).....	54
Astrophysics (Bloomington)	56
Institute for Biblical and Literary Studies (Bloomington)...	57
Biochemistry, Interdisciplinary (Bloomington)	59
Biochemistry (Indianapolis).....	61
Biology (Bloomington).....	65
Business (Bloomington).....	72
Cellular and Integrative Physiology (Indianapolis).....	75
Central Eurasian Studies (Bloomington).....	77
Chemical Physics (Bloomington)	82
Chemistry (Bloomington).....	82
Classical Studies (Bloomington).....	88
Clinical Research (Indianapolis).....	92
Cognitive Science (Bloomington).....	93
Communication and Culture (Bloomington).....	102
Comparative Literature (Bloomington).....	106
Computer Science (Bloomington).....	111
Criminal Justice (Bloomington).....	118
Cultural Studies (Bloomington)	123
Dentistry (Indianapolis)	124
East Asian Languages and Cultures (Bloomington)	126
Economics (Bloomington)	132
Economics (Indianapolis)	137
Education (Bloomington and Indianapolis)	139
English (Bloomington).....	141
English (Indianapolis).....	147
English and Linguistics (Fort Wayne)	149
Environmental Programs (Bloomington)	153
Ethnomusicology (Bloomington).....	156
Film Studies (Bloomington).....	157
Fine Arts (Bloomington).....	158
Folklore and Ethnomusicology (Bloomington).....	165
French and Italian (Bloomington).....	169
Gender Studies (Bloomington)	174
General Science (Bloomington).....	175
Geography (Bloomington)	176
Geography (Indianapolis)	181
Geological Sciences (Bloomington)	182

Geological Sciences (Indianapolis).....	185
Institute of German Studies (Bloomington).....	187
Germanic Studies (Bloomington).....	188
Health, Physical Education, and Recreation (Bloomington).....	193
History (Bloomington).....	195
History (Indianapolis).....	202
History and Philosophy of Science (Bloomington).....	205
Human-Computer Interaction (Bloomington).....	208
Human Dimensions of Global Environmental Change (Bloomington).....	209
Human Evolutionary Studies (Bloomington).....	212
Human Sexuality (Bloomington).....	213
India Studies (Bloomington).....	214
Informatics (Bloomington).....	216
Informatics (Indianapolis).....	217
Institute for Medieval Studies (Bloomington).....	218
Inner Asian and Uralic Studies (Bloomington).....	219
Jewish Studies (Bloomington).....	222
Journalism (Bloomington).....	224
Latin American and Caribbean Studies (Bloomington).....	229
Law (Bloomington).....	232
Liberal Studies (Fort Wayne).....	234
Liberal Studies (South Bend).....	234
Liberal Studies (Southeast).....	235
Library and Information Science (Bloomington).....	236
Linguistics (Bloomington).....	239
Mass Communications (Bloomington).....	244
Mathematical Physics (Bloomington).....	244
Mathematics (Bloomington).....	245
Medical and Molecular Genetics (Indianapolis).....	252
Medical Biophysics (Indianapolis).....	255
Medical Neurobiology (Indianapolis).....	256
Medical Sciences (Bloomington).....	258
Microbiology and Immunology (Indianapolis).....	263
Museum Studies (Indianapolis).....	266
Music (Bloomington).....	267
Mythology Studies (Bloomington).....	271
Near Eastern Languages and Cultures (Bloomington).....	271
Neural Science (Bloomington).....	275
Nonprofit Management (Bloomington and Indianapolis).....	278
Nursing Science (Indianapolis).....	278
Nutrition and Dietetics (Indianapolis).....	281
Pathology and Laboratory Medicine (Indianapolis).....	283
Performance Studies (Bloomington).....	286
Pharmacology and Toxicology (Indianapolis).....	286
Philanthropic Studies (Indianapolis).....	289
Philosophy (Bloomington).....	294
Philosophy (Indianapolis).....	297
Physics (Bloomington).....	300
Planning and Information Systems (Indianapolis).....	305
Political Science (Bloomington).....	305
Population Institute for Research and Training (Bloomington).....	309
Certificate in Professional Editing (Indianapolis).....	310
Psychology (Bloomington).....	311
Public Affairs (Bloomington).....	316
Public Management (Bloomington).....	317
Public Policy (Bloomington).....	317
Regional Economic Development (Bloomington).....	319
Religious Studies (Bloomington).....	319
Renaissance Studies (Bloomington).....	324

Russian and East European Institute (Bloomington).....	325
Scientific Computing (Bloomington).....	333
Slavic Languages and Literatures (Bloomington).....	333
Social Informatics (Bloomington).....	339
Social Studies (Bloomington).....	340
Social Work (Bloomington).....	341
Sociological Practice (Fort Wayne).....	344
Sociology (Bloomington).....	345
Sociology (Indianapolis).....	349
Spanish (Indianapolis).....	351
Spanish and Portuguese (Bloomington).....	353
Speech and Hearing Sciences (Bloomington).....	359
Telecommunications (Bloomington).....	364
TESOL/Applied Linguistics (Bloomington).....	368
Theatre and Drama (Bloomington).....	371
Therapeutic Outcomes Research (Indianapolis).....	374
Urban Affairs (Bloomington).....	376
Victorian Studies (Bloomington).....	376
Vision Science (Bloomington).....	377
West European Studies (Bloomington).....	379
Women’s Studies (Indianapolis).....	383
Graduate Faculty.....	384
Indiana University.....	393
General Policies.....	393
Residency Status.....	394
Fees.....	396
Index.....	401

Graduate Council 2004-2005

Adamek, Margaret	Kowolik, Michael
Anderson, Rachel	Leach, Eleanor
Baker, Crump	Long, Randy
Capshew, James	McCarty, Luise
Chakrabarti, Subir	Myers, Kathleen Ann
Darnel, Michael	Near, Joseph
Dennis, Alan	Peavy, Daniel
Fisher, Joseph	Pilachowski, Catherine
Goebel, Mark	Serot, Brian
Grant, Jane	Shaw, Debora Ralf
Gray, Margaret	Sims, Sharon
Grimmond, Sue	Sivam, Subbiah
Haas, Ain	Stetkevych, Suzanne
Hartford, Beverly	Thelen, Esther
Helton, Edwina	Vance, Gail
Hottell, Matt (GPSO)	Von der Embse, Tom
Jorgensen, Estelle	Williams, James
Klemsz, Mike	Wokeck, Marianne

Mission and History of the University Graduate School

Mission of the University Graduate School

The mission of the University Graduate School is to promote and support excellence in graduate education for individual students, faculty, departments, and the university as a whole.

In accomplishing this mission, the University Graduate School values integrity, collaboration, efficiency, innovation, and inclusiveness in all that it does. These values are central to the school's role in encouraging a creative environment for scholarship and research, teaching and learning. The University Graduate School is a recognized leader in developing new concepts and best practices for graduate education. It assists departments in recruiting, supporting, retaining, and graduating outstanding scholars. Through its connections with national higher education organizations, it serves as a resource in forging the future directions of graduate education.

The University Graduate School administers degree programs on five campuses of Indiana University: Bloomington, Fort Wayne, Indianapolis, South Bend, and Southeast at New Albany. At Bloomington there is a certificate program in the School of Informatics (Michael Dunn, Dean), master's programs in the College of Arts and Sciences (Kumble R. Subbaswamy, Dean), and Ph.D. programs in the College of Arts and Sciences, the Kelley School of Business (Dan Dalton, Dean), the School of Education (Gerardo Gonzalez, Dean), the School of Law (Lauren Robel, Dean), the School of Library and Information Science (Deborah Shaw, Dean), the School of Optometry (Gerald Lowther, Dean),

and the School of Public and Environmental Affairs (Astrid E. Merget, Dean). At Indianapolis the programs administered by the Indiana University Graduate School include master's programs in the School of Liberal Arts (Robert White, Acting Dean), Health and Rehabilitation Sciences (Mark Sothmann, Dean), and the School of Science (David Stocum, Dean); Ph.D. programs in the School of Nursing (Sharon Farley, Interim Dean) and the School of Social Work (Michael Patchner, Dean), and both master's and Ph.D. programs in the School of Medicine (D. Craig Brater, Dean) and the School of Dentistry (Lawrence Goldblatt, Dean). At Fort Wayne there are master's programs in the School of Arts and Sciences (Evangelos Coufoudakis, Dean), while there are Master of Liberal Studies at South Bend (Una Mae Reck, Chancellor) and at Southeast (Sandra R. Patterson-Randles, Chancellor).

History and Organization

In 1908, upon the insistence of faculty members of the College of Arts and Sciences, the university placed its graduate courses into a newly formed unit, the Graduate School, and named biology professor Carl Eigenmann its first dean (1908-27). Four years later, Indiana University gave its first Ph.D. degree, although Master of Arts degrees had been conferred in cursu upon graduates of Indiana University in the nineteenth century. Today, the Graduate School awards approximately 300 Ph.D.'s and some 500 master's degrees annually. In addition to the Ph.D., the Graduate School at Indiana University has sole jurisdiction over the Master of Arts, the Master of Science, the Master of Arts for Teachers, the Master of Laws, and the Master of Fine Arts degrees wherever they are offered in the university system. The professional schools have jurisdiction over other postbaccalaureate degrees and, of course, provide the instruction for Graduate School degrees in their disciplines. As a university-wide office, the Graduate School grants

degrees at five of the university's eight campuses: Bloomington, Fort Wayne, Indianapolis, South Bend, and Southeast.

In the Graduate School's early years, during the presidency of William Lowe Bryan, the university concentrated on undergraduate instruction. When Herman B Wells became president in 1938, graduate education at Indiana began to thrive under the deanship of Fernandes Payne, another biologist (1927-47). With the strong support of President Wells and under the guidance of Dean Payne's successors, English professor and folklorist Stith Thompson (1947-50) and botanist Ralph Cleland (1950-58), the Graduate School grew rapidly during the post-World War II years. Twenty-five graduate fellowships were created during the war years.

John W. Ashton, the second English professor to occupy the Graduate School deanship (1958-65), had served as dean of the College of Arts and Sciences before taking over the new Graduate School offices in Kirkwood Hall. During his tenure in the college and in the Graduate School, Dean Ashton gave strong support to interdisciplinary programs and emerging disciplines such as linguistics, comparative literature, East European studies, folklore, School of Letters, and Uralic and Altaic studies. By 1960, Bernard Berelson's book *Graduate Education in the United States* ranked Indiana University twelfth of 92 institutions of higher education. Allan Carter's *Assessment of Quality in Graduate Education* (1966) also reflected the increased stature of the university's graduate programs. In that work, four Graduate School programs ranked among the top ten of their kind in the nation, and twenty programs emerged among the top twenty.

The appointment of Harrison Shull, a chemist (1965-72), marked an outstanding increase in the research and graduate development activities of the Graduate School. When Dean Shull left the Graduate School to become the vice chancellor for research and development, he took

many of these activities with him, leaving the Graduate School to be primarily concerned with graduate education. As the university underwent reorganization under the leadership of President John W. Ryan, two temporary deans, Harry Yamaguchi, a psychologist (1972-77), and James Holland, the third biologist to head the Graduate School (1977-78), presided over an office that, without a research and development component, was able to focus its attention on the quality of graduate education.

From 1978 until 1987, the historian Leo F. Solt was dean. Under his leadership, the Graduate School became a university-wide entity, encouraging excellence in graduate education throughout the state of Indiana by systematically reviewing all existing programs and by implementing new graduate programs on the Indianapolis and South Bend campuses, as well as on the Bloomington campus. Fellowship funds were increased, and more minority students were recruited; the Graduate School was computerized to improve record keeping and monitoring of students; additional steps were taken to improve the quality of Ph.D. dissertations; and participation by graduate students in the administrative and policy making activity of the Graduate School was encouraged.

Thomas Noblitt, a music historian, was acting dean from 1987 until 1989. During his tenure, new graduate programs were approved for the Northwest and Fort Wayne campuses, and offerings at Bloomington and Indianapolis were expanded. In August 1989, George Walker, a physicist, became associate vice president (and later vice president) for research and dean of the University Graduate School, thus reuniting two offices that had been separated for nearly 20 years. Under his direction, the University Graduate School was reorganized to allow departments and schools to assume a larger part of the responsibility for the monitoring of graduate students' progress toward their degrees. Increased emphasis on financial support for graduate

education has led to substantial additions to the fellowship budget, new initiatives were undertaken to encourage research on all campuses of the university, and the Graduate Council was significantly expanded. Dean Walker has also established a Preparing Future Faculty Program to prepare graduate students for the full range of professional responsibilities they will face.

In 2003, the Office of Research and the University Graduate School were again separated, and John Slattery, a pharmacologist from the University of Washington, was recruited to head the again independent University Graduate School.

In 1951, the faculty elected nine of their number to a Graduate Council. Today, the Graduate Council has 35 voting members elected by the University Graduate School faculty. That faculty of about 2,200 members comes from all campuses of the university. Since 1980, a University Graduate School faculty committee has selected new members of the graduate faculty upon nomination by departmental chairpersons or by professional school deans, subject to the approval of the dean of the University Graduate School and, in the case of full members, the Board of Trustees. The names of all IU faculty members who hold appointments as full or associate members of the Graduate Faculty are listed under the names of the program(s) with which they are associated. An asterisk (*) following a name indicates that the individual is an associate member of the Graduate Faculty.

Members of the University Graduate School faculty ultimately determine standards of admission, set the general requirements for degrees, pass upon the specific requirements of programs, approve courses for graduate credit, and certify candidates for degrees. These functions are executed by the Graduate Council and the dean and administrative staff. More specifically, the University Graduate School faculty serve on advisory and research committees for doctoral students, direct master's theses and

doctoral dissertations, and elect members of the Graduate Council. The Graduate Council, which represents professional as well as arts and sciences departments, meets monthly during the academic year. In addition to the functions delegated to it by the faculty of the University Graduate School, it serves as an executive advisory body to the dean and administrative staff on policy matters. It reviews the findings of the dean's staff in connection with the program reviews mandated by the Indiana Commission for Higher Education; it receives the reports of the school's standing faculty committees (i.e. Curriculum, Awards, Graduate Faculty Membership, and Graduate Initiatives); it acts on recommendations for changes in admission, the curriculum, degree requirements, and procedures for the administration of student programs; it receives and acts on the recommendations of ad hoc committees appointed by the dean; it gives advice on ways to improve the quality of graduate work; and it seeks ways to coordinate the programs of the University Graduate School with other graduate programs in the university.

The Executive Committee of the Graduate Student Organization articulates graduate student reaction to possible changes in all aspects of the University Graduate School program. Appointed by the dean, its members are a subset of the larger Graduate Student Organization and represent particular constituencies that mirror those that the Graduate Council members represent. It also selects two of its members to serve as nonvoting members of the Graduate Council. Executive Committee members and the dean determine the agenda for the monthly meetings. Whenever proposed changes in graduate education come before the Graduate Council, the dean seeks the advice and opinions of the Executive Committee. Members of the Executive Committee give their views on the reports of various ad hoc University Graduate School committees, including any proposed changes in the Ph.D. requirements.

The heads of departmental graduate student organizations form the Executive Committee's parent body, the Graduate Student Organization, which meets monthly with the dean to discuss any University Graduate School issue the students wish to address. Both student groups, together with the Graduate Council, the University Graduate School's standing and ad hoc committees, and the Graduate Faculty assist the dean and administrative staff in maintaining the highest quality of graduate education at Indiana University.

Admission

Undergraduate Requirements

The University Graduate School will consider applications from students holding baccalaureate degrees from Indiana University or from other accredited four-year collegiate institutions. The University Graduate School may admit students who do not meet stated admission criteria provided that the deficiencies amount to no more than one year's work. The dean will determine the condition of admission in such cases. If more than a year's work is deficient, students should apply to the University Graduate School for admission to the Continuing Nondegree Program. Students from unaccredited institutions may be admitted as special students for one semester; if their records are then satisfactory and their department, program, or school recommends them, they will be given full standing. Ordinarily, a B (3.0) average in the undergraduate major is required for admission to the University Graduate School.

Distance/Distributed Education

The University Graduate School recognizes the role in contemporary curricula of modern technologies that enhance learning in both traditional formats featuring primarily face-to-face interaction and in non-traditional formats where students

and faculty engage each other primarily via electronic means. In considering course work for admission purposes or for transfer of credit into a degree program, the Graduate School expects programs to evaluate course work and to apply the same criteria for quality to both traditional and distance formats. Course work must be from an accredited four-year collegiate institution to be considered for admission purposes, or must otherwise comply with the requirements for non-accredited institutions (see prior section).

Indiana University Baccalaureate Degree Candidates

Candidates for baccalaureate degrees at Indiana University may apply for conditional admission to the University Graduate School and may enroll for graduate credit for that portion of their program not required for completion of the baccalaureate degree, provided that:

1. They are within one semester of meeting baccalaureate degree requirements. (If the baccalaureate is not completed within that semester, graduate credit earned may not be counted toward an advanced degree).
2. The total course load does not exceed that ordinarily taken by a full-time graduate student.
3. The courses taken for graduate credit are authorized to carry such credit. (In certain instances graduate credit is allowed for undergraduate courses.)

Application

To assure that course credit will be eligible to count toward an intended graduate degree, prospective graduate students, including graduates of Indiana University, must make formal application and be admitted to a department, program, or academic school, or must be registered as a Continuing Nondegree student before taking

courses for graduate credit. Most programs of the University Graduate School consider applications for admission and financial aid that are completed by the following dates: January 15 for the fall semester, September 1 for the spring semester, and January 1 for the summer. If a program uses other deadlines, the applicant will be informed by the staff of the program. Many graduate programs consider applications submitted after a deadline as long as all available spaces for students have not been filled by highly qualified applicants. Inquiries about late applications for admission or financial aid should be addressed to the program of your intended major.

Electronic applications are the preferred for of application at IUPUI and encouraged at IUB. If needed, paper application forms are available in the office of the University Graduate School, Kirkwood Hall 111, Indiana University, Bloomington, IN 47405, in the IUPUI Graduate Office, IUPUI, Union Building 518, 620 Union Street, Indianapolis, IN 46202, and in departmental offices.

Application forms are available in the office of the University Graduate School, Kirkwood Hall 111, Indiana University, Bloomington, IN 47405, in the IUPUI Graduate Office, IUPUI, Union Building 518, 620 Union Street, Indianapolis, IN 46202, and in departmental offices. Many departments also accept electronic applications.

For further information, consult www.gradapp.indiana.edu. All applications must be accompanied by one complete transcript of previous college and university work and should be submitted directly to the department in which the student wishes to work. Indiana University graduates should request the registrar's office to send unofficial copies of their transcripts to that department.

By action of the Trustees of Indiana University, a nonrefundable application fee of \$50 is required of all applicants. An application fee of \$50 (2002-2003 fee) is required for

all applicants applying to Indiana University Graduate School programs on the IUPUI campus. All Graduate Nondegree students on the Indianapolis campus must pay \$50 (2004-2005 fee) as well.

Admission (except for continuing nondegree students) is made to a particular department for a specific degree, and no student shall be permitted to work toward a degree without first having been admitted to do so. A flexible entry procedure for basic science programs at Indianapolis allows Ph.D. students up to one year to identify a research laboratory and degree program. Students desiring to change departments should fill out Transfer of Department Forms, which may be obtained in the offices of individual departments or schools (e.g., the School of Education, the College of Arts and Sciences). Requests for change of degree status must be submitted by the department and approved by the dean.

Following the notice of admission to the University Graduate School, an applicant normally has two calendar years in which to enroll.

Supplementary transcripts of any additional academic work undertaken during that period are required, and a department may request additional letters of recommendation. Should the updated material prove unsatisfactory, the admission may be cancelled. If the applicant fails to enroll within two years, a completely new application is required.

Graduate Record Examination

Applicants may be required to take the Graduate Record Examination General Test, Subject Test, or both (see departmental requirements). Information concerning these examinations may be obtained from Graduate Record Examinations, Educational Testing Service, CN 6000, Princeton, NJ 08541-6000. Applications are available in the office of the University Graduate School.

International Students

There are special application procedures for those who are not citizens of the United States or who have had their previous schooling outside the United States. Such individuals should obtain the International Packet from the Office of Admissions at Bloomington (300 N. Jordan Ave; (812) 855-4306; E-mail intladm@indiana.edu) or the Office of International Affairs at IUPUI (Union Building; Room 207; (317) 274-7294; E-mail intlaff@iupui.edu; the international application may be downloaded from www.iupui.edu/~oia).

Because of the extra procedures required in evaluating foreign credentials, the application fee for international students is \$55 (\$55 at IUPUI). This fee needs to be paid only once, no matter how many degrees a student might earn from Indiana University.

Once enrolled, international students who wish to change their programs of study must first obtain the approval of the Office of International Services. After such approval is granted, application for formal change of status may be made to the University Graduate School according to the same procedures governing United States citizens. International students must enroll in at least 8 credit hours each fall and spring semester in order to meet visa requirements. Any exceptions to this regulation must be approved in advance by the Office of International Services.

Since the language of instruction at Indiana University is English, proficiency in reading, writing, speaking, and understanding English is essential. Applicants whose native language is not English should submit proof of such proficiency by the time they apply for admission. Normally this is done by taking the Test of English as a Foreign Language (TOEFL). Results of this test should be submitted as part of the application for admission. The TOEFL examination is given six times a year in the United States and many foreign countries. Further information may be obtained at

American consulates or by writing to TOEFL, Box 899, Princeton, NJ 08541, U.S.A. If it is not possible to take the TOEFL, applicants should obtain a statement by a responsible official, ordinarily a United States consular official, attesting that they read, write, speak, and understand the English language well enough to pursue, at an American university, a program leading to an advanced degree in their chosen field. Such a statement should be submitted with the application for admission.

Prior to registration for classes, all new students whose native language is not English are required to take an English Language Proficiency Test administered by the Indiana University Center for English Language Training (CELT) at Bloomington, and by the ESL program and the Office of International Affairs at Indianapolis. If the results of this test indicate that a student needs additional work in English as a second language, appropriate recommendations will be made to the student's academic advisors. This requirement has been established in recognition of the vital importance of language competency to the student's academic success. Prospective students whose native language is not English and who have been offered positions as associate instructors are required to pass additional tests in English, since success as a teacher at Indiana University is dependent upon one's ability to communicate in the English language. Information regarding these examinations may be obtained directly from the individual academic departments.

Nondegree Students

Special Students

Students who have not been admitted to a degree program but who intend to study primarily in one department may be admitted by that department with the approval of the dean as special students. They must apply to a department just as degree students do and should indicate their desired status.

Continuing Nondegree Students

The holder of a baccalaureate degree who wishes to study on a nondegree basis without necessarily concentrating in a single department may be admitted to the University Graduate School as a continuing nondegree student. Such students may not accumulate more than 18 credit hours in a single subject area, and may enroll only in those courses for which they can obtain specific permission to register, which takes into consideration the academic background of the individual and course enrollment limitations. For details of admission and further information, students should consult the University Graduate School at Bloomington (Kirkwood Hall 111, (812) 855-8854) or the Graduate Nondegree Program at Indianapolis, 620 Union Drive, Room 518, (317) 274-1577.

A student initially admitted as a continuing nondegree student who later wishes to obtain a graduate degree must make formal application and be admitted to a departmental degree program. The department may then recommend to the dean that credit earned as a continuing nondegree student be applied to degree requirements. Students should be aware that certain departments and schools specifically prohibit work taken under continuing nondegree status from counting toward a degree after a student has been admitted to a degree program.

Academic Regulations

Residence

All candidates for graduate degrees (with the exceptions outlined below) must complete at least 30 credit hours of graduate work while enrolled on campuses of Indiana University. Of these hours, at least one semester or two summer sessions of full-time work must be taken in University Graduate School degree-granting units on the Bloomington, Fort Wayne,

Indianapolis, South Bend, or Southeast campuses. Candidates for the Ph.D. degree must spend two consecutive semesters during one academic year on the Bloomington or Indianapolis campus.

Transfer of Credit

Upon recommendation of the department and with the approval of the dean, work taken for graduate credit at other institutions may be transferred in partial fulfillment of degree requirements. No course may be transferred from another institution unless the grade is B or higher and unless the course was completed within the time limit prescribed (see “Graduate Credit-General” section below). The following restrictions apply:

1. Candidates for the M.A., M.S., LL.M., or M.A.T. degree may offer up to 8 hours of graduate credit from other institutions.
2. Candidates for the M.A.T. degree who are graduates of Indiana University may offer up to 12 hours of graduate credit from other institutions.
3. Candidates for the M.F.A. degree may offer up to 20 hours of graduate credit from other institutions.
4. Candidates for the Ph.D. degree may offer up to 30 hours of graduate credit from other institutions.

It must be emphasized that the transfer of credit is not an automatic occurrence. Students must obtain the written consent of both their departmental advisor and the dean before credit earned at other institutions will be added to their records.

Work Done at More Than One Indiana University Campus

Students who plan to earn a degree through a degree-granting unit on one Indiana University campus and who plan to take a substantial number of hours on one or more of the other Indiana University

campuses in partial fulfillment of degree requirements should have their programs of study approved in advance by the degree-granting unit. The residency requirement must be met on the campus where the degree-granting unit is located.

CIC Traveling Scholar Program

This program enables Indiana University doctoral-level students to take advantage of special resources available at other CIC institutions¹ that do not exist at Indiana University. Students in the program register and pay fees at Indiana University but attend one or more of the participating institutions, each for no more than two semesters or three quarters. For further information, contact the University Graduate School office.

Auditing

Students may register for courses on an auditing basis. Courses in which a student is so enrolled carry no credit but are listed on the student’s transcript. An auditing fee is charged.

Full-Time Study

Ordinarily, students shall be considered full time if they are registered for 8 hours of credit (4 credit hours during each summer session) and their programs of study meet with the approval of the departments. Courses taken as an auditor may not be counted in the definition of “full-time study”; however, courses taken to remove undergraduate deficiencies for admission may be counted. Students holding appointments as associate instructors, graduate assistants, or research assistants must ordinarily be registered for 6 credit hours during each full semester and 3 credit hours (4 credit hours in the case of 4-credit courses) during the summer session to be considered full time. They may count work required by their appointments toward computation of full-time graduate work. In departments where workloads are different in the first and second semesters, the student’s registration for the two semesters

combined must total at least 12 credit hours.

For academic purposes, the University Graduate School will consider as full-time certain students who are exceptions to the above definitions: M.A., M.S., and LL.M. candidates whose completed courses and deferred thesis credits total 30 hours; M.F.A. candidates whose completed courses and deferred thesis credits total 60 hours; and Ph.D. students whose completed courses and deferred dissertation credits total 90 hours, providing they are working on theses or dissertations for the completion of the degree. Such students, however, must enroll in at least one hour of graduate credit each semester. For master's candidates, such enrollment will be limited to the five-year period allowed for completion of the master's degree; this enrollment for doctoral candidates will be limited to the seven-year period after passing the qualifying examination. Students who have already accumulated 90 or more hours of graduate credit and who hold university-administered student appointments as associate instructors, graduate assistants, or research assistants amounting to at least 0.375 FTE (15 hours per week workload) will be required to enroll for at least 6 hours of credit during each semester they continue to hold an appointment. Such hours will be charged at the allocated fee rate.

¹ The member institutions of the Committee on Institutional Cooperation (CIC) are the University of Chicago, the University of Illinois at Chicago, the University of Illinois at Urbana-Champaign, Indiana University, the University of Iowa, the University of Michigan, Michigan State University, the University of Minnesota, Northwestern University, The Ohio State University, Pennsylvania State University, Purdue University, the University of Wisconsin-Madison, and the University of Wisconsin-Milwaukee.

Students may take no more than 16 hours of credit in any semester nor more than a total of 16 credit hours in all the summer sessions in any one year without permission of their graduate advisor. Students who are employed are advised to take into account the demands that such activities make on their time and to reduce their course loads accordingly.

Transfer from One Department to Another

Matriculated students wishing to transfer from one department within the University Graduate School to another should first consult their graduate advisors or advisory committees and the graduate advisor of the new department about the wisdom of the change. International students desiring to make such a change must also obtain the approval of the Office of International Services. Application to the new department may then be made using the Application for Transfer of Department within the University Graduate School form, available in individual departments and schools. Students expecting to receive a degree from the department they are transferring from should be sure that the effective date of the transfer falls after the degree will be conferred, since degrees can be conferred only in the department in which the student is enrolled.

Graduate Credit General

Only courses listed in this bulletin or specifically allowed by it may be counted toward the requirements for a degree offered by the University Graduate School. These courses are ordinarily numbered at the 500 level or above. In certain cases, courses at the 300 and 400 level have been specifically approved for graduate credit; all such courses are listed in this bulletin. Normally, these courses require a higher level of performance and significantly more work (such as an increased number of readings, additional papers, extra class sessions, oral class presentations) for the graduate students than for the undergraduates. Each instructor should identify the graduate students enrolled in the course during the first

week of classes and should outline the nature of the work expected of them at that time. In certain other unusual instances the dean may approve, upon recommendation and justification by the student's advisory committee, other 300- or 400-level courses for graduate credit, typically to count toward requirements in the student's outside minor. Such approval should be requested before the course is taken.

In many departments there are strict limitations on the number of 300- and 400-level courses that may be counted toward advanced degree requirements; see departmental notices for details. For descriptions of 300- and 400-level courses, see the College of Arts and Sciences Bulletin or the School of Liberal Arts Bulletin.

Not all courses listed in this bulletin are offered every year and on every campus. Inquiries concerning the availability or suitability of a particular course should be directed to the appropriate departmental chairperson.

The number of hours of credit given a course is indicated in parentheses following the course title. The abbreviation "P" refers to the course prerequisite or prerequisites. Similarly, the abbreviation "R" indicates recommended prerequisites. Courses eligible for a deferred grade are marked by the sign "***".

Revalidation

Normally, a course may not be counted toward degree requirements if it has been completed more than (a) five years prior to the awarding of the degree for master's students or, (b) seven years prior to the passing of the qualifying examination for Ph.D. students. The graduate advisor, after consultation with the advisory committee, may, however, recommend to the dean that course work taken prior to the above deadlines be revalidated if it can be demonstrated that the knowledge contained in the course(s) remains current. Currency of knowledge may be demonstrated by

such things as: (a) passing an examination specifically on the material covered by the course¹; (b) passing a more advanced course in the same subject area; (c) passing a comprehensive examination in which the student demonstrates substantial knowledge of the content of the course; (d) teaching a comparable course; or (e) publishing scholarly research demonstrating substantial knowledge of the content and fundamental principles of the course. Each *course* for which consideration for revalidation is being requested should be justified separately.

Courses taken while an undergraduate and counted toward the requirements of a baccalaureate degree may not also be counted toward a graduate degree. With only three exceptions, courses counted toward the requirements for one advanced degree may not be counted toward requirements for another degree at the same level.

In the case of the M.F.A., course work completed as part of an M.A., M.S., or M.A.T. degree may, with the approval of the student's department, be counted toward the M.F.A., provided it otherwise meets the conditions stated in this bulletin.

¹If the qualifying examination is used for this purpose, the number of courses to be revalidated by this method should be limited to two in order to avoid compromising the integrity of the qualifying examination process.

In the case of the Dual Master's Program, certain reductions are allowed in the total number of hours required if the two degrees had been taken separately. The Dual Master's Program involves two degrees at the master's level; the degrees may be under the jurisdiction of the University Graduate School or of another school (e.g., Journalism, Library and Information Science, Public and Environmental Affairs). For further information, see below (under "Requirements for Master's Degrees") and the departmental entries for Central Eurasian Studies, Comparative Literature, East Asian Languages and Cultures, Economics, Environmental Programs, Fine Arts, Folklore and Ethnomusicology, Geography, History, History and Philosophy of Science, Journalism, Latin American and Caribbean Studies, Library and Information Science, Music, Nursing Science, Philanthropic Studies, Russian and East European Institute, and West European Studies.

Work counted toward a master's degree may also be counted toward the Ph.D. if it has been approved by the student's advisory committee and if it otherwise meets the conditions stated in this bulletin, including the rules governing the transfer of credit from other institutions.

Grades

Grade points are assigned at Indiana University according to the following scale, and grade point averages are computed taking into account any plus or minus accompanying a letter grade.

A	=	4.0
A-	=	3.7
B+	=	3.3
B	=	3.0
B-	=	2.7
C+	=	2.3
C	=	2.0
C-	=	1.7
D+	=	1.3
D	=	1.0
D-	=	0.7
F	=	0

Ordinarily a minimum of a B (3.0) average in graduate work is required for continuance in graduate study, *and for all graduate degrees.*

Courses completed with grades below C (2.0) are not counted toward degree requirements, but such grades will be counted in calculating a student's grade point average. Some departments may require an average grade in graduate courses higher than 3.0, while others may count no courses completed with grades below 3.0 toward degree requirements (see departmental entries). No work may be transferred from another institution unless the grade is a B (3.0) or higher.

The dean may review a grade record at any time and may place a student on academic probation if the record justifies such action. When the grade point average of a student falls below 3.0, or the student is not making sufficient progress toward the degree, the dean will notify the student that he or she has been placed on probation. Unless the student brings this record up to a 3.0 grade point average, or begins making satisfactory progress in the next semester of enrollment, the student will not ordinarily be allowed to continue in the University Graduate School.

Pass/Fail Option

Students in good standing (i.e., with a grade point average of 3.0 or better) who have completed graduate course work sufficient for a master's degree may, with the written consent of their graduate advisor or of their advisory committee, enroll in courses outside their major and minor areas on a pass/fail basis under conditions stated in a memorandum available from the University Graduate School office. Such courses may not be used to fulfill departmental language or research-skill requirements. Enrollment under this option will be made at the beginning of the semester and may not be changed after the date fixed for dropping and adding of courses.

Incomplete Grades

The grade of Incomplete may be given only when the completed portion of a student's work is of passing quality. It is the responsibility of the student who has incurred the grade of Incomplete in

any course to satisfy the requirements of that course within one calendar year from the date on which the Incomplete is recorded.

The student is expected to finish all necessary work in time for the instructor to assign a regular grade before the expiration of this time period. If the student is unable to do so because of circumstances clearly beyond the student's control, it is the student's responsibility to notify the instructor of the course, the graduate advisor, and the dean within the year of such circumstances and to request an extension of time. According to university policy, every overdue Incomplete will be changed to F after one calendar year. Both the student and the instructor shall be notified of this change in grade. This change will be made unless the dean has received notice of a regular grade duly assigned before that time or has approved a request for an extension of time. A change of the grade F will be considered only if the request for change is accompanied by an explanation of the circumstances involved. Students may not register in a course in which they have a grade of Incomplete.

These regulations do not apply to research and reading courses in which completion of the course work is not usually required at the end of the semester. Such courses are indicated in departmental listings by the sign “*”; incomplete work in those courses will be denoted by R (deferred grade).

Withdrawal from Course Work

Withdrawals prior to the “last day to drop a course with an automatic W” (see official calendar for each semester) are automatically marked W. According to university regulations, withdrawal after this date is permitted only with the approval of the dean of the student's school for urgent reasons related to the student's health or equivalent distress. In all such cases, the student must submit a request for late withdrawal to the advisor or to the departmental chairperson. This request must be supported by the

instructor of the course, the graduate advisor, and the departmental chairperson and then be forwarded to the dean with an accompanying statement outlining the reasons for the request. If the dean approves the request, the student's mark in the course shall be W if the work completed up to the point of withdrawal is passing; otherwise a grade of F shall be recorded. Failure to complete a course without an authorized withdrawal will result in the grade of F.

Addition of Course Work

A student who wishes to enroll for additional course work after the first two weeks of a regular semester or after the first week of a summer session may do so if the instructor of the course, the graduate advisor, and the departmental chairperson recommend to the dean that this be done, and if the dean approves such a recommendation.

Foreign Languages and Research Skills

Individual departments determine whether foreign languages or research skills or both will be required. Where such requirements exist, students must select the specific language(s) or research skill(s) from those approved by the major department and listed in its statement of departmental requirements. Another language demonstrably useful in the student's research program may be substituted upon special recommendation of the major department and approval by the dean. A student whose native language is not English may, with the permission of the major department, either (1) demonstrate the required proficiency in that native language, or (2) use English to meet foreign language requirements. Proficiency in English may be demonstrated by taking the Test of English as a Foreign Language (TOEFL) examination. (For further information regarding the TOEFL examination, see the section “International Students.”) Reading proficiency in a foreign language is normally established in one of three ways:

1. By achieving an appropriate score on an examination administered on the Bloomington campus by the respective language department. Students should contact the language department for details.
2. By completing, with a grade of B (3.0) or better, the reading course _492 (e.g., F492 for French, G492 for German). Students may register for the first course in the sequence, _491, to prepare for _492; those who feel they have sufficient preparation may register for _492, though they should consult the language advisor first.
3. By receiving, in the cases of Catalan, French, German, Italian, Portuguese, Russian, or Spanish, a grade of B (3.0) or better in a literature or civilization course at Indiana University numbered 300 or higher (exclusive of individual readings and correspondence courses) in which the reading is done in the foreign language.¹

For details, consult the respective language departments.

In certain departments, reading proficiency may be demonstrated by presenting an original translation for approval by a faculty examiner designated by the appropriate language department.

Proficiency in Depth

In certain departments, students have the option of substituting proficiency in depth in one language for reading proficiency in two languages. Proficiency in depth in a language is defined as the ability to read rapidly without the aid of a dictionary and the ability to speak, understand, and write in a manner comparable to that expected of students who have successfully completed fourth-year composition and conversation

¹ Courses in Russian offered to meet this requirement must be approved by the Department of Slavic Languages and Literatures.

courses. For information about demonstrating proficiency in depth, students should consult the graduate examiner in the foreign language department concerned.

Courses taken to fulfill research-skill requirements may, at the discretion of the student's major department, be counted for graduate credit in a student's program of study provided such courses are listed in this bulletin as carrying graduate credit. Each course must be passed with a grade of B (3.0) or higher to satisfy the proficiency requirement.

Area Certificates

Certificate programs are available in a number of areas; for further information, students should see the departmental entries in this bulletin. Such certificates can be pursued only in conjunction with a degree program and cannot be awarded independently.

Free-Standing Certificates

Graduate certificates are offered in some fields to allow a focused credential to be earned by a person who has already earned an undergraduate degree and is not enrolled in a master's or doctoral program. The courses taken are typically the same as those taken for other degrees, but a more limited number of courses is required for the certificate. Graduate certificates typically involve a predetermined curriculum of 16 to 20 credit hours. Students enrolled in free-standing certificate programs who wish subsequently to pursue an advanced degree must make separate application to the University Graduate School and must have specific permission of the faculty of their degree program to use any credits earned as a certificate student for the more advanced degree.

General Requirements for Advanced Degrees

Guidelines for Requirements

The following statements regarding degree requirements outline the minima that are acceptable. The student must meet not only the general requirements of the University Graduate School but also the specific requirements of the individual department(s). Requirements are given in this bulletin only for degrees awarded by the University Graduate School. Professional graduate degrees are also available at Indiana University (such as the Master of Business Administration, Master of Science in Education, and Doctor of Music degrees). These professional degrees are administered by the respective schools; information regarding these degrees and the requirements for each may be found in the bulletins of the individual schools.

The University Graduate School recommends that those who intend to continue graduate work toward the Ph.D. degree elect one of the traditional master's degree programs requiring a thesis or a foreign language or both.

Academic Integrity

Students are expected to adhere to the highest ethical standards in all their course work and research. Individuals violating that code of conduct are subject to disciplinary action; such breaches could lead to expulsion of the student from Indiana University or to rescission of a degree already granted. To acquaint students more fully with the range of issues relating to academic integrity, the University Graduate School has prepared a document entitled *Integrity in Graduate Study*, which deals with plagiarism, fraud, and conflicts of interest, among other

topics. Copies of that document may be obtained from departmental offices, from the office of the University Graduate School, in Kirkwood Hall 111 (IUB), or from the Graduate Office in the Union Building, Room 518 (IUPUI). Every student should be familiar with its contents.

Requirements for Master's Degrees

About the Requirements for Master's Degrees

The number of credit hours required by the University Graduate School for master's degrees varies according to the individual degree (see below for details). However, with the exception of the Dual Master's Program, the requirements for all master's degrees must be completed within five consecutive years.

With the exception of the Master of Arts for Teachers (M.A.T.), a thesis or reading knowledge of a foreign language is normally required for a master's degree (see departmental entries for exceptions). If a thesis is not required, departments are encouraged to substitute some other type of special project that is creative, exploratory, or experimental in nature. In lieu of the traditional thesis, for example, the department might require seminar papers, presentations, publishable reports, artistic performances, or exhibitions. The thesis or alternative project should be equivalent to no fewer than 3 nor more than 9 hours of graduate credit; such credit should be granted under an appropriate departmental course or independent study number. Departures from traditional thesis requirements prescribed by the individual departments must be approved by both the department and the dean. If a thesis is submitted, the student must file the original and one copy (both bound) with the University Graduate School. These copies will later be placed in the University Library. At least one additional bound copy must be filed with the major department. The title page must bear the statement: "Submitted

to the faculty of the University Graduate School in partial fulfillment of the requirements for the degree Master of _____ in the Department¹ of _____, Indiana University.” At least three members of the faculty shall normally participate in the approval of the thesis and must sign an acceptance page which appears after the title page. The statement, “Accepted by the faculty of the University Graduate School, Indiana University, in partial fulfillment of the requirements for the degree Master of _____,” should precede the signatures on the acceptance page. Each copy of the thesis is to be accompanied by the student’s vita sheet inserted at the end. For details regarding the typing and duplication of theses, see “Preparation of Theses and Dissertations.”

Three or more faculty members should participate in certification of the student’s fulfillment of the requirements for a master’s degree. Their participation may take any of several forms, such as administering a final or comprehensive examination, or evaluating the candidate’s thesis or alternative project. In instances where shortcomings are apparent, the student may be required to complete additional course work or assignments.

If the master’s degree is used to meet part of the requirements to convert a provisional or standard teaching certificate into a professional certificate (which is no longer a life license), the student’s degree program must include at least 18 credit hours of graduate work in the major or minor field or both.

Master of Arts

Thirty (30) credit hours are required for the M.A., all of which may be taken in a single department; at least 20 of these credit hours must be

¹ Students majoring in programs will use the word “Program”; students majoring in departments outside of the College of Arts and Sciences will use the word “School.”

earned in the major field. A minimum of 9 credit hours of course work or at least three courses in the major field (excluding thesis) must be numbered 500 or above.

Master of Science

General requirements for the M.S. are identical with those for the M.A. (see above).²

Master of Fine Arts

The M.F.A. degree, which is offered in the Departments of English, Fine Arts, and Theatre and Drama, requires a minimum of 60 credit hours.

Master of Arts for Teachers

In order to be admitted to this program, students must hold a baccalaureate degree from a regionally accredited institution. The degree should include sufficient hours in each discipline in which students plan to work to enable them to elect courses carrying graduate credit (see departmental entries for details).

Thirty-six (36) credit hours beyond the baccalaureate degree are required, at least 20 of which must be in the major teaching field, with the remainder allocated either to additional work in the major or to one or more minors. Certain interdepartmental programs have specific minor requirements (for details, see the individual program statements). Although not specifically required, education may be offered as a minor in any M.A.T. program. Each candidate must possess a teacher’s certificate (from Indiana or another state in the United States) by the time the degree is conferred, with the exception of international students, who must be certified by their department. Graduates of Indiana University who do not hold certificates should have their credentials evaluated for teaching certification purposes by either the School of Education or the department in which they are working toward their degree.

Students who graduate from institutions outside the state of

Indiana and who do not hold a teacher’s certificate must send their credentials directly to the Teacher Training and Licensing Commission, State House, Indianapolis, for evaluation; such students may not be admitted into the program, nor may curricula be planned for them, until the state evaluation is a part of the student’s official record at Indiana University.

Holders of the B.A. or B.S. degree who wish to secure a secondary school certificate as part of the M.A.T. program may substitute approved courses from the following list for certain undergraduate courses in education required for provisional certification: Education H520, H530, H540, L517, P510, and P516. Education M440 through M480 may also count in some instances (see major department), both toward certification and toward fulfilling M.A.T. requirements. Upon recommendation of the department and approval by the dean, a maximum of 6 credit hours of undergraduate courses taken after completion of the baccalaureate degree may be applied toward the M.A.T. degree.

Course work for the M.A.T. that is used for provisional certification may not also be used for professional certification. Professional certification requires at least 8 credit hours of graduate work in the area chosen for certification. A student must also take 6 credit hours of graduate professional education beyond those graduate education courses substituted above to meet the minimum provisional certification requirements.

² M.S. students in computer science are currently exempted from the regulation requiring that 9 credit hours of course work or three courses in the major field (exclusive of thesis) be numbered 500 or above. Students in the combined M.S./M.D. program have seven years in which to complete requirements for the M.S. degree; students in the M.S. program in geology at Indianapolis have six years in which to complete the requirement.

M.A.T. degrees are available in most areas represented in the high school curriculum. Interested students should consult the chairperson of the department or the division concerned to discuss programs of study.

Dual Master's Program

Students who are concurrently enrolled in two departments may qualify for two master's degrees under a provision that allows credit earned to satisfy the major requirements of one department to count as elective credit in a second department. Dual master's degrees require a minimum of 50 credits, with at least 21 credits earned in each of the programs. To be eligible for this program, a student must be formally admitted by both departments and by the University Graduate School. All requirements of both degrees must be met, including passing any departmental examinations and satisfying foreign-language/research-skill requirements. If both departments require a thesis, the student may write a single thesis that meets the requirements of both fields. The thesis committee will comprise an equal number of representatives of both departments, and the thesis credit will be split between the two. All course work for the program must be completed within a period of six years.

Preparation of Theses and Dissertations

Theses and dissertations must be typewritten or written on a word processor using a letter-quality printer. The text may be either one-and-a-half- or double-spaced and should not extend into the one-inch margins required on the three nonbinding sides (one-and-a-half inches required on the binding side).

Only minor corrections are acceptable in the final copy; these must be typewritten or corrected on a word processor (handwritten corrections are not acceptable). If more substantial corrections need to be made, the page or pages should be retyped. Page numbers must be consecutive throughout, with Arabic

numerals used for the body of the work and Roman numerals for the front matter.

The paper must be watermarked, 100-percent rag bond, in the format 8 1/2 by 11 inches (legal-size paper is not acceptable). Copies may be reproduced using a multilith, offset, or high-quality photocopy process, but mimeograph copies are not acceptable. If photographs are a part of the work, original prints must be included in each copy (photocopy reproductions of photographs are not acceptable). Any deviations from the above guidelines must be approved in advance by the dean of the University Graduate School.

Additional information regarding the typing and duplication of theses and dissertations may be found in *Guide to Dissertations and Theses*, which is available from the University Graduate School and the IUPUI graduate office. Students are strongly encouraged to get a copy of this guide.

Requirements for the Degree Doctor of Philosophy

The Ph.D. degree requires completion of at least 90 credit hours of an advanced course of study. The degree is awarded in recognition of a candidate's command of a broad field of knowledge and accomplishment in that field through an original contribution of meaningful knowledge and ideas.

Major Subject

The student will select a major subject from the departments and programs listed in this bulletin. The major department or program is responsible for monitoring the student's progress toward the degree and for making recommendations to the University Graduate School regarding the nomination to candidacy, the appointment of a research committee, the defense of the dissertation, and the conferring of the degree.

Minor Subjects

The student will select at least one minor subject. A minor provides additional breadth and depth to the individual's program. It must be taken outside the major department from among those areas of study listed in this bulletin or in a specifically approved inter- or intradepartmental area (see departmental entries).¹ The determination of the minimum requirements and examination procedure (if any) for the minor is entirely at the discretion of the minor department or program. In certain cases, special interdepartmental minors (12 or more credit hours of work in two or more departments) or minors not specifically listed in this bulletin may be approved by the dean upon recommendation of the student's advisory committee, provided such approval is requested prior to pursuit of any of the proposed courses of study. Examination procedures (if any) or other requirements (for example, stipulation of the minimum grades acceptable) should also be specified in the proposal to the dean.

¹ As an exception to this rule, Indiana University doctoral students may take a minor in Purdue University graduate degree programs at Indiana University-Purdue University Indianapolis (IUPUI).

Double Major

Students may pursue two majors in two departments simultaneously, if so recommended by each department and approved by the dean. Two general requirements pertain to double majors: (1) there must be a substantive relationship between the two major fields, particularly with respect to the topic of the student's dissertation; and (2) all degree requirements for *each* major must be fulfilled, including the passing of two sets of qualifying examinations. In some instances it may be possible to count the same work toward requirements in both departments (e.g., a specific foreign language acceptable in both programs). The exact courses of study and examinations required are to be determined by members of the research committee from each of the majors. Any area of substantial overlap in the two courses of study or in the examinations is to be negotiated by the committee as a whole and approved by the dean.

There must be at least four faculty members on both the advisory and research committees for a double major, with two from each of the majors. If other minor fields are involved, a representative must also be present from each of these.

A total of 90 credit hours is required for the Ph.D. degree with a double major. While judicious program planning may permit completion of some double majors within the 90 credit hours, other students may accrue additional hours due to the programs of study required for each major. In recognition of such a possibility, students in the program will be allowed one additional year before they must take the qualifying examinations. For a complete set of rules relating to double majors, students should consult the University Graduate School office.

Combined Degree Program

The School of Medicine, the School of Dentistry, and the University Graduate School offer selected students an opportunity to pursue the M.S. or Ph.D. degrees, concurrently or sequentially, with a coordinated

and flexible program leading also to the M.D. or D.D.S. degree.

Combined degree programs are available in anatomy, biochemistry, dental science, medical biophysics, medical genetics, medical neurobiology, microbiology and immunology, pathology, pharmacology, physiology, and toxicology. At Bloomington, the combined degree is available not only in these basic medical, biological, and physical sciences but also in the humanities and social studies. The combined degree program is designed to meet the student's particular objectives and needs and is planned by the student and an advisory committee of faculty representing the School of Medicine or the School of Dentistry and the respective department or program.

Entry into a combined degree program requires approval of both the School of Medicine or the School of Dentistry and the University Graduate School. Two applications are necessary: one to the Indiana University School of Medicine or of Dentistry, and another to the Indiana University University Graduate School via the sponsoring department or program.

Indiana University School of Medicine has established an Indiana Medical Scientist Program for fellowship and tuition support of students in the combined M.D./Ph.D. program. A faculty committee nominates students for the program based on commitment to a career as a physician scientist, research experience, undergraduate grade point average, and MCAT scores. A flexible entry program allows students up to one year to identify a research laboratory and degree program. Information can be obtained from the Graduate Division of the School of Medicine.

Completion of the program entails meeting all requirements for both degrees. Many nonclinical courses of the curriculum of the School of Medicine satisfy course requirements for both degrees, and credit given for graduate study may fulfill some of the School of Medicine requirements. The combined degrees

may thus be acquired in less time than would be required if both were taken separately.

As well as fulfilling requirements for the M.D. program, a minimum of 30 credit hours of graduate study is required for the combined M.S./M.D. degree. Of these, 10 credit hours may be transferred from exclusively School of Medicine courses with the approval of the student's advisory committee and the University Graduate School. Similarly, a minimum of 90 credit hours of graduate study is required for the combined Ph.D./M.D. degree. A maximum of 30 credit hours of exclusively School of Medicine courses may count toward the Ph.D. degree.

On the Bloomington campus there is a combined M.A. in Telecommunications and J.D. in Law; see the entry in "Telecommunications" for details.

Within the University Graduate School, combined degrees are available in American Studies and Cognitive Science. Students in these programs must be accepted both by a Ph.D.-granting department and by either the American Studies or the Cognitive Science Program, and must satisfy the requirements for both chosen fields. Requirements are the same as those for the Ph.D. degree with a dual major (see above).

Advisory Committee

The student's major department or program shall assign the student to an advisory committee no later than one year after admission to the Ph.D. program. The advisory committee must include at least two members from the major area and one from another. At least two members of the advisory committee must be members of the graduate faculty. The names of faculty members nominated to serve on the advisory committee shall be forwarded to the student's school or college for approval no later than one year after the student has been admitted to the Ph.D. program. The advisory committee shall approve the

student's program of study and counsel the student until the passing of the qualifying examination.

Qualifying Examination

This examination, given at such time and in such manner as the major department shall determine, shall be written, although additional oral examinations may be required. The qualifying examination shall cover the major subjects and may, at the discretion of the minor department(s) or the interdepartmental committee, cover the minor subjects as well.

Normally, the qualifying examination is taken after the student has completed all course work for the Ph.D. All such work offered in partial fulfillment of degree requirements must either have been completed within seven consecutive calendar years of the passing of the qualifying examination or be revalidated according to procedures outlined in this bulletin (see "Revalidation").¹ Reading proficiency required in one or more foreign languages must also have been demonstrated, whether by course work or examination, no more than seven years before the passing of the qualifying examination. In the case of an examination of more than one part, the date of passing is regarded as the date of passing the final portion of the examination, typically the oral examination. Students who fail the qualifying examination are normally allowed to retake it only once. The qualifying examination must be passed at least eight months before the date the degree is awarded.

¹ For students in combined M.D./Ph.D. programs, all course work offered in partial fulfillment of degree requirements of the Ph.D. must have been completed within nine consecutive calendar years preceding the passing of the qualifying examination; for students in Ph.D. programs in music, within 10 consecutive years.

Admission to Candidacy

Following the passing of the qualifying examination and the completion of all course work and departmental language or research-skill requirements (if any), the student's advisory committee will submit a Nomination to Candidacy Form to the University Graduate School. Upon approval of the dean, the student will be admitted to candidacy and awarded a Certificate of Candidacy. The date of successful completion of the qualifying examinations (not the date of final approval of candidacy) is the one used in determining the seven-year periods for currency of courses (see "Qualifying Examination") and completion of the dissertation (see "Submission of the Dissertation").

Continuing Enrollment

Students who have passed the qualifying examination must enroll each semester (excluding summer sessions) for any remaining required course work or dissertation credits. Once such students have accumulated 90 credit hours in completed course work and deferred dissertation credits, they must enroll for a minimum of 1 hour of graduate credit each semester until the degree is completed. Failure to meet this requirement will automatically terminate the student's enrollment in the degree program. Students who have completed 90 credit hours and all requirements for the Ph.D. are eligible to enroll in G901 for a flat fee of \$150 per semester. Enrollment in G901 is limited to a total of six semesters. (For students not on campus, enrollment may be completed by mail.)

A candidate who will be graduated in June, July, or August of any year must enroll in a minimum of 1 hour of credit as described above in either the current or the immediately preceding summer session.

Dissertation

The culmination of the Ph.D. program is the writing of the dissertation, which is required of all doctoral students. The dissertation must be an original contribution to

knowledge and of high scholarly merit. The candidate's research must reveal critical ability and powers of imagination and synthesis. The dissertation is written under the supervision of a research director and a research committee, as described below. Although work published by the student may be incorporated into the dissertation, a collection of unrelated published papers, alone, is not acceptable. There must be a logical connection between all components of the dissertation, and these must be integrated in a rational and coherent fashion. It is the responsibility of the student's research committee to determine the kind and amount of published materials which may be included in a dissertation.

Research Committee

To initiate research for the dissertation, the student chooses a professor who will agree to direct the dissertation. The department shall then recommend to the dean for approval a research committee composed of the chosen director (who will also normally serve as chairperson of the committee), two or more additional faculty members from the major department, and a representative of each minor. The committee should be selected from the members of the graduate faculty who are best qualified to assist the student in conducting the research for the dissertation. In the event that the dissertation research does not involve the area(s) of the minor(s) whether outside or inside the department the major department may request, with the consent of the minor-field representative(s), the substitution of a representative or of representatives from some other field(s) more appropriate to the topic of the dissertation. The committee has the responsibility of supervising the research, reading the dissertation, and conducting the final examination.

All chairpersons of research committees and directors of research must be full members of the graduate faculty. If, however, special expertise in an area is held by an associate or an affiliate member

which is not held by a full member, the departmental chairperson may request that the dean approve such an individual as research committee chairperson or director of the dissertation research.

All members of a research committee must be members of the graduate faculty. At least half of the members of the committee must be full members of the graduate faculty; others may be associate or affiliate members.

After consultation with and approval by the dissertation director and research committee, the student will submit to the University Graduate School a one- or two-page prospectus of the dissertation research. If the proposed research involves human subjects, animals, biohazards, or radiation, approval from the appropriate university committee must also be obtained. The membership of the research committee and the dissertation prospectus must be approved by the University Graduate School at least six months before the defense of the dissertation.

Defense of the Dissertation

When the dissertation has been completed, the student should submit an unbound copy to each member of the research committee as the initial step in scheduling the defense of the dissertation. All members of the research committee should read the dissertation in its entirety before attending the defense. At this stage both the student and the faculty members must extend certain courtesies to each other. It is the responsibility of the student to give faculty members sufficient time to read the dissertation without making unreasonable requests of them based upon University Graduate School time limitations, immediate job possibilities, contract renewal, or some other reason. Similarly, a faculty member should not keep a student's work for inordinate periods of time because of the press of other duties. Once a faculty member assumes membership on a research committee, it becomes another part of his or her teaching assignment,

comparable to conducting regularly scheduled classes.

After the committee members have read the dissertation, there should be direct communication (either in writing or orally) between the research committee chairperson and the other committee members about its readiness for defense. Readiness for defense, however, is not tantamount to acceptance of the dissertation; it means that the committee is ready to make a decision. The decision to hold a doctoral defense, moreover, is not entirely up to the research committee. If a student insists upon the right to a defense before the committee believes the dissertation is ready, that student does have the right to due process (i.e., to an oral defense) but exercises it at some risk.

If the decision to proceed with the defense of the dissertation is made against the judgment of one or more members of the committee, or if one or more members of the committee disapprove of parts or all of the dissertation, the committee member(s) should not resign from the committee in order to avoid frustration or collegial confrontation.

The University Graduate School urges that such committee members, after ample communication with both the student and the chairperson, remain on the committee and thus prevent the nomination of a committee that might eventually accept what could be unsatisfactory work. Such a committee member could agree that a dissertation is ready for defense but should not be passed (or should not be passed without substantial modification). There will, of course, be situations in which the membership of research committees should or must be changed (e.g., turnover of faculty), but changes because of modifications in the dissertation topic or some equally plausible reason should be made early in the writing of the dissertation.

Thirty days prior to the scheduled defense of the dissertation, the candidate must submit to the University Graduate School a one-

page announcement of the final examination. This announcement must follow a format available in the University Graduate School *Guide to Dissertations and Theses*. The announcement contains, among other things, a summary of the dissertation (not less than 150 words) which is informative and contains a brief statement of the principal results and conclusions. The announcement must bear the signature of the research committee chairperson. If the candidate has published any scholarly articles relevant to the topic of the dissertation, bibliographical references should be included in the summary. A copy of such announcements will be sent to any member of the graduate faculty upon request.

Once the final examination has been scheduled, the announced time and place of the defense must not be changed without the approval of the dean. Any member of the graduate faculty who wishes to attend the final examination is encouraged to do so; it is requested, however, that the faculty member notify the chairperson of the research committee in advance so that space can be arranged. With the approval of the research committee and the consent of the candidate, other graduate students may attend the defense of the dissertation; normally such students will act as observers, not as participants.

At the end of the oral examination, the research committee must vote on the outcome of the examination. Four options are available to the committee: (1) pass, (2) conditional pass, (3) deferred decision, and (4) failure. If the decision to pass is unanimous, the dissertation is approved once it is received by the University Graduate School along with an acceptance page signed by the members of the research committee. If the decision is not unanimous, majority and minority reports should be submitted to the dean who, within 10 working days, will investigate and consult with the research committee. Upon completion of the dean's investigation and consultation, another meeting of the research

committee will be held, and if a majority votes to pass, the dissertation is approved when it is received by the University Graduate School with an acceptance page signed by a majority of the members of the research committee.

The student must have received acceptance of his or her dissertation and must submit a copy to the University Graduate School within seven years after passing the qualifying examination. Failure to meet this requirement will result in the termination of candidacy and of the student's enrollment in the degree program. Any student whose candidacy lapses will be required to apply to the University Graduate School for reinstatement before further work toward the degree may be done formally. To be reinstated to candidacy in the University Graduate School, the student must: (1) obtain the permission of the departmental chairperson; (2) fulfill the departmental requirements in effect at the time of the application for reinstatement; (3) pass the current Ph.D. qualifying examination or its equivalent (defined in advance)¹; and (4) request reinstatement to candidacy from the dean. Such reinstatement, if granted, will be valid for a period of three years, during which time the candidate must enroll each semester for a minimum of one credit.

Submission of the Dissertation

Following acceptance by the research committee, the dissertation is submitted to the University Graduate School. Each dissertation must include a title page bearing the statement: "Submitted to the faculty of the University Graduate School in partial fulfillment of the requirements for the degree Doctor of Philosophy in the Department² of _____, Indiana University." The date of this page should be the month and year in which the degree will be granted. Following the title page there must be an acceptance page with the statement: "Accepted by the faculty of the University Graduate School, Indiana University, in partial fulfillment of the

requirements for the degree Doctor of Philosophy." The acceptance page must be signed by members of the research committee. For guidelines regarding the typing and duplication of dissertations, see above under "Preparation of Theses and Dissertations."

The original (unbound, in a box suitable for mailing) and one copy (bound) of the dissertation must be filed with the University Graduate School, and one copy (bound) must be filed with the major department. (The copies filed with the University Graduate School will later be placed in the University Library.)

The candidate must also submit to the University Graduate School a 350-word abstract of the dissertation that has been approved by the research committee. This abstract will appear in *Dissertation Abstracts International*, published by University Microfilms, Ann Arbor, Michigan. The original copy of the final, approved version of the candidate's dissertation will be submitted on loan to University Microfilms for complete microfilming, the resulting copy or copies to be available for purchase by all who request them. Copyright may be secured; see the University Graduate School for details. The original copy will be returned by University Microfilms to the library, where it will be bound. The required fee for publishing the abstract and for microfilming the dissertation is currently \$60.

¹ A department must define in advance specifically what is meant if an "equivalent" examination is to be used, and that definition must be approved by the dean.

² Students majoring in programs will use the word "Program"; students majoring in departments outside of the College of Arts and Sciences will use the word "School."

Student Financial Aid

Fellowships

A number of fellowships are available to students enrolled in the University Graduate School; among them are University Graduate School fellowships, fee scholarships, and various privately and federally funded awards. Students should apply for these fellowships directly to the major department. Information on and preliminary application materials for the National Science Foundation Graduate Fellowships may be obtained from the University Graduate School, Kirkwood Hall 111, Indiana University, Bloomington, IN 47405 (telephone [812] 856-4555), the Graduate Office at IUPUI, 518 Union Building, Indianapolis, IN 46202, or the Fellowship Office, National Research Council, 2101 Constitution Avenue N.W., Washington, DC 20418. In all cases, early application is advisable. It should be noted that all such award holders are required to devote full time to their studies.

Indiana University also offers several fellowship and support programs for students underrepresented in graduate education (African American, Hispanic/Latino, Native American, Puerto Rican). These include the Chancellor's Minority Fellowship, Dean's Minority Fellowship, Women in Science Graduate Fellowship, Ronald E. McNair Graduate Fellowship, Minority Education and Development Initiative for Careers in Biomedicine (MEDIC-B) Graduate Fellowship, and the Educational Opportunity Fellowship. To be considered for any of these awards, a student should submit an IU application form for admission and financial aid to the relevant graduate program at IUB or IUPUI by mid-January of the year preceding enrollment. Further information for IUB students can be obtained from the Office of Fellowships and Support Programs, Kirkwood Hall 111, 130 S. Woodlawn Avenue; Phone: (812) 855-9343; e-mail

grdschl@indiana.edu; Web: www.indiana.edu/~grdschl/index.html. Further information for IUPUI students can be obtained from the Graduate Office at IUPUI, 518 Union Building; phone (317) 274-2490; Web: www.iupui.edu/~resgrad/.

The GradGrants Center—Bloomington

The GradGrants Center—Bloomington (GGC) is a free service available to all enrolled graduate students on all campuses of Indiana University. The GGC provides information and training to assist graduate students in their search for funding to further research and graduate study at Indiana University. The GGC's services include funding-database searches, workshops, one-on-one proposal-writing consultation, agency files, a library of funding-source and proposal-writing books, a bimonthly newsletter on the World Wide Web, and an electronic mailing list used to inform patrons of upcoming workshops, grant deadlines, and relevant news.

The center also provides a Web site titled "Indiana University Student Academic Appointment Vacancies" (www.indiana.edu/~gradgrnt/saa_bbs/saa.cgi). This site provides Bloomington graduate students with the ability to access one central location to find available student academic vacancies and provides departments on the Bloomington campus an additional means to advertise their positions.

The GradGrants Center—Bloomington is located in the Main Library, Room 1052E (telephone (812) 855-5281, e-mail gradgrnt@indiana.edu, Web site: www.indiana.edu/~gradgrnt/index.html.) The Indianapolis campus has a center to provide services for IUPUI graduate students: Union Building, Room 518; telephone (317) 274-4023.

Doctoral Student Grants-in-Aid of Research (Limited to IUB Students)

A program of doctoral student grants-in-aid of research is designed to assist doctoral students in funding unusual expenses arising from the research required for the dissertation. Examples of such expenses include travel to specialized libraries or research sites, payment of subjects or computer programmers, and purchases of specialized materials or equipment that cannot be provided by the major department. The maximum amount of aid is \$1,000. Awards are made two times a year; the deadlines for the receipt by the University Graduate School of the completed applications are March 1 and October 1. Application forms are available through the University Graduate School.

Associate Instructorships, Graduate Assistantships, and Research Assistantships

A large number of associate instructorships, graduate assistantships, and research assistantships are available in departments and schools offering degrees through the University Graduate School. Some of these positions are accompanied by fee scholarships, which defray the cost of tuition and fees with the exception of special fees and those fees dedicated to debt retirement on physical facilities; these dedicated fees were \$20.50 per credit hour per semester in 2001–2002. Application for such positions should be made to the department or school in which the student wishes to work. Early application is advisable.

Resident Assistantships

Positions are available on the Bloomington campus and at IUPUI for single graduate students as resident assistants in the residence halls. Selection of graduate students for these positions is based upon the applicant's academic record, previous background and experience, potential for work with undergraduate students, and personal qualifications necessary to relate successfully to other people. The

resident assistant serves as an advisor to a living unit of 50 students in one of the university residence centers. These positions provide room, board, and a cash stipend; course work is limited to a maximum of 12 credit hours each semester. For further IUB information, contact the director, Department of Residence Life, 801 N. Jordan Avenue, Bloomington, IN 47405, telephone (812) 855-1764. For further IUPUI information, contact the director, Office of Housing and Residence Life, 1226 West Michigan Street Indianapolis, IN 46202-5180, telephone (317) 274-7200.

Other Student Financial Assistance

Long-term loans and Federal Graduate Work-Study are available to graduate students at IU. More information and application requirements are on the Indiana University Web site.

IUPUI students, contact the Office of Student Financial Aid, Cavanaugh Hall 103, 425 University Boulevard, Indianapolis, IN 46202, telephone (317) 274-4162. For information about other campuses, contact Financial Aid Services, Kettler Hall 109, Fort Wayne, IN 46805, telephone (260) 481-6258; the Office of Scholarships and Financial Aid, Administration Building 157, P.O. Box 7111, 1700 Mishawaka Avenue, South Bend, IN 46634, telephone (574) 237-4357; or the Office of Student Financial Assistance, Library Building 100, New Albany, IN 47150, telephone (812) 941-2246.

Degree Conferral

The University Graduate School will recommend the candidate to the Board of Trustees for the degree only upon completion of all the requirements stated previously. Degrees are awarded on the last day of each month of the year.

For all students seeking a master's degree, an application for the degree must be filed with the University Graduate School at least 60 days before the date anticipated for degree conferral. All degree requirements

must be completed at least 30 days before the date of expected degree conferral, including submission to the University Graduate School of the bound copies of the master's thesis (if required for degree).

For doctoral students, submission to the University Graduate School of the copies of the completed dissertation and abstract as described under Submission of the Dissertation constitutes an application for conferral of the Ph.D. degree. The dissertation in its final form and the abstract must be submitted to the University Graduate School at least 30 days before the expected date of degree conferral. Doctoral students are reminded (a) that the 30-day announcement deadline prior to the defense of the dissertation and the 30-day deadline prior to degree conferral are *nonoverlapping time periods*, and (b) that research committees frequently require revisions and corrections after the defense of the dissertation and that these revisions must be made before the dissertation is ready for binding and submission to the University Graduate School.

Commencement

All graduate students are encouraged to participate in the Commencement ceremonies. The solemn yet colorful academic pageantry can provide a fitting culmination to a period of intense study and work. At IUB, all Ph.D. candidates are now hooded by their professors. At IUPUI, all master's and doctoral students are hooded in a pre-Commencement ceremony that includes a luncheon. Procedures for participating in Commencement may be obtained from the University Graduate School for IUB students and from the Graduate Office for IUPUI students.

Special Opportunities

Foreign Language Instruction

Indiana University offers instruction in an exceedingly wide variety of foreign languages. Formal courses or tutorials have been offered in recent

years on the Bloomington campus in the following:

Albanian
 American Sign Language
 Arabic
 Azeri
 Bambara
 Bulgarian
 Buryat
 Cantonese
 Catalan
 Chaghatay
 Chechen
 Chichewa
 Chinese (Mandarin)
 Coptic
 Croatian
 Czech
 Dutch
 English
 Estonian
 Evenki
 Finnish
 French
 Georgian
 German
 Gothic
 Greek (classical and modern)
 Haitian Creole
 Hausa
 Hebrew (Biblical and modern)
 Hindi
 Hungarian
 Igbo
 Italian
 Japanese
 Kazak
 Kirghiz
 Korean
 Lakota (Sioux)
 Latin
 Livonian
 Manchu
 Mari (Cheremis)
 Middle High German
 Mongolian (and Classical Mongolian)
 Mordvin
 Náhuatl
 Navajo
 Norwegian
 Old Church Slavonic
 Old English
 Old High German
 Old Icelandic
 Old Irish
 Old Saxon
 Old Tibetan
 Pahlavi
 Persian
 Polish

Portuguese
 Romanian
 Russian
 Sami (Lappish)
 Sanskrit
 Serbian
 Shona
 Sioux (Lakota)
 Slovak
 Slovene
 Sogdian
 Spanish
 Swahili
 Syriac
 Tibetan
 Turkish (Ottoman and modern)
 Turkmen
 Twi
 Ukrainian
 Uygur
 Uzbek
 Welsh
 West African Pidgin English
 Wolof
 Xhosa
 Yakut
 Yiddish
 Zapotec
 Zulu

Preparing Future Faculty

A number of graduate programs have established Preparing Future Faculty programs which are designed to introduce graduate students to the full range of professional responsibilities in research, teaching, and service they will encounter in academia. These programs typically include more advanced courses in pedagogy, the opportunity to work closely with teaching mentors and to construct teaching portfolios, workshops on specialized topics, and expanded teaching possibilities, often in cooperation with other campuses of Indiana University or other institutions. For information about these programs contact the individual departments.

University Information Technology Services

Students, faculty, and staff at Indiana University enjoy one of the richest information technology (IT) environments in the nation. Consistently ranked as one of America's "most wired" universities, IU is recognized as a leader and innovator in information technology.

University Information Technology Services (UITS), operating under the auspices of the Office of the Vice President for Information Technology (OVPIT), provides state-of-the-art hardware, software, and technical support, as well as maintenance and support for the campus telephone system. UITS also develops and maintains the data systems behind student financial and information services, registration, payroll and purchasing, the Indiana Memorial Union hotel, athletic ticketing, and traffic systems. UITS has offices at 2711 E. Tenth Street (Wrubel Computing Center), several other Bloomington campus locations, and at IUPUI.

The centerpiece of UITS research computing is an IBM SP supercomputer, the largest university-owned supercomputer. It supports IU researchers in a broad range of areas, including life sciences, archaeology, astronomy, and computational physics. It will also serve as the backbone for a planned genomics research collaboration with IBM.

Other research resources include a Compaq Parallel PC Cluster and Sun Microsystems Enterprise 10000 system.

The focus of general purpose and instructional computing is the Steel cluster, a group of Sun Systems that appears to the user as a single resource. Steel is available to any member of the university community, and is popular among undergraduate Unix users.

IU's massive data storage system, one of the most advanced at any institution, manages terabytes of data and provides researchers with flexible, high-performance, high-capacity resources for data management. Data visualization is another area of expertise at IU. The UITS advanced Visualization Laboratory maintains a CAVE and an Immersadesk, each of which provides for 3-D viewing and exploration of data and virtual reality environments.

IU provides excellent network connectivity in support of high-performance networking applications. IU is a founding member of Internet2 and the lead US institution in the TransPAC connection between the vBNS and the Asia Pacific Advanced Network. IU also runs the Network Operations Center for the Abilene network from facilities at IUPUI. For further information about UITS research resources, see: www.indiana.edu/~uits/rac.

Hundreds of computing workstations at the Student and Residential Technology Centers (STCs and RTCs) offer students a rich array of up-to-date hardware, software, printers, and plotters. To meet the needs of a diverse student population, the STCs and RTCs provide a variety of hardware platforms and operating systems. For details, see www.indiana.edu/~stcweb (IUB) or www.iupui.edu/~stctr (IUPUI) and www.indiana.edu/~rits (IUB and IUPUI).

Likewise, all campus housing computing support is integrated with UITS. Each campus residence offers Ethernet connectivity and dedicated residential support. For more information, see www.indiana.edu/~rits (IUB and IUPUI).

License agreements with major software vendors (Microsoft, Adobe, Symantec, and others) support personal computing by providing widely-used software for IU students, faculty, and staff at no or low cost, while hundreds of high-speed modems allow remote connections to the IU network.

The UITS Support Center on the Bloomington campus is located in Indiana Memorial Union M084. The phone number is (812) 855-6789, and the e-mail address is ithelp@indiana.edu. This center serves as the IUB campus hub for computing help. The UITS Support Center on the IUPUI campus is located in Business/SPEA Building 0001. The phone number is (317) 274-6577, and the e-mail address is ithelp@indiana.edu. Both centers' staffs of qualified, knowledgeable

consultants provide walk-in, telephone, and e-mail consulting on general and specialized information technology topics. Their "IT Help Online" (uits.iu.edu) is IU's 24-hour computing consultant, providing links to computing manuals and classes, maps of computing locations, notices about computer outages and upgrades, and information about computing accounts. The star feature of IT Help Online is the highly-acclaimed Knowledge Base (kb.indiana.edu), a database of over 7,500 answers to questions about computing at IU.

UITS offers hands-on, instructor-led computing classes: STEPS classes, which are free to IU students, and PROSTEPS classes, which are offered for a nominal fee to everyone, and self-study online or CD-based instruction through an agreement with the National Education Training Group (NETg). For more information, visit: ittraining.iu.edu.

The IT Policy Office (www.itpo.iu.edu) oversees the appropriate and safe use of information technologies at IU.

To stay informed about the latest in information technology, subscribe to the UITS Monitor, which features weekly updates on classes, virus warnings, software offers, services, and more. Visit IT@IU, IU's information technology digest, for more information.

Visit the "UITS News and Information" Web site at uitsnews.iu.edu.

For more on UITS, visit the UITS home page at uits.iu.edu/.

African American and African Diaspora Studies

College of Arts and Sciences
Bloomington

Acting Chairperson

Associate Professor Valerie Grim

Departmental E-mail

aaads@indiana.edu

Departmental URL

www.indiana.edu/~afroamer

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors

A. B. Assensoh, Winona Fletcher (Emerita, Theatre and Drama), Eileen Julien, Phyllis Klotman (Emerita), John McCluskey, John Stanfield*, William Wiggins Jr. (Emeritus)

Associate Professors

Valerie Grim, Audrey McCluskey*, Iris Rosa

Assistant Professors

Matthew Guterl, Trica Keaton

Adjunct Graduate Faculty

Distinguished Professor

David Baker (Music)

Professor

Raymond Hedin (English)

Associate Professor

Carolyn Calloway-Thomas (Communication and Culture)

Graduate Advisor

Professor A. B. Assensoh, Memorial Hall East M27, (812) 855-2248

Program Information

The multidisciplinary Department of African American and African Diaspora Studies seeks to:

1. create and share with academic and nonacademic communities scholarship of the highest quality dealing with the broad range of the African American and African Diaspora experience;
2. promote the study and understanding of the historical and contemporary connections among Africans, African Americans, and other New World black communities; and
3. affirm the democratic tradition of equal opportunity for all by combating all forms of discrimination based on ethnicity, gender, class, and religious differences. The department assumes the ongoing responsibility of creating materials and conducting seminal research that aids in the development and shaping of African American and African Diaspora Studies as a discipline.

Master of Arts Degree

The Department of African American and African Diaspora Studies at Indiana University is committed to being one of the world's leading multi- and interdisciplinary graduate studies programs focused on peoples of African descent in the United States in comparison to African-descent peoples in other globalized contexts. With an emphasis on diverse epistemologies, theories, methodologies, ethical considerations, and innovative teaching pedagogies, our goals are:

1. to offer students an intense program in the examination of African American issues as well as diasporic African descent issues in and outside the United States and their transnational continuities and discontinuities;
 2. to encourage students to develop and/or fine-tune excellent and creative research skills, superb writing and oral communications skills, multidisciplinary and interdisciplinary analytical skills, technological
- competencies, innovative problem solving and problem creation skills, collaborative research skills, and intercultural competence skills;
3. to provide students with invaluable intellectual training by bridging curriculum content and practical experience gained from oral history, survey, and ethnographic field work, research based in museums and library archives; and internship opportunities in a broad spectrum of agencies, organizations, and institutions;
 4. to sustain a learning environment in which students create as well as refine critical questions and develop problem solving skills in the humanities and social sciences and synthesizing bridges between the humanities and social sciences in their explorations and interpretations of African descent experiences in the United States and abroad;
 5. to give students planning to pursue doctoral training in the social sciences, humanities or in interdisciplinary fields excellent research foundations;
 6. to prepare students for a broad spectrum of career possibilities in academia, creative and performing arts, nonprofit management, public policy, libraries, philanthropy, museums, urban studies, conflict resolution, and social services.

The purposes of this program are:

1. to offer students an intense program in the analysis of African American issues;
2. to expose students to both historical and current methodological approaches;
3. to expose students to issues throughout the African Diaspora;

4. to refine critical and problem-solving skills in both the humanities and social sciences;
5. to extend a sound basis for those going into a doctoral program; and
6. to prepare students for administrative, teaching, communication, and social service careers.

In sum, the program provides a theoretical base of knowledge, methods of research, and a context for analyzing African American and Diaspora experiences that can be invaluable either in further graduate studies or in a specific job or career choice.

Admission

The program is open to any eligible student with a bachelor's degree from an accredited college.

Applicants must have a minimum GPA of 3.0. Letters of recommendation, a brief personal essay, and GRE scores are the main sources of information upon which decision will be made.

Course Requirements

All students will complete a minimum of 32 credit hours with a minimum 3.0 grade point average. Students are required to complete courses in the following categories:

1. Introduction to African American and African Diaspora Studies, parts I and II;
2. Choice of two proseminars (Writings and Literatures; Social and Behavioral Sciences; Performing, Visual and Material Arts; and Historical and Cultural Studies);
3. Research and Master's Thesis Colloquium;
4. Seminars in area of specialization;
5. Core Readings; and
6. Field Study and Research Seminar

Foreign Language

M.A. candidates may satisfy the foreign language requirement by showing satisfactory completion of course work or passing a language proficiency exam. Students in the History, Culture, and Social Issues concentration have the additional option of selecting between computer science or statistical methods.

Dual M.A./M.L.S. in African American and African Diaspora Studies (Master of Arts) and the School of Library and Information Science (Master of Library Science)

The dual M.A./M.L.S. program requires completion of a minimum of 58 credit hours of graduate course work. (The degrees if completed separately would require 68 credit hours.) Students must apply for admission to the master's programs of both African American and African Diaspora Studies and the School of Library and Information Science and meet the admissions criteria established for each. The two degrees must be awarded at the same time.

M.A. in African American and African Diaspora Studies Requirements (28 credit hours minimum)

General Requirement (12 cr.):
A500 Introduction to Afro-American Studies (4 cr.)
A690 Core Readings in Afro-American Studies (4 cr.)
Proposed graduate internship

Specialization (12 cr. minimum):
Students would take a minimum of 9 graduate hours in one of the three concentration areas in African American and African Diaspora Studies. An additional 3 graduate hours should be taken in one of the other concentration areas.

M.A. Thesis A698 Field Study Seminar (4 cr.)

Master of Library Science Requirements (30 credit hours)

Completion of the M.L.S. Foundation courses (15 cr.)
Either SLIS L623 Information in the Humanities or
SLIS L625 Information in the Social Science (3 cr.)
SLIS elective courses (12 cr.)

Dual M.A./M.P.A. in African American and African Diaspora Studies (Master of Arts) and School of Public and Environmental Affairs (Master of Public Affairs)

Students must apply separately to and be accepted into both the African American and African Diaspora Studies Master of Arts degree program and the School of Public and Environmental Affairs degree program. Students must indicate on both application forms that they are applying for the AAADS/SPEA dual degree.

M.A. in African American and African Diaspora Studies Requirements (28 credit hours minimum)

General Requirement (12 cr.):
A500 Introduction to Afro-American Studies (4 cr.)
A690 Core Readings in Afro-American Studies (4 cr.)
Proposed graduate internship

Specialization (12 cr. minimum):
Students would take a minimum of 9 graduate hours in one of the three concentration areas in African American and African Diaspora Studies. An additional 3 graduate hours should be taken in one of the other concentration areas.

M.A. Thesis A698 Field Study Seminar (4 cr.)

M.A. of Public Affairs Requirements (36 cr.)

M.P.A. Core (21 cr.)
V501 Professional Development Practicum: Information Technology (1 cr.)
V502 Public Management (3 cr.)
V503 Professional Development Practicum: Writing and Presentation (1 cr.)
V505 Professional Development

Practicum: Teamwork and Integrated Policy Project (1 cr.)
V506 Statistical Analysis for Effective Decision Making (3 cr.)
V517 Public Management Economics (3 cr.)
V540 Law and Public Affairs (3 cr.)
V560 Public Finance and Budgeting (3 cr.)
V600 Capstone in Public and Environmental Affairs (3 cr.)

Specialized Concentration (15 cr.)
Students are required to develop specialized concentrations comprised of courses approved by SPEA faculty advisors.

Ph.D. Minor in African American and African Diaspora Studies

The department offers the Ph.D. minor in African American and African Diaspora Studies for students enrolled in any doctoral program at Indiana University. The minor requires 15 credit hours: A500 and A503: Introduction to African American and African Diaspora Studies I and II, and 9 credit hours of a concentration in one of the department's three concentration areas:

1. arts;
2. literature; and
3. history, culture, and social issues.

With written permission of the graduate advisor, students may take two courses (6 cr.) in one concentration area and one course (3 cr.) in another.

Admission

Doctoral students in good standing are admitted to the African American and African Diaspora Studies minor through interview or correspondence with the graduate advisor. At the time of admission, each student and the graduate advisor together plan an individualized program of study, including the selection of a major concentration area.

Course Requirements

A total of 15 credit hours, to include three courses (9 cr.) in one concentration area and two courses (6 cr.) in another area. With written permission of the graduate advisor,

students may take four courses (12 cr.) in a single concentration area and one course (3 cr.) in another area.

Grades

A cumulative grade point average of 3.4 is required of work for the Ph.D. minor.

Examination

A comprehensive examination usually is not required; however, the decision to waive the examination rests with the faculty committee of the student's concentration area.

Courses

GENERAL

A500 Introduction to African American and African Diaspora Studies Part I (3 cr.) Representative readings in interdisciplinary and comparative scholarship; the origins and development of African American and African Diaspora Studies; current issues and trends.

A503 Introduction to African American and African Diaspora Studies, Part II (3 cr.) As the second half of the sequence in the year-long introductory course on Introduction to African American and African Diaspora Studies, this course focuses specifically on the research methods, theoretical issues, and approaches to publishing in the African American and African Diaspora Studies discipline.

A590 Special Topics in African American and African Diaspora Studies (3 cr.) Intensive study and analysis of selected Afro-American problems and issues of limited scope, approached within an interdisciplinary format. Topics will vary, but will ordinarily cut across departmental concentration areas.

A591 Black Intellectual Traditions (4 cr.) Surveys the evolution of "racial" ideas and ideologies among African Americans. Participants will discuss how black intellectuals have engaged in dialogue and debate about strategies for coping with injustice, while formulating diverse

concepts of justice, salvation, artistry, and positive black identity.

A690 Core Readings in African American and African Diaspora Studies (4 cr.) Preparation for the comprehensive master's examination. Colloquium in which students will read and critically examine, both in oral presentations and in written assignments, core texts which reflect the complexity and pluralism of African American and African Diaspora Studies.

A695 Research and Master's Thesis Colloquium (3 cr.) This interactive seminar utilizes a collaborative team approach within an interdisciplinary framework to address issues and questions students have concerning fieldwork, compiling data, and interpreting historical and cultural primary and secondary sources.

A698 Field Study Seminar (4 cr.) Development of the final master's project. A critical paper, a thesis-length documentation of a field study, or a substantial record of creative activity is required.

LITERATURE

A501 Seminar in the Harlem Renaissance (4 cr.) Study of the major historical figures of the period designated by cultural historians as the Harlem Renaissance (ca. 1919-29), emphasis on the sociopolitical reasons for the proliferation of art, music, and literature during this significant decade, with examination of the causes and lasting influences on contemporary black culture.

A502 Seminar on Wright, Baldwin, and Ellison (4 cr.) A close critical study of selected works by Richard Wright, James Baldwin, and Ralph Ellison to assess their relationship with Harlem Renaissance emphases, contemporary American writing, and the black arts movement. The relationship of these men and their works to relevant sociopolitical issues such as McCarthyism, the liberation of African nations, and the civil rights campaigns of the early 1960s will also be examined.

A561 Afro-American

Autobiography (3 cr.) A survey of autobiographies written by black Americans in the last two centuries. The course emphasizes how the autobiographers combine the grace of art and the power of argument to urge the creation of genuine freedom in America.

A571 Black Literature for

Teachers (3 cr.) A survey of black American literature from the Harlem Renaissance to the present with opportunities for research into teaching materials. This course is designed primarily for teachers. Credit not given for this course toward Ph.D. minor.

A579 Early Black American

Writing (3 cr.) Afro-American writing before World War II with emphasis on critical reactions and analyses. Includes slave narrative, autobiography, rhetoric, fiction, and poetry.

A580 Contemporary Black

American Writing (3 cr.) The black experience in America as it has been reflected since World War II in the works of outstanding Afro-American writers: fiction, nonfiction, poetry, and drama.

A583 Blacks in American Drama

and Theatre, 1767-1945 (3 cr.) Image of blacks as reflected in American drama from 1767 to 1945. Selected dramas of both white and black playwrights, such as Isaac Bickerstaffe, William Wells Brown, Eugene O'Neill, and Richard Wright, who depicted blacks on the stage.

A584 Blacks in American Drama

and Theatre, 1945-Present (3 cr.) Image of blacks as reflected in American drama from 1945 to the present. Emphasis on the contributions of black playwrights, such as Lorraine Hansberry, Langston Hughes, Imamu Amiri Baraka (LeRoi Jones), Ted Shine, and Ed Bullins.

A585 Seminar in Black Theatre (3

cr.) Contributions of blacks to the theatre in America. Reading and discussion of selected dramas and critiques with opportunities for

involvement in the oral interpretation of one or more of the plays.

A678 Early Black American

Poetry, 1746-1910 (3 cr.) A literary and historical survey of general trends and individual accomplishments in early Afro-American poetry, ranging from narrative folk poems, the formalist poetry of Jupiter Hammon and Phillis Wheatley, and the popular poetry of Frances E. W. Harper and Paul Laurence Dunbar to early modern poetry.

A679 Contemporary Black Poetry

(3 cr.) An examination of black poetry from Dunbar to the present, emphasizing the emergence, growth, and development of black consciousness as a positive ethnic identification.

A680 The Black Novel (3 cr.)

Analysis of the Afro-American novel from the Harlem Renaissance to the present: genesis, development, and current trends. Emphasis on traditions arising out of the black experience and on critical perspectives developed by black critics and scholars.

A689 Independent Project in Black

Literature (3 cr.) Designed to meet individual interests of students by providing opportunities for research on a chosen topic and by encouraging nontraditional approaches or settings in the application of concepts developed in formal classes.

A692 Pro-seminar in Writings and

Literature in African American and African Diaspora Studies (3 cr.) Interdisciplinary and globalized approaches to Africans in the Diaspora and the Americas; as well as the history canons, paradigms, theories, methods, and seminal-thinker biographies of the field.

ARTS

A594 Black Music in America (3

cr.) A survey of black music from its African origin to the present with special emphasis on its social, economic, and political implications.

A597 Popular Music of Black

America (3 cr.) A sociocultural and musical analysis of urban black popular music, its performers, producers, and composers, from the 1940s to the 1980s; rhythm and blues, rock n' roll, soul, ballads, funk, disco, and the raps.

A694 Pro-seminar on Performing,

Visual, and Material Arts in African American and African

Diaspora Studies (3 cr.) This pro-seminar on performing, material, and visual arts in AAADS introduces students to interdisciplinary and globalized approaches to Africans in the Americas and the Diaspora. Course also introduced graduate students to the history, canons, paradigms, theories, methods, and seminal thinker biographies of the field.

A699 Independent Project in Black

Music (3 cr.) Designed to meet individual interests of students by providing opportunities for in-depth research on a chosen topic and by providing settings for the creative and practical application of concepts developed in formal class settings.

HISTORY, CULTURE, SOCIAL ISSUES

A552 History of the Education of

Black Americans (3 cr.) Education of black Americans and its relationship to the Afro-American experience. Trends and patterns in the education of black Americans as they relate to the notions of education for whom and for what.

A669 Independent Project in Black

Social Issues (3 cr.) Designed to meet individual interests of students by providing opportunities for research on a chosen topic and by encouraging nontraditional approaches or settings in the application of concepts developed in formal classes.

A691 Pro-seminar on Cultural and

Historical studies in African American and African Diaspora

studies (3 cr.) Interdisciplinary and globalized approaches to Africans in the Americas and the Diaspora; as well as the history canons,

paradigms, theories, methods, and seminal-thinker biographies of the field.

A693 Pro-seminar on Social and Behavioral Sciences in African American and African Diaspora Studies (3 cr.) Interdisciplinary and globalized approaches to Africans in the Americas and the Diaspora; as well as the history canons, paradigms, theories, methods, and seminal-thinker biographies of the field.

CROSS-LISTED COURSES

LITERATURE

English

L655 American Literature and Culture 1900-1945 (4 cr.)

ARTS

Music

M582 The Bebop Era (3 cr.)

M583 Duke Ellington (3 cr.)

M584 Research in the History and Analysis of Jazz (3 cr.)

M596 Art Music of Black Composers (3 cr.)

HISTORY, CULTURE, SOCIAL ISSUES

Anthropology

E450 Folk Religions (3 cr.)

E455 Anthropology of Religion (3 cr.)

E457 Ethnic Identity (3 cr.)

E650 African Systems of Thought (1-3 cr.)

Communication and Culture

S727 Seminar in Cross-Cultural Communications (3 cr.)

Criminal Justice

P680 Seminar: Issues in Criminal Justice (3 cr.)

Folklore

609 African and Afro-American Folklore/Folk Music (3 cr.)

F625 North American Folklore/Folk Music (3 cr.)

History

E531 African History from Ancient Times to Empires and City States (3 cr.)

E532 African History from Colonial Rule to Independence (3 cr.)

E534 History of Western Africa (3 cr.)

Political Science

Y657 Comparative Politics (3 cr.)

Sociology

S610 Urban Sociology (3 cr.)

S631 Intergroup Relations (3 cr.)

African Studies

College of Arts and Sciences
Bloomington

Departmental E-mail
afrist@indiana.edu

Departmental URL
www.indiana.edu/~afrist

Graduate Faculty
(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Chancellor's Professor Emeritus
Robert Arnove (Education)

Professors
Salih Altoma (Emeritus, Near Eastern Languages and Cultures), A. B. Assensoh (African American and African Diaspora Studies), Randall Baker (Public and Environmental Affairs), Harbans

Singh Bhola (Emeritus, Education), George E. Brooks Jr. (History), Hasan El-Shamy (Folklore, Near Eastern Languages and Cultures), Maurice A. Garnier (Sociology), Paula Girshick (Anthropology), Mary Goetz (Music), Phyllis Martin (Ruth N. Halls Professor, History), Heitor Martins (Emeritus, Spanish and Portuguese), Portia Maulsby (Folklore and Ethnomusicology), Patrick McNaughton (Fine Arts), Emilio Moran (Rudy Professor, Anthropology), Paul Newman (Linguistics), Christine Ogan (Journalism), Patrick O'Meara (Political Science, Public and Environmental Affairs), Robert F. Port (Computer Science, Linguistics), Darlene Sadlier (Spanish and Portuguese), Kathy Schick (Anthropology), Jeanne Sept (Anthropology), Suzanne Stetkevych (Near Eastern Languages and Cultures), Ruth Stone (Folklore), David Thelen (History), Nicholas Toth (Anthropology), William Wiggins Jr. (Emeritas, African American and African Diaspora Studies, Folklore), Richard Wilk (Anthropology)

Associate Professors

Robert Botne (Linguistics), Trevor Brown (Journalism), Bonnie Brownlee* (Journalism), Mellonee Burnim (Folklore and Ethnomusicology), Gracia Clark* (Anthropology), Claude Clegg (History), Michael Gasser (Computer Science), Mary E. Grabe (Journalism), John H. Hanson (History), Kevin Hunt (Anthropology), John W. Johnson (Folklore), Audrey McCluskey (Afro-American and African Diaspora Studies), Patrick Munson (Anthropology), Martha Nyikos (Education), Samuel Gyasi Obeng (Linguistics), Beverly Stoeltje (Anthropology), Richard Stryker (Political Science), Margaret Sutton* (Education), Jon Unruh* (Geography)

Assistant Professors

Murray McGibbon (Theatre and Drama), Travis Pickering (Anthropology)

Adjunct Assistant Professors

Marion Frank-Wilson* (English),

Maria Grosz-Ngaté*
(Anthropology), Diane Pelrine* (Art
History)

Academic Advising

Woodburn Hall 221, (812) 855-6825

Program Information

The field of African studies at Indiana University focuses primarily on Africa south of the Sahara. Attention is given, however, to developments and events farther north that have significance for other areas of the continent. The program is designed to give students a broad knowledge of the art, ethnography, folklore, history, economic development, languages, literature, music, and politics of this region. Care is also taken to prepare graduate students who will specialize in this region as teachers, researchers, foreign service personnel, museum professionals, journalists, or business professionals.

Ph.D. Minor in African Studies

The African Studies program offers the Ph.D. minor to students in the following fields: anthropology, archaeology, comparative literature, economics, English, education, fine arts, folklore, French, geography, history, instructional systems technology, journalism, law, linguistics, political science, public and environmental affairs, sociology, and Spanish and Portuguese.

Students electing African studies as a minor should report to the program office (Woodburn Hall 221) as soon as possible after arriving on campus. The program director and staff will assist with orientation concerning courses, faculty, and students.

Course Requirements

Students minoring in African studies must complete Graduate G732 Bibliography of Sub-Saharan Africa (to be taken, if possible, during the first year) and four other graduate-level courses (normally 3 or 4 credits each) in African studies outside their major field. The courses must be selected from at least two different disciplines and approved by the program director.

Students in the program normally take two years of an African language in addition to their course work for the minor. Such training is virtually requisite for the most important overseas studies grants (e.g., SSRC/Ford and Fulbright-Hays awards), in addition to adding an invaluable dimension to the study and understanding of the area of Africa upon which the student focuses.

Students in the program are strongly encouraged to attend Graduate G731, Seminar on Contemporary Africa, regularly. The seminar, which meets Wednesday nights, is designed as an ongoing interdisciplinary dialogue for program students and faculty and features leading scholars from the United States, Africa, and Europe.

Students with special qualifications or previous course work at leading institutions may, with the approval of their faculty advisor for the African studies minor, request that the director make exceptions to or modifications of the requirements outlined above. At the same time, it should be emphasized that the requirements stated above constitute a minimum level of expectation.

Examination

Although a 3.7 grade point average in African studies courses would normally exempt the student from having to take a written comprehensive examination, the decision in this matter rests with the student's major-field advisor and the faculty member representing African studies as the minor-field advisor. Certifying that the student has met the minimum requirements rests with a faculty member in the African Studies Program who is not in the student's major department.

Courses

**I701-702 Interdisciplinary
Workshop (3 cr.)**

**G731 Seminar on Contemporary
Africa (1-3 cr.)**

**G732 Bibliography of Sub-
Saharan Africa (3 cr.)** Introduction
to the bibliography of Africa south of

the Sahara, covering major reference works and bibliographies; regional, trade, and national bibliographies; government publications, social sciences, humanities, statistics, rare books, manuscripts, and online databases. Compilation of a comprehensive bibliography required.

AFRICAN AMERICAN AND AFRICAN DIASPORA STUDIES

**A351 Afro-American Art I:
African Heritage (3 cr.)**

**A352 Afro-American Art II: Afro-
American Artists (3 cr.)**

**A558 Africa: Era of Military
Dictatorship (3 cr.)**

**A689 Independent Project in Black
Literature (3 cr.)**

ANTHROPOLOGY

**A303 Evolution and Prehistory (3
cr.)**

B464 Human Paleontology (3 cr.)

**B524 Human Paleontology
Theory/Methods (3 cr.)**

B600 Bioanthropology (3 cr.)

**E305 Introduction to
Ethnomusicology (3 cr.)**

**E310 Introduction to the Cultures
of Africa (3 cr.)**

**E311 The Ethnography of Eastern
Africa (3 cr.)**

E312 African Religions (3 cr.)

P315 Prehistory of Africa (3 cr.)

**E375 Mental Illness in Cross-
Cultural Perspective (3 cr.)**

**E405 Principles of Social
Organization (3 cr.)**

**E420 Economic Anthropology (3
cr.)**

E427 Cultural Ecology (3 cr.)

E440 Political Anthropology (3 cr.)

E455 Anthropology of Religion (3 cr.)	EDUCATION	F740 History of Ideas in Folklore/Ethnomusicology (3 cr.)
E480 Theory of Culture Change (3 cr.)	H520 Education and Social Issues (3 cr.)	GEOGRAPHY
E510 Problems in African Ethnography and Ethnology (3 cr.)	H551-H552 Comparative Education I-II (3-3 cr.)	604 Seminar in Environmental Geography (3 cr.)
E511 Ethnography of the Congo (3 cr.)	H560 Education and Change in Societies (3 cr.)	HISTORY
E520 Problems in Economic Anthropology (3 cr.)	H620 Seminar in Educational Policy Studies (3 cr.)	B391 Themes in World History (3 cr.)
E600 Seminar in Cultural and Social Anthropology (3 cr.)	H637 Policy Assessment and Evaluation (3 cr.)	E531 African History from Ancient Times to Empires and City States (3 cr.)
E606 Research Methods in Cultural Anthropology (3 cr.)	R640 Planning Educational Media Systems: National and International (3 cr.)	E532 African History from Colonial Rule to Independence (3 cr.)
E617 African Women (3 cr.)	FINE ARTS	E533 Conflict in Central and Southern Africa (3 cr.)
E620 Seminar in Cultural Ecology (3 cr.)	A453 Art of Sub-Saharan Africa (4 cr.)	E534 History of Western Africa (3 cr.)
E650 African Systems of Thought (1-3 cr.)	A552 Art of Eastern and Southern Africa (3 cr.)	E536 History of East Africa (3 cr.)
E660 Arts in Anthropology (3 cr.)	A556 Art of Central Africa (3 cr.)	H695 Colloquium in African History (4 cr.)
E661-E662 Seminar in Ethnomusicology I-II (3-3 cr.)	A650 Problems in African Art (4 cr.)	H795 Seminar in African History (4 cr.)
P600 Seminar in Prehistoric Anthropology (3 cr.)	FOLKLORE	JOURNALISM
P314 Early Prehistory of Africa (3 cr.)	F501 Folklore Colloquium (3 cr.)	J414 International Newsgathering Systems (3 cr.)
P315 Late Prehistory of Africa (3 cr.)	F714 Paradigms of Ethnomusicology (3 cr.)	J514 International Communication (3 cr.)
COMPARATIVE LITERATURE	F516 Proseminar in Folklore Theory and Method I: Materials of Folklore (3 cr.)	J614 Communication and National Development (3 cr.)
C571 African Literature and Culture (3 cr.)	F522 Field Work in Folklore/Ethnomusicology (3 cr.)	LINGUISTICS
C603 Comparative Literature Studies: Contemporary Africa (3 cr.)	F574 Seminar in Ethnomusicology: Transcription and Analysis (3 cr.)	L481 Language in Africa (3 cr.)
C611 Topics in Literary Genres, Modes, and Forms (4 cr.) (Post-Colonial African Fiction)	F609 Folklore Seminar (3 cr.)	L502 Language in Africa (3 cr.)
ECONOMICS	F617 Middle East Folklore/Folk Music (3 cr.)	L619 Language in Society (3 cr.)
E592 Economic Development of Less-Developed Countries (3 cr.)	F750 Performance Studies (3 cr.)	L653-L654 Field Methods in Linguistics I-II (3-3 cr.)
	F755 Folklore, Culture, and Society (3 cr.)	NEAR EASTERN LANGUAGES AND CULTURES
		N409 Modern Arabic Literature (3 cr.)

N480 Modern Arabic Poetry (3 cr.)

N541 Arabic Theatre (3 cr.)

POLITICAL SCIENCE

Y338 African Politics (3 cr.)

Y342 Topics on the Regional
Politics of Africa (3 cr.)

Y343 Development Problems in
the Third World (3 cr.)

Y657 Comparative Politics (3 cr.)

Y663 Political and Administrative
Development (3 cr.)

Y665 Public Law and Policy (3 cr.)

**PUBLIC AND
ENVIRONMENTAL AFFAIRS**

V575 International and
Comparative Administration (3
cr.)

V576 Comparative Approaches to
Development (3 cr.)

V577 International Economic
Development Policy (3 cr.)

SPANISH AND PORTUGUESE

P485 African Literature in
Portuguese (3 cr.)

**COURSES IN AFRICAN
LANGUAGES
LINGUISTICS**

B101-B102 Elementary Bambara
I-II (3-3 cr.)¹

B201-B202 Intermediate Bambara
I-II (3-3 cr.)

B301-B302 Advanced Bambara I-
II (3-3 cr.)

H101-H102 Elementary Hausa I-II
(3-3 cr.)¹

H201-H202 Intermediate Hausa I-
II (3-3 cr.)

H301-H302 Advanced Hausa I-II
(3-3 cr.)

S101-S102 Elementary Swahili I-II
(3-3 cr.)¹

S201-S202 Intermediate Swahili I-
II (3-3 cr.)

S301-S302 Advanced Swahili I-II
(3-3 cr.)
Near Eastern Languages and
Cultures

A200-A250 Intermediate Arabic I-
II (3-3 cr.)

A303-A304 Advanced Arabic I-II
(3-3 cr.)

**OTHER AFRICAN
LANGUAGES**

Various languages in addition to the
above are offered each year.
Language instruction has been given
in 40 languages over the past 25
years. The current offerings are
Xhosa, a South African language and
Twi, a West African language. Those
language courses have been listed
under the following designations:

LINGUISTICS

F101-F102 Elementary African
Languages I-II (3-3 cr.)¹

F201-F202 Intermediate African
Languages I-II (3-3 cr.)

F301-F302 Advanced African
Languages I-II (3-3 cr.)

In addition, tutorials have been
arranged when the demand was not
sufficient to offer a regular language
course. In recent academic years, for
example, tutorials were given in
Chichewa, Ewe, Kirundi, Shona, and
Zulu-Ndebele under the course
designation:

LINGUISTICS

S506 Individual Instruction in
Foreign Languages (cr. arr.)

For courses in other departments that
may be counted toward the Ph.D.
minor, consult the program director.

¹ Four (4) credits each semester for
undergraduates.

American Studies

Combined Degree Program

College of Arts and Sciences
Bloomington

Director
Eva Cherniavsky

Departmental E-mail
nam@indiana.edu

For graduate student information,
contact Ballantine Hall 520, phone
(812) 855-7748, fax (812) 855-0001,
or see:

Departmental URL
www.indiana.edu/~amst

Graduate Faculty

(An asterisk [*] denotes associate
membership in University Graduate
School faculty.)

Distinguished Professors

David Baker Jr. (Music), Richard
Bauman (Folklore)

Chancellors' Professors

James Naremore (Communication
and Culture), Stephen Stein
(Religious Studies)

College Professor

Henry Glassie (Folklore)

Professors

Judith Allen (History, Gender
Studies), Patrick Baude (Law), John
Bodnar (History), Sarah Burns (Fine
Arts), Stephen Conrad (Law),
Raymond DeMallie (Anthropology),
Sandra Dolby (Folklore and
Ethnomusicology), Michael
Grossberg (History), Karen Hanson
(Philosophy), Russell Hanson
(Political Science), Raymond Hedin
(English), David Hertz (Comparative
Literature), George Hutchinson
(English), Jeffrey Isaac (Political
Science), Robert Ivie
(Communication and Culture), David
James (Sociology), James Madison
(History), Portia Maulsby (African
American and African Diaspora
Studies), John McCluskey Jr.
(African American and African
Diaspora Studies), Joanne

Meyerowitz (History), Richard B. Miller (Religious Studies), David P. Nord (Journalism), David J. Nordloh (English), John Stanfield (African American and African Diaspora Studies), Ronald Wainscott (Theatre and Drama), Pamela Walters (Sociology)

Associate Professors

Christopher Anderson (Communication and Culture), Purnima Bose* (English), Mellonee Burnim (African American and African Diaspora Studies), James Capshew (History and Philosophy of Science), Stephan Chermak (Criminal Justice), Eva Cherniavsky (English), Claude Clegg (History), Nick Cullather* (History), Ellen Dwyer (Criminal Justice), Jonathan Elmer (English), Judith Failer (Political Science), Thomas Foster (English), Wendy Gamber (History), Paul Gutjahr* (English), Gloria Gibson (African American and African Diaspora Studies), Joan C. Hawkins (Communication and Culture), Jeffrey Huntsman (English), Stephanie Kane (Criminal Justice), DeWitt Kilgore* (English), Barbara Klinger (Communication and Culture, Film Studies), John Lucaites (Communication and Culture), Carol Polsgrove (Journalism), Eric Sandweiss (History), Dennis Senchuk (Philosophy), Beverly Stoeltje (Folklore), Steven Stowe (History), Jeff Wasserstrom (History)

Assistant Professors

Candida Jaquez (Folklore), Sarah Knott (History), Manuel Martinez (English), Robert Terrill (Communication and Culture)

Senior Scholar/Curator

Kathleen Foster (Fine Arts)

Program Information

For additional graduate student information, contact Ballantine Hall 520, phone (812) 855-7748, fax (812) 855-0001.

Degrees Offered

Doctor of Philosophy, a combined degree program in American Studies and another discipline (for example, anthropology, communication and culture, criminal justice, english, fine arts—art history, folklore, history,

history of education, journalism, political science, religious studies, sociology, theatre and drama).

The American Studies Program provides an opportunity to pursue the interdisciplinary study of American society and culture. In the program, students acquire specialized training in one particular discipline as well as firm grounding in interdisciplinary study. They are encouraged to shape portions of their graduate studies to fit individual needs and interests. Courses in the program are also open to graduate students pursuing the master's degree, special nondegree graduate students, and international students.

Special Program Requirements

See also general University Graduate School requirements.

Doctor of Philosophy Degree

Admission

Students pursuing graduate study in American civilization, American history, American literature, U.S. government or political institutions, as well as comparative studies in American arts, cultures, folklore, religions or social formations are eligible to apply for admission. Acceptance into the American Studies Program is contingent upon prior admission by the cooperating department. Students should therefore apply simultaneously for admission both to American Studies and to that department, indicating a desire to pursue the **combined doctoral degree** in their statement of purpose, which is to be submitted with the application. Deficiencies in background may be removed by completing specified courses.

Course Requirements

A minimum of 90 credit hours, of which 32 must be in American Studies, including G603, G751, and two additional courses, such as G604, G620, G753, or cross-listed courses outside the student's home department. The 32 credit hours may include 16-18 credit hours of appropriate courses relevant to American Studies inside the student's home department. Strong

encouragement is given to interdisciplinary diversification. The dissertation (minimum of 15 credit hours) should reflect interdisciplinary study and research.

Qualifying Examination

Students in the combined Ph.D. degree program must take a comprehensive written examination in the field of American Studies in addition to the qualifying examination given in the student's home department. The examination is to be taken after completion of the American Studies course requirements. The examination may be repeated only once.

Final Examination

The oral defense of the dissertation will be conducted jointly with the student's home department. At least one member of the American Studies faculty must be on the student's dissertation committee.

Ph.D. Minor in American Studies

Students choosing American Studies as a minor (minimum 12 credit hours) in their doctoral program must complete G603, G751, and either G604, G620, 4 credit hours in G753, or a cross-listed course outside their home department that has been approved by the program director.

Core Courses

(May not be fulfilled by cross-listed courses within student's home department.)

AMERICAN STUDIES

G603 Introduction to American Studies (4 cr.) Representative readings in interdisciplinary scholarship; the origins and the development of American Studies and current trends.

G604 Perspectives in American Studies (4 cr.) Survey of perspectives that have been and currently are significant in American Studies.

G620 Colloquium in American Studies (4 cr.) Readings, reports, and discussions on different aspects of American culture. Topics and

instructors will change each time the course is offered. May be repeated once for credit.

G751 Seminar in American Studies (3-4 cr.) P: G603. R: G620. Intensive study of specific topics in American culture with emphasis on developing skills in interdisciplinary research. Topics and instructors will change each time the seminar is offered. May be repeated once for credit.

G753 Independent Study (1-4 cr.) P: consent of the director of American Studies and of instructor, who must be a member of the American Studies faculty.

Cross-Listed Courses

AFRICAN AMERICAN AND AFRICAN DIASPORA STUDIES

A501 Seminar in the Harlem Renaissance (4 cr.)

A502 Seminar on Wright, Baldwin, and Ellison (4 cr.)

A550 The Black Atlantic (4 cr.)

A552 History of the Education of Black Americans (3 cr.)

A561 Afro-American Autobiography (3 cr.)

A579 Early Black American Writing (3 cr.)

A580 Contemporary Black American Writing (3 cr.)

A583 Blacks in American Drama and Theatre, 1767-1945 (3 cr.)

A584 Blacks in American Drama and Theatre, 1945-Present (3 cr.)

A585 Seminar in Black Theatre (3 cr.)

A590 Special Topics in African American and African Diaspora Studies (3 cr.)

A591 Black Intellectual Traditions (4 cr.)

A594 Black Music in America (3 cr.)

A597 Popular Music of Black America (3 cr.)

A678 Early Black American Poetry, 1746-1910 (3 cr.)

A679 Contemporary Black Poetry (3 cr.)

A680 The Black Novel (3 cr.)

A690 Core Readings in Afro American Studies (4 cr.)

ANTHROPOLOGY

A619 American Indian Religions (3 cr.)

E320 Indians of North America (3 cr.)

E329 Indians in the United States in the Twentieth Century (3 cr.)

E425 Ethnozoology: Studies in American Indian Subsistence (3 cr.)

E505 Social Organization and Process (3 cr.)

E525 Comparative Ethnology of North America (3 cr.)

P360 Prehistory of North America (3 cr.)

P361 Prehistory of Midwestern United States (3 cr.)

P365 Prehistory of Western North America (3 cr.)

COMMUNICATION AND CULTURE

C406 The Study of Public Advocacy (3 cr.)

S444 Political Communication (3 cr.)

C512 Rhetorical Theories of Culture Production (3 cr.)

C513 Rhetorical and Sociopolitical Judgment (3 cr.)

C551 Mass Media and Culture (3 cr.)

C552 Media Institutions and the Production of Culture (3 cr.)

C593 History of European and American Films I (4 cr.)

C594 History of European and American Films II (4 cr.)

C610 Identity and Difference (3 cr.)

C612 Constituting Democracy in Rhetorical Discourse (3 cr.)

C613 Coherence and Fragmentation in Post-War American Discourse (3 cr.)

C614 Rhetoric, Ideology, and Hegemony (3 cr.)

C615 The Problem of Protest in America (3 cr.)

C616 Rhetorical Critiques of War (3 cr.)

C617 Rhetoric and Visual Culture (3 cr.)

C618 Rhetoric and Cultural Hermeneutics (3 cr.)

C619 Feminist Rhetoric (3 cr.)

C620 Media, Politics, and Power (3 cr.)

C626 Studies in Contemporary Communication (3 cr.)

C627 Performance in Communication and Culture (3 cr.)

S630 Studies in Public Address (3 cr.)

C652 Globalization of Media (3 cr.)

C691 Authorship in Media (3 cr.)

C705 Research Seminar in Rhetoric and Public Culture (3 cr.)

C706 Theories of Performance in Communication and Culture (3 cr.)

C710 Research Seminar (1-3 cr.)	L780 Special Studies in English and American Literature (4 cr.) (when on American subjects)	A325-A326 American Constitutional History I-II (3-3 cr.)
C737 Seminar in History of Public Address (3 cr.)	FINE ARTS	A329-A330 Social History of American Enterprise I-II (3-3 cr.)
C792 Advanced Seminar in Media Theory (3 cr.)	A445 American Art to 1860 (4 cr.)	A335-A336 The American Middle West I-II (3-3 cr.) (IUPUI only)
C793 Seminar in Media (3 cr.)	A446 American Art, 1860-1900 (4 cr.)	A337-A338 The American Far West I-II (3-3 cr.)
EDUCATION	A542 American Painting from the Revolution to World War I (4 cr.)	A339-A340 History of the South I-II (3-3 cr.)
H504 History of American Education (3 cr.)	A548 American Architecture (4 cr.)	A345-A346 American Diplomatic History I-II (3-3 cr.)
H637 Topical Seminar: Women and Education in America (3 cr.)	A550 History of Photography (4 cr.)	A347 American Urban History (3 cr.)
H637 Topical Seminar: History of Childhood and Education in America (3 cr.)	A643 Problems in American Art (4 cr.)	A348 Civil War and Reconstruction (3 cr.)
ENGLISH	A647 Problems in Contemporary European and American Art (4 cr.)	A352 History of Latinos in the United States (3 cr.)
L651 American Literature, 1609-1800 (4 cr.)	FOLKLORE	A353-A354 American Economic History I-II (3-3 cr.)
L653 American Literature, 1800-1900 (4 cr.)	F609 African and African American Folklore/Folk Music (3 cr.)	A355-A356 Afro-American History (3-3 cr.)
L655 American Literature and Culture 1900-1945 (4 cr.)	F625 North American Folklore/Folk Music (3 cr.)	A361 Studies in American History for Teachers I (3 cr.)
L672 Modern American Drama (4 cr.)	F638 Latin American Folklore/Folk Music (3 cr.)	A364 History of Black Americans (3 cr.) (IUPUI only)
L673 Studies in Women and Literature (4 cr.) (when primarily on American subjects)	F640 Native American Folklore/Folk Music (3 cr.)	A371-A372 History of Indiana I-II (3-3 cr.) (IUPUI only)
L680 Special Topics in Literary Study and Theory (4 cr.) (when primarily on American subjects)	HISTORY	A402 Readings in American Environmental History (3 cr.)
L751 Major American Writers, 1700-1855 (4 cr.)	A301-A302 American Colonial History I-II (3-3 cr.)	A410 American Environmental History (3 cr.)
L753 Major American Writers, 1855 to the Present (4 cr.)	A303-A304 United States, 1789-1865 I-II (3-3 cr.)	A421 Topics in United States History (3 cr.) (IUPUI only)
L761 American Poetry (4 cr.)	A313 Origins of Modern America (3 cr.)	H650 Colloquium in United States History (4 cr.)
L763 American Fiction (4 cr.)	A314 The United States, 1917-1945 (3 cr.)	H750 Seminar in United States History (4 cr.)
L773 Topics in Feminist Literary History (4 cr.) (when primarily on American subjects)	A315 United States since World War II (3 cr.)	H765 Seminar in Latin American History (4 cr.)
L779 Literature and Society (4 cr.) (when primarily on American subjects)	A317 American Social and Intellectual History (3 cr.)	

JOURNALISM

J650 History and Philosophy of the Media (3 cr.)

J651 Qualitative Methods in Mass Communication Research (3 cr.) (when primarily on American subjects)

J653 The Media in the Twentieth Century (3 cr.)

J660 Topics Colloquium (3 cr.) (when primarily on American subjects)

LATIN AMERICAN AND CARIBBEAN STUDIES

L501 Seminar: Contemporary Latin America (3 cr.)

LAW

B659 American Legal History (3 cr.)

B756 Race, American Society, and the Law (3 cr.)

B760 Constitutional History Colloquium (3 cr.)

L778 Seminar in American Legal History (2 cr.)

POLITICAL SCIENCE

Y383-Y384 American Political Ideas I-II (3-3 cr.)

Y661 American Politics (3 cr.)

Y665 Public Law and Policy (3 cr.)

RELIGIOUS STUDIES

R532 Studies of Religion in American Culture (3 cr.)

R635 Colloquium on North American Religious History (3 cr.)

R735 North American Religions (3 cr.)

¹ See also "Anatomy" in the Medical Sciences bulletin, Bloomington.

SOCIOLOGY

S510 Introduction to Social Organization (3 cr.)

S652 Topics in Qualitative Methods (3 cr.)

S700 Topical Seminar (3-12 cr.)

TELECOMMUNICATIONS

R511 Research Methods in Audience Analysis (3 cr.)

R530 Survey of Telecommunications Policy in the United States (3 cr.)

R630 History of Telecommunications Law (3 cr.)

THEATRE AND DRAMA

T565-T566 American Drama and Theatre I-II (3-3 cr.)

T765 Seminar in American Theatre and Drama (3 cr.)

Anatomy and Cell Biology¹

School of Medicine
Indianapolis

Chairperson
Professor David Burr

Departmental E-mail
williams@anatomy.iupui.edu

Departmental URL
anatomy.iupui.edu

Graduate Faculty
(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors
Andrew Evan, Vincent Gattone, Janet Hock (Dentistry), Ralph Jersild (Emeritus), James McAteer, Brian O'Connor (Emeritus), Richard Peterson, Feng Zhou

Associate Professors
Joseph Bidwell (Dentistry), Kenneth Byrd, Bang Hwang, Michael Kubek, John Schmedtje (Emeritus), Mark Seifert, Darl Swartz, James

Williams, Donald Wong, Zao Cheng Xu

Assistant Professor
Hiroki Yokota*

Adjunct Professors
Lincoln Ford, Alan Mikesky (Physical Education), Michael Pritz (Neurosurgery), Masahiko Sato (Affiliate Graduate Faculty)

Adjunct Associate Professors
Bonnie Blazer-Yost (Biology, Physiology and Biophysics), Gerald Smith Jr. (Medicine)

Adjunct Assistant Professor
Jack Windsor* (Dentistry)

Graduate Advisor
James C. Williams, Ph.D., Chair of Graduate Studies Committee, 635 Barnhill Drive, MS5035, Indianapolis, IN 46202-5120, (317) 274-7495, williams@anatomy.iupui.edu

Degrees Offered
Master of Science and Doctor of Philosophy. The Master of Science as a terminal degree in this field is not encouraged.

Special Departmental Requirements
(See also general University Graduate School requirements.)

Admission Requirements
Bachelor's degree, preferably with a background in general, cellular and molecular biology; developmental biology; general and organic chemistry; physics; and calculus. Candidates should have a minimum grade point average of 3.0 (B) overall, and 3.0 in science courses. The Graduate Record Examination General Test is required. It is preferable that graduate study be started in the fall semester. Application for admission to the Master of Science program requires sponsorship by a graduate faculty member. Completed applications should be received before January 15. A personal interview may be requested. Applicants will be notified of departmental action by April 15.

Master of Science Degree

Course Requirements

A total of 30 credit hours, including D861, and at least three of the following: D850, D851, D852, or G818.

Thesis

Normally required; an alternative project may, however, be approved by the student's advisory committee.

Final Examination

Written. Oral defense of the thesis is also required.

Doctor of Philosophy Degree

Course Requirements

A total of 90 credit hours, including D861, and at least three of the following: D850, D851, D852, or G818. An approved course in statistics also is required. A minimum of 32 credit hours must be in courses other than research.

Minor

A minimum of 12 credit hours of course work other than research in a related program (e.g., biochemistry, biophysics, medical genetics, microbiology, neurobiology, pathology, pharmacology, physiology, toxicology, or life science). For a minor in life science, at least 6 credit hours must be taken in one department. The minor must be approved by the student's advisory committee.

Other Requirements

Students are required to gain experience in teaching by assisting one semester in gross anatomy laboratory instruction.

Grades

Overall B (3.0) average in course work and no less than a B in D850, D851, D852 or G818.

Qualifying Examination

Written and oral, designed to assess the student's preparedness to carry out a research program.

Final Examination

Oral defense of dissertation.

Further details of departmental policies will be made available to the student on request and at the time of enrollment.

Courses

The courses below are offered every year unless otherwise indicated. "Even" or "odd" refers to the calendar year in which the academic year ends (e.g., 1998-99 is an "odd" year).

GENERAL

D501 Functionally-Oriented Human Gross Anatomy (5 cr.) P:

K101 Concepts of Biology I or K103 Concepts of Biology II, or K331 Embryology, or equivalent. Consent of instructor. Introduction to the concepts, terminology, and basic structure of the human body. Prosection of the body will use a regional approach. Emphasis on providing fundamental knowledge of the structure/function of major organ systems, peripheral nervous system, and vascular supply to the trunk, head and neck, limbs, and back.

D502 Basic Histology (4 cr.) P:

K103 or K324. Lecture and laboratory instruction on the microscopic structure of the basic tissues and organs of the body. Previous exposure to gross anatomy principles and dissection encouraged.

D503 Gross Anatomy for Medical Students (7 cr.)

D504 Histology (4 cr.)

D526 Methods in Cell and Neurobiology (4 cr.)

Didactic and laboratory instruction in contemporary methods used in modern cell biology and neurobiology research. Methods range from cellular to molecular. Each method is taught by a faculty member with expertise and experience in that area.

D527 Graduate Neuroanatomy (3 cr.) P:

any undergraduate biology or anatomy course, or approval of the course director. A neuroanatomy/neurobiology course that introduces the student to terminology, pathways, organization, and concepts

of the human nervous system. It is designed for those seeking a Doctoral or terminal Master of Science degree in a department other than Anatomy, or for students in interdisciplinary programs such as Psychology, Medical and Biological Engineering and the Medical Neurobiology Program.

D850 Gross Anatomy (8 cr.) A survey course of human anatomy, including a complete dissection.

D851 Histology (4 cr.) A complete survey of the microscopic structure of the tissues and organs of the body.

D852 Neuroscience and Clinical Neurology (5 cr.) P: gross anatomy or instructor approval. A multidisciplinary course integrating basic neuroscience with clinical neurology in understanding the human nervous system and neurological disorders. Includes the neurologic exam in presentations of neurologic patients, neuroradiologic imaging and histologic atlas cross-sections in studying internal organization and vasculature of the brain and spinal cord.

D853 Human Developmental Anatomy (4 cr.) P: D850, D851 and D852. A correlative study of prenatal and neonatal form and function. Odd years.

D856 Advanced Histology (1-5 cr.)

In-depth consideration of selected topics on the microscopic anatomy of cells, tissues, and organs.

D860 Research (1-10 cr.)

D861 Seminar (1 cr.) Required yearly for all graduate students in residence. Literature and research reports and discussions by faculty, students, and invited distinguished visitors.

D862 Anatomical Techniques (2 cr.) Introduction to techniques in anatomical research and in preparation of teaching materials.

D863 Peripheral Nervous System (2-3 cr.) Anatomical and functional consideration of sensory, motor, and autonomic portions of the peripheral

nervous system, with emphasis on neurotransmission and its regulation, physiology of receptors, neuromuscular junction, peripheral axons and their central regulation, myelination, and axonal transport.

D864 Advanced Gross Anatomy (cr. arr.) P: D850. Functional, clinical, and developmental gross morphology of specific regions of the human body; special topics may vary.

D865 Developmental Neuroanatomy (3 cr.) Basic principles and problems relating to prenatal and postnatal development and aging of the central nervous system.

D866 Electron Microscopy (2 cr.) P: D851 or equivalent, and consent of instructor. Introduction to electron microscopy, including rationale of biological specimen preparation, general principles of instrument operation, and related techniques.

D867 Electron Microscopy Laboratory (cr. arr.) P: D866 or concurrent, and consent of instructor. Enrollment limited. The application of techniques for electron microscopy of biological specimens, including preparative procedures, instrument operation, and photographic processing.

D868 Histology of Immune System: Lecture (2 cr.) P: D851. Current information on cells, tissues, and organs that participate in cellular and humoral immune reactions. Cytochemical methods for elucidating these reactions. Attention given to cellular aspects of immune mechanisms in cancer and organ transplantations.

D869 Histology of Immune System: Laboratory (cr. arr.) P: D868 or concurrent. Enrollment limited. The fluorescent antibody technique, enzyme-labeled antibody technique, electron microscopic immunocytochemistry, the isolation and observation of lymphocytes, and cytochemistry of marrow smears.

D870 Tissue Culture: Lecture (2 cr.) P: D871 concurrently. Study of

living animal cells and tissues maintained in an artificial environment with emphasis on growth, differentiation, and their response to various factors.

D871 Tissue Culture: Laboratory (2 cr.) P: D870 concurrently. Application of laboratory techniques used in preparation of in vitro cultures, and their use in biomedical research.

D875 Topics in Advanced Neuroanatomy (2-5 cr.) Examination of the anatomy and related physiology and neurochemistry of selected brain areas. Topics will include regional structures (in spinal cord, brain stem, diencephalon, or telencephalon) or specific neurological systems (sensory, motor, or autonomic-visceral). Area of study to be arranged with instructor.

D876 Neurotransmitter and Neuroendocrine Cytology and Anatomy (3 cr.) Detailed examination of the cytology and connections, chemical and physiological regulatory mechanisms, interactions, and functions of neurotransmitter or neurohormonal cells, including central neurons utilizing dopamine, norepinephrine, epinephrine, serotonin, acetylcholine, amino acid transmitters, substance P, and endorphins. Regulation and function of neuroendocrine transducers related to anterior and posterior pituitary, adrenal medulla, pineal.

D888 Developmental and Molecular Neurobiology This is an in-depth course in neurobiology designed to help students understand the molecular and cellular mechanisms that underlie the development, normal and abnormal functions of the nervous system. Special emphasis will be placed on both experimental and theoretical approaches that led to our current knowledge of the nervous system.

G595 Current Topics in Cell Structure and Function (3 cr.) P: D851 or F705 or B817 or consent of instructor. An advanced course in cell biology designed to evaluate

contemporary issues in cell structure and function. Background lectures are complemented by discussion of primary research articles. Emphasis is on developing a critical approach to the cell biology literature by evaluating the effectiveness and limitations of various experimental strategies.

G801 Experimental Approaches to Cell Structure and Function (3 cr.) The overall objective of this graduate course in cell biology is to present, in an experimental context, information integrating cell structure with cell function. The focus is on topics in which new information on cell structure has enhanced or reformulated our understanding of cell function.

G812 Fundamental Concepts in Aging (3 cr.) P: None. A survey course covering various processes and diseases of aging. The course includes sections on demography and epidemiology; physiology, molecular biology, and pharmacology of aging; specific clinical disease entities commonly associated with aging; neurodegeneration, memory, and cognition; depression, the pathophysiology of pain, nutrition, physical function, ethics, and psychosocial issues.

G819 Basic Bone Biology (2 cr.) P: One semester of introductory biology. An introduction to basic bone biology, including bone morphology, composition, and physiology; cell biology of bone cells; measurement techniques; adaptation to the mechanical and metabolic environments; regulatory factors and mineral homeostasis; and growth and development.

G818 Integrative Cell Biology (3 cr.) This course provides broad understanding of ways in which cells are organized and integrated into tissues. Emphasis is on the function of cells in neural/neuroendocrine system, cardiopulmonary, renal, and immune systems in the cytomechanics. Modern approaches to the study of tissue function by analysis of cellular regulation will be emphasized.

Ph.D Minor in Ancient Studies

College of Arts and Sciences
Bloomington

Acting Chairperson

Associate Professor Matthew R. Christ (Classical Studies)

Departmental E-mail

mrchrist@indiana.edu

Departmental URL

www.indiana.edu/~classicsr

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors

Paul Eisenberg (Philosophy), James Franklin (Classical Studies), William Hansen (Classical Studies), Eleanor Leach (Classical Studies), Timothy Long (Classical Studies), Thomas Mathiesen (School of Music), Michael Morgan (Philosophy), William Newman (History and Philosophy of Science), K. D. Vitelli (Anthropology)

Associate Professors

Cynthia Bannon* (Classical Studies), David Brakke (Religious Studies), Matthew Christ (Classical Studies), Michael Dickson (History and Philosophy of Science), J. Albert Harrill (Religious Studies), Betty Rose Nagle (Classical Studies), Steven Weitzman (Religious Studies)

Ph.D. Minor in Ancient Studies

The Program in Ancient Studies seeks to encourage the study of antiquity in all its facets—including its history, art, architecture, literature, music, philosophy, religion, and science—and to promote interdisciplinary approaches to ancient culture. The program draws on the faculty of seven departments: Anthropology, Classical Studies, Fine Arts, History, History and Philosophy of Science, Philosophy, and Religious Studies.

The Minor in Ancient Studies aims to help students expand the depth and scope of their knowledge of ancient cultures and learn about different approaches to them. To promote these ends, it permits students to draw on courses from two or more departments outside of their home department. A student might choose to group together courses from different departments that focus on a certain period (e.g., late antiquity) or topic (e.g., social history).

Course Requirements

Students must complete twelve (12) graduate credit hours of appropriate courses outside their home department. These courses must be in at least two (2) different departments. No more than three (3) credit hours of directed readings can be applied to the minor. The minor advisor (Matthew R. Christ, Classical Studies: mrchrist@indiana.edu) must approve the particular courses that are to be counted toward the minor.

Grades

Courses in which a student receives less than a B (3.0) will not count toward the minor.

CLASSICAL STUDIES

G510 Readings in Greek Historians (4 cr.)

G511 Readings in Greek Oratory and Rhetoric (4 cr.)

G512 Readings in Greek Philosophers (4 cr.)

G513 Readings in the Greek Novel (3 cr.)

G516 Readings in Greek Comedy (4 cr.)

G517 Readings in Greek Tragedy (4 cr.)

G518 Readings in Greek Epic (4 cr.)

G536-G537 Survey of Greek Literature I-II (4-4 cr.)

G540 Readings in Byzantine Greek (4 cr.)

G601 Seminar in Greek Poetry (4 cr.)

G603 Seminar on Greek Tragedy (4 cr.)

G610 Seminar in the Greek Novel (4 cr.)

G611 Seminar in Greek Epigraphy, Papyrology and Paleography (4 cr.)

G620 Seminar in Historical Texts and Historiography (4 cr.)

L509 Cicero, His Life and Works (4 cr.)

L510 Readings in Latin Historians (4 cr.)

L511 Readings in Latin Oratory and Rhetoric (4 cr.)

L513 Readings in the Roman Novel (4 cr.)

L515 Readings in Latin Elegy (4 cr.)

L530 Roman Rhetoric and Oratory (4 cr.)

L536-L537 Survey of Latin Literature I-II (4-4 cr.)

L540 Medieval Latin (4 cr.)

L550 Roman Historians (4 cr.)

L600 Seminar in Latin Epic (4 cr.)

L602 Seminar in Latin Comedy (4 cr.)

L603 Seminar in Latin Tragedy (4 cr.)

L610 Seminar in the Roman Novel (4 cr.)

L620 Seminar in Latin Historical Texts and Historiography (4 cr.)

C405 Comparative Mythology (4 cr.)

C409 Roman Literature and Art (3 cr.)

C411 (Fine Arts A411) The Art and Archaeology of Anatolia (4 cr.)

C412 (Fine Arts A412) The Art and Archaeology of the Aegean (4 cr.)

C413 (Fine Arts A413) The Art and Archaeology of Greece (4 cr.)

C414 (Fine Arts A414) The Art and Archaeology of Rome (4 cr.)

C416 Ovidian Mythology and its Tradition (3 cr.)

C419 The Art and Archaeology of Pompeii (4 cr.)

C501 Introduction to Graduate Study: Literary and Cultural Theory for Classicists (3 cr.)

C503 The Ancient City (4 cr.)

C610 Seminar in the Greek and Roman Novels (4 cr.)

C623 Seminar in Classical Archaeology (4 cr.)

FINE ARTS

A410 History and Methodology of Classical Archaeology (4 cr.)

A411 (Classics C411) Art and Archaeology of Anatolia (4 cr.)

A412 (Classics C412) The Art and Archaeology of the Prehistoric Aegean (4 cr.)

A413 (Classics C413) The Art and Archaeology of Greece (4 cr.)

A414 (Classics C414) The Art and Archaeology of Rome (4 cr.)

A416 Greek Architecture (4 cr.)

A418 Roman Architecture (4 cr.)

A513 Greek Vase Painting (4 cr.)

A514 Greek Sculpture: Fifth Century (4 cr.)

A516 Greek Sculpture: Hellenistic (4 cr.)

A517 Early Italian and Etruscan Art (4 cr.)

A518 Roman Sculpture (4 cr.)

A519 Roman Painting (4 cr.)

A611 Problems in Prehistoric Aegean Archaeology (4 cr.)

A612 Problems in Greek Archaeology (4 cr.)

A613 Problems in Greek Architecture (4 cr.)

A614 Problems in Greek Sculpture (4 cr.)

A615 Problems in Greek Painting (4 cr.)

A616 Problems in Roman Art (4 cr.)

HISTORY

C386 Greek History (3 cr.)

C388 Roman History (3 cr.)

C580 History of Ancient Medicine (3 cr.)

H605 Colloquium in Ancient History (4 cr.)

H705 Seminar in Ancient History (4 cr.)

HISTORY AND PHILOSOPHY OF SCIENCE

X556 Philosophy of Science in Antiquity (3 cr.)

X601 Seminar in Ancient Science (3 cr.)

PHILOSOPHY

P511 Plato (3 cr.)

P512 Aristotle (3 cr.)

P595 Intensive Reading: Ancient Philosophy from the Greek or Latin Texts (cr. arr.)

RELIGIOUS STUDIES

R521 Studies in Early Christianity (3 cr.)

R610 Studies in Biblical Literature and Religion (3 cr.)

R620 Ancient and Medieval Christianity (3 cr.)

R713 Historical Studies in Western Religions (3 cr.)

Animal Behavior

Bloomington

Director

Associate Professor Emilia Martins

Departmental E-mail

cisab@indiana.edu

Departmental URL

www.indiana.edu/~animal

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors

Jeffrey R. Alberts (Psychology), Edmund D. Brodie III (Biology), Ellen D. Ketterson (Biology), Curtis M. Lively (Biology), Val Nolan Jr. (Emeritus, Biology), Milos Novotny (Chemistry), George V. Rebec (Program in Neural Science, Psychology), Dale R. Sengelaub (Program in Neural Science, Psychology), Joseph E. Steinmetz (Program in Neural Science, Psychology), Roderick A. Suthers (Medical Sciences, Neural Science), William D. Timberlake (Psychology), Michael J. Wade (Biology)

Associate Professors

Preston E. Garraghty* (Neural Science, Psychology), Kevin D. Hunt (Anthropology), Emelia P. Martins (Biology)

Assistant Professors

Gregory D. Demas (Biology), Sumit Dhar (Speech and Hearing Sciences), Troy G. Smith (Biology)

Academic Advisor

Associate Professor Emelia P. Martins, Jordan 136, (812) 856-5840

Adjunct Professors

Peter Cherbas (Biology), Andy Clark (Philosophy, Cognitive Science), Robert de Ruyter van Steveninck (Physics), Robert DeVoe (Emeritus, Optometry), Elisabeth Lloyd (History and Philosophy of Science), Craig E. Nelson (Biology), Rudolph Raff (Biology), J. C. Randolph (School of Public and Environmental Affairs), Kathy D. Schick (Anthropology), Esther Thelen (Psychology), Nicholas Toth (Anthropology), Meredith J. West (Psychology)

Adjunct Associate Professors

Henry D. Prange (Medical Sciences), Laura L. Scheiber (Anthropology), S. Holly Stocking (School of Journalism)

Adjunct Assistant Professor

Whitney M. (Reilly) Schlegel (Medical Sciences)

Adjunct Associate Scientist

Stephanie Sanders (The Kinsey Institute for Research in Sex, Gender, and Reproduction)

Adjunct Senior Scientist

Andrew P. King* (Psychology)

Admission Requirements

Students must be admitted to a Ph.D. program in the Department of Biology, the Department of Psychology, or the Program in Neural Science or other related departments or programs (e.g., Program in Medical Sciences, Anthropology). They must also apply to the Program in Animal Behavior.

Students should select an advisory committee made up of at least three members of the graduate faculty. For students whose home department or program is biology, at least one member of the advisory committee from the Department of Psychology or the Program in Neural Science is expected. For students whose home department or program is the Department of Psychology or the Program in Neural Science, at least

one member of the advisory committee from biology is expected. At least two of the student's committee members must be members of the Program in Animal Behavior.

Ph.D. Minor in Animal Behavior

Course Requirements

The minor in animal behavior requires the following courses: L567; N500 or M555; P504 or P527; and A501. A500 and A502 are recommended.

Examination

As required by home department or program.

Area Certificate in Animal Behavior

Course Requirements

The requirements for the Area Certificate in Animal Behavior include all of the requirements of the minor, plus A502, one additional semester of A501 and one additional course from the approved list, including L581, Z540, P548, P526, or P717.

Examination

As required by home department or program.

Statistics Requirement

As required by home department or program.

Thesis

Required.

Courses

A500 Introduction to Animal Behavior Research (1 cr.)

Introduces students to research opportunities in animal behavior. Local researchers will present their recent research efforts, emphasizing the integrative aspects of their work and its application to functional and mechanistic explanations of behavior.

A501 Seminar in the Integrative Study of Animal Behavior (2-3 cr.)

Investigation of functional behavior

of animals (e.g., migration, parental behavior, mate choice) using an interdisciplinary approach that attempts to integrate the perspectives of developmental psychology, ecology and evolutionary biology, neural science, and the science of learning and memory. Topic will vary. May be repeated for credit.

A502 Research and Professional Ethics in Bio-Behavioral Sciences (1 cr.)

Readings and discussion dealing with general ethical issues in science, with a particular focus on animal behavior. Topics include treatment and protection of animals; the acquisition, analysis, and use of data; student-mentor and student-teacher relations; credit, authorship, and peer review.

Cross-Listed Courses

BIOLOGY

L567 Evolution (3 cr.)

L581 Behavioral Ecology (3 cr.)

Z540 Genetics of Population (3 cr.)

MEDICAL SCIENCES

M555 Medical Neuroscience (5 cr.)

P548 Neuroethology (2 cr.)

NEURAL SCIENCE

N500 Neural Science I (4 cr.)

N501 Neural Science II (3 cr.)

PSYCHOLOGY

P504 Learning and Motivation (3 cr.)

P526 Neurobiology of Learning and Memory (3 cr.)

P527 Developmental Psychobiology (3 cr.)

P667 Neuropsychopharmacology (3 cr.)

P717 Evolutionary Bases of Learning (3 cr.)

Anthropology

College of Arts and Sciences
Bloomington

Chairperson
Professor Jeanne Sept

Departmental E-mail
dwilkers@indiana.edu

Departmental URL
www.indiana.edu/~anthro/
home.html

Graduate Faculty
(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Distinguished Professor
Richard Bauman

Rudy Professor
Emilio Moran

Chancellors' Professors
Robert Meier (Emeritus), Anya Peterson Royce

Professors
Della Collins Cook, Geoffrey Conrad, Raymond DeMallie, Paul Gebhard (Emeritus), Paula Girshick, Paul Jamison, Douglas Parks, Christopher Peebles, K. Anne Pyburn, Kathy Schick, Jeanne Sept, M. Nazif Shahrani, Nicholas Toth, James Vaughan (Emeritus), Karen Vitelli, Richard Wilk

Associate Professors
Joëlle Bahloul, Eduardo Sonnewend Brondizio*, Gracia Clark, Kevin Hunt, Patrick Munson (Emeritus), Philip LeSourd*, Beverly Stoeltje

Assistant Professors
Frederika Ann Kaestle*, Sarah Phillips, Travis R. Pickering, Laura Scheiber*, Marvin Sterling, Wesley K. Thomas*

Adjunct Professors
Paul Newman (Linguistics), Susan Sutton (I), Richard Ward (I)

Adjunct Associate Professors
Stephanie Kane (Criminal Justice), Philip Parnell (Criminal Justice)

Adjunct Assistant Professor
Helen C. Gremillion* (Gender Studies)

Lecturer
April Kay Sievert*

Note: "I" after a faculty member's name indicates that the person teaches at Indiana University–Purdue University Indianapolis.

Director of Graduate Studies
Professor Paul Jamison, Student Building 255, (812) 855-1495, jamison@indiana.edu

Degrees Offered
Master of Arts and Doctor of Philosophy

Special Departmental Requirements
(See also general University Graduate School requirements.)

Admission Requirements
(1) Bachelor's degree from a recognized institution and evidence of academic potential to complete an advanced degree; (2) appropriate level of achievement on the Graduate Record Examination General Test; (3) three letters of recommendation; and (4) a statement of goals in the field of anthropology. Recommended undergraduate training in anthropology and related fields: for students interested primarily in the subfield of bioanthropology, courses in chemistry and the biological sciences; for students specializing in the subfield of archaeology, courses in history and earth sciences and the humanities; for students specializing in the subfield of social/cultural anthropology, courses in the social sciences and the humanities; for students specializing in the subfield of anthropological linguistics, courses in general linguistics and psycholinguistics.

Master of Arts Degree

Requirements
(1) A minimum of 30 credit hours, with a cumulative grade point average of 3.25 and no more than 6 hours of thesis credit. At least 20 credit hours must be in anthropology,

including three courses (excluding thesis) which are numbered 500 or above; (2) at least one course which carries graduate credit in three of the four subfields listed above; (3) at least one semester or two summer sessions of full-time study while in residence on the Bloomington campus; and either (4) a thesis or (5) a four-hour written examination. Examination grading will be (a) pass with distinction, (b) pass (both of these include the award of the M.A. degree), or (c) failure. The examination may be taken twice, but two failures will result in automatic dismissal of the student. Option (4) or (5) must be selected; no change will be allowed once the selection is made. No oral examination or defense of the thesis is required. The thesis must be read and approved by all members of the student's committee. A master's thesis may be based on library, laboratory, or field research. The department does not require, but does recommend, the completion of one foreign language, particularly if the student contemplates continuing for the Ph.D.

Doctor of Philosophy Degree

The Department of Anthropology offers all four subfields of the discipline: archaeology (including paleoanthropology), bioanthropology, linguistic anthropology, and social/cultural anthropology. Students elect one of these as the major field, but may take courses and/or minor in any of the other subfields. Each major field involves its own breadth requirements within the Department of Anthropology; the programs also differ in other ways. Students should request a copy of the current departmental Guide for Graduate Students for details of the four courses of study. All have the following requirements in common.

Foreign Language/Research Skills

One of three is required: (1) reading proficiency in two languages, one normally selected from French, German, Russian, Spanish, or Portuguese (consult advisor for additional languages); (2)

proficiency in depth in one language, normally selected from French, German, Russian, Spanish, or Portuguese; or (3) reading proficiency in one of the languages cited in (1) plus proficiency in computer science or statistics.

Qualifying Examination

In order to be recommended to candidacy for the Ph.D. degree in anthropology, the student must pass a qualifying examination. This examination cannot be administered until the foreign language or research skills and other requirements have been fulfilled and until at least 60 credit hours have been earned. Students usually complete necessary course work and take the qualifying examination within three years of residence. The format of the exam shall be decided by the advisory committee in consultation with the student from among the following options: (1) a take-home exam, or (2) a proctored in-camera exam, or (3) an exam combining elements of (1) and (2). Preparation, administration, and grading of the examination are the responsibility of the advisory committee, but other members of the department are free to participate without voting. A passing grade requires the affirmative vote of a majority of the anthropologists on the examining committee. Grading is as follows: (a) pass with distinction; (b) pass [both (a) and (b) include certification to doctoral candidacy and the M.A. degree if desired and not already awarded]; (c) low pass with terminal M.A. degree; (d) failure. The qualifying examination may be retaken once.

Research Proposal

A research proposal must be approved by the student's advisory committee and, ultimately, by the research committee before funding may be requested or the research may be begun. This is a major project and usually is the basis of requests for external funding for the student's dissertation research. All proposals that include the use of living human subjects must receive advance clearance by the Bloomington Committee for the Protection of Human Subjects regardless of whether or not external

funding is sought. This clearance is required for use of informants, participant observation, interviews, and questionnaires, as well as more invasive research such as measurement and testing.

Dissertation

Each candidate must prepare a doctoral dissertation as part of the requirements for the Ph.D. degree. This dissertation may be the result of fieldwork or laboratory or library research. The department expects field research as part of the student's doctoral training in anthropology, but the dissertation may be based upon field data, laboratory data, museum collections, archives, or other documentary sources. The topic and general outline of the proposed dissertation must be approved by the candidate's research committee.

Final Examination

An oral examination of the dissertation—which cannot be waived—will be scheduled and administered by the candidate's research committee.

Teaching

The department considers teaching experience to be a critical part of graduate training. Therefore, every effort will be made to provide teaching opportunities for each graduate student.

Ph.D. Minor in Anthropology

Students in other departments may minor in anthropology by completing at least 12 credit hours of course work in anthropology. No more than 6 credit hours will be accepted by transfer of graduate credit from another university. Each minor student is assigned a faculty advisor to help in the selection of a set of courses that best contributes to the research goals of the student.

**These courses are eligible for a deferred grade.

Special Minors in Ethnomusicology, Anthropology, Health, Human Evolutionary Studies and Human Dimensions of Global Environmental Change

See sections under "Ethnomusicology" and "Anthropology and Health."

Courses

GENERAL ANTHROPOLOGY

A303 Evolution and Prehistory (3 cr.)

E303 Introduction to Social and Cultural Anthropology (3 cr.)

A403 Introduction to Museum Studies (3 cr.)

A405 Museum Methods (3 cr.)

A406 Field Work in Ethnography and Linguistics (1-4 cr.; 8 cr. max.)

A408 Museum Practicum (1-4 cr.; 8 cr. max.)

A495 Individual Readings in Anthropology (1-4 cr.)**

A505 Fields of Anthropology: A Graduate Survey (3 cr.) Cultural anthropology, linguistics, archaeology, physical anthropology. For graduate students of other departments and beginning graduate students in anthropology.

A506 Anthropological Statistics (3 cr.) Statistics in all fields of anthropology. Scales, frequency distributions, contingency, correlation, probability, sampling, significance tests, elementary multivariate analysis.

A521 Internship in Teaching Anthropology (3 cr.) Systematic and supervised internship required of all first-year associate instructors. Course includes formal class presentations by the departmental AI trainer, formal development of teaching materials, prescribed observations of "master teachers,"

and supervisory visits by the AI trainer.

A600 Seminar in Anthropology (2-4 cr.) May be taken in successive semesters for credit.

A800 Research (cr. arr.) (1) Archaeology, (2) ethnology, (3) linguistics, and/or (4) physical anthropology.

BIOANTHROPOLOGY

B301 Laboratory in Bioanthropology (3 cr.)

B370 Human Variation (3 cr.)

B405 Field Work in Bioanthropology (cr. arr.)

B464 Human Paleontology (3 cr.)

B466 The Primates (3 cr.)

B472 Bioanthropology of Aboriginal America (3 cr.)

B480 Human Growth and Development (3 cr.)

B500 Proseminar in Bioanthropology (3 cr.) Human evolution from the standpoint of an interaction of biological, ecological, and sociocultural factors. Survey of bioanthropology from historical, systematic, and applied viewpoints; emphasis on changing content, concepts, methods, and organization of the science.

B521 Bioanthropology Research Methods (3 cr.) P: B200, B301. Designed for advanced students of bioanthropology and related biological sciences to familiarize them with the methods and techniques of collecting, preserving, and analyzing both morphological and somatological data.

B522 Laboratory Methods in Bioanthropology (2 cr.) P: concurrent with B521. Laboratory dealing with methods and techniques of assessment and analysis of morphological and somatological data which forms the subject matter of B521.

B523 Anthropometry (3 cr.) P: B200, B301, or consent of instructor. Designed for advanced students in bioanthropology. Basic research techniques applicable to living populations. Research project on volunteer subjects required. Formation of hypotheses, data collection procedures, testing of hypotheses, and presentation of results in oral and written form will be stressed.

B524 Theory and Method in Human Paleontology (3 cr.) P: B200, B301, or consent of instructor. Emphasis on fossil hominid evolution and adaptation. Intensive study of human fossil skeletal anatomy. Reconstruction of hominid diets and positional behavior via skeletal analysis and functional morphology.

B525 Genetic Methods in Anthropology (3 cr.) P: B200, B301, or permission of instructor. Specialized training in laboratory procedures and interpretation of genetic markers found in human populations. Major systems covered are ABO, Rh, MNSs, Duffy, Kell, secretor status, and PTC testing. Emphasis on use of genetic markers in human evolutionary research.

B526 Human Osteology (3 cr.) P: B200, B301, or consent of instructor. Descriptive and functional morphology of the human skeleton with emphasis on the identification of fragmentary materials. Determination of age, sex, and stature; craniology; and research methods in skeletal biology. Guided research project in the identification of skeletal material required.

B528 Dental Anthropology (3 cr.) P: B200, B301, or consent of the instructor. Descriptive and functional morphology of primate dentitions, stressing nomenclature of crown features. Human enamel microstructure, development, wear, occlusion, pathology, odontometrics, and discrete variation as applied to research problems in bioanthropology. A guided research project is required.

B550 Issues in Human Origins: Creation and Evolution (3 cr.) Review of the creation/evolution controversy in a seminar setting. Fundamentals of organic evolution covered, especially pertaining to the origins of our species. Additionally, the major arguments as set forth by “scientific creationists” are presented, along with an appraisal of the “balanced treatment” notion that has been proposed for inclusion in public school curricula.

B568 The Evolution of Primate Social Behavior (3 cr.) P: Major patterns of social organization in the order of primates, with closer examination of several important primate species. Darwinian theories of behavioral evolution will be examined. Particular attention will be paid to the influence of food-getting and diet on social behavior.

B570 Human Adaptation: Biological Approaches (3 cr.) Understanding the concept of adaptation as it is utilized within bioanthropology, anthropology, and other disciplines. Focus on individual and population responses to heat, cold, solar radiation, high altitude, nutritional and disease stress. Participation in discussion and presentation of oral and written reports emphasized throughout the seminar.

B600 Seminar in Bioanthropology (3 cr.) Subject will vary; students may thus receive credit more than once.

B601 Primate Anatomy (3 cr.) P: B200, B301; P or B466. Comparative anatomy of the nonhuman primates with emphasis on the analysis of bone and muscle relationships. Application of comparative techniques to current research in bioanthropology. Dissection of several primate species required.

B602 Paleopathology (3 cr.) P: B200, B301. Disease in prehistoric skeletal material and in written and visual representations. Diagnosis and epidemiological characterization of diseases of bone. A guided research project on a topic in paleopathology

is required. Seminar presentation of two literature reviews and a research project are required.

ETHNOGRAPHY

E305 Introduction to Ethnomusicology (3 cr.)

E310 Introduction to the Cultures of Africa (3 cr.)

E311 The Ethnography of Eastern Africa (3 cr.)

E320 Indians of North America (3 cr.)

E321 Peoples of Mexico (3 cr.)

E322 Peoples of Brazil (3 cr.)

E325 North American Indian Musics (3 cr.)

E329 Indians in the United States in the Twentieth Century (3 cr.)

E330 Indians of South America (3 cr.)

E332 Jewish Women: Anthropological Perspectives (3 cr.)

E334 Jews in Moslem Society (3 cr.)

E340 Indians of Mexico and Central America (3 cr.)

E370 Peasant Society and Culture (3 cr.)

E371 Modern Jewish Culture and Society (3 cr.)

E375 Mental Illness in Cross-Cultural Perspectives (3 cr.)

E380 Urban Anthropology (3 cr.)

E404 Field Methods of Ethnography (3 cr.)

E407 Visual Anthropology: Filmmaking (3 cr.)

E510 Problems in African Ethnography and Ethnology (3 cr.)

E511 Ethnography of the Congo (2 cr.)

E525 Comparative Ethnology of North America (3 cr.) P: A505 or E500; E320; A506; or consent of instructor. Seminar on comparative problems of North American Indian cultures. May be repeated for credit.

E610 Seminar in Households, Family, and Gender (3 cr.) Asks how basic social units like family and household are socially constructed and maintained. Current literature on social exchange, bargaining, decision-making, and gender. Pressing current issues such as child welfare, equity in economic development, abusive relationships, and consumer choice.

E617 African Women (3 cr.) Examines the remarkably active roles that African women play in their communities. Follows the themes of autonomy and control of resources, considering both economic resources (such as land, labor, income, and cattle) and social resources (such as education, religion, and political power).

E618 Global Consumer Culture (3 cr.) Examines processes of globalization and economic and cultural integration, including the origin and spread of mass-consumer society. Topics include the theories of consumption, mass media and advertising, and the relationship between modernity and consumerism. Examples from Africa, Latin America, Asia, and the United States are included.

E619 American Indian Religion (3 cr.) Introduces religions of the peoples indigenous to North America. Concerns include traditional and contemporary native rituals, mythology, folklore, and symbolism occurring throughout these many cultures, including topics such as art, architecture, cosmology, sustenance, modes, trade, history, gender, and taboos.

E624 Native American Art (3 cr.) Addresses the principles of Native art and its materials, styles, functions, methods, meanings and

the contexts in which Native art is used. In addition to addressing the principles, cultural, anthropological and Indigenous theories will be explored. Cultural background information will be interwoven in the lectures and discussions.

E663 Exhibiting Cultures: Museums, Exhibitions, and World's Fairs (3 cr.) P: E310 or consent of instructor. Seminar in anthropological problems related to Africa. Selected topics. May be repeated for credit.

E673 Feminist Studies and Ethnographic Practice (3 cr.) Focuses on the impact of feminist theory on ethnographic practice in the fields of anthropology and criminology. We will read key works from the 1980s to the present which exemplify various feminist approaches to the study of culture and society.

E687 The Ethnography of Europe (3 cr.) Explores "Europe" as an idea, an identity, and a historical consciousness. Students discuss how European ethnography has acquired a valued status in social anthropology, how it has been instituted as a "cultural area," and how the discipline constantly revises social, cultural, political, and nationalist boundaries.

E692 The United States (3 cr.) Reviews current ethnographic studies of the United States, emphasizing themes of cultural diversity, relationships between individuals and their communities, and the roles of public institutions at local, state, and federal levels.

ETHNOLOGY

E372 Racism: Anthropology of Prejudice (3 cr.)

E405 Principles of Social Organization (3 cr.)

E406 Anthropological and Documentary Film (3 cr.)

E420 Economic Anthropology (3 cr.)

E425 Ethnozoology: Studies in American Indian Subsistence (3 cr.)

E427 Cultural Ecology (3 cr.)

E430 Kinship Organization (3 cr.)

E440 Political Anthropology (3 cr.)

E445 Medical Anthropology (3 cr.) A cross-cultural examination of a biocultural systems model of human adaptation in health and disease, including: the interaction of biology, ecology, and culture in health; ethnomedical systems in the cross-cultural conception, presentation, diagnosis, and treatment of disease; and sociocultural change and health.

E450 Folk Religions (3 cr.)

E451 Myth and Legend: Cultural Meanings and Interpretations (3 cr.)

E453 Revitalization Movements (3 cr.)

E455 Anthropology of Religion (3 cr.)

E457 Ethnic Identity (3 cr.)

E460 The Arts in Anthropology (3 cr.)

E462 Anthropological Folklore (3 cr.)

E463 Anthropology of Dance (3 cr.)

E470 Psychological Anthropology (3 cr.)

E480 Theory of Culture Change (3 cr.)

E500 Proseminar in Cultural and Social Anthropology (3 cr.) Broad survey covering economics, ecology, kinship, life cycle, education, social stratification, political organization, religion, values, culture change, evolution, methodology, etc.

E505 Social Organization and Process (3 cr.) Anthropological analysis of sociocultural process from symbolic interactionist

perspective. Topics include critical comparison of relevant theories, cross-cultural applications, and methodology of field research.

E520 Problems in Economic Anthropology (3 cr.) P: consent of instructor. Seminar on problems related to the study of technologies and economic systems of non-Western peoples.

E527 Environmental Anthropology (3cr.) Graduate course on theory and method in the study of human-environment interactions. Emphasis on contemporary debates and approaches; and on research design in environmental research.

E600 Seminar in Cultural and Social Anthropology (3 cr.) Subject will vary; students may thus receive credit more than once.

E601 Basics of Human Sexuality (3 cr.) Topics are: (1) introductory lectures on mammalian behavior, anatomy, physiology, reproduction, and sexual development; (2) solitary sexual behavior: orgasm in sleep and masturbation; (3) heterosexual behavior; (4) homosexual behavior; (5) deviance and paraphilias; and (6) social control of sexuality.

E602 Levi-Strauss: Structuralism in Anthropology (3 cr.) Analysis of structuralist texts and theory. Reading and explicating the writings of Levi-Strauss in order to learn how to interpret concepts and methods of the author and how to use them for further research.

E606 Research Methods in Cultural Anthropology (3 cr.) P: must be a graduate student in anthropology or obtain consent of instructor. Organization, design, and execution of anthropological research will be examined in its many contexts; specific research techniques will be demonstrated through laboratory exercises and conduct of student projects.

E616 The Anthropology of Tourism (3 cr.) This course will explore the phenomenon of tourism from an anthropological perspective.

It will look at tourism as linked to consumer culture, transnational movements of people and goods, post-colonial settings, global capitalism, and the politics of ethnic and national identities.

E618 Global Consumer Culture (3 cr.) Examines processes of globalization and economic and cultural integration, including the origin and spread of mass-consumer society. Topics include the theories of consumption, mass media and advertising, and the relationship between modernity and consumerism. Examples from Africa, Latin America, Asia, and the United States are included.

E620 Seminar in Cultural Ecology (3 cr.) Rotating topics in cultural ecology: explores cultural adaptations to specific environments. Emphasis is placed on individual research by students, discussion of relevant theoretical and methodological issues, and critical evaluation of research.

E624 Native American Art (3 cr.) Addresses the principles of Native art and its materials, styles, functions, methods, meanings and the contexts in which Native art is used. In addition to addressing the principles, cultural, anthropological and Indigenous theories will be explored. Cultural background information will be interwoven in the lectures and discussions.

E641 Law as Cultural Practice in the United States (3 cr.) Explores modern life in the U.S. through two lenses: contemporary ethnography and recent Supreme Court opinions. Specific topics vary. Examples include the nature of moral traditions; civil rights; family; privacy and choice; the significance of race.

E649 Culture, Power, History (3 cr.) Culture, power, and history have been three of the most important concerns and concepts in social and cultural anthropology. This course examines how we have understood and used them and how they have defined and continue to define the field.

E650 African Systems of Thought (1-3 cr.) Examines approaches to the analysis of systems of thought and their correlates in social action in African societies. Focuses on structural differences among the various systems of ideas used for interpreting experience in different African societies. Attention paid to alterations made in cosmological systems in situations of social change.

E660 Arts in Anthropology Seminar (3 cr.) P: E460. Anthropology's concern with the arts; cross-cultural study and comparison; the relationships of the arts to other aspects of society and culture; problems of the cross-cultural validity of aesthetics and the interrelationships of the arts.

E661 Seminar in Ethnomusicology I (3 cr.) Techniques of transcription and analysis of the music of nonliterate peoples.

E662 Seminar in Ethnomusicology II (3 cr.) Music as it functions in human society. Role of the musician, concepts underlying production of musical sound, symbolic and other functions of music.

E663 Exhibiting Cultures: Museums, Exhibitions, and World's Fairs (3 cr.) Explores the ideas, values, and symbols that pervade and shape the practice of exhibiting other cultures. Examines the ways in which museums and other sites of exhibition accord objects particular significances, the politics of exhibitions and display strategies, and the interpretive differences between art, anthropology, and other types of museums and institutions which exhibit other cultures.

E670 Seminar in and Personality (3 cr.) Culture Seminar for the investigation of advanced problems in culture and personality. Focus will be primarily on developments since 1960, particularly in such areas as the situational determinants of personality, cognitive growth, and adolescent studies.

E675 Law and Culture (3 cr.) Introduction to classic anthropological writing on cultural concepts of law, conflict, and social ordering, concentrating on ethnographic approaches since the 1960s. Focus is cross-cultural, following the emphasis of the works themselves on Africa, native North America and the contemporary United States. Discussions emphasize the historical context of individual works and critical readings from the vantage points offered by contemporary anthropological theory.

E680 Seminar in Culture Change (3 cr.) P: three courses in cultural anthropology, including the courses listed under both ethnology and ethnography, and consent of instructor. Researches by students under the instructor's supervision, group discussions, and occasional lectures on various problems concerning culture change.

E681 Seminar in Urban Anthropology (3 cr.) P: E580. Seminar in cross-cultural urban social organization, emphasizing recruitment manifestation of urbanism in various cultural contexts and techniques of investigation. Practical work required.

E682 Memory and Culture (3 cr.) Students will interrogate the concept of "collective memory," based on Halbwachs' major contribution in the domain. This social scientific analysis of remembrance as culturally determined will review diverse contexts in which it unfolds, (i.e. art, fiction, ritual, architecture, bodily practice, national identity, and politics).

E690 Development and Anthropology (3 cr.) E420 or consent of instructor. The theory of development; the way anthropology has been employed in development schemes in Melanesia, Southeast Asia, India, Africa, and elsewhere; the practical problem of relating to development bodies such as AID and Third World governments; the ethical problem of such relationships.

GRADUATE

G731 Seminar on Contemporary Africa (cr. arr.)

HISTORY OF ANTHROPOLOGY

E635 French Social Thought: Anthropological Perspectives (3 cr.) Students will read and explicate the writings of six prominent scholars in twentieth-century French social thought, (i.e., Durkheim, Mauss, Levi-Strauss, Barthes, Foucault, and Bourdieu). They will discuss these thinkers' contributions to contemporary anthropological theory, and will reflect on the usage of these works in their respective doctoral projects.

H500 History of Anthropological Thought in the Nineteenth and Twentieth Centuries (3 cr.) Development of nineteenth-century and contemporary anthropological thought, with special reference to methods and theory of scientific anthropology.

H501 Contemporary Problems and Issues in Ethnological Theory (3 cr.; 6 cr. max.) P: introductory work in anthropology. Special attention to problems arising from relation of cultural anthropology to other social sciences, such as psychology and history.

H505 History of Social Anthropology (3 cr.) R: course in social organization. Seminar on development of social anthropology, with special attention to various "schools" such as functionalism and to major figures from Edward Tylor to Alfred Radcliffe-Brown.

H506 Modern Development in Social Anthropology (3 cr.) Seminar on development of social anthropology since World War II, with special attention to contributions of influential Cambridge, Manchester, and London "schools."

ANTHROPOLOGICAL LINGUISTICS

L500 Proseminar in Language and Culture (3 cr.) Relationships of language and culture; survey of ethnolinguistics, sociolinguistics, psycholinguistics, Weltanschauung theory, diglossia, bilingualism, and single language society; relevance of linguistic analysis to cultural and social anthropology.

L501-L502 Anthropological Linguistics I-II (3-3 cr.) An introduction to grammatical discovery procedure, including phonetic, phonemic, morphemic, and syntactic analysis, designed to introduce the student to techniques for use with an unknown language in the field.

L510 Elementary Lakota (Sioux) Language I (3 cr.) Introduction to Lakota (Sioux), an American Indian language spoken on the northern plains of the United States. Focuses on developing elementary reading and writing skills as well as oral fluency in the Lakota language within the context of Lakota culture.

L511 Elementary Lakota (Sioux) Language II (3 cr.) Introduction to Lakota (Sioux), an American Indian language spoken on the northern plains of the United States. Focuses on developing elementary reading and writing skills as well as oral fluency in the Lakota language within the context of Lakota culture.

L512 Intermediate Lakota (Sioux) Language I (3 cr.) Study of more complex Lakota grammatical structures, with emphasis on development of active reading, writing, and speaking skills.

L513 Intermediate Lakota (Sioux) Language II (3 cr.) Study of more complex Lakota grammatical structures, with emphasis on development of active reading, writing, and speaking skills.

L518 Navajo Language and Culture (3 cr.) Introduction to the Navajo language and an exploration of it as an integral dimension of Navajo culture. Topics include

Navajo history, kinship, ritual life, beliefs, and literature, and will be grounded in the appropriate dimensions of Navajo grammar. Provides a case study to review the major issues in the field of language and culture.

L520 American Indian Languages (3 cr.) Introductory survey of the native languages of the Americas. Topics include history of the study of American Indian languages, genetic and typological classifications, structures of selected languages, the comparative (historical) study of selected language families, and the interplay between language and culture. Emphasizes diversity of New World languages.

L580 Semiotics and Human Ethnology (2 cr.) Study of the relationship between the general theory of signs and the biological study of behavior under three headings: elaboration of theoretical models, study of animal communication systems as a natural and behavioral science, and their exploitation for the benefit of humankind.

L600 Topical Seminar in the Ethnography of Communication (3 cr.) Current issues in linguistic anthropology, designed to acquaint the student with readings and points of view not covered in the introductory courses. Topics such as: (1) languages of the world, (2) variation in language, (3) problems in linguistic structure, and (4) culture and communication. May be repeated for credit with change of topic.

L605-L606 Field Methods in Anthropological Linguistics I-II (3-3 cr.)

L840 Ethnolinguistic Seminar (1-2 cr.) P: consent of instructor. Structural statements and arrangements of data in anthropology (including folklore and musicology) and linguistics. May be repeated for credit.

ARCHAEOLOGY

P301 Archaeological Methods and Analyses (3 cr.)

P310 Prehistory of Europe and Asia (3 cr.)

P314 Early Prehistory of Africa (3 cr.)

P315 Late Prehistory of Africa (3 cr.)

P360 Prehistory of North America (3 cr.)

P361 Prehistory of Midwestern United States (3 cr.)

P365 Prehistory of Western North America (3 cr.)

P370 Ancient Civilizations of the Andes (3 cr.)

P371 Prehistory of Lowland South America (3 cr.)

P380 Prehistoric Diet and Nutrition (3 cr.)

P405 Field Work in Archaeology (cr. arr.)

P425 Zooarchaeology I: Faunal Osteology (5 cr.)

P426 Zooarchaeology II: Problems in Zooarchaeology (5 cr.)

P500 Proseminar in Archaeology (3 cr.) Gives the entering graduate student background in history and frames of reference of archaeology; emphasis on place of archaeology in anthropology.

P505 History of Theory in Archaeology (3 cr.) Seminar on the development of theoretical constructs and “schools” in prehistoric archaeology. Focus on thought of major figures such as V. G. Childe, J. G. D. Clark, D. Clarke, L. R. Binford, J. C. Gardin, A. C. Renfrew, and W. W. Taylor.

P506 Laboratory Methods in Archaeology (1-6 cr.) P: P405 or consent of instructor. Specialized training in laboratory procedures and analysis of archaeological materials. Major categories of material culture

to be studied include lithics, ceramics, faunal and floral remains. Emphasis is on processing, sorting, identifying and analyzing material recovered from the previous Field School in Archaeology (P405).

P509 Archaeological Ethics (3 cr.)
Explores the professional responsibilities of archaeologists by examining timely issues, such as the differences and, sometimes, conflicts between international law and professional ethics, and between archaeologists and others (e.g., Native Americans, antiquities collectors) who affect and are affected by archaeological work. Some background in archaeology is helpful.

P600 Seminar in Prehistoric Archaeology (3 cr.) Subject will vary; students may thus receive credit more than once.

Anthropology and Health

Indianapolis

Departmental E-mail
anth@iupui.edu

Departmental URL
www.iupui.edu/it/anthropo/grad.htm

Graduate Faculty
(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Director
Professor W. Kenneth Barger,
Anthropology, Cavanaugh Hall 413,
(317) 274-8207

Professors
W. Kenneth Barger, David Burr
(Anatomy), Della Collins Cook, Paul
Jamison, Robert Meier (Emeritus),
Herman J. Saatkamp (Philosophy,
Medical Genetics), Richard Ward

Associate Professors
Jeanette Dickerson-Putman, Eleanor
Donnelly (Nursing), Richard
Gunderman (Philosophy,
Radiology), Vimalkumar R. Patel*
(Pathology), Dixie W. Ray (Nursing)

Assistant Professor
Stacie King*

Graduate Minor

The graduate minor in anthropology and health is an integrated field of 12 credit hours of study designed to supplement the graduate training of students with an interest in careers in the health field. The program has three goals: to provide students with a holistic perspective on the anthropology of health, which integrates human biology, ecology, and culture in a systems model of health; to develop students' anthropological inquiry skills in understanding health in human groups; and to develop students' abilities to apply anthropological concepts and skills to health interventions in the areas of their career focus. The graduate minor in anthropology and health will provide students with training that will add greater depth and breadth to their qualifications in their major field. They will be able to use the cross-cultural and biocultural perspectives of anthropology to supplement their primary graduate training to better prepare them for a career in the health fields. This focused training will enable students to use anthropological concepts and skills to identify biocultural factors in the occurrence of disease, to understand ethnic behavior related to illness, and to identify where health programs across social and ethnic lines can be made more effective.

Course Requirements

Twelve (12) hours of credit approved for the minor in anthropology and health with a grade point average of at least 3.25, including E445; A594; one course selected from B521, B523, B525, E404, E606, and L605; and one elective.

Courses

E445 Medical Anthropology (3 cr.)
A cross-cultural examination of human biocultural adaptation in health and disease, including biocultural epidemiology; ethnomedical systems in the presentation, diagnosis, and treatment of disease; and sociocultural change and health.

A594 Independent Learning in Applied Anthropology (3 cr.) P: authorization of instructor. Independent research/training using anthropological perspectives/methods in addressing social issues. The project must be a discrete activity with a concrete product, conducted in conjunction with the student's anthropology advisor and the member of the organization where he or she will be located. (May be repeated for no more than 6 credit hours total.)

RESEARCH METHODS IN THE ANTHROPOLOGY OF HEALTH

B521 Bioanthropology Research Methods (3 cr.)

B523 Anthropometry (3 cr.)

B525 Genetic Methods in Anthropology (3 cr.)

404 Field Methods in Ethnography (3 cr.)

E606 Research Methods in Cultural Anthropology (3 cr.)

L605 Field Methods in Anthropological Linguistics (3 cr.)

ELECTIVES

Electives in the anthropology of health (3 cr.). Electives will be selected from approved anthropology courses offered at Indianapolis and Bloomington, in consultation with the minor.

Apparel Merchandising and Interior Design

College of Arts and Sciences
Bloomington

Chairperson
Reed Benhamou*

Departmental E-mail
stikelea@indiana.edu

Departmental URL
www.indiana.edu/~amid

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors

Reed Benhamou*, Kathleen Rowold*

Associate Professor

C. Thomas Mitchell*

Academic Advisors

Apparel Merchandising
Professor Kathleen Rowold

Interior Design

Associate Professor C. Thomas Mitchell

Degree Offered

Master of Science

Special Departmental Requirements

See also general University Graduate School requirements.

Master of Science Degree Admission Requirements

All Students

Minimum of 600 on the verbal section and on at least one other section of the Graduate Record Examination General Test. Minimum undergraduate GPA equivalent to 3.0 on 4.0 scale.

Foreign Students

Minimum of 573 (paper) or 230 (electronic) on the Test of English as a Foreign Language.

Apparel Merchandising

Eighteen (18) semester hours of undergraduate credit in apparel merchandising and/or a related field (e.g., economics), nine (9) of which must be at the junior or senior level.

Interior Design

Baccalaureate from a FIDER- (interior design) or NAAB- (architecture) accredited program, portfolio of original work in interior design and/or architecture.

Course Requirements

Apparel Merchandising

A minimum of 34 credit hours, to include H550, a 3-credit seminar or readings course in area of concentration, H598 Research, H599 Thesis or H597 Project (if project is selected, a total of 37 credit hours is required), and a graduate course in statistics.

Interior Design

A minimum of 34 credit hours, to include H550, H568, H573, H598 Research, H599 Thesis, a graduate course in statistics, and 12 credits in one or two related area(s). H597 Project is not available to graduate students in interior design.

Fields of Study

Individualized programs are available in two different areas: apparel and textiles; and interior design.

Final Examination

Oral defense of the thesis; for those not electing thesis (apparel merchandising candidates only), a comprehensive written examination.

Courses

H401 Cultural Aspects of Dress (3 cr.)

H413 Apparel Merchandise Planning and Analysis (3 cr.)

Essentials of merchandise buying and planning: consumer trends, market resources and trade practices, seasonal plans, assortment planning and analytic tools for inventory evaluations.

H415 Readings in Textiles and Apparel (cr. arr.)

H504 Textiles and Apparel in the Global Economy (3 cr.)

P: graduate standing. Research and analysis of economic issues that affect the development of textiles and apparel at the global level. Critical analysis of labor and development theories and international relations will be included. Global sourcing, production, and import/export strategies will be addressed.

H506 Fashion Analysis and Theory (3 cr.)

P: graduate standing. In-depth study and critical analysis of classic and modern fashion theories, with emphasis placed on postmodern fashion theory development. Students are expected to make significant progress toward new theoretical development of fashion theory.

H510 Apparel Entrepreneurship (3 cr.)

P: graduate standing, AMID H413 or equivalent. R: accounting and research methods. Research and development of individualized plans for decision making, problem solving, and opening a small apparel-related retail business. Developing, implementing, and analyzing entrepreneurial strategies; financial goals; methods of accounting and control; and merchandising, operation, and management skills.

H511 Behavioral Aspects of Dress (3 cr.)

P: graduate standing. Theories from social psychology will be employed in research examining clothing and appearance and their effects on the self and others.

H512 Recent Developments in Textiles (3 cr.)

New developments in textiles; analysis of quality control and production standards; evaluation of current problems.

H519 Special Problems: Textiles and Apparel (1-3 cr.)

P: consent of department. Independent work in analysis and interpretation of various aspects of textiles and apparel field. May be repeated for a maximum of 6 credits. Topic may vary.

H550 Research Methods in Apparel Merchandising and Interior Design (3 cr.)

Evaluating and understanding of research; identifying needed research; planning a research problem.

H567 Trends in Interior Design (3 cr.)

P: H475 or H476 or equivalent, consent of department. Changing patterns in interior design; contemporary furnishings.

H568 Contemporary Issues in Design (3 cr.)

P: graduate standing. Contrast between traditional and

emerging views of design will be explored in terms of the design philosophy that arose in response to industrialism/modernism and the subsequent reactions to and against it, such as postmodernism, deconstruction, and New Design.

H573 Special Problems: Interior Design (1-3 cr.) P: consent of department. Independent work in advanced interior design problems. May be repeated for a maximum of 6 credits.

H575 The Productive Work Place (3 cr.) P: graduate standing. Design of nonresidential interior environments through the application of research into the effect of physical factors on productivity in the workplace.

H576 Design for Diverse Communities (3 cr.) P: graduate standing. Design of interior spaces that enhance community-specific needs and lifestyles.

H580 Seminar in Consumer Issues (3 cr.) P: consent of department. Varying topics dealing with consumer interests and family economics.

H590 Workshop in Apparel Merchandising and Interior Design (1-3 cr.) P: consent of department. Workshop in current issues, trends, programs. Emphasis varies and is announced in workshop title. May be repeated for a maximum of 6 credits.

H597 Projects (1-4 cr.) P: H550 and consent of department. Individual application of student's area of study to the solution of a problem under supervision of an approved advisor; not open to students who select a thesis program.

H598 Research (1-3 cr.) P: H550, a course in statistics, and consent of department. Independent investigation in area of interest under supervision of advisor. May be repeated for a maximum of 6 credits.

H599 Thesis (1-6 cr.) P: H550 or equivalent, one course in statistics.

Individual research under supervision of an approved advisor.

Applied Communication

School of Liberal Arts
Indianapolis

Chairperson
Professor John Parrish-Sprowl

Departmental E-mail
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Departmental URL
www.iupui.edu/~comstudy/
gradprogram.htm

Graduate Faculty

Professor
John Parrish-Sprowl

Associate Professors
Catherine A. Dobris*, Elizabeth Goering, Gail G. Whitchurch, Kim White-Mills

Assistant Professors
Ron Sandwina, Stuart M. Schrader, Kristina Horn Sheeler

Director of Graduate Studies
Kim White-Mills, Department of Communication Studies, Cavanaugh Hall 307G, IUPUI, (317) 507-9638

Degrees Offered

M.A. in Applied Communication

The Department of Communication Studies offers a master's program in Applied Communication with concentrations in Corporate Communication, Health Communication, and Media Management Communication.

Program Goal

The overarching goal of this unique program in Applied Communication is to provide students with the competencies and skills necessary to address specific communication issues and problems that are socially relevant and to suggest or implement change. The primary intellectual goal

of the program is to increase our students' understanding of the theoretical implications of discipline-specific knowledge, to enhance their ability to understand and predict human interaction relative to realistic, applied outcomes associated with contemporary social problems. A practical goal of the program is to train a cohort of the population who will satisfy society's increased need for professionals who grasp the complexities of communication problems and who are able to develop and execute strategies and programs to address such issues.

Admission Requirements

Applicants should have a bachelor's degree from an accredited college or university, with a minimum grade point average of 3.0 on a 4.0 grading scale in the student's undergraduate program. An official transcript and a personal statement must be submitted. Applicants are generally expected to have been communication majors, but admission is considered for those who otherwise demonstrate the competency necessary for successful graduate work in communication. The Graduate Record Examination (GRE) General Test with satisfactory scores in the three areas must be submitted. Applicants are encouraged to take the examination two months prior to the semester of admission. Three letters of recommendation for the applicant should be submitted.

Foreign Language Requirements

None, but M.A. students continuing on for the Ph.D. are encouraged to validate their reading proficiency in a foreign language according to University Graduate School standards. Grades M.A. students must maintain a 3.0 (B) grade point average.

Course Requirements

Nine (9) credit hours of core courses: C500, C501, C503 or C597 in addition to 18 credits of applied communication electives including six (6) interdisciplinary electives from outside of the Department of

Communication Studies; Written Examination.

Examinations

The candidate must pass written examinations as a requirement for completion of the degree. The examination procedures shall be administered by the student's primary committee.

Applied Learning Project or Thesis

The candidate must satisfactorily complete the Applied Learning Project (ALP) or thesis as a requirement for completion of the degree.

Courses

C500 Advanced Communication Theory Students explore how scholars from various traditions have described and explained the universal human experience of communication. Students develop an understanding of a variety of communication theories to more completely interpret events in more flexible, useful, and discriminating ways.

C501 Applied Communication Research The course is designed to offer students an opportunity to examine, assess, and utilize communication research methods as a means to test theory in applied settings and/or as a means to applied ends (i.e., problem-solving, policy, analysis).

C503 Applied Learning Project An applied learning project that provides students with a culminating educational experience. The project gives students the opportunity to apply their knowledge of communicative processes to real-life organizational problems, and provides the opportunity to produce a body of work reflecting their abilities.

C510 Health Provider-Consumer Communication Designed to teach communication skills and practices related to health care talk by examining transactional communication within health care

contexts. Topics covered in this course focus directly upon interpersonal dialogue between health care providers and patients.

C520 Advanced Public Communication Critical analysis and employment of rhetorical strategies in forms and types of professional discourses, incorporating current technologies.

C526 Effective Media Strategies Contemporary communicators in need of mediums of communication in addition to face-to-face interaction require an expanded knowledge of rhetorical strategies. This course will have a special focus on the effective use of media as a means of persuasion.

C528 Group Communication and Organizations (3 cr.) This seminar-format course examines the ways in which informal groups and communication networks facilitate a variety of organizational processes (i.e., socialization, diffusion of innovation). Emphasis is placed on developing theoretical understanding of informal groups in organizations as well as on methodological issues involved in studying communication networks in organizations.

C530 Communication Criticism (3 cr.) This course will introduce students to criticism as a method of studying persuasive message in speeches, fiction, mass media, musical lyrics, political campaign literature, art, and other modes of communication in contemporary culture.

C531 Media Theory and Criticism (3 cr.) A course organized primarily around theories and critical strategies commonly considered within the broad category of contemporary criticism-it utilizes primary theoretical texts to introduce students to a variety of methodologies employed in analyzing media messages, and emphasizes the application of theoretical frameworks on the analysis of specific media texts.

C544 Advanced Relational Communication (3 cr.)

Applications of communication theory/research in such areas as relational culture and relationship development. Includes a scholarly project on a real relationship, and applications of research to areas such as pedagogy and couple/family therapy.

C580 Advanced Organizational Communication (3 cr.) The course provides a solid foundation of concepts for understanding and discussing human organizations. Students will analyze, evaluate, and apply the theories and practices related to organizational issues. Through case studies, readings, and practical applications, this course combines a theory-based understanding of communication in organizations with real-world applications.

C582 Advanced Intercultural Communication (3 cr.) An in-depth analysis of how variables such as values, beliefs, traditions, language, background, and experiences are manifested in the verbal and nonverbal meaning of messages communicated by cultures and subcultures throughout our global society.

C591 Topics/Seminar in Applied Communication (3 cr.) Applied Communication is a revolving topics course. The changing nature of the topic allows graduate students to explore, synthesize, and integrate knowledge of the field of communication and the particular discipline of applied communication while focusing on a single topic not otherwise addressed in the course of study.

C592 Advanced Health Communication (3 cr.) A course designed to teach communication skills and practices related to health care, by examining health care communication theory. Topics covered range across communication levels (interpersonal, intrapersonal, group, organization, mass media, and mediated communication) within a variety of health care contexts.

C593 Advanced Family Communication (3 cr.)

Applications of theory and research on the role of communication in creating and maintaining marriages/committed couples and families. Includes a scholarly term paper on a real couple or family's communication.

C594 Communication and Conflict Management in Organizations (3 cr.) This seminar-format course examines the communication exchanges that facilitate conflict management within organizational contexts. Specific attention is focused on negotiation and mediation; however, the communication of alternative means of conflict and dispute resolution are also discussed. In addition, students will be introduced to methods for assessing conflict interaction in organizations.

C597 Thesis

C598 Internship (1-3 cr.) This course integrates applied communication theory and practice in a practice setting. Students will apply theoretical concepts and research tools, conduct projects, and interact with communication professionals in the designated setting. In concert with the student's chosen area of concentration, they will address issues of importance to that particular organization.

C599 Independent Study (3-6 cr.) This course provides students with the opportunity to synthesize and apply knowledge acquired through course work and professional experience into a completed research project in applied communication. Students will work independently on a topic/issue of choice under the guidance of graduate faculty.

C620 Computer-Mediated Communication (3 cr.) An overview of practical and scholarly approaches to computer mediated communication. The readings address mass communication, discourse, community, gender, intercultural understanding, ethics, interpersonal relationships, identity, organizational communication, and education.

Applied Statistics

**School of Science
Indianapolis**

Director
Associate Professor Krzysztof Podgorski

Graduate Faculty
(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors
Benzion Boukai, Robert M. Kleyle

Associate Professors
Krzysztof Podgorski, Jyotirmoy Sarkar

Assistant Professor
Michael D. Ernst

Academic Advisor
Associate Professor Krzysztof Podgorski, Department of Mathematical Sciences, LD 270, IUPUI, (317) 274-8070

Ph.D. Minor in Applied Statistics
The Department of Mathematical Sciences in the School of Science at IUPUI has developed a master's degree program in mathematical sciences with a specialization in applied statistics. Accordingly, some doctoral students in the Department of Basic Medical Science in the School of Medicine may find it useful to have a minor in applied statistics as an additional option in their program of study.

Course Requirements
Twelve (12) hours of credit in courses approved for the minor in applied statistics, including STAT 511, STAT 512, and 6 additional credit hours chosen in consultation with the minor representative. For students in Medical and Molecular Genetics, a common option would be to take two of the courses from 523, 524, and 533. Statistical Quality Control (513) might be a desirable elective for students in Pharmacology and Toxicology. Students who have successfully completed Q650 Biostatistics I and

Q651 Biostatistics II in the School of Medicine will be exempted from STAT 511.

Examinations
The determination of procedures for meeting the requirements for the minor and the examination procedure prior to admittance to candidacy will be at the discretion of the student's minor representative on his or her advisory committee from the Department of Mathematical Sciences.

Courses

CORE COURSES

STAT 511 Statistical Methods (3 cr.)

STAT 512 Applied Regression Analysis (3 cr.)

OTHER COURSES

STAT 513 Statistical Quality Control (3 cr.)

STAT 514 Design of Experiments (3 cr.)

STAT 515 Statistical Consulting Problems (3 cr.)

STAT 519 Introduction to Probability (3 cr.)

STAT 520 Time Series and Applications (3 cr.)

STAT 522 Sampling and Survey Techniques (3 cr.)

STAT 523 Categorical Data Analysis (3 cr.)

STAT 524 Applied Multivariate Analysis (3 cr.)

STAT 528 Mathematical Statistics I (3 cr.)

STAT 529 Bayesian Statistics and Applied Decision Theory (3 cr.)

STAT 530 Mathematical Statistics II (3 cr.)

STAT 532 Elements of Stochastic Processes (3 cr.)

STAT 533 Nonparametric Statistics (3 cr.)

Arts Administration Bloomington

Director
Charles F. Bonser

Departmental E-mail
aadm@indiana.edu

Departmental URL
www.indiana.edu/~artsadm

Degree Offered
Master of Arts

Designed to train men and women to manage and promote arts centers, arts commissions and councils, and performing and visual arts organizations of all kinds. They must function not only as leaders but also as managers, fundraisers, planners, educators, conciliators, facilitators, communicators.

Special Program Requirements

(See also general University Graduate School requirements.)

Master of Arts Degree

Admission Requirements

An undergraduate degree in fine arts, music, theatre and drama, business, or economics, with an outstanding academic record strongly recommended. Students who have not completed the prerequisite Foundations of Accounting (nonbusiness majors) can be admitted but must make up these deficiencies. Graduate Record Examination General Test (verbal and quantitative portions required.) Fall enrollment is recommended.

Course Requirements

The accounting prerequisite should be taken before entering the program. A minimum of 45 credit hours including Arts Administration Y511, Y525, Y530, Y535, Y540, Y550, Y625, Y650 and Y750; Business L575; and SPEA V525,

V526 and V558; plus 9 credit hours of electives to be selected in consultation with the program director (see listings below for acceptable courses; other courses may be approved by the program director).

Grades

A grade point average of 3.0 (B) or higher must be maintained.

Doctoral Minor in Arts Administration

Course Requirements

The doctoral minor in arts administration must include a minimum of 21 hours plus prerequisites.

Prerequisites

A200 Foundations of Accounting (non-business majors) and M300 Introduction to Marketing (or their equivalents).

General Management

(9 credit hours) HPER R515; Business M511 and one of the following: M512, M530, M540 or M544 or M550; M540 and M544 or M546; W505 and Z519 or SPEA V525.

Management

(3 credit hours) Theatre and Drama T585 or Music U511 or U412 or Arts Administration Y525.

A minimum grade of B is required in each course to be counted toward the arts administration minor

Arts Administration

(9 credit hours) Y550, Y650, Y651.

Courses

ARTS ADMINISTRATION

Y500 Topics in Arts

Administration American Studies (3-6 cr.) Selected research and discussion topics organized on a semester by semester basis.

Y511 Performing Arts Center

Management (3 cr.) Course focuses on the business and legal aspects of

managing to presenting live performances at a performing arts facility. The process of contracting and marketing a performance series; the marketing forces at work in the live performance industry; the legal and ethical issues involved in the industry.

Y525 Museum Management (3 cr.)

P: consent of instructor. Management of art and historical museums. The museum: its legal status, the building, management and staff, goals and objectives, fundraising and budgeting, collections and exhibitions, and education and community outreach.

Y530 Audience Development and Marketing the Arts (3 cr.)

Course covers Audience development and marketing strategies for music, dance, opera, theater and galleries. Topics are: How can performing arts agencies attract audiences? Satisfy target audience without compromising artistic integrity? Opportunities for collaboration within the arts business and community. Do business plans work for the arts?

Y535 Public Policy and the

Cultural Sector (3 cr.) Overview of the public policy issues involved in managing a nonprofit cultural organization in America and of the relationship of public and private funding of the arts.

Y540 Computer Applications for

the Arts (1.5 cr.) Informational technology for the professional administrator. Course looks at IP networks, data storage and retrieval with databases, financial and statistical computational skills, geographic and information systems and communications. Create and deliver presentations with technology. Ethical consideration of technology covered.

Y550 Practicum in Arts

Administration (3 cr.) Managerial and administrative experience in three of six arts groups: Musical Arts Center, Department of Theatre and Drama, IU Auditorium, IU Foundation, IU Art Museum, or Mathers Museum.

Y650 Seminar in Arts

Administration (3 cr.) P: 9 credit hours of courses in management or consent of instructor. Two-semester seminar involving the promotion of the arts: planning, management, labor relations, fundraising, funding sources, communications, and similar topics in relation to arts centers, museums, and performing organizations. Course includes guest speakers and semester-long consultancies with arts organizations.

Y690 Independent Study in Arts

Administration (cr. arr.) P: consent of instructor and department chairperson.

Y750 Internship in Arts

Administration (3 cr.) The internship is ordinarily not taken until the student's last semester of course work. A minimum of one semester or its equivalent of field work or internship in a managerial office of a museum, theatrical or musical organization, or community, state, regional, or national arts council.

ANTHROPOLOGY

A403 Introduction to Museum Studies (3 cr.)

A408 Museum Practicum (1-4 cr.)

BUSINESS

L575 Legal Aspects of the Arts (3 cr.)

M511 Marketing Performance and Product Analysis (1.5 cr.)

M512 Marketing Strategy (1.5 cr.)

M530 Business Marketing Strategy and Management (1.5 cr.)

M540 Services Marketing (1.5 cr.)

M544 Managing Advertising and Sales Promotion (1.5 cr.)

M550 Customer-Oriented Strategies (3 cr.)

W505 Power, Persuasion, Influence, and Negotiation (1.5 cr.)

ECONOMICS

E540 Labor Economics: Graduate Survey (3 cr.)

FINE ARTS

A442 Twentieth-Century Art, 1900-1924 (4 cr.)

A449 Twentieth-Century Art, 1925-1970 (4 cr.)

A474 Art Theory IV (4 cr.)

A590 Museum Studies (4 cr.)

HPER

R515 Fundraising in Public and Nonprofit Agencies (3 cr.)

JOURNALISM

J542 Arts, Media, and Society (3 cr.)

J552 Seminar: Reporting the Arts (3 cr.)

J560 Topics Colloquium (3 cr.)

MUSIC

M525 Survey of Operatic Literature (3 cr.)

M530 Contemporary Music (3 cr.)

M542 Music History Review for Graduate Students II (3 cr.)

M564 History and Literature of Opera IV (3 cr.)

M656 Twentieth-Century Music (3 cr.)

M688 Twentieth-Century Vocal Literature (3 cr.)

U412 Opera Management (3 cr.)

U511 Performing Arts Center Management (3 cr.)

RELIGIOUS STUDIES

R770 Social Ethics (3 cr.)

SPEA

V525 Management in the Nonprofit Sector (3 cr.)

THEATRE AND DRAMA

T573 Studies in Modern and Contemporary Theatre (3 cr.)

T585 Theatre Management (3 cr.)

Astronomy

**College of Arts and Sciences
Bloomington**

Chairperson

Richard H. Durisen

Departmental E-mail

astdept@indiana.edu

Departmental URL

www.astro.indiana.edu

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors

Haldan N. Cohn, Richard H. Durisen, Frank K. Edmondson (Emeritus), R. Kent Honeycutt, Hollis R. Johnson (Emeritus), Phyllis M. Lugger, Stuart L. Mufson, Catherine A. Pilachowski

Associate Professor

Martin S. Burkhead (Emeritus)

Assistant Professors

Constantine P. Deliyannis, Liese van Zee*

Senior Scientist

Charles Bower

Graduate Advisor

Professor Richard H. Durisen, Swain Hall West 319, (812) 855-6921

Degrees Offered

Master of Arts and Doctor of Philosophy. The department also participates in the Ph.D. program in astrophysics.

Research Facilities

Members of the astronomy department use the WIYN (Wisconsin-Indiana-Yale-National Optical Astronomy Observatories) 3.5m telescope at Kitt Peak National Observatory near Tucson, Arizona, to carry out research in optical astronomy. This advanced-technology telescope is optimized for multiobject spectroscopy, including a high-spectral-resolution mode, and high-spatial-resolution imaging. Indiana University holds a 17 percent share of the WIYN facility. Two fully robotic telescopes are located in the Morgan-Monroe State Forest 16 miles from campus. These are a 0.4m telescope that is used for automated CCD photometry and a new 1.25m telescope to be used for automated spectroscopy. A remote observing center in the department is equipped for communication with both the WIYN and local telescopes. The high-energy astrophysics group carries out research with underground and balloon-borne particle detectors that are developed within the department. Several instrument development labs and a machine shop support the optical and high-energy research programs.

Research in the astronomy department is supported by excellent computer facilities at Indiana University. These include powerful workstations and servers within the astronomy department, a SUN E1000 shared-memory parallel supercomputer, an IBM RS/6000 SP distributed-memory parallel supercomputer, a computer automated virtual environment (CAVE), and a high-performance mass storage facility.

Special Departmental Requirements

(See also general University Graduate School requirements.)

Admission Requirements

Good preparation for graduate work in astronomy or astrophysics requires the same training in physics and mathematics needed for a bachelor's degree in physics, plus a familiarity with the subject matter of introductory astronomy or

astrophysics courses, such as A201-A202 or A451. An undergraduate major in astronomy, astrophysics, physics, or mathematics that has provided such a background is usually required for admission. Any necessary undergraduate courses to strengthen students' backgrounds will not receive graduate credit.

All graduate applicants must submit Graduate Record Examination scores on both the General Test and the Subject Test in physics. Scores should be sent directly to the department, not to the University Graduate School.

Master of Arts Degree

Course Requirements

A minimum of 30 credit hours, including any three astronomy graduate core courses (see below).

Thesis

A thesis may be required at the discretion of the department. Students for whom the thesis requirement is waived must still complete a project that demonstrates research proficiency.

Final Examination

An oral examination must be passed covering general astronomy at the A451 level, the core courses applied toward the degree, and the thesis research.

Doctor of Philosophy Degree

Course Requirements

A total of 90 credit hours. Students are required to take six of the following core courses: A505, A520, A540, A550, A570, A575, and A580. Normally, these courses are offered at the rate of three courses per year, and they may be taken in any sequence. The remainder of the graduate program consists of elective courses, seminars on advanced topics, research, and dissertation.

Grades

Grades below B (3.0) in core courses may be counted toward degree requirements only at the discretion of the department.

Minor

Most doctoral candidates in astronomy minor in physics or scientific computing. Other minors may be permitted at the discretion of the department.

Qualifying Examination

In order to be advanced to candidacy, a student must pass a written examination covering the core course material plus general astronomy at the A451 level. The examination may be taken no more than twice. The examination is usually offered once a year during the fall semester. In its current form, it consists of one 4 hour exam and one 3.5 hour exam covering the material in the core courses and general astronomy knowledge at the undergraduate level.

Candidacy Seminar

The candidacy seminar is an oral presentation to the research committee, usually consisting of a thesis proposal and/or a summary of past research activity. It must be completed within a year of passing the written Qualifying Examination (typically by the start of the fourth year of residence).

Final Examination

Oral defense of the dissertation.

Courses

The 400-level courses listed here and described in the College of Arts and Sciences bulletin are open to graduate students at the discretion of the department.

A451-A452 Introductory Astrophysics I-II (3-3 cr.) P:

Calculus, Physics P301 or equivalent. Application of basic physical and chemical principles to investigation of sun, planetary system, stars, galaxies, and interstellar matter.

A505 Principles and Techniques of Observational Astronomy (4 cr.) P:

consent of instructor. Principles and techniques of astronomical data acquisition and reduction. Practical experience in photography, photoelectric photometry, spectroscopy, and astronomical applications of electronic detectors.

A520 The Interstellar Medium (3 cr.) P: consent of instructor. Structure and dynamics of the interstellar medium; review of observations and theory of interstellar gas, dust, and radiation.

A540 Stellar Atmospheres (3 cr.) P: consent of instructor. Structure of atmospheres and formation of spectra.

A550 Stellar Interiors (3 cr.) P: consent of instructor. Physical properties of stellar material; structure and evolution of stars.

A570 Galactic Dynamics (3 cr.) P: consent of instructor. Principles of stellar dynamics. Analytic and computer methods. Applications to the galaxy and its star clusters.

A575 Structure and Evolution of Galaxies (3 cr.) P: consent of instructor. Structure and evolution of galaxies, large-scale clustering of galaxies, active galactic nuclei, and quasars.

A580 Physical and Observational Cosmology (3 cr.) P: consent of instructor. Observational basis for current cosmological theory. Early universe evolution, cosmic microwave background radiation, formation of cosmic structure.

A590 Graduate Reading Course (cr. arr.) Independent reading in astronomy and astrophysics.

A770 Seminar in Astrophysics (1-4 cr.) Selected topics of current research interest in astrophysics; includes topics such as stellar astrophysics, interstellar matter, planetary physics, high-energy astrophysics, and extragalactic astrophysics.

A780 Seminar in Astronomy (cr. arr.) Selected topics of current research interest in astronomy, such as observational techniques, instrumentation, galactic and extragalactic astronomy, and cosmology. May be repeated. S/F grading.

A890 Introduction to Research (cr. arr.) Literature and methods of astronomical research.

A899 Research (cr. arr.) Observational and theoretical investigations of current problems.

ASTROPHYSICS

G630 Nuclear Astrophysics (3 cr.)

G650 High Energy Astrophysics (3 cr.)

G750 Topics in Astrophysical Sciences (1-3 cr.)

Astrophysics

College of Arts and Sciences
Bloomington

Departmental E-Mail
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Departmental URL
www.astro.indiana.edu

Interdepartmental Graduate Committee on Astrophysics
Professor Stuart L. Mufson (Astronomy), Chairperson;
Professors Andrew Bacher (Physics), Haldan Cohn (Astronomy), Richard H. Durisen (Astronomy), Richard Heinz (Physics), Alan Kostelecky (Physics); Senior Scientist Charles Bower (Physics)

Associate Professor Constantine Deliyannis (Astronomy)

Senior Scientist Charles Bower (Physics)

Academic Advisor
Professor Richard H. Durisen, Swain Hall West 319, (812) 855-6921

Degree Offered
Doctor of Philosophy.

The Astrophysics Program is administered jointly by the Department of Astronomy and the Department of Physics through the interdepartmental committee named above. Interested students must first gain admission to one of these departments and then petition the committee for entrance into the

program after establishing departmental residency. Students may qualify for a master's degree in astronomy or physics while in this program. The astrophysics committee plays an administrative role only. Doctoral dissertations in astrophysics may be directed by any qualified member of the Department of Astronomy or Physics graduate faculty.

Special Program Requirements

(See also general University Graduate School requirements.)

Admission Requirements

A student should have the combined admission requirements of doctoral students in astronomy and physics, i.e., a thorough undergraduate training in physics and mathematics, plus familiarity with general astronomy at the level of A221-A222 or, preferably, A451-A452. Deficiencies must be removed early, usually without graduate credit.

Course Requirements

A total of 90 credit hours, including the following courses or their equivalents: Physics P506, P511, P521, and P556; four courses from among Astronomy A505, A520, A540, A550, A570, A575, and A580; one course from among P507, P512, P637, G630, and G650 or a fifth astronomy core course; and dissertation.

Minor

By meeting the course requirements for this degree, a student from the Department of Astronomy will automatically fulfill the requirements for a minor in physics, and a student from the Department of Physics will automatically fulfill the requirements for a minor in astronomy.

Foreign Language/Research-Skill Requirement

A student in the Astrophysics Program must meet the foreign language/research-skill requirements (if any) of the department of residence.

Grades

Grades below B (3.0) in astronomy

and physics courses may be counted toward degree requirements only with the consent of the astrophysics committee.

Qualifying Examination

A student must pass specially designated parts of the qualifying examinations of both departments—specifically, half of the physics qualifying examination, which emphasizes classical mechanics, electromagnetism (through chapter 6 of Jackson, *Classical Electrodynamics*), and statistical physics—plus part of the astronomy qualifying examination. The examination requirements must be satisfied by the end of the student's sixth semester in residence. The department of residence may also specify its own deadline for passage of the examination it administers.

Final Examination

Oral defense of dissertation.

Courses

GRADUATE

G630 Nuclear Astrophysics (3 cr.)

P: A451, P453-P454, or consent of instructor. R: A550, P511. Applications of nuclear physics to astronomy. Fundamental properties of nuclei and nuclear reactions. Element synthesis and energy generation in the big bang, stellar interiors, and supernovae. Discussion of current topics: cosmological nucleosynthesis, solar neutrino flux, explosive nucleosynthesis, high-energy nuclear processes.

G650 High-Energy Astrophysics (3 cr.)

Covers cosmic rays from the perspective of astrophysics and high-energy particle physics. Examples of topics that may be included are the production, propagation, and interactions of cosmic rays as well as the experimental detection of cosmic rays. Subtopics include atmospheric and solar neutrinos, magnetic monopoles, point sources of cosmic rays, neutrino oscillations, air showers, and stellar collapse detection.

G750 Topics in Astrophysical Sciences (1-3 cr.)

A seminar in

astrophysics with special emphasis on subjects involving more than one department. Examples of such topics include planetology, nucleosynthesis, nuclear cosmochronology, isotopic anomalies in meteorites, particle physics of the early universe, and atomic processes in astrophysical systems.

Institute for Biblical and Literary Studies

**College of Arts and Sciences
Bloomington**

Director

Associate Professor Herbert Marks

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Distinguished Professors

Willis Barnstone (Emeritus, Comparative Literature, Spanish and Portuguese), Linda Dégh (Emerita, Folklore)

Chancellors' Professor

Stephen Stein (Religious Studies)

Professors

James Ackerman (Emeritus, Near Eastern Languages and Cultures, Religious Studies), Ernest Bernhardt-Kabisch (Emeritus, Comparative Literature, English), Lawrence Clopper Jr. (English), Henry R. Cooper Jr. (Slavic Languages and Literatures), Alfred David (Emeritus, English), Kenneth R. Gros Louis (Emeritus, Comparative Literature, English), James Halporn (Emeritus, Classical Studies), Kenneth Johnston (English), Peter Lindenbaum (English), Carroll Nelson (Emeritus, Classical Studies), Stephen Wailes (Germanic Studies)

Associate Professors

David Brakke (Religious Studies), Herbert Marks (Comparative Literature, English, Near Eastern Languages and Cultures), Michael Satlow (Religious Studies), Steven Weitzman* (Religious Studies), Nicholas Williams (English)

Academic Advisor

Associate Professor Herbert Marks, Ballantine Hall 914, (812) 855-7070

Program Information

The Institute for Biblical and Literary Studies is an interdisciplinary consortium that aims to bring together the critical study of the Bible, the history of biblical interpretation, and the theory and practice of literary criticism. Depending on background and interest, students may concentrate on biblical texts and languages, literary criticism, or the history and theory of interpretation. Study of ancient languages is strongly encouraged. Students with previous training in biblical studies will be advised to devote more time to courses in literary theory and Western literature; those with a stronger background in classical or modern literature will be advised to concentrate on the biblical text and its cultural setting. The institute offers a Ph.D. minor and a certificate that may be earned concurrently. Students participate in a regular seminar (I600), which, like most institute courses, combines close reading of specific texts with larger issues of methodology. Prospective students interested in pursuing the M.A. or Ph.D. degree are urged to apply first to one of the affiliated departments, such as comparative literature (for literary theory) or religious studies (for biblical studies).

Ph.D. Minor in Biblical Literature

The Ph.D. minor in biblical literature is available to all doctoral students not specializing in biblical studies; four courses in biblical literature and in the history of biblical interpretation are required. Courses should be selected in consultation with the director of the institute.

Grades

Courses in which a student receives less than a B (3.0) will not count toward the minor.

Certificate in Biblical and Literary Criticism

The certificate is available to doctoral students in all departments and to special students from outside Indiana University who wish to do advanced interdisciplinary work in biblical and literary studies.

Course Requirements

Eight courses in biblical literature, the history of biblical interpretation, and the theory and practice of literary criticism, including I600. The selection of courses should be made in consultation with the director of the institute. In certain cases, two of the eight courses may be in a biblical language. Courses that study biblical or exegetical sources in a national literature may also be counted.

Language Requirement

Proficiency in biblical Hebrew or Greek, to be certified by the completion of N472 or G308 or their equivalent, or by an examination administered by the relevant language department.

Grades

Courses in which a student receives less than a B (3.0) will not count toward the certificate.

Courses

I600 Colloquium in Biblical and Literary Studies (4 cr.)

Study of selected biblical texts and critical issues with attention to the interrelations between traditional modes of interpretation and current literary theory. May be repeated for credit when the topic differs.

ANTHROPOLOGY

E451 Myth and Legend (3 cr.)

E455 Anthropology of Religion (3 cr.)

Classical Studies

C405 Comparative Mythology (4 cr.)

G301-G302 Classical Greek: Accelerated Courses (3-3 cr.)

G308 Readings in Biblical Greek (3 cr.)

G611 Greek Papyrology (4 cr.)

L505 Medieval Latin (4 cr.)

COMPARATIVE LITERATURE

C501 Introduction to Contemporary Literary Studies (4 cr.)

C503 Topics in World Criticism and Theory I (4 cr.)

C504 Topics in World Criticism and Theory II (4 cr.)

C505 Western Literary and Intellectual Traditions to 1500 (4 cr.)

C506 Western Literary and Intellectual Traditions after 1500 (4 cr.)

C545 The Bible and Western Tradition (4 cr.)

C580 History and Theory of Translation (4 cr.)

C601 Studies in the History of Theory and Criticism (4 cr.)

C602 Contemporary Theoretical Issues and Approaches (4 cr.)

C641 Literature in its Intellectual and Cultural Contexts (4 cr.)

C643 Literary Studies and the Social Sciences (4 cr.)

C644 Literary Studies and Psychoanalysis (4 cr.)

C645 Literary Studies and Religion (4 cr.)

C801 Directed Research in Comparative Literature (cr. arr.)

ENGLISH

G660 Stylistics (4 cr.)

L605 Critical and Interpretive Theory (4 cr.)

L608 History of Literary Criticism (4 cr.)

L705 Problems in Language, Literature, and Literacy (4 cr.)

L707 Studies in Literary Theory and Criticism (4 cr.)

FOLKLORE

F527 Folk Poetry and Folksong (3 cr.)

F545 Folk Narrative (3 cr.)

F734 Folklore and Literature (3 cr.)

FRENCH AND ITALIAN

F564 Approaches to Literary Criticism (3 cr.)

F584 Stylistics and Semantics (3 cr.)

NEAR EASTERN LANGUAGES AND CULTURES

N416 Comparative Talmudic Literature (3 cr.)

N471-N472 Biblical Hebrew I-II (3-3 cr.)

N586 Medieval Hebrew Literature (3 cr.)

RELIGIOUS STUDIES

R511 Religion of Ancient Israel (3 cr.)

R521 Studies in the New Testament (3 cr.)

R531 Studies in Christian History (3 cr.)

R532 Studies of Religion in American Culture (3 cr.)

R541 Studies in the Jewish Tradition (3 cr.)

R610 Studies in Biblical Literature (4 cr.)

R590 Directed Readings in Religious Studies (cr. arr.)

R663 History of Biblical Interpretation (3 cr.)

SEMIOTIC STUDIES

S601 Introduction to Semiotic Studies (3 cr.)

Biochemistry, Interdisciplinary

**Bloomington Program
Biology, Chemistry, Medical
Sciences, Optometry, Psychology**

**College of Arts and Sciences
Bloomington**

Director
Professor Carl Bauer

Departmental E-mail
bchem@indiana.edu

Departmental URL
www.indiana.edu/~bchem

Graduate Faculty
(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Carlos Miller Chair
Mark Estelle (Biology)

**Clyde Culbertson Professor of
Biology**
Carl Bauer (Biology)

Lilly Chemistry Alumni Chair
Milos Novotny (Chemistry)

**Linda and Jack Gill Chairs of
Biomolecular Sciences**
Richard DiMarchi (Chemistry),
J. Michael Walker (Psychology)

Robert and Marjorie Mann Chair
David Clemmer (Chemistry)

Distinguished Professors
Milos Novotny (Chemistry), Peter
Ortoleva (Chemistry)

Professors
Joseph Bonanno (Optometry), Jose
Bonner (Biology), Yves Brun
(Biology), Peter Cherbas (Biology),
David Clemmer (Chemistry),
Richard DiMarchi (Chemistry),

Thomas Donahue (Biology), Mark
Estelle (Biology), Patricia Foster
(Biology), Elizabeth Raff (Biology),
James Reilly (Chemistry), John P.
Richardson (Emeritus, Chemistry),
Milton Taylor (Biology), J. Michael
Walker (Psychology), Theodore
Widlanski (Chemistry), Malcolm
Winkler (Biology), Jeffrey Zaleski
(Chemistry)

Associate Professors
David Daleke (Biochemistry,
Molecular Science, Medical
Sciences), Jim Drummond
(Biology), John Foley* (Anatomy
and Cell Biology, Medical Sciences),
Joseph Near (Pharmacology and
Toxicology, Medical Sciences),
Kenneth Nephew (Cellular and
Integrative Physiology, Medical
Sciences), Martha Oakley
(Chemistry), Martin Stone
(Chemistry), Claire Walczak*
(Molecular Biology, Medical
Sciences)

Assistant Professors
Lingling Chen* (Biology), Bogdan
Dragnea* (Chemistry), Joseph
Duffy* (Biology), Viola Ellison*
(Biology), Andrew Feig*
(Chemistry), Clay Fuqua* (Biology),
Richard Hardy* (Biology), David
Kehoe (Biology), Scott Michaels
(Biology), Christine Quirk
(Pharmacology and Toxicology,
Medical Sciences), Anne Prieto*
(Psychology), Thomas J. Tolbert*
(Chemistry), Kelly Williams
(Biology), Joel Ybe* (Biology)

Graduate Advisor
Professor Carl Bauer, Myers Hall
150C, (812) 856-0192

Degrees Offered
Master of Science and Doctor of
Philosophy

**Special Program
Requirements**
(See also general University
Graduate School requirements.)

Admission Requirements
Undergraduate course work must
include two semesters of organic
chemistry and one semester of
biochemistry. Though not required,
one semester of molecular biology
and two semesters of biology are

recommended. One semester of
(bio)physical chemistry is strongly
recommended. Deficiencies in
required courses must be removed
during the first year of graduate
study.

Master of Science Degree

Course Requirements
A minimum of 30 credit hours, of
which 18 credit hours must be in
course work other than research,
including 12 credit hours in
biochemistry and 6 credit hours in
graduate-level courses.

Thesis
Required.

Final Examination
Oral, covering thesis and major.

Doctor of Philosophy Degree

Course Requirements
A total of 90 credit hours, of which
18 credit hours, satisfied by the core
courses (B501, B502, B503 and
B504, B580), and three semesters of
B600. The sequence of courses
comprising the major must be
approved by the student's advisory
committee.

Minor
A doctoral student in biochemistry
may minor in any appropriate
discipline, following the
requirements specified by the minor
department. The sequence of courses
comprising the minor must be
approved by the student's advisory
committee. The core Biochemistry
courses (B501, B502, B503, B504)
may be used to fulfill the minor
requirement, but a single course may
not be credited to both the major and
minor requirement.

Qualifying Examinations
In the fifth semester, students meet
with their examination committee to
review past performance and to
evaluate plans for completing the
Ph.D. oral and written presentations
of research progress are required.

Final Examination
Oral, covering dissertation, major,
and minor.

Ph.D. Minor in Biochemistry

Students from other programs who wish to minor in biochemistry must complete at least 6 credit hours of graduate course work in biochemistry, excluding B502, B580, and B600, with an average of B (3.0) or above. At least one of the courses must be B501, B503, or B504.

Courses

BIOCHEMISTRY

B501 Integrated Biochemistry (4.5 cr.)

P: Undergraduate biochemistry (equivalent to C483 or C484) or consent of instructor. Basic principals and methodologies of biochemistry; essentials of macromolecular biosynthesis; mechanism-based examination of biochemical aspects of cell biology; material is presented with an integrative approach designed to illustrate the inter-relationship of biochemical processes.

B502 Analysis of Biochemical Literature (1.5 cr.)

P: Concurrent enrollment in B501 or consent of instructor. Critical evaluation of the biochemical literature, using selected papers as examples; development of written and oral communication skills in the context of literature analysis.

B503 Macromolecular Structure and Interaction (3 cr.)

P: B501 or undergraduate biochemistry (equivalent to C483 or C484), one semester of undergraduate organic chemistry (equivalent to C341) or consent of instructor. Undergraduate (bio)physical chemistry (equivalent to C481 or C361) is strongly recommended. Principals of inter- and intra-molecular interactions; structural stability of proteins and nucleic acids; thermodynamic and kinetic analysis of complex binding; experimental methods for analysis of macromolecular structure and binding.

**This course is eligible for a deferred grade.

B504 Biomolecular Catalysis (3 cr.)

P: Undergraduate organic chemistry (equivalent to C342), undergraduate biochemistry (equivalent to C483 or C484) or consent of instructor. Theory and analysis of biochemical catalysis; enzyme kinetics; cofactors; regulation of enzymatic reactions.

B580 Introduction to Biochemical Research (3 cr.)

P: graduate standing. Objectives and techniques of biochemical research.

B600 Seminar in Biochemistry (1 cr.)

P: B502 or consent of instructor. Advanced critical analysis of the current scientific literature and scientific presentations. Attendance and participation in the weekly Biochemistry Program seminar series is required.

B601 Advanced Nucleic Acid Biochemistry (1.5 cr.)

P: B501 or consent of instructor. Mechanistic analysis of nucleic acid metabolism; specificity and role of DNA polymerases and repair pathways; DNA replication and recombination mechanisms; RNA structural motifs and physical properties; RNA synthesis and processing in gene expression; catalytic RNA molecules; applications of RNA molecules.

B602 Advanced Protein Biosynthesis and Processing (1.5 cr.)

P: B501 or consent of instructor. Detailed analysis of protein synthesis, post-translational modification, and macromolecular assembly, including the role these modifications play in mature protein function; biosynthesis, structure, function, and analysis of complex oligosaccharides.

B603 Advanced Macromolecular Structure and Interactions (1.5 cr.)

P: B503 or consent of instructor. Supplements and extends B503: emphasis on stability and folding mechanisms of proteins and nucleic acids and detailed thermodynamic analysis of binding interactions.

B604 Structural Methods (1.5 cr.)

P: B503 or consent of instructor. Fundamental principles of circular

dichroism, nuclear magnetic resonance and X-ray crystallography in the study of protein and nucleic acid structures. Theoretical and practical aspects will be presented, with particular emphasis on application strategies.

B605 Structure and Function of Biological Membranes (1.5 cr.)

P: B501, B503 or consent of instructor. Biochemistry and biophysics of lipids, membranes and membrane proteins; fundamentals of membrane transport; interfacial catalysis; transmembrane signal transduction.

B680 Special Topics in Biochemistry (1.5-3 cr.)

P: Consent of instructor. Topics vary yearly and include the following: Physico-chemical techniques in the study of macromolecules; experimental methods in enzymology; organic chemistry of enzymatic reactions and enzyme models; conformational properties and macromolecules. Can be retaken for credit.

B880 Research: Biochemistry (cr. arr.)**

Cross-Listed Courses

BIOLOGY

L529 Bioinformatics in Molecular Biology and Genetics: Practical Applications (4 cr.)

P: I501, I502, L519 or consent of instructor. Practical experience in a range of data analysis and software engineering methods applied to molecular biology data.

L585 Molecular Genetics (3 cr.)

P: L364 and C483 or equivalent. The molecular basis of genetic interactions, with emphasis on microbial systems. The course covers the molecular mechanisms of mutation, suppression, recombination, complementation, etc., as well as mechanisms for gene transfer in bacteria and bacteriophage. The application of genetic analysis to a variety of molecular biological topics is emphasized.

L586 Molecular Analysis of Cell Biology (3 cr.)

Critical analysis of

recent advances in our understanding of molecular organization of cellular structures and of their mode of function. The primary interest of this course concerns the eukaryotic cell.

M525 Topics in Microbial Biochemistry and Physiology (3 cr.) P: graduate standing and C483 or M350 or equivalent. The course will consider topics in physiology and biochemistry of eukaryotic and prokaryotic microorganisms. Subjects include membrane physiology and regulatory networks in metabolism and gene expression.

CHEMISTRY

C615 Bioanalytical Chemistry (1.5-3 cr.) P: C511, C512. Survey of modern analytical techniques, including spectrochemical, electrochemical, and separation methods used in biochemical analysis and their applications. (May be given in alternate years).

C632 Structure, Function, and Spectroscopy of Metal Ions in Biological Systems (3 cr.) Introduction to the field of bioinorganic chemistry and spectroscopic methods for determining structure/function relationship of metal ions in biology. Emphasis on oxygen carriers, metal ion transport and storage, as well as oxidoreductases involved in oxygen, hydrogen and nitrogen metabolism. A discussion of electron transfer proteins, photosystems, and the role of metals in medicine will also be included.

MEDICAL SCIENCES

B801 Molecular and Cellular Biochemistry (3 cr.) P: Graduate standing and consent of instructor. Biochemistry for medical students, emphasizing structure-function relationships of cellular components, biosynthesis of nucleic acids and proteins, degradation of simple and complex cell constituents, and regulation of cell growth.

B802 Metabolism and Signal Transduction (3 cr.) P: Graduate standing and consent of instructor. Biochemistry for medical students,

including signaling pathways, membrane biochemistry, and the metabolism of macromolecules in health and disease with emphasis on clinical applications.

PHYSICS

P575 Introductory Biophysics (3 cr.) P: Two out of three from the following: (1) P221/P222 and P301 or equivalent, (2) C105/C106 or equivalent, and (3) L221 and L312 or equivalent; or consent of instructor. Overview of cellular components; basic structures of proteins, nucleotides, and biological membranes; solution physics of biological molecules, mechanics and motions of biopolymers; physical chemistry of binding affinity and kinetics; physics of transport and signal transduction; biophysical techniques such as microscopy and spectroscopy; mathematical modeling of biological systems.

NEURAL SCIENCES

N612 Ion Channels and Receptors (3 cr.) P: Graduate status and consent of instructor. Molecular, biophysical, and biochemical analysis of the major molecules responsible for neural excitability and synaptic transmission: receptor-coupled ion channels, voltage-dependent ion channels, G-protein coupled receptors, transporters, signal transduction pathways, synaptic vesicle-associated proteins, cytoskeletal proteins, classical and novel neurotransmitters and modulators.

Biochemistry

Indianapolis

Interim Chairperson
Professor Thomas D. Hurley

Graduate Advisor
Professor Mark Goebel

Director of Biotechnology Certificate Program
Professor William Bosron

Departmental E-mail
biochem@iupui.edu

Departmental URL
www.biochemistry.iu.edu

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Showalter Professor
Robert A. Harris

Distinguished Professor
Robert A. Harris

Professors
David Allmann, William Bosron, Anna DePaoli-Roach, Keith Dunker, Mark Goebel, Jean Hamilton-Steinrauf (Emeritus), Edwin Harper (Emeritus), Maureen Harrington, Thomas D. Hurley, Hiremagalur N. Jayaram, Roger Roeske, Arthur Schulz (Emeritus), Ronald Wek

Associate Professors
Millie Georgiadis, Suk-Hee Lee, Lawrence Quilliam, Alexander Skurat*

Assistant Professors
Matthew S. Grow*, David Ingram*, Reuben Kapur*, Debbie C. Thurmond*

Assistant Scientist
Paresh Sanghani*

Associate Biochemistry Faculty

Distinguished Professor
Ting Kai Li (Emeritus, Medicine)

Professors
W. Marshall Anderson (Northwest Center for Medical Education), Martin Bard (Biology), David Crabb (Medicine), Timothy DeGrado (Radiology), Rose Fife (Medicine), Larry Jones (Medicine), Mark Kelley (Pediatrics), Lawrence Lumeng (Medicine), William McBride Jr. (Neurobiology), Byron Olson (Dentistry), Barth Ragatz (Fort Wayne Center for Medical Education), John Richardson (Emeritus, Chemistry, Bloomington), Christian Maxmillian Schmidt* (Surgery), Jay Simon (Neurobiology), David Skalnik (Pediatrics), Godfrey Tunnicliff (Evansville Center for Medical Education), Frank Witzmann (Physiology), Mervin Yoder Jr. (Pediatrics)

Associate Professors

Simon Atkinson (Medicine), Dring Crowell (Biology), David Daleke (Bloomington), Mark Deeg (Medicine), Kenneth W. Dunn* (Physiology), Shao-Ling Fong (Ophthalmology), Michael W. King (Terre Haute Center for Medical Education), Edward McKee (South Bend Center for Medical Education), Harikrishna Nakshatri* (Surgery), David Potter* (Medicine), Stephen Randall (Biology), Kent Redman* (Fort Wayne Center for Medical Education), Simon Rhodes* (Biology), James P. Walsh* (Medicine), Theodore Widlanski (Chemistry, Bloomington)

Adjunct Associate Professors

Robert A. Dean* (Pathology), Thomas Stephens (Affiliate Graduate Faculty Status), Terry Vik* (Pediatrics)

Assistant Professors

Kristin Chun* (Pediatrics), Joseph Dynlacht* (Radiation Oncology), Jeffrey S. Elmendorf* (Physiology), Weinian Shou* (Pediatrics), Mark Wagner*, Claire E. Walczak* (Bloomington)

Assistant Scientist

Dan Spandau* (Medicine), Richard Thielen* (Psychiatry)

Adjunct Assistant Professors

Ronald R. Bowsher (Affiliate Graduate Faculty Status), John W. Hawes*, David Timm*

Graduate Advisor

Professor Mark Goebel

Director of Biotechnology

Certificate Program

William Bosron

Degrees Offered

Master of Science and Doctor of Philosophy

Special Departmental Requirements

(See also general University Graduate School requirements and departmental brochure.)

Admission Requirements

Typically, a baccalaureate degree in

biology, chemistry, or physics that includes calculus and organic chemistry is required for admission. The General Test of the Graduate Record Examination is required.

Master of Science Degree

Course Requirements

A minimum of 30 credit hours, including the core curriculum courses B807, B810, G817, and G865 or any three core courses plus G841, G890 or G910; and at least 6 credit hours, but not more than 9 credit hours, in research. Participation in student seminar B890 is required. G505 Responsible Conduct in Research is also required.

Final Examination

Oral, covering thesis and course work.

Doctor of Philosophy Degree

Course Requirements

A total of 90 credit hours, of which a minimum of 32 credit hours must be in courses other than research, including the core curriculum courses B807, B810, G817, and G865. Participation in student seminar B890 is required every semester of residence. G504 Introduction to Research Ethics is also required.

Grades

A minimum grade point average of 3.0 (B) must be maintained in all nonresearch course work.

Minor

A minimum of 12 credit hours in one of the following programs: life science, physical science, anatomy, biophysics, cancer biology, chemistry, diabetes, medical genetics, microbiology, neurobiology, pathology, pharmacology, physics, physiology, or toxicology.

Qualifying Examinations

Students meet once every six months with an advisory committee to review progress in course work and the dissertation research proposal. Usually, at the completion of the second semester of study, students sit

for a written qualifying examination. The final examination in the series is an oral defense of a written research proposal. The nature of the examination over the minor is determined by the member of the advisory committee representing that area. It may consist of a separate examination but is usually part of the written and oral examinations. Continuation of a student in the program depends upon satisfactory performance and progress in each phase of the program.

Dissertation

A minimum of 45 credit hours in research, completed with a grade point average of 3.0 (B) or above. It is expected that the dissertation will qualify for publication in a recognized journal.

Final Examination

Oral, covering dissertation, major, and minor.

Minor in Molecular Biology

See entry under "Microbiology and Immunology."

Minor in Life Science

A minimum of 12 credit hours outside the student's major department, chosen from the biological sciences or from the following departments: anatomy, biochemistry, biophysics, dental sciences, medical genetics, microbiology, pathology, pharmacology, physiology, toxicology. At least 6 credit hours must be taken in one of the listed departments or in the biological sciences. The minor program must be approved by the student's advisory committee, the minor representative on which must be selected from one of the departments in which courses for the minor are taken.

Minor in Cancer Biology

Cancer Biology Training Program (CBTP) faculty are members of the Indiana University Cancer Center, the matrix organization for an extensive range of cancer efforts and activities. Ongoing NIH- and ACS-funded research programs focus on Regulation of Cell Growth,

Hematopoiesis, Experimental Therapeutics, Adult Oncology, and Pediatric Oncology. CBTP students will fulfill the requirements of their individual basic science departments and complete the cancer biology minor.

Minor in Diabetes and Obesity

Preceptors with diabetes-related projects are selected from the basic science department graduate programs or interdisciplinary programs. A minimum of 12 credit hours outside of the student's major department including G805 Diabetes and Obesity. At least one credit of G504 Introduction to Research Ethics must also be taken. Other courses are selected from the following list:

B800 Medical Biochemistry (3 cr.)

B807 Protein Structure and Function (3 cr.)

B810 Cellular Biochemistry and Regulation (3 cr.)

C603 General Pathology (6 cr.)

G817 Cell Biology (2 cr.)

G818 Cellular and Integrative Physiology (3 cr.)

G706 Cell-Cell Communication (3 cr.)

G865 Fundamental Molecular Biology (3 cr.)

G910 Advanced Molecular Biology Methods (3 cr.)

G804 Cellular and Molecular Biology (3 cr.)

J840 Mechanisms of Immune Regulation (3 cr.)

J805 Molecular Immunology (3 cr.)

J807 Seminar in Immunology (2 cr.)

F598 Drugs, Diseases and Poisons (3 cr.)

F804 Introduction to Pharmacology and Toxicology I (3 cr.)

F814 Introduction to Pharmacology and Toxicology II (3 cr.)

F809 Neuropharmacology (3 cr.)

F810 Pharmacology of Autonomic Cardiovascular Control (3 cr.)

Q580 Basic Human Genetics (3 cr.)

BIOL 564 Molecular Genetics of Development (3 cr.)

The minor program must be approved by the student's Advisory Committee, which will take into consideration the student's total didactic experience. In the case of combined M.D./Ph.D. students, the committee may approve substitution of appropriate medical school courses for the electives. The minor representative will be selected from outside the student's major department and must be approved by the Diabetes and Obesity Training Program.

Certificate in Biotechnology

Admission Requirements

A baccalaureate degree in a scientific field with a minimum science GPA of 3.0/4.0. Proficiency in English by obtaining a degree from a certified American University or a minimum score of 550 on the TOEFL.

Specific Requirements

A fixed curriculum of 17 credits. This will include one introductory course in biochemistry, such as B500 Introductory Biochemistry. This course should be completed before enrolling in the laboratory courses. If a student has taken a recent biochemistry survey course, the student must substitute an advanced graduate lecture course that is relevant to biotechnology. Such courses may include G865 Fundamental Molecular Biology, B807 Protein Structure and Function, G817 Eukaryotic Cell Biology, K540 Topics in Biotechnology, or C636 Biochemistry Structural Aspects. Students may take the remaining

courses in any order. Three laboratory courses in biotechnology: G841 Methods in Proteomics (2 credits), G890 Methods in Molecular Biology and Pathology (3 credits), G823 Methods Cell Biology (3 credits). An ethics course, G505 Responsible Conduct in Research (1 credit), is required, as well as two semesters of a problem-based learning course in biotechnology G828 Concepts in Biotechnology (2 credits). Students will be required to maintain a B average and have no less than a grade of B- in each of the required courses for the 17 credit certificate. The maximum time allowed for completion of the program will be three years because of the rapid changes characteristic of the field.

Advisory Committee

The program and student advisory committee will include the program director, directors of the core courses, laboratory director for the program, and one or more representatives from a biotechnology-related company.

Competency Requirements

In the laboratory and problem-based learning courses, students will be required to demonstrate basic competencies necessary for success as a researcher in industry or academia. These competencies include general skills in communication, problem-solving, and lifelong learning, as well as specific biotechnology skills in good laboratory conduct, laboratory units of measure, computational and statistical analysis, and biotechnology instrumentation.

Courses

B500 Introductory Biochemistry (3 cr.) P: C341 or equivalent. Structures of carbohydrates, proteins, lipids, and nucleic acids. Basic principles of enzyme catalysis, protein synthesis, intermediary metabolism, and nutrition.

B800 Medical Biochemistry (3 cr.) P: one semester of organic chemistry. Structure and function of biological molecules, regulation of cellular processes by nutrients and

hormones, biochemical and molecular basis of disease.

B803 Advanced Biochemistry (cr. arr., max. of 3 cr.) Tutorial instruction in biochemistry.

B805 Diabetes and Obesity (3 cr.)

P: one semester of biochemistry. Biochemistry, cell biology, molecular biology, genetics, immunology, and pathophysiology of diabetes and obesity. Topics include metabolic regulation, signal transduction, insulin resistance, insulin production, beta-cell function, animal models, complications, nutrition, prevention, and therapy.

B807 Protein Structure and Function (3 cr.)

P: two semesters of organic chemistry; one semester of biochemistry. Physical forces stabilizing protein structure; protein folding. Essential features of macromolecular interactions. Introduction to enzyme kinetics and chemical mechanism in enzyme reactions.

B808 Physical Biochemistry (3 cr.)

P: two semesters of physical chemistry; two semesters of calculus; one semester of biochemistry. Thermodynamics and biophysical chemistry of protein, enzymes, nucleic acids, and membranes.

B809 Advanced Organic

Chemistry (1-3 cr.) P: two semesters of organic chemistry; two semesters of physical chemistry; B807 or consent of instructor. Tutorial instruction in organic chemistry, as applied to biochemistry.

B810 Cellular Biochemistry and Regulation (3 cr.)

P: two semesters of organic chemistry; one semester of biochemistry. Fundamental pathways of metabolism, with emphasis on the mechanisms of metabolic regulation. Mechanisms of signal transduction and the control of cellular function by hormones, growth factors, and other extracellular regulators.

B811 Advanced Intermediary Metabolism (1-3 cr.)

P: B810.

Tutorial instruction in specialized areas of metabolism.

B814 Advanced Enzymology (1-3

cr.) P: B807 or B810. Tutorial instruction in enzyme isolation and kinetics.

B835 Neurochemistry (3 cr.) P: two semesters of organic chemistry; one semester of biochemistry, or consent of instructor. Metabolism of nervous system tissue. Neurochemical techniques.

B836 Advanced Topics in

Neurochemistry (2 cr.) P: B835 or equivalent. Selected topics in neurochemistry dealing with specialized functions of the nervous system.

B842 Instrumentation and Methods of Analysis II (3 cr.)

P: two semesters of organic chemistry; one semester of biochemistry.

B854 Introduction to Research (1

cr.) P: two semesters of organic chemistry; two semesters of physical chemistry, one semester of biochemistry, or consent of instructors. Tutorial and laboratory instruction in biochemistry. Purpose is to introduce students in biochemistry to three different research programs.

B855 Research (cr. arr.)

B868 Advanced Molecular Biology

(1-3 cr.) P: G865 or equivalent. Tutorial instruction in specialized area of molecular biology.

B890 Seminar (1 cr.)

G804 Cellular and Molecular

Biology (3 cr.) P: one semester of organic chemistry. Cellular and molecular biology that emphasizes the structural organization, biochemistry and molecular biology of cells. Includes cellular processes, development, and differentiation and their relationship to medicine.

G805 Diabetes and Obesity (3 cr.)

P: one semester of biochemistry. Biochemistry, cell biology, molecular biology, genetics, immunology and pathophysiology of

diabetes and obesity. Topics include metabolic regulation, signal transduction, insulin resistance, insulin production, beta-cell function, animal models, complications, nutrition, prevention and therapy.

G817 Eukaryotic Cell Biology (2

cr.) P: one semester of biochemistry. Organization and function of subcellular structures. Intracellular coordination of cell activity: protein and RNA trafficking, chromatin dynamics, and intracellular processing of receptor mediated signals.

G823 Concepts in Biotechnology (1

cr.) P: B500 or equivalent. Discussion and laboratory instruction in modern methods for cell culture, microscopy, flow cytometry and the use of cell culture to study cellular metabolism.

G828 Concepts in Biotechnology (1

cr.) P: B500 or equivalent. Case studies exploring topics on the cutting edge of biotechnology and tutorials in biotechnology calculations.

G841 Methods of Proteomics (2

cr.) P: B500 or equivalent. Discussion and laboratory instruction in modern methods for protein purification, analysis of purity, peptide mapping, and amino acid sequencing.

G865 Fundamental Molecular

Biology (3 cr.) P: B800 or equivalent. Principles of molecular structure, function, and biosynthesis; core information regarding prokaryotic and eukaryotic gene continuity and metabolic coordination; introduction to multicellular systems and problems. (Joint program: biochemistry, medical genetics, microbiology.)

G890 Methods in Molecular

Biology and Pathology (3 cr.) P: G865 and/or J838, and consent of instructor. Basic principles and techniques in molecular biology and pathology. Particular emphasis will be on molecular techniques that can be used to study problems related to biochemistry and pathology.

G910 Advanced Molecular Biology Methods (3 cr.) P: G865 and/or G890 and consent of instructor. Advanced theory and techniques in molecular biology. The focus of the course will be on techniques related to manipulation of cloned DNA to study their expression, structure and function.

Biology

College of Arts and Sciences
Bloomington

Chairperson

Professor Elizabeth Raff

Departmental E-mail

gclearwa@bio.indiana.edu

Departmental URL

www.bio.indiana.edu

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Clyde Culbertson Professor

Carl Bauer

Distinguished Professors

Howard Gest (Emeritus), Charles Heiser (Emeritus), Thomas Kaufman, Jeffrey Palmer, John Preer (Emeritus), Frank Putnam (Emeritus, Biochemistry), Anthony San Pietro (Emeritus), Rudolf Raff

Professors

José Bonner, Edmund Brodie III, Yves Brun, Peter Cherbas, Keith Clay, Sears Crowell (Emeritus), Lynda Delph, Thomas F. Donahue, Mark Estelle, Patricia Foster, Gerald Gastony, George Hegeman (Emeritus), Roger Innes, Ellen Ketterson, Arthur Koch (Emeritus), Curtis Lively, Mike Lynch, Paul Mahlberg (Emeritus), George Malacinski, Carlos Miller (Emeritus), Craig Nelson, Val Nolan (Emeritus, Law), David Parkhurst (Public and Environmental Affairs), Elizabeth Raff, J. C. Randolph (Public and Environmental Affairs), Loren Rieseberg, William Rowland, Albert Ruesink, William Saxton, Drew Schwartz (Emeritus), Susan Strome, Milton Taylor, Robert Togasaki (Emeritus), Michael Wade,

Maxine Watson, Eugene Weinberg (Emeritus), Meredith West (Psychology), David White (Emeritus), Donald Whitehead (Emeritus), Malcolm Winkler, Frank Zeller (Emeritus), Miriam Zolan

Associate Professors

Alan D. Bender, Yean Chooi-Odle, James Drummond, Roger Hangarter, George Hudock (Emeritus), Emilia Martins, Stefan Surzycki, Michael Tansey

Assistant Professors

James Bever, Lingling Chen*, Greg Demas, Joseph Duffy, Viola Ellison*, Wayne Forrester, Clay Fuqua, Richard Hardy*, David Kehoe, Justin Kumar*, Scott Michaels*, Anne Prieto*, Heather Reynolds*, Troy Smith*, Kelly Williams, Joel Alcasid Ybe*

Senior Scientists

Lucy Cherbas*, Kathy Matthews*

Assistant Scientist

Kevin R. Cook*

Adjunct Professors

David Dilcher (Geological Sciences), James Glazier (Physics), Elisabeth Lloyd (History and Philosophy of Science), John Richardson (Chemistry), Roderick Suthers (Medical Sciences), Nicholas Toth (Anthropology), Daniel Willard (Emeritus, Public and Environmental Affairs), William Timberlake (Psychology)

Adjunct Associate Professors

David Daleke (Medical Sciences), Richard DiMarchi (Chemistry), Vicki Meretsky*, Anton Neff (Medical Sciences), Martha Oakley, Flynn Picardal (Public and Environmental Affairs), Henry Prange (Medical Sciences), Ted Widlanski (Chemistry)

Adjunct Assistant Professors

Donald Burke* (Chemistry), Andrew Feig* (Chemistry), Martin Stone* (Chemistry), Thomas Tolbert (Chemistry)

Director of Graduate Studies

Professor Elizabeth Raff, Myers Hall 100A, (812) 855-1861

Degrees Offered

Master of Arts and Doctor of Philosophy in ecology and evolutionary biology; Doctor of Philosophy in genetics; Master of Arts and Doctor of Philosophy in microbiology; Doctor of Philosophy in molecular, cellular, and developmental biology; Master of Arts and Doctor of Philosophy in plant sciences; Master of Arts and Doctor of Philosophy in zoology; and Master of Arts for Teachers.

Special Departmental Requirements

(See also general University Graduate School requirements.)

Admission Requirements

Undergraduate major in one of the biological sciences and course work in the program in which a degree is sought. A degree in a related field (e.g., chemistry, physics, or mathematics) may suffice if appropriate biology courses were included in the student's degree program. Students seeking admission to biology degree programs should apply directly to the Department of Biology. Applications must include a complete entrance form, letters of recommendation, undergraduate transcripts, and scores on the Graduate Record Examination General Test. (While it is not required that applicants also submit scores on the Subject Test in biology, it is recommended that they do so.)

Special Requirement for the M.A. Degree

It is a requirement of the Department of Biology that the M.A. degree be completed within five semesters, although some programs such as the M.A.T. and joint SPEA/Biology programs allow additional time.

Ph.D. Qualifying Examination

Includes written, oral, and research components. All full-time Ph.D. students must take the qualifying examination by the end of the fourth week of their fifth semester. In the event of failure or postponement, students may retake the examination once, but no later than the end of the twelfth week of their fifth semester.

Final Examination

Oral defense of the dissertation before the research committee. For additional requirements in certain programs, see below.

Other Provisions

All students enrolled in a Ph.D. program in the Department of Biology will be expected to serve as associate instructors for at least two semesters, regardless of their source of support; and they must complete formal instruction in teaching methods in order to enhance their teaching skills. It is the conviction of the department that teaching experience is a vital aspect of graduate education, whether or not the student intends to pursue a teaching career after attainment of the desired degree(s).

Ecology and Evolutionary Biology

Master of Arts Degree

Course Requirements

A total of 30 credit hours, of which at least 20 credit hours must be taken in approved ecology and evolutionary biology courses. The courses that each student takes must have a coherent focus within the general field of ecology and evolutionary biology. At least one seminar should be taken each year.

Thesis

Normally required; an alternative project may, however, be approved by the student's advisory committee.

Final Examination

Normally includes a public research seminar and an oral defense of the thesis or alternative project before the advisory committee.

Doctor of Philosophy Degree

Course Requirements

A total of 90 credit hours, including two courses from one concentration area listed below and one course from a second area, Z620 Biostatistics (or equivalent), and dissertation. Students must enroll in a seminar at least one semester

during each of the first three years in the program.

Concentration Area Requirements

ECOLOGY/POPULATION BIOLOGY

E455 (SPEA) Limnology

L575 Biodiversity and Ecosystem Functioning

L578 Advanced Population Biology

L579 Community Ecology

L591 Plant Population Biology—An Experimental Approach Evolutionary Biology

B555 Special Topics in Plant Systematics

L505 Molecular Biology of Evolution

L567 Evolution

Z540 Genetics of Populations

L567 Evolution

Z620 Molecular Evolutionary Genetics

BEHAVIOR/PHYSIOLOGY

Z460 Ethology

P548 Neuroethology

L560 Physiological Ecology

Z566 Laboratory in Endocrinology

L581 Behavioral Ecology

Minor

The minor may be in a separate department, an interdepartmental program, a different graduate program in the Department of Biology, or in biometrics. Requirements are as set by the unit administering the minor.

Foreign Language/Research Skill Requirements

Determined by the student's advisory committee.

Final Examination

In addition to the oral defense of the dissertation before the student's research committee, a public research seminar is required.

Genetics

Molecular, Cellular, and Developmental Biology

Doctor of Philosophy Degree

Programs leading to the Ph.D. degrees in genetics, and in molecular, cellular, and developmental biology are administered by the Faculty Committee on Molecular Biology and Genetics (MBG), in collaboration with members of the Department of Chemistry. The Ph.D. in plant sciences can be pursued under the supervision of MBG or that of ecology and evolutionary biology, depending upon the nature of a student's research interests.

Programs leading to the Ph.D. degrees in genetics, and in molecular, cellular, and developmental biology are administered by the Faculty Committee on Molecular Biology and Genetics (MBG), in collaboration with members of the Department of Chemistry. The Ph.D. in plant sciences can be pursued under the supervision of MBG or that of ecology and evolutionary biology, depending upon the nature of a student's research interests.

Common Requirements

During the first year, each student takes a common core program. Fall: L501, L523, L585/Z620, and B501 or another graduate-level biochemistry course; spring: L501, L586, L587. Biology L501 is a rotation course in which each student participates in research projects in at least three different laboratories prior to selecting a permanent research advisor and laboratory at the end of the first year. In addition, students whose native language is not English

are expected to become sufficiently fluent to pass the university's Examination in English for Associate Instructors during the course of the first year.

At the end of the first year, each student selects a research advisor and laboratory. Together with the advisor, the student also selects the other members of an advisory committee of three or four faculty members appropriate to the student's intended degree and one from the prospective minor field (see below). This advisory committee guides and monitors the student's subsequent independent work and guides the student's selection of advanced courses. MBG requires that each student meet with the advisory committee at least once per year.

The MBG-administered degree programs require a total of 90 credit hours including the core program and at least three advanced courses (see below). They also require that each student register for Journal Club (Z620) during the second year and make two oral presentations in Journal Club during the course of his/her career. Each student must also take a Z620 Grant Writing course in their second year, and a Z620 course in Scientific Practices (Ethics) during the third year, and each student must teach for at least two semesters.

Grades

Every student must maintain a minimum GPA of B (3.0) in order to remain in good standing. Courses to be counted toward the Ph.D. degree must be passed with a grade of B-(2.7) or better.

Preliminary Examination

Students in all programs take a preliminary examination at the end of the fourth semester. Students who pass this examination and complete the required course work are admitted to formal candidacy for the Ph.D.

Satisfactory Progress Toward a Degree

After passing the preliminary examination, for a student to remain in "good standing" in MBG requires

that sufficient progress be made toward completing a thesis. If the research advisory committee judges progress to be unsatisfactory, probation may be recommended. At the end of the probationary period (usually a semester), if the advisory committee judges the student's progress to be satisfactory, then probation will be lifted. If the advisory committee judges the student's progress to remain unsatisfactory, then the student will be required to leave the program.

Thesis

The final requirement of each program is a Ph.D. thesis, which must be defended in a public research seminar and in a meeting of the research advisory committee.

Advanced Courses and Minor

The MBG, in conjunction with the degree program committees, offers a program of half-semester advanced courses (Z620). The selection of courses changes each year. Courses are offered in all the degree subjects. Each program requires that its students take at least three of these courses, which should be certified by the student's committee as appropriate to the chosen degree.

Each student must select a minor field distinct from the chosen degree. Ordinarily a student will select as a minor one of the MBG degree programs not selected for the major. In those cases, the Core Program courses meet minor requirements. In some cases a student may select another minor and must meet any additional requirements set by that minor.

For students from other programs who wish to minor in one of the MBG degree areas, the requirement is 6 credit hours of work in that field. The course selection should be approved by the director of MBG.

Microbiology

Degree programs are available for students with interests in many areas of microbiology. Each student's curriculum is designed by the student in consultation with the graduate program director, the student's

mentor, and an appointed advisory committee.

Master of Arts Degree with a Research Thesis

Course Requirements

A total of 30 credit hours; 12 of these must be course work not including M500, M800, or M850. Course options include B501 (4.5 cr.), L585/Z620 (4.5 cr.), C483, C484, M440, M460, M480, M416, M430, M525, L586, Z620 (Special Topics, 1.5-3 cr.). Students are expected to rotate (M500) in at least two laboratories during the fall semester and to participate in M850 Microbiology Journal Club each time it is offered in the fall and spring.

Grades

A minimum of B- (2.7) in each required course.

Thesis

Required.

Final Examination

Oral defense of thesis.

Master of Arts Degree with a Library Thesis

The department also offers a program in microbiology leading to a terminal master's degree that does not require a laboratory research project. A student enrolled in this program will write a thesis critically evaluating and reviewing some aspect of microbiology reported in the literature. All other requirements for the degree are identical to those stated above for the research-thesis Master of Arts. The degree is designed to give individuals an opportunity to pursue graduate study at the master's level without acquiring expertise in laboratory research.

Doctor of Philosophy Degree

Course Requirements

A total of 90 credit hours, including the following core courses: L585/Z620 (4.5 cr.), B501 (4.5 cr.), L523, and M500. C483 and C484 may be substituted for the core B501. Two or 3 elective courses are also required. Electives include but

are not limited to M430, M572, M525, L586, Z620 (Special Topics). Additional courses from this or other departments with written permission of the Microbiology Program Director may be substituted for the electives. Also required are M850 (Microbiology Journal Club), taken each fall and spring (except for the first semester); three advanced courses Z620 Half-Semester Seminars, Z620 Grant Writing and Scientific Practices (Ethics) in the third year. During the first year, students are required to complete three rotations (M500).

Grades

A minimum of B- (2.7) or better in each required course.

Advisory Committee

The committee will consist of the research advisor, one member of the microbiology faculty, a faculty representative of the student's minor field, and one or two additional members of the faculty.

Thesis

Required.

Final Examination

In addition to the oral defense of the dissertation before the research committee, a public seminar is required.

Plant Sciences

Master of Arts Degree

Course Requirements

A total of 30 credit hours, stressing suitable advanced courses in plant sciences and cognate areas. At least 20 of the credit hours must be in the major area.

Grades

B average (3.0) required.

Thesis

Required. An equivalent creative project may be accepted in lieu of the thesis.

Doctor of Philosophy Degree

Ph.D. students choosing a molecular approach will follow the procedures in all respects (courses, seminars,

research rotations, preliminary examination, etc., of the Genetics and MCDB (Molecular, Cellular, and Developmental Biology) graduate programs. Likewise, students choosing an organismal approach will follow the exact procedures of the Ecology and Evolutionary Biology program.

Zoology

Each degree program is tailored to the specific interests and needs of the student.

Master of Arts Degree

Course Requirements

A total of 30 credit hours, of which at least 20 credit hours must be taken in the Department of Biology.

Grades

B average (3.0) required.

Thesis

Required. An alternative project may be accepted in lieu of the thesis.

Doctor of Philosophy Degree

Course Requirements

A total of 90 credit hours of advanced course work, including dissertation.

Minor

Selected in consultation with research advisor and zoology program director.

Master of Arts for Teachers Degree

The Master of Arts for Teachers in biology is offered by the University Graduate School (not the School of Education) to provide training beyond the bachelor's degree for those who intend to teach in junior or senior high school and who wish additional training in biology. Each student in the program must possess a teacher's certificate by the time the degree is conferred, with the exception of international students who intend to return to their native country.

Admission Requirement

Bachelor's degree from a regionally accredited institution with sufficient

hours in biology to enable the student to take courses carrying graduate credit.

Course Requirements

A total of 36 credit hours, of which a minimum of 25 credit hours must be in courses in the biological sciences that carry graduate credit; the remaining 11 credit hours may be in education. All programs of study must be approved by the Master of Arts for Teachers program advisor.

Certification Requirements

For a complete list of courses in education and other areas that are required for provisional certification, consult the School of Education Bulletin, Undergraduate Program.

Courses

M300 Biomedical Sciences Documentation (1 cr.)

M310 Microbiology (3 cr.)

L313 Cell Biology Laboratory (3 cr.) P: BIOL L113 and L211, or CHEM C342, or consent of instructor. R: BIOL L312, CHEM C484.

M315 Microbiology Laboratory (2 cr.)

B351 Fungi (3 cr.)

B352 Fungi: Laboratory (2 cr.)

B364 Summer Flowering Plants (5 cr.)

B368 Ethnobotany (3 cr.) P: BIOL L111. Plants in relation to man with primary emphasis on food plants. Credit given for only one of L370 or B368.

B371 Ecological Plant Physiology (3 cr.)

B372 Ecological Plant Physiology Laboratory (2 cr.)

B373 Mechanisms of Plant Development (3 cr.)

Z373 Entomology (3 cr.)

Z374 Invertebrate Zoology (3 cr.)

Z383 Laboratory in Entomology (2 cr.)

Z406 Vertebrate Zoology (5 cr.)

B415 Phytogeography (2 cr.)

L417 Molecular Aspects of Development (3 cr.)

Z420 Cytology (3 cr.)

B423 Introduction to Paleobotany (3 cr.)

M430 Virology: Lecture (3 cr.)

M435 Viral-Tissue-Culture Laboratory (3 cr.) P or C: M430, or consent of instructor.

M440 Medical Microbiology (3 cr.)

B445 Experimental Molecular and Cellular Biology of Eukaryotes (4 cr.)

M460 Biology of the Prokaryotes (3 cr.)

Z460 Ethology (3 cr.)

L465 Advanced Field Biology (3 cr.)

M465 Biology of the Prokaryotes: Laboratory (3 cr.)

Z466 Endocrinology (3 cr.)

L473 Ecology (3 cr.)

L474 Field and Laboratory Ecology (2 cr.)

Z476 Biology of Fishes (3 cr.)

L479 Evolution and Ecology (4 cr.)

M480 Microbial and Molecular Genetics (3 cr.)

M485 Microbial and Molecular Genetics Laboratory (3 cr.)

Z486 Standards and Techniques of Animal Experimentation (2 cr.)

L500 Independent Study (cr. arr.) P: written consent of faculty member supervising research.

M500 Introduction to Research (Microbiology) (1-6 cr.) P: graduate standing. Objectives and techniques of microbiological research. Assignment to a research problem with a faculty member to be completed in two semesters.

T500 Project Laboratory in Biotechnology (6 cr.) In this course students explore the different stages of scientific investigation by performing research using the techniques of chemistry, biochemistry, molecular biology, genetics, and cell biology on problems related to biotechnology. Students design and execute research projects under supervision of the instructor in a teaching laboratory setting on problems chosen in consultation with the instructor.

L501 Independent Study (1-6 cr.) P: written consent of faculty member supervising work. Supervised work. S/F grading.

T501 Topics in Biotechnology I (2 cr.) Students read and analyze research articles from the current literature and present the articles in a journal club format. Students will practice their presentation with the instructor prior to presenting to the group and will receive feedback on the content and the presentation style. Guest lecturers from industry are invited to present on a wide range of topics relevant to biotechnology.

T502 Topics in Biotechnology II (2 cr.) Follows from BIOL T501. Students read and analyze research articles from the current literature and present the articles in a journal club format. Articles can cover any area of biotechnology or any area relevant to biotechnology. Occasionally, invited guest lecturers from industry are invited to present on a wide range of topics relevant to biotechnology.

L505 Evolution of Development (3 cr.) P: senior or graduate standing and consent of instructor. An integrative approach to the link between development and the evolution of morphology. Topics: evolution of developmental

mechanisms and of developmental regulatory genes, production of evolutionary changes through changes in developmental processes, developmental constraints, and origins of major body plans.

Z508 Advanced Ornithology (4 cr.) P: Z406. Emphasis on avian ecology, distribution, and behavior; discussion and evaluation of recent literature. Field work includes investigation of populations of a wintering species and a breeding species.

L509 Field Exercises for Biology Education (1-5 cr.) L509 is a graduate course for students in biology and education with an intended career in biology education. Credits are variable (1-5) and will be arranged. Students will design field exercises based at the Indiana University Research and Teaching Preserve on topics in organismal biology and ecology appropriate for public school and other outside groups.

L510 Introduction to the Research Laboratory (3 cr.) P: graduate standing. Objectives and techniques of biological research. Completion of a one-semester research problem with a faculty member.

T510 Theory and Applications of Biotechnology Lecture I (3 cr.) This advanced, graduate-level course will focus on the applications of molecular genetics and recombinant DNA in biotechnology. Fundamental concepts of relevant molecular biology and biochemistry will be covered in depth in the first portion of the class, followed by sections on recombinant DNA technology, macromolecular purification and genomics/bioinformatics.

M511 Molecular Biology of Prokaryotes (3 cr.) P: CHEM C584. The course will first develop an understanding of nucleic acid structure and function to a professional level, then use these principles to explore molecular aspects of gene expression and evolution. Emphasis will be on prokaryotes.

T511 Theory and Application of Biotechnology Lecture II (3 cr.)

Course continues from BIOL T510, Theory and Applications of Biotechnology Lecture I, but focuses on applications of biotechnology including genetic engineering of plants and edus, bioremediation, biopharmaceutical production, vaccine development, and molecular diagnostics. Bioengineering principles of fermentation, scale-up and high throughput functional screening will be an important component of this material.

M512 Molecular Biology of AIDS Virus (3 cr.) P: CHEM C341 and BIOL L311. A detailed consideration of the human immunodeficiency virus (HIV, causative agent of AIDS). The functions of the HIV genes and how those functions affect pathology and normal cellular mechanisms.

T515 Theory and Applications of Biotechnology Laboratory I (3 cr.)

Students will learn advanced laboratory techniques that are currently used in biotechnology. This course is designed to cover advanced techniques at a deep level. As far as possible the laboratory exercises will be coordinated with BIOL T510, Theory and Applications of Biotechnology Lecture I. There will be two modules, one emphasizing cell biology and one emphasizing molecular biology.

T516 Theory and Applications of Biotechnology Laboratory II (3 cr.)

Course continues from BIOL T515 Theory and Applications of Biotechnology Laboratory I. As far as possible the laboratory exercises will be coordinated with BIOL T511, Theory and Applications of Biotechnology Lecture II. There will be two modules, one emphasizing cell biology and one emphasizing molecular biology.

L519 Bioinformatics: Theory and Application (3 cr.)

Overview of theory and applications in bioinformatics, based on fundamentals of molecular biology and information sciences. Common problems, data and tools in the field are outlined. These include

biosequence analysis, alignment and assembly, genomics, proteomics and phylogenetics, biological databases and data mining, and internet bio-information services.

L520 Seminar in Genetics (cr. arr.) P: L364 or Z420 or equivalents.

L521 Problems in Genetics-Higher Organisms (3 cr.) P: L364 or equivalent. Selected topics in the genetics of higher organisms emphasizing studies at the molecular level.

L522 Advanced Eukaryotic Molecular Genetics (3 cr.) P: consent of instructor; beginning course in genetics. Correlation of genetic data with changes in chromosome structure and number. Mechanics of chromosome behavior in crossing over and disjunction.

L523 Critical Analysis of the Scientific Literature (1-6 cr.)

Detailed analysis of current research papers in biology. Emphasis on experimental design, research methods, interpretation of results, and suitability of controls. Generally taken in the first semester of graduate residence. Topics may vary to suit specific fields (e.g., molecular, cellular, and developmental biology and genetics, or ecological and evolutionary biology).

M525 Topics in Microbial Biochemistry and Physiology (3 cr.)

P: graduate standing and C483 or M350 or equivalent. The course will consider topics in physiology and biochemistry of eukaryotic and prokaryotic microorganisms. Subjects include membrane physiology and regulatory networks in metabolism and gene expression.

L529 Bioinformatics in Molecular Biology and Genetics: Practical Applications (4 cr.)

P: I501, I502, L519, or consent of instructor. Practical experience in a range of data analysis and software engineering methods applied to molecular biology data.

B530 Anatomy and Morphology Seminar (cr. arr.)

P: consent of

instructor. Seminars will include current research studies in plant anatomy and morphology.

M540 Medical Microbiology and Medical Immunology (2-5 cr.)

Basic concepts of immunology; microorganisms as agents of disease; host-parasite relationships; epidemiology; chemotherapy.

Z540 Genetics of Populations (3 cr.)

P: consent of instructor: R: Z465, MATH M216 or equivalent. Survey of the theoretical basis of population genetics and a review of current problems and experimental findings. Content varies from year to year.

M545 Medical Microbiology Laboratory (1 cr.)

P: M540. Laboratory experiments to illustrate material discussed in M540.

M550 Microbiology (3 cr.) P: two semesters of college chemistry; L211 recommended prior or concurrently.

Application of fundamental principles to the study of microorganisms. Significance of microorganisms to humans and their environment. Critical evaluation of current microbiological literature.

B555 Special Topics in Plant Systematics (3 cr.)

Topics vary from year to year. Examples of subjects to be treated: phylogeny and families of flowering plants, biology of ferns, biosystematics, molecular markers in populational biology and systematics. Enrollment of advanced undergraduates encouraged.

L555 Alternative Approaches to Teaching College Biology (2 cr.)

Frameworks for teaching college biology. Addresses different teaching objectives (knowledge, applications, scientific thinking, ethical and policy considerations); different teaching methods (lectures, readings, recitations, discussions, exercises, experiments, projects); student heterogeneity (expectations, abilities, development, learning styles); evaluation and grading; course and curriculum design; and evaluation and improvement of teaching.

B560 Seminar in Systematics (cr. arr.) P: consent of instructor. Topics vary each semester.

L560 Physiological Ecology (3 cr.) Influence of the abiotic environment on energy and material transfers in individual organisms, with emphasis on terrestrial animals.

Z566 Laboratory in Endocrinology (2 cr.) P: Z466. Development and structure of major endocrine glands; their role in maintaining constancy of internal environment. Limited to 12 students.

L567 Evolution (3 cr.) P: graduate standing in Psychology or Biology or consent of the instructor. Topics include quantitative genetics, population genetics and strategic models of natural selection. Special topics include: life history theory, sex and sexual selection, kin selection, shifting-balance theory, speciation, macroevolution, and comparative methods.

B570 Seminar in Physiology and Molecular Biology of Plants (cr. arr.) P: consent of instructor.

L570 Seminar in Ecology and Environmental Biology (1 cr.) P: consent of instructor. Presentations and discussions of current research in evolution, ecology, and behavior. May be repeated for credit.

B572 Photobiology (3 cr.) P: S305 or L367 or CHEM C483 or equivalent. Biochemical and biophysical relationship between light and biological systems. Topics will include photosynthesis, visual processes, photorespiration, phototaxis, bioluminescence, and photomorphogenesis, with emphasis on photosynthesis.

L572 Microbial Ecology (3 cr.) Principles of microbial ecology with emphasis on the population, community, and ecosystem ecology of bacteria and fungi.

B573 Special Topics in Plant Physiology (2-5 cr.) P: consent of instructor. Advanced topics in plant physiology. With consent of

instructor, may be taken more than once for credit.

L575 Ecosystem Structure and Function (3 cr.) P: L473 and L474 (or equivalent) or instructor's consent. Does biodiversity matter? Analysis of relationships between biodiversity and ecosystem functioning. Emphasis on current literature, including theoretical and empirical work. Lectures will alternate with class discussion and debate.

M575 Human Parasitology (3 cr.) P: BIOL M310 and M315. Biology of human parasites focusing on their etiology, epidemiology, immunology, diagnosis, and treatment. Major groups of protozoa, helminths, and medically important arthropods covered. Independent research assigned on a special topic. Lab presents both live and fixed materials complementing lecture.

B576 Developmental Plant Physiology (3 cr.) P: consent of instructor. Chemically oriented; examination of substances uniquely involved in growth and development in higher plants. Application of information to lower plants only briefly discussed.

Z576 Invertebrate Zoology Laboratory (2 cr.) P or C: Z374. Laboratory and field studies of invertebrates, with an emphasis on experiments with living specimens.

B577 Plant Biochemistry (2 cr.) A comparative treatment of selected biochemical topics, emphasizing unique or important processes in plant metabolism and development.

L578 Advanced Population Biology (3 cr.) P: courses in ecology, genetics, and basic calculus, and permission of instructor. A detailed assessment of population-ecological and population-genetic theory, and the factors determining the size and composition of animal populations in nature.

L579 Community Ecology (3 cr.) P: ecology and genetics. Survey of ecological and evolutionary topics between population and ecosystem

levels. Review of scientific levels of selection and speciation. Major emphasis on interactions among populations (consumer-producer, competition, symbiosis, etc.) and community analysis (island biogeography, niche, diversity, and community structure).

L580 Introduction to Research (1 cr.) Individual faculty from the various graduate programs in biology present seminars on their research programs. Discussion between students and faculty about possible thesis research projects is encouraged.

L581 Behavioral Ecology (3 cr.) Integrated elements of ethology, physiology, ecology, and evolutionary biology providing a synthetic approach to animal behavior. Emphasis on integrated studies providing new insights into both evolutionary and mechanistic questions. Students are asked to analyze the literature critically and debate controversial issues actively.

L585 Molecular Genetics (3 cr.) The molecular basis of genetic interactions, with emphasis on microbial systems. The course covers the molecular mechanisms of mutation, suppression, recombination, complementation, etc., as well as mechanisms for gene transfer in bacteria and bacteriophage. The application of genetic analysis to variety of molecular biological topics is emphasized.

L586 Cell Biology (4.5 cr.) Critical analysis of recent advances in our understanding of molecular organization and function of cellular structures. The emphasis of this course will be on eukaryotic cells. Topics include membrane organization, cytoskeleton assembly and functions, signal transduction, cell-cycle regulation, protein sorting, and vesicle trafficking.

L587 Developmental Biology (4.5 cr.) Evaluation of classical and current molecular and genetic approaches to studying development of eukaryotic organisms. A significant portion of the course is

devoted to discussing recent findings from molecular genetic studies in *Drosophila* and *C. elegans*.

L590 Seminar in Molecular, Cellular, and Developmental Biology (2 cr.) P: consent of instructor. Presentation and discussion of topics in molecular and cellular biology as seminar by students. Topics from current literature. Concentration on a particular area each semester to be announced before registration. S/F grading.

L591 Plant Population Biology—An Experimental Approach (3 cr.) P: ecology course and evolution course. The mechanisms by which plants, as individuals, contribute to development of population structure. Experimental studies of intra- and inter-specific mechanisms of population regulation, reproduction, and vegetative growth. Emphasis on development and physiological characteristics which determine mode of interaction. Greenhouse projects designed and conducted by students.

L600 Special Topics in Genetics (cr. arr.) P: L364 or equivalent. Topics not extensively treated in other courses, e.g., population genetics, human genetics, immunogenetics, biochemical genetics of clones of mammalian cells. Topic presented will not be duplicated within three to five years. L600 carries credit in Plant Sciences, Microbiology, and Zoology programs.

M610 Recent Advances in Microbiology (1-3 cr.) P: graduate standing in microbiology or related area. Course content changes each semester so that over a cycle of several years, major research areas are covered. May be repeated for credit.

M612 Microbial Development (3 cr.) P: graduate standing or consent of instructor. An analysis of recent publications concerned with the biochemistry of development in viral, prokaryotic, and simple eukaryotic systems. The topics vary and emphasize the regulatory aspects

of development. Cell differentiation and cell-cell interactions are discussed.

Z620 Special Topics in Zoology (cr. arr.) P: advanced undergraduate or graduate standing. Topics not extensively treated in other courses, e.g., theoretical zoology, oceanography, reservoir limnology, human ecology, biochemistry, viruses and disease, critical analysis of the scientific literature, and other fields. Topics presented will be treated every three to five years.

L800 Research (1-15 cr.)

M800 Research (1-12 cr.)

M850 Seminar (1 cr.) P: graduate standing in microbiology or consent of instructor. Reports on assigned topics of current interest. May be repeated for credit. S/F grading.

Business

**Kelley School of Business
Bloomington**

Dean

Harold A. Poling Chair of Strategic Management Dan R. Dalton

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docprogs@indiana.edu

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Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Distinguished Professors Emeriti
Hans B. Thorelli

A. L. Prickett Professor
Gerald Salamon

American United Life Chair in Business Administration
Marjorie Lyles

American United Life Professor
Ronald Anderson (Emeritus)

Arthur M. Weimer Chair of Business Administration
Michael B. Metzger

Arthur M. Weimer Professors
John D. Long (Emeritus), Jack R. Wentworth (Emeritus)

Bank One Chair of Banking and Finance
Gregory Udell

Bert Elwert Professor
Michael Baye

Dale M. Coleman Professor
Janet Near

E. W. Kelley Professor
Raymond Burke

Edward E. Edwards Professor
John Boquist

Frank P. Popoff Chaired Professor
Idalene Kesner

Fred T. Greene Professor
Robert Klemkosky

George W. Pinnell Professor
Michele Fratianni

Harold A. Poling Chair of Strategic Management
Dan Dalton

Indiana University Foundation Professor
Eric Rasmusen

Jack R. Wentworth Professor
Robert Jennings

James W. and Virginia E. Cozad Chair in Finance
Charles Trzinka

John and Esther Reese Professorship
Vincent Mabert

John F. Mee Professor
Philip Podsakoff

John T. Chambers Chair in Internet Systems
Alan Dennis

L. L. Waters Chair in International Business
Alan Rugman

**Lawrence D. Glaubinger
Professors**

Marc Dollinger, Joseph Waldman
(Emeritus)

**Randall L. Tobias Chair of Global
Leadership**

P. Christopher Earley

Professors

Franklin Acito, S. Christian Albright,
Patricia Hayes Andrews
(Communication and Culture),
Timothy Baldwin, Joseph Belth
(Emeritus), Messod-Daniel Beneish,
Louis Biagioni (Emeritus), Charles
Bonser (Emeritus, Public and
Environmental Affairs), Harvey
Bunke (Emeritus), Jeffrey G. Covin,
Anthony Cox*, Catherine Daily,
Douglas Dalrymple (Emeritus),
Lawrence Davidson, Daniel
DeHayes Jr., George Dreher, Terry
Dworkin, P. Christopher Earley,
Jeffrey Fisher, Joseph Fisher, Samuel
Frumer (Emeritus), Paul Gordon
(Emeritus), Donald Granbois, R.
Jeffery Green, Robert Greenleaf
(Emeritus), S. Michael Groomer,
Irvin Grossack (Emeritus), William
Haerberle (Emeritus), Robert Hall
(Emeritus), Donald Harnett, Joseph
Hartley (Emeritus), John Hassell, W.
Harvey Hegarty, Lester Heitger,
John Helmkamp (Emeritus), George
Hettenhouse, John W. Hill, Peggy
Hite, Thomas Hustad, F. Robert
Jacobs, Bruce Jaffee, Roger Jerman,
Heejoon Kang, Arlen Langvardt*,
Jordan Leibman (Emeritus), R.
Thomas Lenz, David MacKay
(Geography), Scott MacKenzie, Jane
Mallor, Paul Marer (Emeritus,
Central Eurasian Studies), E. W.
Martin Jr. (Emeritus), Patricia P.
McDougall, Joseph Miller
(Emeritus), John Muth (Emeritus),
Pekin Ogan (Emeritus), Richard
Olshavsky, Dennis Organ, Clinton
Oster, Robert Parry, James H.
Patterson, James M. Patterson
(Emeritus), William Perkins
(Emeritus), Richard Pfister
(Emeritus), Michael Phillips
(Emeritus), James H. Pratt, William
Sartoris, Roger Schmenger, William
Scott Jr. (Emeritus), Lloyd Vann
Seawell (Emeritus), Robert Shaffer
(Emeritus), Michael Simkowitz
(Emeritus), George Smerk, Daniel C.
Smith, Robert Smith, Ashok Soni,
Rosann Spiro, P. Ronald Stephenson,

Jerrold Stern, R. Stansbury Stockton
(Emeritus), James Suelflow
(Emeritus), John Summers
(Emeritus), M. A. Venkataramanan,
Iris Vessey, Wayne Winston, Edgar
Williams (Emeritus), James
Wimbush, Donald Wood (Emeritus)

Associate Professors

Utpal Bhattacharya, Walter
Blacconiere, J. Douglas Blocher,
Thomas Bowers*, Kurt M.
Bretthauer, Carol V. Brown, Victor
Childers (Emeritus), Laura Ginger*,
Craig Holden, Sreenivas Kamma*,
William Kulsrud, Thomas P. Lyon,
Richard Magjuka, Laureen Maines*,
George Marakas*, Anne Massey,
John Maxwell, Martin McCrory*,
Robert Neal, Mitchell Novit
(Emeritus), Frona M. Powell,
Richard Rogers*, H. Shanker
Krishnan, Richard Shockley*,
Geoffrey B. Sprinkle*, Mikel Tiller,
Juergen von Hagen, Ramesh
Venkataraman*, James Wahlen,
Rockney Walters, Bradley Wheeler

Assistant Professors

Manju K. Ahuja*, Lance
Bettencourt*, Susan Brown*,
Srinagesh Gavirneni*, Patrick
Hopkins*, Shailendra Jain*, Vijay
Khatri*, Dong-Gil Ko*, Christian
Lundblad*, Darius Miller*, Kenneth
L. Schultz*, Rebecca Slotegraaf*,
Xiaoyun Yu*

Clinical Professor

Elizabeth J. Gatewood

Clinical Associate Professor

Jonlee Andrews*

Clinical Assistant Professor

Carolyn Wiethoff*

**Chairperson of the Doctoral
Program**

Professor Franklin Acito, Kelley
School of Business, BU 730, (812)
855-3476

Degrees Offered

Doctor of Philosophy. In addition,
the Kelley School of Business offers
the Master of Business
Administration, Master of Science in
Information Systems, Master of
Professional Accountancy, and the
Doctor of Business Administration.
For details, see the Kelley School of

Business Bulletin, Graduate
Programs.

**Special School
Requirements**

(See also general University
Graduate School Requirements)

Admission

To apply for admission to the
doctoral programs in business, the
applicant must do the following:

1. Submit a formal application
(forms are available from the
Doctoral Programs Office in
Business). Application forms
for international students should
be requested from the Office of
International Admissions, 300
N. Jordan Avenue,
Bloomington, IN 47405. (The
international application and all
supporting documents should be
submitted to the Office of
International Admissions.)
2. Arrange for at least three letters
of recommendation to be sent
from persons qualified to judge
the academic potential of the
applicant.
3. Arrange to take (or have already
taken within four years of the
date of application) either the
Graduate Management
Admission Test or the Graduate
Record Examination General
Test. These tests are prepared
by the Educational Testing
Service and are administered at
numerous locations throughout
the United States approximately
four times each year and, at less
frequent intervals, in many
foreign countries.
4. Submit official transcripts of all
college work taken. All the
above documents should be sent
to:

Chairperson of the
Doctoral Programs
Kelley School of Business
1309 E. 10th Street
Indiana University
Bloomington, IN 47405-
1701

Appropriate application forms,
detailed information on admission

and financial aid, and additional program data may be obtained from the Doctoral Programs Office. The application deadline for August admission is the preceding February 1 (December 1 for international students).

Early applications are urged since all spaces in particular departments may be filled before the deadline. Late applications will be honored only if space is available.

Admission to the doctoral program in business is based on an individual's qualifications as evidenced by the application, official transcripts, scores on the Graduate Management Admission Test or the Graduate Record Examination, and, if possible, a personal interview. Prospective students' applications for admission and supporting credentials are reviewed by the doctoral program's administrative committee and by the faculty in the proposed major department.

While it is unusual, highly qualified students with career objectives clearly in mind may enter the doctoral programs in business directly from a baccalaureate program with the intention of working toward a doctoral degree. Most, however, will begin work toward the doctorate after obtaining the master's degree.

Doctor of Philosophy Degree

Program Requirements

The requirements for the Ph.D. program in business are fulfilled in three basic phases of study. Although these phases may overlap, the program requires a logical sequence of course work, qualifying examinations, and dissertation research.

Phase I

The Phase I requirements entail no minimum number of credit hours but focus instead on proficiency in business operations and the basic disciplines. The credit hours required for proficiency may be met either by exemption (through the acceptance of previous course work) or by taking courses or independent study

after entering the program. Individual departments determine the appropriate requirements for their majors.

Teaching Development Program

All candidates for a doctoral degree in business must complete the 1.5 semester hour teaching development seminars or its equivalent. These seminars provide a grounding in learning and teaching styles and methods.

Phase II

The Phase II program of study is the central part of the student's doctoral-level course work. It is therefore critical that the courses be selected to achieve the student's educational objectives while emphasizing high levels of research and scholarship.

Major Field

The program of study for the major is planned in consultation with the student's major-field advisor and consists of a minimum of 18 credit hours of advanced graduate work. There is no intention that the entire program of study relating to the major must be taken in the administrative department or area represented by that major field. On the contrary, students are encouraged to incorporate courses from other departments or areas into their major-field curriculum when such courses are closely related to the individual's interests and help form a logical whole.

Minor Field

Each student selects one minor field, which requires a minimum of 9 credit hours of work beyond that expected as minimal preparation for all doctoral students. Minors are available in each of the major fields, as well as in the following fields (though not limited to these): international business, economics, political science, history, mathematics, psychology, sociology, and law. The doctoral business minor provides the opportunity for the integration of other disciplines into the major area(s) of students majoring in the Kelley School of Business; it requires a minimum of 9 credit hours from a field outside the student's major field. The minor

requirements for fields outside the Kelley School of Business are determined by the department in which the minor is offered. An overall GPA of at least 3.4 in the three courses is required.

Methodology and Analysis (M and A) Requirement

All doctoral candidates must demonstrate competency in the areas of research methodology and statistical analysis. This is a 9 credit hour requirement. This course work will help provide the foundation and special proficiency in research design and analysis necessary for candidates to conduct their research programs.

Double Major Option

Rather than follow the major, minor, and M and A sequence, a doctoral student may elect to have two majors. The double major candidate has the option of (1) two majors, each with 18 credit hours, or (2) a first major with 21 credit hours plus a second major of at least 15 credit hours. There are two issues that a student electing a double major should consider. First, all double majors must pass the qualifying examination in both majors. Second, a double major is unlikely to be approved unless the student can demonstrate that a portion of the overall course work provides competency in M and A. Doctoral students may not unilaterally elect to have a double major; the student's petition for a double major must be approved by both departments as well as by the chairperson of doctoral programs.

Grades

Course grades below C+ (2.3) are not counted toward degree requirements but will be included in the computation of the student's grade point average. At least a 3.4 grade point average with no grade below B- (2.7) is required in those courses taken as part of the minor field. Students must achieve an overall grade point average of at least 3.3 and earn no less than a B- (2.7) in those courses taken as part of the methodology area.

Examinations

Evidence of the student's competence in a major field must be demonstrated by examination. Examinations may also be required in some minor fields. The examinations are designed as exercises in creative and critical thinking, not merely in recollecting facts and familiar analyses.

Admission to Candidacy

Upon successful completion of all Phase II requirements (including all qualifying examinations), the student will be nominated to candidacy.

Dissertation Proposal

Examination on the dissertation proposal usually comes at the close of the work in Phase II of the program. A research committee is appointed to supervise and assist each candidate. A formal oral examination, to which other doctoral students and faculty members are invited, is held on the proposal. Upon passing the examination, the candidate moves into the third phase of the program.

Phase III

Dissertation

An important early part of the dissertation experience is integrated with the advanced course work through the research seminars. A minimum of 24 credit hours of dissertation credit is required, but 3 hours of credit in research seminars within the major area may count toward this requirement. Since the dissertation represents a major research project, a year or more of full-time work in close cooperation with the candidate's committee is normally required to complete Phase III. For this reason, candidates in the Indiana University doctoral programs in business are strongly urged to remain in residence until all degree requirements have been met.

Defense of the Dissertation

Phase III concludes with the defense of the dissertation. The objective of the defense is to provide students with a forum for formal presentation of the results of their dissertation research. The purpose of the presentation, questioning, and

discussion is to enable students to demonstrate that they have successfully completed what they set out to do, as stated at the time of the proposal defense. The dissertation defense gives the research committee a final opportunity to bring the candidate's research methods, findings, and conclusions under critical review. The candidate is expected to be able to defend all aspects of the inquiry satisfactorily.

For further information on the Doctor of Philosophy degree in business, consult the Kelley School of Business Graduate Programs Bulletin or the Doctoral Programs Web site: www.kelley.indiana.edu/doctoral/home.html.

Ph.D. Minor in Business

Students in other departments may minor in business by completing 9 credit hours of graduate work at the 600 level or above. A specialized minor field may be selected from the major fields for business students; a nonspecialized minor consists of courses from different fields. In the Kelley School of Business, courses numbered 600 or above are doctoral seminars. Courses at the 500 level are M.B.A. courses. Permission is required from the M.B.A. program for non-M.B.A. students to enroll in these courses. Interested students should contact the Doctoral Programs Office for further information about available fields and procedures to be followed, or download application forms from the Web site.

Courses

See the Kelley School of Business Graduate Programs Bulletin (www.kelley.indiana.edu/doctoral/courses.html) for a complete list of offerings.

Cellular and Integrative Physiology

**School of Medicine
Indianapolis**

Chairperson

Professor Rodney Rhoades

Departmental E-mail

cellphys@iupui.edu

Departmental URL

www.iupui.edu/~medphys

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors

Robert Bigsby (Obstetrics), Glenn Bohlen, Loren Field (Medicine, Pediatrics), Janice Froehlich (Medicine), Susan Gunst, Maureen Harrington (Biochemistry), Chiu Shuen Hui, Gary Hutchins (Radiology), Stephen Kempson, Keith L. March, Richard Meiss (Obstetrics), Marshall Montrose, Sidney Ochs (Emeritus), Ora Pescovitz (Pediatrics), Rodney Rhoades, W. Eugene Roberts (Dentistry), Carl Rothe (Emeritus), George Tanner, Joseph Unthank (Medicine), Wiltz Wagner (Anesthesia), Frank Witzmann

Associate Professors

Robert Considine* (Medicine), Randall Duncan (Orthopedic Surgery), Patricia Gallagher, Lawrence Garetto (Dentistry), Alon Harris* (Ophthalmology), Brian Herring, Edward Mannix* (Medicine), Alonso Moreno (Medicine), C. Subah Packer, Carolyn Patterson* (Medicine), Fredrick M. Pavalko, Daniel Peavy

Associate Scientist

Richard N. Friedman*

Assistant Professors

Jeffrey S. Elmendorf*, James Marrs* (Medicine), Deborah Thurmond (Biochemistry)

Adjunct Assistant Professor

Bonnie Blazer-Yost (Anatomy, Biology)

Director of Graduate Studies

Associate Professor Fredric M. Pavalko, Medical Science Building 2069, (317) 274-3140, pgallag@iupui.edu

Master's Degree Graduate

Advisor

Professor Steven Kempson, Medical Science building MS 451 (317) 274-1444, skempson@iupui.edu

Degrees Offered

Master of Science and Doctor of Philosophy

Graduate training in the department reflects the modern view of physiology as an integrative science, utilizing information obtained from several different levels to gain a better understanding of organ system functions. State-of-the-art techniques are used to study physiological responses at the molecular, cellular, and whole-organ levels. The specific research interests of most of the faculty can be grouped under four principal themes: cardiovascular physiology, cell growth and development, respiratory biology, and signal transduction mechanisms.

Special Departmental Requirements

(See also general University Graduate School requirements.)

Admission Requirements

Background in biology (general courses), chemistry (general, quantitative, organic, and physical), physics, and mathematics (through differential and integral calculus). Some deficiencies may be removed during the first year of graduate study. Graduate Record Examination scores on both the General Test and a Subject Test are required as a part of the application.

Master of Science Degree

Course Requirements

A total of 36 credit hours, including F613, F705, and G706. Biochemistry B800 or B810 required.

Thesis

Optional.

Final Examination

Written or oral or both.

Doctor of Philosophy Degree

Course Requirements

A total of 90 credit hours, including 40 credit hours of formal course work with a minimum of 20 credit hours in cellular and integrative physiology. Required courses include PHSL F613, F702, F705, F710, GRAD G706 G804, G818, and Biochemistry B800 or B810.

Minor

A minimum of 12 credit hours in courses (other than research) in a related field (e.g., anatomy, biochemistry, biophysics, pharmacology, diabetes, or cancer). For a minor in cell and molecular biology, life science, or physical sciences, a minimum of 14 credit hours is required, of which at least 8 credit hours must be obtained in one department.

Qualifying Examination

Written and oral.

Final Examination

Oral defense of dissertation.

Other Provision

Participation in departmental teaching required. physiology must complete a minimum of 12 credit hours in physiology courses other than research and F609.

**These courses are eligible for a deferred grade.

Ph.D. Minor in Cellular and Integrative Physiology

Students outside the department desiring to obtain a doctoral minor in physiology must complete a minimum of 12 credit hours in physiology courses other than research and F609.

Courses

F503 Human Physiology (4 cr.) P:

Introductory biology (K101, K103), and organic chemistry (C341, C342), and physics (P201, P202); or equivalent. Advanced course in human physiology designed for students with no prior exposure to the discipline. Emphasis on basic physiological mechanisms of control with regard to membrane, neural, endocrine, reproductive, muscle, cardiovascular, respiratory, gastrointestinal, renal, and multisystems physiology.

F613 Mammalian Physiology

Lecture (5 cr.) Neurophysiology, physiology of muscular activity, respiration, circulation, gastrointestinal physiology, excretion, metabolism, and endocrinology. Emphasis on basic physiological mechanisms and control systems. See F614.

F650 Membrane Biophysics (3 cr.)

Structure and function of special membranes; mitochondria, RBC, nerve, and muscle.

F701 Research in Physiology (cr. arr.)*

F702 Seminar in Physiology (1 cr.)

Literature reports and group discussion by students and staff.

F705 Molecular and Cellular

Physiology (4 cr.) Emphasis is on the principles of cellular structure and function that underlie the physiological functions of many organ systems. Three fundamental topics will be discussed: cell structure, the organization of the cells to form tissues, and cell physiology. Modern techniques in cellular physiology will be covered through critical analysis of the primary research literature.

F710 Physiology of Membranes (2 cr.) P: consent of instructor. Structure and function of cell membranes. Kinetics and energetics of membrane transport. Regulation of intracellular ionic concentrations. Hormonal and pathophysiological modification of membrane function.

F725 Muscle Macromolecules and Contraction (2 cr.) Structure and function of various macromolecules involved in muscle contraction. The aspects covered include excitation-contraction coupling, regulation of myoplasmic free calcium level, the contractile machinery, and force generation. Comparison in skeletal, cardiac, and smooth muscles. Lectures and guided discussion of papers.

F780 Special Topics in Physiology (cr. arr.) Tutorial instruction in physiology.

GRAD G706 Cell-Cell Communication (3 cr.) P: Consent of instructor. This course provides a basic understanding of chemical mechanisms of cellular communication, including the functional, biochemical, and molecular mechanisms of the communication processes involved. Modern techniques of signal transduction physiology will be covered through critical analysis of primary research literature.

GRAD G760 Epithelial Cell Biology (3 cr.) P: graduate mammalian physiology/biology or consent of instructor. An integrated approach to epithelial structure and function and the role of subcellular organization in organ physiology and pathophysiology.

GRAD G804 Cell and Molecular Biology (3 cr.) Cellular and molecular biology for medical students that emphasizes the structural organization, biochemistry and molecular biology of cells. Includes cellular processes, development and differentiation and their relationship to medicine.

GRAD G817 Eukaryotic Cell Biology (2 cr.) P: one semester of biochemistry. Organization and

function of subcellular structures. Intracellular coordination of cell activity: protein and RNA trafficking, chromatin dynamics, and intracellular processing of receptor-mediated signals.

GRAD G818 Integrative Cell Biology (3 cr.) This course provides broad understanding of ways in which cells are organized and integrated into tissues. Emphasis is on the function of cells in neural/neuroendocrine system, cardiopulmonary, renal, and immune systems and in cytomechanics. Modern approaches to the study of tissue function by analysis of cellular regulation will be emphasized.

GRAD G865 Fundamental Molecular Biology (3 cr.) P: BIOC B800 or equivalent. Principles of molecular structure, function and biosynthesis; core information regarding prokaryotic and eukaryotic gene continuity and metabolic coordination; introduction to multicellular systems and problems. (Joint program: biochemistry, medical genetics, microbiology.)

GRAD G890 Methods in Molecular Biology and Pathology (3 cr.) P: G865 and/or J838, and consent of instructor. Basic principles and techniques in molecular biology and pathology. Particular emphasis will be on molecular techniques that can be used to study problems related to biochemistry and pathology.

GRAD G910 Advanced Molecular Biology Methods (1-3 cr.) P: G865 and/or G890 and permission of instructor. Advanced theory and techniques in molecular biology. The focus of the course will be on techniques related to manipulation of cloned DNA to study their expression, structure, and function.

Central Eurasian Studies

College of Arts and Sciences
Bloomington

Chairperson

Professor Elliot Sperling

Departmental E-mail

ceus@indiana.edu

Departmental URL

www.indiana.edu/~ceus

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Distinguished Professor

Denis Sinor (Emeritus)

Professors

Ilhan Basgöz (Emeritus), Gustav Bayerle (Emeritus), Christopher I. Beckwith, Yuri Bregel (Emeritus), Jamsheed Choksy, Gyula Décsy, Devin DeWeese, William Fierman, Henry Glassie (Folklore), György Kara, Paul Marer (Emeritus, Business), Felix Oinas (Emeritus), Alo Raun (Emeritus), Toivo Raun, M. Nazif Shahrani, Mihály Szegedy-Maszák

Associate Professors

Christopher Atwood*, Paul Losensky, Larry Moses (Emeritus), Thubten Norbu (Emeritus), Kemal Silay, Elliot Sperling

Academic Advisor

Advisor Professor Elliot Sperling, Goodbody Hall 157, (812) 855-2233. All official advising after the second semester of enrollment is done by the student's Graduate Advisory Committee

Program Information

The department offers a comprehensive program on the study of Central Eurasia, the vast heartland of Europe and Asia. Students are introduced to the area as a whole and specialize in one of the major regions within Central Eurasia. The degree program consists of two interconnected elements: a language of specialization (LOS), which gives

a student access to the culture of a given region through the voices of its people; and a region of specialization (ROS), which includes courses on various aspects of the region's culture. The LOS may be any language offered regularly in the department including Estonian, Finnish, Hungarian, Mongolian, Persian, Tibetan, Turkish, Uzbek and other two-year department languages permitted by the student's Graduate Advisory Committee. Some regions and languages such as the Siberian region (including the Buryat, Evenki, Yakut, and other languages) and the Volga-Kama region (including the Mari, Mordvin, and other languages) are available only as individualized specializations at the Ph.D. level.

Degrees Offered

Master of Arts and Doctor of Philosophy. CEUS also offers a dual M.A./M.P.A. degree with the School of Public and Environmental Affairs.

Special Departmental Requirements

See also general University Graduate School requirements.

Master of Arts Degree

The degree requirements are subdivided into fields based on the region of specialization, one of the following: the Baltic-Finnish region (including primarily Estonian or Finnish as LOS), the Central Asian region (including primarily Uzbek as LOS), the Hungarian region (including Hungarian as LOS), the Iranian region (including Persian as LOS), the Mongolian region (including primarily Mongolian as LOS), Post-Communism and Nationalism (including an LOS chosen in consultation with the student's Graduate Advisory Committee; Russian may be an option), the Tibetan region (including Tibetan as LOS), and the Turkish region (including Turkish as LOS).

Admissions Requirements

All M.A. applicants must have achieved a minimum of a 3.0 (B) grade point average for the B.A. course work and the undergraduate record must show at least two years

of a single foreign language at the college level or the equivalent. International applicants must have a score of 550 or better for the paper-based TOEFL exam, or 213 or better for the computer-based exam.

Course Requirements

A total of 30 credit hours: 3 credit hours of a professional research methodology course; intermediate (second-year) level of a language of specialization taught in the department (6 hours); 12 credit hours of courses in the region of specialization; 6 credit hours of electives, at least 3 of which must be taken in the department; and U601, the M.A. thesis course (3 credit hours). The exact program for each student, based on departmental offerings, is established by the student's Graduate Advisory Committee.

Thesis

Required. Requirement can be waived if an M.A. thesis was written for an earlier M.A. degree.

Dual Master of Arts in Central Eurasian Studies and Master of Public Affairs (M.A./M.P.A.) Degree

The Department of Central Eurasian Studies and the School of Public and Environmental Affairs jointly offer a three-year program that qualifies students for a dual master's degree. One semester, preferably the first semester, of course work toward the dual degree should be completed in the School of Public and Environmental Affairs in order to complete prerequisite courses that are only offered in the fall.

Admissions Requirements

Same as for the Master of Arts degree except that application must also be made to the School of Public and Environmental Affairs for study toward the Master of Public Affairs degree. Students must be accepted by both units in order to be admitted to the program.

CEUS Course Requirements

Twenty-four credit hours of graduate course work to be distributed as follows: (1) three courses (9 credit

hours) on the culture, history, or society of the Region of Specialization; (2) two elective or "open" courses (6 credit hours) taught in the Department of Central Eurasian Studies which may include any graduate-level credit course not used to satisfy other requirements. Students are encouraged to take one of their electives in another Region of Specialization in the Department of Central Eurasian Studies; (3) intermediate level (6 credit hours) of one language of specialization taught in the Department of Central Eurasian Studies, selected according to the region of specialization; (4) U601, an independent study course (3 credit hours) that will serve as the M.A. thesis course; (5) an M.A. thesis (no credit hours) of not less than 50 and not more than 70 double-spaced pages (text and notes) which reflects the use of materials in the student's language of specialization or in at least one research language other than English; (6) demonstration of reading proficiency (no credit hours) in a modern research language such as French, German, or Russian. It is noted that the professional research methodology course requirement (3 credit hours) for a CEUS M.A. shall be satisfied by the methodology course required for the SPEA M.P.A.

Public and Environmental Affairs Course Requirements

Thirty-six credit hours of graduate course work to be distributed as follows: (1) three professional development practicum courses (3 credit hours) V501, V503, and V505; (2) six courses (18 credit hours) V502, V506, V517, V540, V560, V600; (3) five specialized concentration courses (15 credit hours) which may include SPEA, CEUS and other courses, to be selected in consultation with a SPEA advisor

Doctor of Philosophy Degree

Admission Requirements

M.A. degree or its equivalent in the Department of Central Eurasian Studies. If an M.A. degree was obtained elsewhere, the student must satisfy the Department of Central Eurasian Studies course

requirements for the M.A. in one of the fields of specialization described above, but need not write an M.A. thesis. In addition, all Ph.D. program applicants must have achieved a minimum of a 3.5 grade point average in Department of Central Eurasian Studies course work and completed all Central Eurasian M.A. requirements. For specific admission requirements and application guidelines, please contact the department.

Course Requirements

A total of 90 credit hours, including 30 credit hours required for the M.A. degree, and at least 60 credit hours beyond those used for the M.A. degree: four departmental courses relevant to the student's region of specialization (12 credit hours); three courses in the language of specialization and linguistics (9 credit hours); one 700-level seminar taught in the department; minors (a minimum of 24 credit hours); elective courses (12 credit hours).

Minors

Two outside minors or one inside and one outside minor, determined upon consultation with the student's Graduate Advisory Committee. At least one outside minor must be in a disciplinary department or program corresponding to the student's chosen discipline of specialization in the Department of Central Eurasian Studies.

Minors by Students from Other Departments

Ph.D. students majoring in other departments may take a minor in the Department of Central Eurasian Studies. This shall consist of 12 credit hours of courses taught in the department. The specific courses used to complete the minor in Central Eurasian Studies shall be approved in writing by the department faculty member who is selected by the student to serve on the student's Ph.D. qualifying committee as an outside minor representative. Students pursuing a minor are encouraged to identify a faculty advisor in the department as early as possible so that a well-integrated program of study can be established.

Research Language Requirement

Requirement Reading proficiency in two of the following: French, German, Russian. Substitutions, when justified by the student's field of specialization, may be permitted by the student's Graduate Advisory Committee.

Qualifying Examination

Written and oral. The written portion of the qualifying examination will be four hours long for each of the fields in which the student is to be examined. In each field several questions will be asked. The oral examination will be given within one week after the written examination. It will cover the same fields, with no fewer than 40 minutes devoted to each. At least three examiners will be present at the oral examination.

Marks of "high pass," "pass," and "failure" will be assigned to each field in the written and oral examinations. Unsatisfactory performance in one field of the written examination will require repetition of the examination in that field before the orals may be taken. Failing marks received in two fields of the written examination will constitute failure in the written part, and the student will not be allowed to retake the written examination during the same semester. If the student fails the written examination

twice, consent to continue work in the department will be withdrawn.

Unsatisfactory performance in one field of the oral examination will require repetition of the examination in that field. Failing marks received in two fields of the oral examination will constitute failure in the oral part, and the student will not be allowed to retake the oral examination during the same semester. If the student fails the oral examination twice, permission to continue work in the department will be withdrawn.

Dissertation

Required.

Final Examination

Defense of dissertation.

Courses

LANGUAGES

Chaghatay

U593 Chaghatay (3 cr.)

U594 Advanced Reading in Chaghatay (3 cr.)

Estonian

U341-U342 Introductory Estonian I-II (3-3 cr.)

U441-U442 Intermediate Estonian I-II (3-3 cr.)

U541-U542 Advanced Estonian I-II (3-3 cr.)

Finnish

U331-U332 Introductory Finnish I-II (3-3 cr.)

U431-U432 Intermediate Finnish I-II (3-3 cr.)

U531-U532 Advanced Finnish I-II (3-3 cr.)

U631 Old Finnish (3 cr.)

U632 Finnish Grammar (3 cr.)

Hungarian	Turkish	U600 Advanced Readings in Central Eurasian Studies (1-6 cr.)
U321-U322 Introductory Hungarian I-II (3-3 cr.)	U351-U352 Introductory Turkish I-II (3-3 cr.)	U670 Comparative Uralic Linguistics I (3 cr.)
U421-U422 Intermediate Hungarian I-II (3-3 cr.)	U451-U452 Intermediate Turkish I-II (3-3 cr.)	U671 Comparative Uralic Linguistics II (3 cr.)
U521-U522 Advanced Hungarian I-II (3-3 cr.)	U551-U552 Advanced Turkish I-II (3-3 cr.)	U673 Typology of Central Eurasian Languages (3 cr.)
U523 Hungarian Readings (cr. arr.)	U554-U555 Introductory Ottoman Turkish I-II (3-3 cr.)	U674 Comparative Finnic (3 cr.)
U623 History of the Hungarian Language (3 cr.)	U654-U655 Advanced Ottoman Turkish I-II (3-3 cr.)	U683 Altaic Linguistics (3 cr.)
U624 Hungarian Grammar (3 cr.)	Uygur	U690 Comparative Turkic Linguistics (3 cr.)
Kazak	U591-U592 Introductory Uygur I-II (3-3 cr.)	U710 Seminar in Uralic Studies (3 cr.)
U575-U576 Introductory Kazak I-II (3-3 cr.)	U691-U692 Intermediate Uygur I-II (3-3 cr.)	U720 Seminar in Central Eurasian Studies (3 cr.)
U675-U676 Intermediate Kazak I-II (3-3 cr.)	U505 Structure of Uygur (3 cr.)	U800 Research in Central Eurasian Studies (1-6 cr.)
Mongolian	Uzbek	HISTORY AND CULTURE COURSES
U361-U362 Introductory Mongolian I-II (3-3 cr.)	U353-U354 Introductory Uzbek I-II (3-3 cr.)	U345 Finno-Ugric and Siberian Mythology and Religion (3 cr.)
U461-U462 Intermediate Mongolian I-II (3-3 cr.)	U453-U454 Intermediate Uzbek I-II (3-3 cr.)	U368 The Mongol Century (3 cr.)
U561-U562 Advanced Mongolian I-II (3-3 cr.)	U556-U557 Advanced Uzbek I-II (3-3 cr.)	U370 Uralic Peoples (3 cr.)
U566-U567 Classical Mongolian I-II (3-3 cr.)	LINGUISTICS COURSES	U394 Islam in the Soviet Union and Successor States (3 cr.)
Tibetan	U502 Introduction to Yakut (3 cr.)	U423 Hungary between 1890 and 1945 (3 cr.)
U381-U382 Introductory Tibetan I-II (3-3 cr.)	U504 Introduction to Mari (Cheremis) (3 cr.)	U424 Hungarian Literature from Its Beginnings to 1900 (3 cr.)
U486-U487 Intermediate Tibetan I-II (3-3 cr.)	U520 Selected Topics in Central Eurasian Studies (1-6 cr.)¹	U426 Modern Hungarian Literature (3 cr.)
U488 Readings in Modern Tibetan Texts (3 cr.)	U568 Mongolian Languages and Dialects (3 cr.)	U427 Hungary from 1945 to Present (3 cr.)
U582 Old Tibetan (3 cr.)	U571 Uralic Languages (3 cr.)	U430 Finnic Folklore (3 cr.)
U586-U587 Advanced Tibetan I-II (3-3 cr.)	U581 Languages of Eastern Inner Asia (3 cr.)	U436 Finnish Civilization to 1800 (3 cr.)
U589 Readings in Classical Tibetan Texts (3 cr.)	584 Introduction to Manchu (3 cr.)	U437 Finnish Civilization from 1800 to the Present (3 cr.)
U688 Readings in Tibetan Buddhist Texts (3 cr.)	¹ Linguistic structure courses, offered periodically, cover such languages as Evenki, Mordvin, Sami (Lappish), Livonian, and Kazak.	U450 Turkish Oral Literature (3 cr.)

U459 Seminar in Turkish Studies (3 cr.)

U469 The Mongols of the Twentieth Century (3 cr.)

U481 Survey of Tibetan Literature (3 cr.)

U483 Introduction to the History of Tibet (3 cr.)

U484 The Religions of Tibet (3 cr.)

U485 Tibetan Oral Literature (3 cr.)

U489 Tibet and the West (3 cr.)

U490 Sino-Tibetan Relations (3 cr.)

U493 Islamic Central Asia, Sixteenth-Nineteenth Centuries (3 cr.)

U494 Central Asia under Russian Rule (3 cr.)

U495 Islamic Central Asia to the Sixteenth Century (3 cr.)

U496 Ethnic History of Central Asia (3 cr.)

U497 Inner Asian Peoples and Nationality Policy in the Peoples' Republic of China (3 cr.)

U498 Religion and Power in Islamic Central Asia (3 cr.)

U518 Empire and Ethnicity in Modern Russian History (3 cr.)

U519 Soviet and Post-Soviet Nationality Policies and Problems (3 cr.)

U520 Selected Topics in Central Eurasian Studies (1-6 cr.)¹

U533 Finland in the Twentieth Century (3 cr.)

U524 Romanticism (3 cr.)

U534 Classical Finnish Literature (3 cr.)

¹Linguistic structure courses, offered periodically, cover such languages as Evenki, Mordvin, Sami (Lappish), Livonian, and Kazak.

U535 Modern Finnish Literature (3 cr.)

U543 Estonian Culture and Civilization (3 cr.)

U544 The Baltic States since 1918 (3 cr.)

U550 Turkish Folklore: Methodology and Analysis (3 cr.)

U563 Mongolian Historical Writings (3 cr.)

U564 Mongolian Literature and Folklore (3 cr.)

U565 Mongolian Civilization and Folk Culture (3 cr.)

U569 Modern Inner Mongolia (3 cr.) Introduction to the modern history of the area of Inner Mongolia. Surveys major trends, ideas, personalities, and events; places Inner Mongolia within the context of both China and Inner Asia; uses the history of Inner Mongolia to explore current general theories of nationalism, development, and culture change.

U570 Ordos Documents (3 cr.) This seminar offers students in Mongolian Studies a guided introduction to pre-revolutionary Mongolian documents, both literary-religious and socio-political. Reading in English translation material from Ordos (Inner Mongolia), students will familiarize themselves with Mongolian genres of writing and become acquainted with the major issues in their use.

U574 Environmental Problems and Social Constraints in Northern and Central Eurasia (3 cr.) This course provides students with an analysis of environmental, social, and economic issues in the immense region of Central and Northern Eurasia. After the USSR collapsed more than 10 years ago, a new geo-political situation emerged across the former Soviet realm. This region plays a crucial role in global stability.

U588 Chinese Inner Asia to 1949 (3 cr.) History of Chinese Inner Asia from the rise of the Qing dynasty to the Chinese Communist victory in 1949-1951. Focus includes Qing systems of indirect rule, colonization, the New Policies, religion and modernity, indigenous nationalist movements and their interaction with both outside powers, and the Soviet and Chinese Communist movements.

U590 Shamanism in Central Eurasia (3 cr.)

U595 Introduction to History of Central Eurasian Studies (3 cr.) Overview of ethnolinguistic, political, cultural history from Proto-Indo-European revolution to present, focusing on the Middle Ages, when Central Eurasia dominated world geopolitics. Topics include Scythians, Hsiung-nu; Silk Road, Sogdians; Attila the Hun, Goths; Turks, Magyars, Tibetans; Genghis Khan; Tamerlane; Ottoman, Persian, Mughal, Manchu empires; Russian, Chinese colonization.

U596 Post-Soviet Transition in Central Asia (3 cr.) Examines problems of transition since 1991 in Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. Topics include political systems, economic change, emergence of national identities, foreign policy (with "near" and "far" abroad), social welfare and education, demography, language policy, citizenship, military (including military conflict), and borders.

U597 Politics and Society in Central Asia (3 cr.)

U598 Peoples and Cultures of Central Asia (3 cr.)

U599 Seminar on Social Change in Central Asia (3 cr.)

U600 Advanced Readings in Central Eurasian Studies (1-6 cr.)

U601 M.A. Thesis Research (3 cr.)

U698 Islamic Hagiography of Central Asia (3 cr.) P: reading

knowledge of Persian or Chaghatay Turkic.

U710 Seminar in Uralic Studies (3 cr.)

U720 Seminar in Central Eurasian Studies (3 cr.)

U730 Seminar in Hungarian Studies (3 cr.)

U785 Seminar in Tibetan Literature (3 cr.)

U790 Colloquium in Central Eurasian Studies (1 cr.)

U797 Seminar on Comparative Study of Muslim Societies of Central Asia and Middle East (3 cr.)

U798 Seminar on Central Asian Nomadic Pastoralism (3 cr.)

U800 Research in Central Eurasian Studies (1-6 cr.)

Chemical Physics

College of Arts and Sciences
Bloomington

Departmental E-mail
gradphys@indiana.edu

Departmental URL
www.chemphys.indiana.edu

Co-Directors
Associate Professors David Baxter (Physics), Josef Zwanziger (Chemistry)

Graduate Faculty
(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Chancellors' Professor
George Ewing (Emeritus, Chemistry)

Distinguished Professors
Ernest Davidson (Chemistry), Steven Girvin (Physics), Gary Hieftje (Chemistry), Allan MacDonald (Physics), Peter Ortoleva (Chemistry), Charles Parmenter (Chemistry), Victor Viola (Chemistry)

Robert and Marjorie Mann Chair
Gary Hieftje (Chemistry)

Professors

Adam Allerhand (Emeritus, Chemistry), David Baxter (Physics), Russell Bonham (Emeritus, Chemistry), David Clemmer (Chemistry), Stanley Hagstrom (Emeritus, Chemistry, Computer Science), Larry Kesmodel (Physics), Lawrence Montgomery (Chemistry), James Reilly (Chemistry), William Schaich (Physics), James Swihart (Emeritus, Physics), Josef Zwanziger (Chemistry)

Associate Professors

David Baxter (Physics), John Carini (Physics), Glenn Martyna (Chemistry) Romualdo de Souza (Chemistry), Josef Zwanziger (Chemistry)

Assistant Professors

Bogdan Dragnea* (Chemistry), Jay Tang* (Physics)

Graduate Advisors

Professor David Baxter, Swain West 128, (812) 855-8337; Professor Josef Zwanziger, Chemistry C231A, (812) 855-3994

Degree Offered

Doctor of Philosophy. A student may also qualify for the Master of Science degree in chemistry or physics.

Special Program Requirements

See also general University Graduate School requirements.

Doctor of Philosophy Degree

Admission Requirements

Undergraduate degree in chemistry, physics, or mathematics. Students who have interests in the physical sciences with undergraduate degrees in other fields, such as engineering, are also encouraged to apply; they will be considered on an individual basis. Admission to the program requires that the student first be admitted to the graduate program in chemistry or physics.

Grades

B (3.0) average or higher must be maintained.

Course Requirements

These requirements are flexible and are planned and approved by the Chemical Physics Committee and the individual student. The guidelines in planning the curriculum are that the student in the program should acquire a knowledge of condensed-matter physics, electricity and magnetism, molecular structure, kinetics, atomic and molecular spectroscopy, quantum mechanics, and statistical mechanics. The formal requirements are either those of a major in physical chemistry with a minor in physics, or of a major in physics with a minor in chemistry.

Minor

For a minor in physics, 9 credit hours in physics courses at the P501 level or higher are required. For a minor in chemistry, 6 credit hours are required, chosen from the following: C561-C562, C566, C567-C568, C668. Occasionally, courses other than those listed here may be accepted, but such substitutions require approval of the Chemical Physics Committee.

Major

See Ph.D. program descriptions listed under chemistry or physics.

Qualifying Examination

See requirements of the major department, found elsewhere in this bulletin.

Dissertation

Under the direction of a graduate faculty member of the Department of Chemistry or the Department of Physics.

Final Examination

Usually oral, covering dissertation, major, and minor(s).

Chemistry

College of Arts and Sciences
Bloomington

Chairperson
David Clemmer

Departmental E-mail
chemgrad@indiana.edu

Departmental URL
www.chem.indiana.edu

Graduate Faculty
(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Chancellors' Professor
George Ewing (Emeritus)

Harry G. Day Chair
David R. Williams

Robert and Marjorie Mann Chairs
David Clemmer, Gary Hieftje, Martin Jarrold

Linda and Jack Gill Chair
Richard D. DiMarchi

Lilly Chemistry Alumni Chair
Milos Novotny

Distinguished Professors
Kenneth Caulton, Ernest Davidson (Emeritus), Frank Gurd (Emeritus), Gary M. Hieftje, Ronald Hites (Public and Environmental Affairs), Milos Novotny, Peter Ortoleva (Geological Sciences), Charles Parmenter, Victor Viola

Herman T. Briscoe Professor
Dennis Peters

Professors
Adam Allerhand (Emeritus), Edward Bair (Emeritus), Russell Bonham (Emeritus), Ernest Campaigne (Emeritus), Marvin Carmack (Emeritus), Jack Crandall (Emeritus), Harry Day (Emeritus), Romualdo de Souza, P. Andrew Evans, Joseph Gajewski (Emeritus), Stanley Hagstrom (Emeritus, Computer Science), W. Terry Jenkins (Emeritus, Biochemistry and Molecular Biology), Martin Jarrold, Lawrence Montgomery, Krishnan Raghavachari, James Reilly, John Richardson (Emeritus) (Biochemistry), V. Jack Shiner Jr. (Emeritus), Lee Todd (Emeritus), Rupert Wentworth (Emeritus), Theodore Widlanski, Jeffrey M. Zaleski

Associate Professors
Caroline Jarrold, Martha Oakley, Stephen C. Jacobson, Philip S.

Stevens (Atmospheric Chemistry), Martin Stone

Senior Scientist
John Huffman

Assistant Professors
Mu-Hyun Baik*, Donald Burke*, Bogdan Dragnea*, Andrew Feig*, Jeffrey Johnston*, Daniel Mindiola*, Srinivasan S, Iyengar*, Dongwhan Lee*, Thomas J. Tolbert*

Graduate Advisor
Jeffrey M. Zaleski, Chemistry Building C121 (812) 855-2069

Degrees Offered
Master of Science, Master of Arts for Teachers, and Doctor of Philosophy. The department also participates in the biochemistry, chemical physics, and molecular and cellular biology programs.

Fields of Study
Analytical, biological, inorganic, organic, and physical chemistry.

Special Department Requirements
(See also general University Graduate School requirements.)

Admission Requirements
Undergraduate degree in chemistry, physics, mathematics, or the biological sciences. Students with undergraduate degrees in other areas of the physical sciences or engineering are also encouraged to apply. Students are admitted to the program only with the approval of the Chemistry Graduate Admissions Committee.

Grades
At least a B (3.0) average in work for the advanced degree. Grades below C (2.0) are not counted toward the completion of degree requirements but will be counted in determining a student's grade point average.

Master of Science Degree
This degree may be conferred upon the holder of a bachelor's degree or master's degree in another discipline.

Course Requirements
These requirements are flexible and

are planned and approved by the graduate committee. A minimum of 30 credit hours in chemistry are required. At least 9 credit hours of course work in the major field offered in fulfillment of the M.S. degree must be in courses numbered 500 or above (excluding thesis work).

Thesis
Required.

Master of Arts for Teachers Degree

The M.A.T. program permits a secondary school teacher with minimum training in chemistry to achieve certification for the teaching major in chemistry in the secondary school. Teachers already holding such certification may strengthen their training by taking advanced lecture and laboratory work in chemistry. Students with B.A. or B.S. degrees in chemistry, but with no education courses, may complete requirements for a secondary Indiana teaching certificate and strengthen their chemistry training.

Admission Requirements
Eighteen (18) credit hours of chemistry, including one semester each of general, quantitative, and organic chemistry. Deficiencies must be removed without graduate credit. Continuance in the program will depend upon the results of a qualifying examination taken after either one semester or one summer in the program.

General Requirements
A total of 36 credit hours, of which a minimum of 20 credit hours must be in courses in chemistry that carry graduate credit. A maximum of 6 credit hours of undergraduate courses may be applied toward the M.A.T. degree. For a student having an unusually strong undergraduate background in chemistry, e.g., a B.S. degree, some of the required 20 credit hours in advanced chemistry courses may be in other areas of science and mathematics, if approved in advance by the graduate advisor. A student completing the requirements for the M.A.T. degree in chemistry must also have met the requirements for certification for a

teaching major in science in the secondary school. Consult Education Student Services (Wright Education Building 1064, [812] 856-8511) for details.

Lecture-Course Requirements

Twelve (12) credit hours, distributed as follows: 6 credit hours in one of the five fields listed above and 3 credit hours in each of two of the remaining four. Lecture courses may be selected from those at the 500 level or above and from any of the following undergraduate courses: analytical, C317, C318; biological, C481, C483, C484, C485; inorganic, C430; organic, C342, S342, C443; physical, C360, C361, S361, C362, S362, C460.

Laboratory-Course Requirements

Two (2) credit hours chosen so that the student's total background in advanced laboratory courses will include credit in three different fields. The following, and comparable courses taken elsewhere, will qualify: C315, C335, C344, S344, C364, C435, C487. Credit may be received for C509 if it is taken in a field in which a 500-level lecture course has been taken or is being taken concurrently.

Electives

Additional courses in chemistry at the 400 level or above to give a total of at least 20 credit hours (including course work in the above two categories). Up to 16 credit hours in courses at the 300 level or above in mathematics, biological sciences, physical sciences, or education carrying graduate credit.

Final Examination

Either oral or written or both.

Master of Library Science/Master of Information Science Degree Information Specialist (Chemistry)

Offered by the School of Library and Information Science. Students in this joint program receive the Master of Library Science degree or the Master of Information Science degree and are certified as information specialists in chemistry.

Admission Requirements

Bachelor's degree in chemistry or the equivalent.

Course Requirements

Three of the four common core courses in SLIS (L503, L505, L507, L509); Chemistry C400, C401, C402; and the core requirements for either the M.L.S. or the M.I.S. For further details, consult the graduate advisor in the School of Library and Information Science.

Doctor of Philosophy Degree

The program leading to the Ph.D. degree emphasizes the attainment of a high level of competency in a specialized area of chemistry, but also requires the development of broad knowledge and experience. By the time the degree is earned, the student should show promise of becoming a capable and independent investigator in chemistry. The major emphasis for the Ph.D. is on research while in residence on the Bloomington campus. Research should be the student's greatest challenge and the focus of the major portion of his or her energy. The student's attitude toward and progress in research is a most important factor in graduate committee decisions.

Course Requirements

A total of 90 credit hours, of which at least 24 credit hours must be in course work. Students may major in analytical, biological, inorganic, organic, or physical chemistry. Doctoral students majoring in a field of chemistry are required to complete a minimum of 12 credit hours of course work in that field, following a sequence of courses approved by their advisory committee.

A doctoral student in chemistry can choose to minor within the chemistry department or can elect to minor in some other department. In the latter case, the requirements are specified by the minor department. Students electing to minor within the department must complete a minimum of 6 credit hours in areas of chemistry other than the major area. The course work comprising an

inside minor must be approved by the advisory committee.

All doctoral students in chemistry are required to enroll in C500 Introduction to Research during their first year of study.

Foreign-Language/Tool-Skill Requirement

The department has no formal foreign language or tool-skill requirement, but Ph.D. advisory committees may consider such courses essential for individual students.

Qualifying Examinations

To remain in good standing, students must pass monthly cumulative examinations at the prescribed rate: one by the end of the second semester, three by the end of the third semester, and five by the end of the fourth semester. At least three examinations passed must be in the student's major field. In the second year, students present a literature seminar. In the fifth semester, students meet with their advisory committees to review past performance in both the major and minor areas and to evaluate plans for completing the Ph.D. This review includes a seminar, written document, and oral examination. Current information concerning probation, termination, and reinstatement policies may be obtained from the departmental graduate office.

Final Examination

Usually oral, covering dissertation, major, and minors, and also a seminar describing the dissertation.

Ph.D. Minor in Chemistry

Students from other departments who wish to minor in chemistry must complete at least 6 credit hours of graduate course work in chemistry with an average of B (3.0) or above.

Courses

C315 Chemical Measurements Laboratory I (3 cr.)

C317 Equilibria and Electrochemistry (2 cr.)

C318 Spectrochemistry and Separations (2 cr.)

C335 Inorganic Chemistry Laboratory (1-3 cr.)

C341-C342 Organic Chemistry Lectures I-II (3-3 cr.)

C343-C344 Organic Chemistry Laboratory I-II (2-2 cr.)

C360 Introductory Physical Chemistry (3 cr.) Not for M.S. or Ph.D. students in chemistry.

C361 Physical Chemistry of Bulk Matter (3 cr.)

C362 Physical Chemistry of Molecules (3 cr.)

S362 Physical Chemistry of Molecules, Honors (3 cr.)

C364 Introduction to Basic Measurements (3 cr.)

C400 Chemical Information Sources and Services (1 cr.) P or C: C341, S341, or consent of instructor. Credit given for only one of C400 and C471.

C402 Current Topics in Chemical Information (1 cr.)

C405 Principles of Chemistry (1-3 cr.) For teachers of high school chemistry; offered in summer session only. May be repeated.

C406 Lecture Demonstration Techniques in Chemistry (1-2 cr.) Nonmajors only.

C430 Inorganic Chemistry (3 cr.)

C460 Nuclear Chemistry (3 cr.)

C472 Computer Sources for Chemical Information (1 cr.) P: C400. II Sem. Credit given for only one of C401 and C472.

C483 Biological Chemistry (3 cr.)

C484 Biomolecules and Catabolism (3 cr.)

C485 Biosynthesis and Physiology (3 cr.)

C500 Introduction to Research (2-6 cr.; 6 cr. max.) Objectives and techniques of chemical research. Assignment to research problem to be completed during two semesters.

C501 Chemical Instrumentation (4 cr.) Electronics as applied to chemical instrumentation; design and construction of instruments used in chemical research, analysis, recording, and control; maintenance and practice in modification to meet special needs.

C502 Spectroscopic Methods in Inorganic Chemistry (3 cr.) P: C361. Chemical applications of group theory and the elucidation of structure and bonding in inorganic molecules and complexes by vibrational, nuclear magnetic resonance, Mossbauer and electronic absorption spectroscopy.

C503 Spectrometric Methods of Structure Determination (3 cr.) P: graduate standing. Elucidation of molecular structure utilizing IR, UV, and NMR spectroscopy, mass spectrometry, and other methods.

C506 Biogeochemistry (3 cr.) The formation and processing of organic material in natural environments. Microbiology of sediments. The global biogeochemical cycles of carbon, nitrogen, and sulfur. Geochemistry of organic materials. Organic geochemical evidence of evolutionary events.

C509 Special Laboratory Problems (1-5 cr.) Nonmajors only. P: 8 credit hours of chemistry toward graduate degree, consent of instructor. P or C: 500-level lecture course in research field. Participation in scientific research to gain understanding of its philosophy and techniques.

C511 Advanced Analytical Methods I (4 cr.) Theory and practice of analytical separation techniques and analytical spectroscopy; chromatographic methods of separation, fundamentals

of gas and liquid chromatography, overview of spectroscopic instrumentation, atomic and molecular spectroscopy for analysis.

C512 Advanced Analytical Methods II (4 cr.) Theory and practice of electrochemical (potentiometric and voltammetric) methods of analysis; introduction to analytical chemistry of the elements and statistics for analytical chemistry.

C540 Advanced Organic Chemistry (3 cr.) P: C362 and C342. Valence and molecule structure, electronic interpretation of organic reactions, stereochemistry.

C543 Organic Reactions (3 cr.) Synthesis of organic compounds, degradation reactions, selected topics in organic reactions.

C561 Atomic and Molecular Quantum Theory (3 cr.) P: graduate standing or consent of instructor. Elements of quantum theory, solution of elementary problems with chemical applications, approximate methods, atomic structure, molecular symmetry and normal vibrations, the molecular orbital description of molecules.

C562 Computational Quantum Chemistry (3 cr.) P: C561 or consent of instructor. Electronic structure theory at the Hartree-Fock and semiempirical levels, computer calculations on elementary systems, elements of group theory and linear vector spaces, electron correlation, structure of potential surfaces.

C566 Molecular Optical Spectroscopy (3 cr.) P: C561 or consent of instructor. Interaction of radiation with matter. Spectroscopic probes of the rotational, vibrational, and electronic structure of molecules. Advanced laser methods.

C567 Chemical Statistical Mechanics (3 cr.) P: graduate standing or consent of instructor. Introduction to equilibrium and nonequilibrium many-body systems using ensemble techniques. Emphasis on molecular systems and systems undergoing chemical

transformation or transport. Both qualitative and rigorous approaches.

C568 Advanced Statistical Mechanics (3 cr.) P: C567 or consent of instructor. Selected topics such as pair correlation functions in classical liquids, laser and reaction-transport, nonequilibrium phenomena, critical phenomena, reaction rates, condensed media, NMR, precipitation and polymer kinetics, Green's function methods, and computational methods.

C571 Chemical Information Technology (3 cr.) P: consent of instructor. Chemical structure and data representation and search system; chemical information and database system: laboratory information management systems, spectral and crystallographic databases, chemical reaction databases, patent information management systems, commercial chemical information databases, electronic chemical publishing systems; bio-informatics.

C572 Computational Chemistry and Molecular Modeling (3 cr.) P: C571 or consent of instructor. Molecular modeling: computer models of molecules and their behavior in gas and condensed phases; implicit and explicit solvation models; quantum and molecular mechanics; search strategies for conformational analysis, geometry optimization methods; information content from Monte Carlo and molecular dynamics simulations. Statistics and chemometrics: multivariate statistics and experimental design, numerical methods, calibration and chemical analysis, optimization methods, artificial intelligence. Molecular design: de novo design techniques; quantitative structure activity relationships (QSAR); comparative molecular field analysis (CoMFA); docking; molecular diversity and combinatorial libraries.

C578 Seminar: Chemical Informatics (1-3 cr.) P: C571 or consent of the instructor. Topics vary yearly and include the following: chemometrics, chemical publishing and display of chemical electronic

information, bibliometrics, patent searching, among others. II Sem.

C581 Macromolecular Structure and Interaction (3 cr.) Principles of inter- and intro- molecular interactions; structural stability of proteins and nucleic acids; thermodynamic and kinetic analysis of complex binding; experimental methods for analysis of macromolecular structure and binding.

C582 Biomolecular Catalysis (3 cr.) P: Theory and analysis of biochemical catalysis; enzyme kinetics; cofactors; regulation of enzymatic reactions.

C585 Structure and Function of Biological Membranes (3 cr.) Biochemistry and biophysics of lipids, membranes, and membrane proteins; fundamentals of membrane transport; interfacial catalysis; transmembrane signal transduction.

C611 Electroanalytical Chemistry (1.5-3 cr.) Theory and practice of electrochemical techniques (such as cyclic voltammetry, chronocoulometry, stripping analysis, thin-layer electrochemistry, and spectroelectrochemistry) used for analysis and for the characterization of inorganic and organic systems. (May be offered in alternate years.)

C612 Spectrochemical Methods of Analysis (1.5-3 cr.) New instrumentation and techniques employed in spectrochemistry; in-depth treatment of commonly used spectrochemical methods. (May be offered in alternate years.)

C613 Mass Spectrometry and Stable Isotopes (1.5-3 cr.) Topics in mass spectroscopic instrumentation and applications and in the natural chemistry of the stable isotopes of C, H, N, O, S, and rare gases. (May be offered in alternate years.)

C614 Chromatography (1.5-3 cr.) Theoretical and practical aspects of chromatographic methods of separation; fundamentals of gas and liquid chromatography, related instrumentation, and selected

applications. (May be offered in alternate years.)

C615 Bioanalytical Chemistry (1.5-3 cr.) Survey of modern analytical techniques, including spectrochemical, electrochemical, and separation methods, used in biochemical analysis and their applications. (May be offered in alternate years.)

C616 Surface Analysis and Surface Chemistry (1.5 cr.) An overview of the modern instrumental techniques of surface analysis will be presented, together with a survey of their applications to solve surface chemical problems. Topics include electron and ion spectroscopies, SIMS, LEED, thermal desorption spectroscopy, surface electron and ion microscopies, catalysis, microelectronics fabrication, and corrosion.

C619 Seminar: Analytical Chemistry (1 cr.) P: consent of instructor. Individual student seminars covering new methods or applications of chemical analysis or characterization. Required of all analytical chemistry majors.

C630 Structure and Bonding (3 cr.) P: C502 and C561. Applications of quantum mechanics to the electronic and geometric structure of inorganic molecules. Advanced ligand field and molecular orbital theories. The Jahn-Teller effects and orbital symmetry studies of stereochemistry. Inorganic photochemistry. (May be offered in alternate years.)

C632 Structure, Function, and Spectroscopy of Metal Ions in Biological Systems (3 cr.) Introduction to the field of bioinorganic chemistry and spectroscopic methods for determining structure/function relationship of metal ions in biology. Emphasis on oxygen carriers, metal ion transport and storage, as well as oxidoreductases involved in oxygen, hydrogen, and nitrogen metabolism. A discussion of electron transfer proteins, photosystems, and the role of metals in medicine will also be included.

C633 Inorganic Chemistry of Main Group Elements (3 cr.) The syntheses, structure, and industrial application of compounds and materials in which main group elements play a major role. All elements except the d-block transition metals are included as main group elements. This includes the f-block lanthanides and actinides as well.

C634 Transition Metal Chemistry (3 cr.) Survey of the properties of the transition metals with emphasis on common oxidation levels, coordination geometries, and compounds with “classical” ligands; “hard” and “soft” acids and bases; d-orbitals and their energies in different geometries; formation constants and the Chelate Effect; the Jahn-Teller theorem; low-, intermediate-, and high-spin systems; mixed valency; metal-ligand multiple bonding, metal-metal bonds; coordination clusters and their biological relevance.

C635 Mechanisms of Inorganic Reactions (3 cr.) Analysis of the experimental and theoretical basis for our understanding of the reactions associated with main group and transition metal ions and inorganic reagents in solution. Classes of reactions include ligand substitutions, redox reactions, electron transfer reactions, reactions within the coordination sphere of metal ions including catalysis by photochemical and electrochemical activation.

C636 Organometallic Chemistry and Catalysis (3 cr.) Synthesis and reactivity of organo-main group and transition metal compounds, including application to organic synthesis. Predictive principles and generic C-C and C-H bond-forming reactions, including hydrogenation, coupling, addition to olefins or alkynes, and metatheses. These reactions are also extended to reactions on surfaces and solid-state processes.

C637 Physical Methods in Structural Chemistry (3 cr.) Application of X-ray diffraction, dynamic NMR and mass

spectroscopy to structural and mechanistic problems throughout the periodic table, with emphasis on what techniques are optimal for particular questions, as well as the potential weaknesses of each.

C638 Seminar: Inorganic Chemistry (1-3 cr.) P: consent of instructor. Topics not ordinarily covered by regularly scheduled courses, such as boron hydrides, X-ray diffraction, metal-metal bonds, bioinorganic chemistry, platinum metals chemistry, inorganic photochemistry, etc. (May be offered in alternate years.)

C639 Characterization of Paramagnetic Molecules (3 cr.) Definitions of diamagnetism, paramagnetism, magnetization and magnetic susceptibility; the Curie Law; orbital angular momentum; the Van Vleck equation; zero-field splitting; exchange interactions in dinuclear and polynuclear metal clusters. Basic concepts of paramagnetic NMR; spin delocalization mechanisms and isotropic shifts; contact and dipolar contributions. EPR of transition complexes; g-value anisotropy as a function of coordination geometry.

C643 Organic Natural Products (3 cr.) P: C540 and C543; or consent of instructor. Synthesis and chemical-physical analysis of the structure of alkaloids, antibiotics, bacterial metabolites, plant pigments, steroids, and terpenes. (May be offered in alternate years.)

C644 Physical Organic Chemistry (1-3 cr.) P: C342 and C362. Application of physical-chemical techniques to the study of structure and mechanism of reaction of organic compounds.

C648 Seminar: Organic Chemistry (1-3 cr.) P: consent of instructor. Recent developments in such areas as sulfur compounds, heterocycles, stereochemistry, polymers, and synthesis. (May be repeated.)

C668 Seminar: Physical Chemistry (1-3 cr.) P: consent of instructor. Topics such as chemical applications of matrix algebra and group theory,

digital computing techniques, solid state chemistry, high temperature processes, electrochemistry, theory of solutions, spectroscopy, and surface chemistry. (May be repeated.)

C681 Advanced Protein Biosynthesis and Processing (1.5 cr.) Detailed analysis of protein synthesis, post-translational modification, and macromolecular assembly, including the role these modifications play in mature protein function, biosynthesis, structure, function, and analysis of complex oligosaccharides.

C683 Advanced Nucleic Acid Biochemistry (1.5 cr.) Mechanistic analysis of nucleic acid metabolism; specificity and role of DNA polymerases and repair pathways; DNA replication and recombination mechanisms; RNA structural motifs and physical properties; RNA synthesis and processing in gene expression; catalytic RNA molecules; applications of RNA molecules.

C685 Advanced Macromolecular Structure and Interaction (1.5 cr.) Supplements and extends B503; emphasis on stability and folding mechanisms of proteins and nucleic acids and detailed thermodynamic analysis of binding interactions.

C686 Structural Methods (1.5 cr.) Fundamental principles of circular dichroism, nuclear magnetic resonance, and X-ray crystallography in the study of protein and nucleic acid structures. Theoretical and practical aspects will be presented, with particular emphasis on application strategies.

C688 Seminar in Biochemistry Attendance and participation in the weekly Biochemistry Program seminar series.

C810 Research: Analytical Chemistry (cr. arr.)**

C830 Research: Inorganic Chemistry (cr. arr.)**

**These courses are eligible for deferred credit.

C840 Research: Organic Chemistry (cr. arr.)**

C860 Research: Physical Chemistry (cr. arr.)**

C880 Research: Biological Chemistry (cr. arr.)**

Classical Studies

College of Arts and Sciences
Bloomington

Chairperson

Professor William Hansen

Departmental E-Mail

hansen@indiana.edu

Departmental URL

www.indiana.edu/~classics

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors

James Franklin, James Halporn (Emeritus), William Hansen, Thomas Jacobsen (Emeritus), Eleanor Winsor Leach, Timothy Long, Carroll Nelson (Emeritus), Edwin Ramage (Emeritus), Ian Thomson (Emeritus)

Associate Professors

Cynthia Bannon*, Matthew Christ, Betty Rose Nagle

Director of Graduate Studies

Professor Eleanor Winsor Leach, Ballantine Hall 547, (812) 855-6651

Degrees Offered

Master of Arts, Master of Arts for Teachers, and Doctor of Philosophy.

Special Departmental Requirements

(See also general University Graduate School requirements.)

Placement Examination

All newly admitted students will be required to take a translation

examination in Latin and/or Greek for the purpose of placement. This examination will be given in the week preceding initial registration. It is the student's responsibility to arrive on campus in time to take this examination. No student will be permitted to enroll for courses until the results of this placement examination are delivered to the director of graduate studies.

Master of Arts Degree

Admission Requirements

Undergraduate major in Latin or Greek or the equivalent. Graduate Record Examination General Test required.

Course Requirements

A minimum of 30 credit hours of Latin, Greek, or classics courses, of which at least 22 credit hours must be in Latin or Greek. One course involving the writing of a term paper.

Final Examination

Sight translation examination (two hours) in Latin or Greek. Written examination (two hours) on the history of Greek or Latin literature.

Language Requirement

Reading proficiency in one language: French, German, or another approved modern language, or (for students majoring in Latin) classical Greek. The requirement in classical Greek may be satisfied by completing G500-G650. (The latter courses may not be taken for credit by doctoral students majoring in the Department of Classical Studies.) A grade of B or better in G650 fulfills the reading-knowledge requirement in classical Greek.

Master of Arts in Teaching Degree

Admission Requirements

Undergraduate major in Latin or Greek or the equivalent. Graduate Record Examination General Test required.

Course Requirements

A total of 36 credit hours of course work, of which at least 20 credit hours must be in courses involving

use of the Latin language and 6 credit hours in courses dealing with aspects of Roman civilization, such as Roman art, archaeology, and history. Ten (10) credit hours in education may be counted. Additional credit hours in education are required for certificate in the School of Education.

Final Examination

Sight translation examination (two hours) in Latin. Written examination (two hours) on the history of Latin literature.

Doctor of Philosophy Degree

Admission Requirements

As a prerequisite for admission, a student must (1) have completed at least 24 credit hours of graduate work in classical studies; (2) show proficiency in one modern foreign language; (3) show evidence of scholarly potential as indicated by the submission of a term paper or revised version of a term paper to the Ph.D. admission committee of the department; (4) supply two letters of reference; and (5) take the Graduate Record Examination General Test.

Course Requirements

A total of 90 credit hours, including dissertation (maximum of 28 credit hours). Fifty-three (53) credit hours must consist of the 20 credit hours of core requirements (C501, C502, G536, G537, L536, and L537) and 33 additional credit hours of Latin and Greek reading and seminar courses. The remaining credit hours are distributed among the courses in the minor program.

Minor

A total of 12 to 15 credit hours of course work, to be planned in consultation with the director of graduate studies. Minor programs aim to broaden the student's knowledge in some aspect of classical studies outside the core curriculum. A minor may be taken in a single department (e.g., fine arts, comparative literature, history); in that case, the student should also consult with the director of graduate

**These courses are eligible for deferred credit.

studies in that department. An interdepartmental minor (examples include “ancient studies” and “mythology studies”) combines course work in other departments with appropriate courses in classical studies.

Another possibility is an interdepartmental minor in “related fields,” with courses selected from comparative literature, fine arts, folklore, history, history and philosophy of science, linguistics, medieval studies, philosophy, religious studies, Renaissance studies, or any other appropriate department or school (e.g., law or music); the aim of this “related fields” minor is to introduce the student to methodologies and approaches other than the philological, which may be applied to the study of the cultures of ancient Greece and Rome.

Language Requirements

Reading proficiency in French and German; substitution for French of one other modern language will be considered on petition. This requirement must be completed before the qualifying examinations may be taken.

Qualifying Examinations

Translation examinations (three hours each) based on reading lists in Greek and in Latin. Students should have passed the reading list translation examinations in both Latin and Greek by the end of the third year (if they were admitted to the M.A. program) or by the end of the second year (if they were admitted to the Ph.D. program with an M.A. degree). Qualifying examinations are also required on the history of Greek and Latin literature (three hours each) and on a major author (three hours) chosen by the student. Students should have passed all three of the qualifying examinations by the end of the fourth year (if they were admitted to the M.A. program) or by the end of the second year (if they were admitted to the Ph.D. program with an M.A. degree). An examination on the outside minor may be required by the department of the outside minor.

Final Examination

Oral, primarily a defense of the dissertation.

Ph.D. Minor in Greek or Latin

Prospective minors should obtain a copy of “Graduate Minors in Latin and Greek” from the graduate secretary in Ballantine Hall 547, and plan their course work in advance with the director of graduate studies (Department of Classical Studies).

Courses

The 500-level courses are intended to emphasize the reading of texts in the original language; 600-level seminars and studies are intended to provide a specialized focus on one topic or theme with greater attention to scholarship and secondary literature.

GREEK COURSES

G302 Classical Greek: Accelerated Course II (3-3 cr.)¹

G305 Greek Tragedy (3 cr.)

G306 Greek Oratory (3 cr.)

G307 Selected Works of Plato (3 cr.)

G308 Readings in Biblical Greek (3 cr.)

G406 Homer (3 cr.)

G407 Greek Historians (3 cr.)

G410 Greek Prose Authors (3 cr.)

G411 Greek Comedy (3 cr.)

G500 Elementary Greek I (2 cr.)

¹ Five (5) credits each semester for undergraduates.

G510 Readings in Greek

Historians (4 cr.) Extensive readings in Greek from the major historians—Herodotus, Thucydides, Xenophon, and Polybius—with special attention to the development of Greek historiography.

G511 Readings in Greek Oratory

and Rhetoric (4 cr.) Selections in Greek from the canon of the ten Attic orators, within the rubrics of epideictic, forensic, and symbouleutic oratory. Special emphasis on situating these rhetorical works in their social milieu.

G512 Readings in Greek Philosophers (4 cr.)

G513 Readings in the Greek Novel

(3 cr.) An introduction to the Greek novel based upon readings in Greek in romantic novels such as Longos’ *Daphnis and Chloe*, comic novels such as Pseudo-Lucian’s *The Ass*, and/or historical novels such as Pseudo-Kallisthenes’ *Alexander Romance*. Some attention is also given to current research on the Greek novel.

G516 Readings in Greek Comedy

(4 cr.) Examines the genres of old and new comedy as revealed in selected comedies of Aristophanes and Menander. Added to extensive reading in Greek, students will study the literary forms of the genres and how comedy acts as an expression of the poets’ engagement with their contemporary social and intellectual climate.

G517 Readings in Greek Tragedy

(4 cr.) Careful reading of selected Greek tragedies of Aeschylus, Sophocles, and Euripides, with the goal of appreciating tragedy as a complex art form and as an important social phenomenon created in fifth-century Athens.

G518 Readings in Greek Epic (4

cr.) Introduction to Greek epic poetry, including the epic dialect, epic prosody, and oral poetry as a traditional art form. Readings in Greek include at least three books of Homer’s *Iliad* or *Odyssey*. Some

attention is also given to current research on early Greek epic.

G536-G537 Survey of Greek Literature I-II (4-4 cr.) A two-semester introduction to Greek literature from Homer (mid-eighth century B.C.) to Lucian (second century A.D.) through extensive readings in translation supplemented by select Greek passages and modern scholarship. Attention to the emergence and development of diverse genres within their cultural contexts.

G540 Readings in Byzantine Greek (4 cr.)

G550 Elementary Greek II (2 cr.)

G600 Intermediate Greek I (3 cr.) Reading from the New Testament and such authors as Aesop and Plato. Review of syntax and grammar.

G601 Seminar in Greek Poetry (4 cr.) Advanced study of selections from Greek poetry. The seminar will focus on issues relevant to the genre(s) to be studied.

G603 Seminar on Greek Tragedy (4 cr.) A survey of modes of recent scholarship on Greek tragedy.

G610 Seminar in the Greek Novel (4 cr.) Consideration in depth of select issues in the current scholarship on the Greek novel. Selected readings of texts in the original Greek are included. The seminar may focus upon problems of ancient Greek fiction more generally or upon study of a single novel.

G611 Seminar in Greek Epigraphy, Papyrology and Paleography (4 cr.) Detailed study of the principles of practices of Greek epigraphy, papyrology or paleography, with examination of selected papyrus documents, inscriptions, or other Greek texts.

G613 Seminar in Greek Tragedy (4 cr.)

¹ Five (5) credits each semester for undergraduates.

² Courses before L409 are open to graduate students who are not majors in classical studies.

G620 Seminar in Historical Texts and Historiography (4 cr.) Close study of Greek historical writing as represented both by the surviving works of the major Greek historians and fragments of other writers. Modern scholarship on historiography will encourage discussion of the relationship between historical and other kinds of writing in a Greek setting.

G622 Seminar on Topics in Greek Literature (4 cr.) Consideration in depth of select topics in ancient Greek literature. Readings are assigned both in original Greek texts and in the secondary literature.

G650 Intermediate Greek II (3 cr.)

G803 Supervised Reading Program (1-4 cr.) May be repeated for credit.

LATIN COURSES¹

L300 Intensive Introduction to Classical and Medieval Latin (3 cr.)²

L305 Ovid (3 cr.)

L307 Cicero (3 cr.)

L308 Caesar, *Civil War* (3 cr.)

L309 Introduction to Virgil's *Aeneid* (3 cr.)

L400 Intensive Study of Literary Latin (3 cr.)²

L407 Roman Lyric and Elegy (3 cr.)

L408 Roman Comedy (3 cr.)

L409 Readings in Medieval Latin (3 cr.)

L423 Roman Satire (3 cr.)

L424 Silver Age Historians (3 cr.)

L426 Rhetoric and Oratory (3 cr.)

L427 Virgil's *Eclogues* and *Georgics* (3 cr.)

L429 Roman Letters (3 cr.)

L430 Lucretius (3 cr.)

L432 Livy (3 cr.)

L505 Latin Grammar, Composition, and Reading (4 cr.) Exercises in Latin composition requiring control of principle features of Latin syntax and sight reading of previously unseen passages leading to rapid mastery of texts.

L509 Cicero, His Life and Works (4 cr.) This rapid readings course will promote the development of reading and comprehension skills, which will be actively utilized as a basis for class discussions and papers. Selections will cluster around a particular moment in Cicero's career so that the interrelationship between correspondence, orations and philosophical/oratorical writings can be discussed.

L510 Readings in Latin Historians (4 cr.) Intensive reading of one of the major Roman historians (Caesar, Livy, Tacitus) or a survey of the same with consideration of their places, antecedents, and successors in Roman literature. Emphasis on reading and comprehension of the texts.

L511 Readings in Latin Oratory and Rhetoric (4 cr.) Through intensive readings in Ciceronian speeches or a selection of readings drawn from Roman rhetorical writers (Cicero, Seneca, Tacitus), this course will examine the theory and practice of rhetoric at Rome in the context of philosophical, literary and historical issues.

L513 Readings in the Roman Novel (4 cr.) Through intensive readings in Roman prose fiction, including but not limited to the works of Petronius and Apuleius, this course will examine the genre of prose fiction in its literary and historical contexts.

L515 Readings in Latin Elegy (4 cr.) Readings will highlight the development of elegiac verse as a genre with attention to issues of current interest: the politics of poetic language; the construction of gender roles; the first-person speaker as an

extra-societal observer and commentator.

L536-L537 Survey of Latin Literature I-II (4-4 cr.) Readings in Latin and in translated texts will present Latin literature from Livius Andronicus through Juvenal. Traditional scholarly questions will be introduced, but discussion will emphasize the construction of continuities in Roman literature by considering literary history as an aspect of cultural history.

L540 Medieval Latin (4 cr.) P: L409 or an equivalent course in medieval Latin. Students not offering one of these prerequisites will be required to pass an examination on medieval texts before consent to enroll will be granted.

L545 Rapid Reading and Principles of Grammar (4 cr.) Readings in the major authors of the Republic and Golden Age and organized study of grammar to enable the student to read rapidly for comprehension, not translation.

L550 Roman Historians (4 cr.)

L600 Seminar in Latin Epic (4 cr.) May be repeated for credit. Emphasis upon problems involving the interface of poetics and politics. Either a special topic (e.g., epic divinities) or an individual text may serve as the focus for study involving contemporary approaches to poetry and to culture.

L602 Seminar in Latin Comedy (4 cr.)

L603 Seminar in Latin Tragedy (4 cr.) Study of the fragments of Republican tragedy and the evidence for lost plays will be followed by research into historical, philosophical, and literary questions posed by Seneca's *Tragedies*.

L610 Seminar in the Roman Novel (4 cr.) A study of Roman prose fiction through selected readings in the works of Petronius and Apuleius

and in the current scholarship on the Roman novel and modern theoretical approaches to fiction. The seminar may focus on problems in the study of Roman fiction or on a single novel.

L611 Seminar in Latin Epigraphy or Palaeography (4 cr.) Advanced study of the methodologies and concentration on select Latin inscriptions or manuscripts.

L620 Seminar in Latin Historical Texts and Historiography (4 cr.) May be repeated for credit. A study of Roman historical writing from Republican, Imperial, or late Antique periods. The seminar may focus on literary, legal, documentary, or religious texts, or on problems in Roman history or historiography. Discussion will address the methodologies of current historical and historiographical scholarship.

L803 Supervised Reading Program (1-4 cr.) May be repeated for credit.

CLASSICS COURSES

C405 Comparative Mythology (4 cr.)¹

C409 Roman Literature and Art (3 cr.)

C411 (FINA A411) The Art and Archaeology of Anatolia (4 cr.)¹

C412 (FINA A412) The Art and Archaeology of the Aegean (4 cr.)¹

C413 (FINA A413) The Art and Archaeology of Greece (4 cr.)¹

C414 (FINA A414) The Art and Archaeology of Rome (4 cr.)¹

C416 Ovidian Mythology and its Tradition (3 cr.)

C419 The Art and Archaeology of Pompeii (4 cr.)¹ P for graduate students: reading knowledge of Italian.

C501 Introduction to Graduate Study: Literary and Cultural Theory for Classicists (3 cr.) Provides familiarity with influential theories and methodologies of

contemporary interpretive scholarship and evaluates their relevance to the interpretive practices of classical studies. A brief survey of formative developments in the history of classical scholarship will be followed by a chronologically ordered study of prominent twentieth-century writings.

C502 Bibliography and Research Resources for Classical Studies (1 cr.) Provides practice in using some of the major electronic and printed sources of bibliography and historical information available for the study of Greek and Roman antiquity. An introduction to ancillary disciplines such as epigraphy and numismatics will be included.

C503 The Ancient City (4 cr.) Survey of the topography and monuments of one of the major cities-Athens, Corinth, Rome, Ostia, for example-of the classical world. Introduces students to the individual city and its monuments. Provides through the monuments a better understanding of urbanism through the history of the specific city, its statesmen, and authors.

C506 Teaching of Classics in College (1 cr.) Required of all graduate students teaching a departmental course for the first time. May be taken twice for credit.

C507 Foreign Language Institute (1-6 cr.) Formal study of Latin and Roman culture for secondary teachers and those preparing for secondary teaching. Normally taught in two-week sessions in the summer. May be repeated for up to 6 hours of credit.

C610 Seminar in the Greek and Roman Novels (4 cr.) Consideration in depth of select issues in the current scholarship on the ancient novels. The emphasis of the seminar is upon the secondary literature and upon the novels in English translation; a knowledge of Greek or Latin is not required.

C623 Seminar in Classical Archaeology (4 cr.) P: C412 or A412 or consent of instructor. In-

¹ Five (5) credits for undergraduates.

depth analysis and discussion of selected topics in Aegean, Greek, Etruscan, or Roman archaeology, including interconnections with other Mediterranean, Anatolian, or Near Eastern cultures.

C875 Research in Greek or Latin
(cr. arr.)

C880 Ph.D. Thesis (cr. arr.)

Clinical Research

School of Medicine
Indianapolis

Program Director
Professor Kurt Kroenke

Graduate Faculty
(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Distinguished Professor
Clement J. McDonald (Medical Informatics)

Professors
Charles Clark Jr. (Pharmacology), David Crabb (Gastroenterology), Scott Denne (Pediatrics), Martin Farlow (Neurology)*, Rose Fife (Rheumatology), Naomi Fineberg (Emerita, Biostatistics), David Flockhart (Clinical Pharmacology), Dennis J. Fortenberry (Adolescent Medicine), Stephen D. Hall (Pharmacology/Toxicology), Hugh Hendrie (Psychiatry), Siu Hui (Biostatistics), Thomas Imperiale* (Medicine), Barry Katz (Biostatistics), James A. Lemons (Neonatal-Perinatal), Patrick J. Loehrer Sr* Hematology/Oncology), Lawrence Lumeng (Gastroenterology/Hepatology), Christopher McDougle (Child Psychiatry), Eric Meslin (Bioethics), Donald Orr (Adolescent Medicine), Munro Peacock (Endocrinology), Ora Hirsch Pescovitz (Pediatrics), Howard Pratt* (Endocrinology), Stanley Spinola (Infectious Diseases), William Tierney* (Medical Informatics), Domenick Zero (Dentistry)

Associate Professors
Mary Austrom* (Psychology), Christopher Callahan (Geriatrics), Naga Chalasani (Gastroenterology), James Croop* (Pediatrics), Stephen Downs (Pediatrics and Health Services Research), Michael Dube* (Infectious Diseases), Michael J. Econs (Endocrinology), Paul Lysaker (Psychology), Aimee Mayeda (Psychiatry), Sharon Moe* (Nephrology), Marc Overhage* (Infectious Diseases), Kimberly Quaid* (Medical and Molecular Genetics), Homer Twigg (Pulmonary), Terry Vik (Pediatrics), Frederick Unverzagt (Neuropsychology), David Wilkes (Medicine)

Assistant Professors
Daniel Clark* (Sociology), Cynthia Graham* (Gender Studies), Kathleen Hall* (Psychiatry), Gwendolyn Morrison* (Health Economics), Michael Weiner* (Geriatrics), Linda Williams* (Neurology)

Degrees Offered
Master of Science

Special Departmental Requirements
See also general University Graduate School requirements.

Master of Science in Clinical Research
Indiana University's Master of Science in Clinical Research degree program prepares health care professionals for a career in clinical research. This program offers a combination of course work and practical research experience and is a core component of Indiana University's Clinical Investigator Training Enhancement (CITE) program. The program also constitutes the formal didactic requirements for certain types of federal training grants (such as K-23s) and other career awards. Following completion of the program, graduates can embark on a career in clinical research with the skills necessary to successfully compete for grant funding, conduct and analyze research findings, and publish work in scientific journals.

Course Requirements
The Master of Science program is divided equally between two main components: (1) completion of the formal curriculum and (2) active involvement in clinical research under the mentorship of a faculty scientist. Both elements are critical in preparation of the candidate for successful research following graduation.

Besides didactic classes, there is substantial research training in scientific writing and grant preparation. The curriculum is designed to cover core competency areas through a combination of course work and mentored research. The two-year M.S. program consists of a 30 credit hour curriculum, which includes the following core courses, G504, G651, G655, G660, G661, G664, N802, and two approved electives.

Grades
An overall average of at least a B (3.0) is required.

Thesis
Research project (see GRAD G664 Mentored Clinical Research) is completed in lieu of thesis.

Courses

G504 Research Ethics (2-3 cr.) An introduction to both the theory and practice of research ethics. The course also covers key ethical principles and concepts.

G651 Biostatistics I (3 cr.) The use of computers and statistical software for data analyses, fundamental statistical concepts including probability and distributions, and application of parametric and nonparametric statistics on continuous and categorical data. **G655 Research Communication (2 cr.)** A core didactic set of classes which includes the key elements of scientific writing.

G660 Clinical Research Methods (3 cr.) This course provides instruction in the major types of study design (other than clinical trials) used in clinical research,

including cohort, case-control, cross-sectional, survey, and secondary database studies. Also, fundamental themes and special topics in clinical research are covered.

G661 Clinical Trials (3 cr.) This course includes topics in conducting clinical trials, including design, recruitment, informed consent, randomization, blinding, data collection and analysis, safety monitoring, study closeout, and alternative designs such as crossover and nonrandomized trials. Some important research areas besides clinical trials are also covered.

G664 Mentored Clinical Research (7-9 cr.) This is an organized research project in the form of an organized scientific contribution or comprehensive analysis conducted under the mentorship of a faculty scientist from the individual CITE enrollee's core discipline. The capstone experience is submission of an abstract to a scientific meeting, defense of one's research before an advisory committee, and completion of a first-authored paper deemed suitable for publication in a scientific journal.

N802 Techniques in Effective Grant Writing (3 cr.) A core didactic set of classes along with the requirement for completion of a grant to be submitted for intramural or external funding.

Electives (4-6 cr.) Electives (approved by program director) include graduate-level courses in more advanced biostatistics, epidemiology, clinical pharmacology, genetics, molecular biology, computer sciences, or other courses relevant to the individual student's field of clinical research.

Cognitive Science

College of Arts and Sciences
Bloomington

Interim Director

Richard Shiffrin (Psychology)

Departmental E-mail
cogsci@indiana.edu

Departmental URL
www.cogs.indiana.edu

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Arthur F. Bentley Professor

Elinor Ostrom (Political Science, Public and Environmental Affairs)

College Professor of Cognitive Science and of Computer Science

Douglas Hofstadter (History and Philosophy of Science, Philosophy, Psychology)

Rudy Professor

James T. Townsend (Psychology)

Luther Dana Waterman Professor

Richard M. Shiffrin (Psychology)

Professors

Kathleen Bardovi-Harlig (Linguistics), Geoffrey Bingham (Psychology), Curtis Bonk (Education), Arthur Bradley (Optometry), Jerome Busemeyer (Psychology), J. Clancy Clements (Spanish and Portuguese), Phil Connell (Speech and Hearing Sciences, Linguistics), William Corsaro (Sociology), James Craig (Psychology), Donald Cunningham (Education), Stuart Davis (Linguistics), Daniel Dinnsen (Linguistics, Speech and Hearing Sciences), Thomas Duffy (Education), J. Michael Dunn (Informatics), Joseph Farley (Psychology), Steven Franks (Linguistics, Slavic Languages and Literature), Theodore Frick (Education), Daniel Friedman (Computer Science), Roy Gardner (Economics), Preston Garraghty (Psychology), Judith Gierut (Speech and Hearing Sciences), Robert Goldstone (Psychology), S. Lee Guth (Emeritus, Psychology, Optometry), Andrew Hanson (Computer Science), Jeffrey Hart (Political Science), Beverly Hartford (Linguistics), Ed Hirt (Psychology), Diane Kewley-Port (Speech and Hearing Sciences), Marianne Kielian-Gilbert (Music), Eugene

Kintgen (English), Yoshihisa Kitagawa* (Linguistics), John Kruschke (Psychology), Annie Lang (Telecommunications), David Leake (Computer Science), Frank Lester Jr. (Education), David MacKay (Business, Geography), Daniel Maki (Mathematics), David McCarty (Philosophy), Eugene McGregor Jr. (Public and Environmental Affairs, Political Science), Michael McRobbie (Computer Science), Lawrence Moss (Mathematics), Robert Nosofsky (Psychology), Richard Olshavsky (Business), Christopher Peebles (Anthropology), David Pisoni (Psychology), Philip Podsakoff (Business), Robert Port (Linguistics, Computer Science), Paul Purdom (Computer Science), Charles Reigeluth (Education), Yvonne Rogers (Information Science, Informatics), Thomas Schwen (Education), Dennis Senchuk (Philosophy, Education), Steven Sherman (Psychology), Linda Smith (Psychology), Eliot Smith (Psychology), Martin Siegel (Education), Joseph Steinmetz (Psychology), Esther Thelen (Psychology), Larry Thibos (Optometry), Maynard Thompson (Mathematics), William Timberlake (Psychology), Dirk Van Gucht (Computer Science), George von Furstenberg (Economics), Charles Watson (Emeritus, Speech and Hearing Sciences, Psychology), Arlington Williams II (Economics), Wayne Winston (Business)

Associate Professors

Joyce Alexander (Education), Sasha Barab (Education), Thomas Busey* (Psychology), Kenneth de Jong (Linguistics), Thomas Foster (English), Michael Gasser (Computer Science, Cognitive Science), Lisa Gershkoff-Stowe (Speech and Hearing Sciences), Eric Isaacson (Music), Emilia Martins (Biology), Filippo Menczer (Informatics, Computer Science), Jonathan W. Mills (Computer Science), Kelly Mix* (Psychology), Jared Mostafa (Information Science), Laura Murray* (Speech and Hearing Sciences), John Paolillo (Information Science), Jonathan Plucker (Educational Psychology), Gregory Rawlins (Computer Science), Julie Stout* (Psychology)

Assistant Professors

Karen I. Kirk (Otolaryngology)

Associate Scientist

Gary Kidd (Speech and Hearing Sciences)

Associate Faculty

Professors

Associate Professors

Timothy O'Connor (Philosophy), Frederick Unverzagt* (Medical and Molecular Genetics, Medical Neurobiology)

Assistant Professors

Eli Bleviss (Informatics), Katy Borner* (Information Science), Rowan Candy* (Optometry), Florin Cutu* (Computer Science), Julia Fox* (Telecommunications), Jason Gold* (Psychology), Dennis Groth (Informatics), Hugh Kelley* (Economics), Robert F. Potter (Telecommunications), Sarah Queller (Psychology), Leah Savion* (Philosophy), Olaf Sporns* (Psychology, Neuroscience), Jonathan Weinberg* (Philosophy)

Graduate Advisor

Professor Michael Gasser, Computer Science, Lindley Hall 230H, (812) 855-7078

Degrees Offered

Doctor of Philosophy and Joint Doctor of Philosophy in Cognitive Science and Another Discipline

Program Information

The Cognitive Science Program comprises an interdisciplinary research program and a doctoral degree program. Students carry out intensive research projects in state-of-the-art computer-based laboratories. There are two Ph.D. degree options, a standalone Ph.D. in Cognitive Science and a joint Ph.D. in Cognitive Science and another discipline, for example, psychology, computer science, philosophy, linguistics, or speech and hearing sciences. The program is designed to train students in theory development and model building (mathematical, formal, and computer simulation models), in empirical research, and

in the development of the conceptual framework and technical skills for successful careers in research, teaching, business, and government.

Doctor of Philosophy Degree

Admission Requirements

Admission is by approval of the program's graduate admission committee. Applicants should have an undergraduate major in Cognitive Science, Psychology, Computer Science, Philosophy, Linguistics, Biology, or Anthropology; basic computer programming skills; and basic knowledge of mathematics for science, including calculus and statistics. In exceptional cases the programming or mathematics admission requirements may be waived and satisfied while pursuing graduate study.

Course Requirements

A minimum of 90 credit hours, including the core courses Q520 (3 cr.), Q530 (3 cr.), Q540 (3 cr.), Q550 (3 cr.), Q551 (3 cr.), and Q560 (3 cr.) and selections totaling at least 16 credit hours from offerings listed in the Program in Cognitive Science or cross-listed with other departments, divisions, or programs. A maximum of 6 of these 16 credit hours may come from pure research courses (Q799, Q899, or the equivalent in another department). On the basis of their undergraduate background, students may be exempted from no more than one of the core courses. Students must also register for at least four semesters in the Colloquium Series course Q733. In one of these semesters, the only for which credit is received, each student will be expected to give a lecture on his or her independent research as a part of the Colloquium Series.

Each student will also select a Content Specialization, an area of study that can be approached from the perspectives of the different disciplines within cognitive science. The list of available Content Specializations currently includes Language and Speech, Modeling, Dynamical Systems, Logic, and Human-Computer Interaction, but new Specializations will be added to this list in 2004-5. Contact the

program for an up-to-date list. Each Content Specialization has a designated faculty member in charge of maintaining a list of required and recommended courses. Students must complete at least five courses in their specialization, and these courses must be taken in at least two different departments. The Content Specialization should normally be selected by the end of the student's second year in the program, and the courses selected must be approved by the student's advisory committee.

Minor Requirement

Students must complete a minor in another department or program. Courses counting toward the minor may also count toward the student's Content Specialization. The minor should normally be completed by the beginning of the student's fourth year.

Qualifying Examination

In consultation with his or her advising committee, each student will select topics for three qualifying papers. Two of these topics are expected to be within the student's Content Specialization, and these should address at least two of the different methodological approaches to the content area. The third paper can deal with a topic in any other area of cognitive science. These papers will be evaluated by the committee, and the student will defend the papers orally before the committee. The student will normally write the papers during the summer following his or her second year in the program and defend them at the beginning of the following fall semester. Students failing the qualification examination may retake it once.

Joint Doctor of Philosophy Degree in Cognitive Science and Another Discipline

Admission Requirements

Acceptance into the Joint Cognitive Science Ph.D. program is contingent upon admission into another degree-granting program at Indiana University Bloomington, hereafter referred to as the "originating discipline" or "originating

department.” Students must apply to the originating department, informing it that they also intend to join the Joint Cognitive Science Ph.D Program.

Course Requirements

A minimum of 90 credit hours, of which 32 credit hours must be in courses listed or cross-listed in cognitive science, including Q520 (3 cr.), Q530 (3 cr.), Q540 (3 cr.), Q550 (3 cr.), Q551 (3 cr.), Q733: three semesters at 0 credits and one semester at 1 credit when the required colloquium is given by the student, and at least 6 credit hours not in the originating discipline and not among the Q-courses. (It is expected that most students will place out of one of the required courses on the basis of work toward a previous degree; for example, students with a degree in computer science would not be expected to take Q530.) The 6 outside credit hours may not be taken in pure research courses (the equivalent of Q799 and Q899). The 32 credit hours may include a maximum of 6 credit hours in pure research courses (Q799, Q899, or the equivalent in originating departments). Strong encouragement is given to interdisciplinary diversification. Note that courses may count toward the requirements of both cognitive science and the originating department.

Tool-Skills Requirement

Statistics K300 or K310 or the equivalent.

Qualifying Examination

There are two options for the qualifying examination: (a) an examination in the originating discipline and a separate comprehensive examination in cognitive science (these may be taken at separate times); or (b) a joint examination covering relevant areas of both the originating discipline and cognitive science, as determined by the advisory committee, and with permission of both the originating discipline and the Cognitive Science Program. The cognitive science examination is normally taken after completion of the cognitive science course requirements. The

examination may be repeated only once.

Public Colloquium

The student must give a colloquium as part of the Q733 colloquium series advertised at large to the university community, and covering some aspect of the student’s research in cognitive science. The research covered may be from any stage of the student’s career, including (but not restricted to) the thesis research.

Final Examination

The public and oral defense of the dissertation will be conducted jointly with the student’s originating discipline.

Ph.D. Minor in Cognitive Science

Graduate students obtaining a Ph.D. in another discipline may find that that discipline gives them the option of taking a minor in cognitive science. To obtain such a minor, students must satisfy the following requirements: (a) obtain approval from the Cognitive Science Program; and (b) complete Q540; one of the following: Q530, Q560, or Q550; at least two semesters of Q733; and at least 6 other credit hours in cognitive science courses not in the originating discipline.

Certificates in Cognitive Science

The Cognitive Science Program is extremely broad, ranging from psychology to business to anthropology to computer science, to name just a few. Students in other disciplines may elect to focus on an area or areas within the broad range of cognitive science. Certificates are open to students upon request; several different cognitive science certificate programs are described in the following pages. Note that certificates are not required for a joint Ph.D. degree. The student will inform the cognitive science office, the student’s cognitive science advisor, and the certificate director of an intent to pursue a certificate.

GENERAL REQUIREMENTS FOR CERTIFICATES

1. As soon as the student decides to pursue a certificate, a written proposal must be submitted to the Certificate Steering Committee giving a detailed course of study. The proposal may be a revised draft of an earlier proposal not approved, or an alteration of a previously approved proposal, and may contain a request for a revision of any of the stated requirements.
2. The proposal must be approved by the Certificate Steering Committee. The student must file a copy of the approved proposal with the Cognitive Science Program office.
3. The Certificate Steering Committee must attest that the approved course of study has been completed successfully. At this time, the University Graduate School will be notified of the certificate completion. Ideally, requirements and course work for certificates should be completed at the time of nomination to candidacy.
4. The certificate is awarded upon completion of requirements 1 through 3 and completion of the joint Ph.D. Achievement of the certificate will be noted on official transcripts.

CERTIFICATE IN DYNAMICAL SYSTEMS IN COGNITIVE SCIENCE

Students will develop an understanding of problems introduced by a dynamical perspective on cognitive phenomena and of the theoretical and methodological means of addressing those problems as found in dynamical systems. Each student will apply this understanding and analysis to a content area of their choice including study of perception, cognition, motor behavior, neural networks, language, and development.

Specific Requirements

1. Prerequisites. Students should have taken courses in calculus (two to three semesters) at the very least. In addition, courses in differential equations, linear algebra, and (point set) topology would be helpful.
2. Required course. Students must take Q580 Introduction to Dynamical Systems in Cognitive Science.
3. Additional advanced electives. Students must complete an additional four courses selected from among the following: Q550 Models in Cognitive Science; P651 Perception/Action; X755 Philosophical Issues in Chaos and Nonlinear Dynamics; L541 Phonetics; L641 Advanced Phonetics; P561 Philosophy of Mind; B551 Element of Artificial Intelligence; B552 Knowledge-Based Computation; B553 Biomorphic Computation; B651 Natural Language Processing; B652 Computer Models of Symbolic Learning; B657 Computer Vision; B659 Topics in Artificial Intelligence; P717 Evolutionary Basis of Learning; P641 Dynamic Systems in Motor Organization and Motor Development; P615 Developmental Psychology; P657 Theories of Development; Q750 Neural Networks as Models of Cognition; X755 Fractals.
4. Qualifying exams. At least one question on dynamical systems must be included on the student's qualifying exams.
5. Dissertation. The student's dissertation must include application of dynamical systems to the specific problem under study.

CERTIFICATE IN HUMAN-COMPUTER INTERACTION

Requirements for the Cognitive Science Certificate in HCI (12 cr.)

Students will demonstrate proficiency in a broad range of courses involving the applied cognitive analysis of human-computer interaction (HCI). The

program will emphasize the theoretical and methodological issues associated with designing and evaluating cognitively compatible user interfaces to interactive technologies.

Specific Requirements

1. The student must submit a written proposal to the Certificate Steering Committee giving a detailed course of study. The proposal may be a revised draft of an earlier proposal, or an alteration of a previously approved proposal, and may contain a request for a revision of any of the stated requirements. The proposal must be approved by the Steering Committee. Students must take L542 Introduction to HCI (or equivalent). Students must take L542 Introduction to HCI (or equivalent).
2. Students for the Cognitive Science Certificate must complete an additional four courses selected from among the following to ensure courses are taken from at least two departments other than the student's home department:
A546 User Interface Programming
B581 Advanced Computer Graphics
B582 Image Synthesis
B665/B666 Software Engineering Management/Implementation
B669 Topics in Database and Information Systems
B689 Topics in Graphics and Human Computer Interaction
L576 Digital Libraries
L578 User Interface Design for Information Systems
L642 Information Usage and the Cognitive Artifact
L697 Advanced Topics in Information Systems
P450 Human Factors (graduate credit awarded with extra assignments)
P544 Applied Cognition and Learning Strategies
P565-566 Software Engineering I-II
R685 Human-Computer Interface Design

P600 Topical Seminar in Learning Cognition and Instruction

P544 Applied Cognition and Learning Strategies

P565-566 Software Engineering I-II

P600 Topical Seminar in Learning Cognition and Instruction

R685 Human-Computer Interface Design

S522 Digital Signal Processing

S601 MIS Research Topics in Applications Systems Design

S602 MIS Research Topics in Administration and Technology

T541 Processes and Effects: Individual Level Theory and Research

T571 Applied Emotional and Cognitive Psychology Theory

T602 Seminar in Processes and Effects: The Information Processing of Media

3. The student's dissertation must address issues related to human-computer interaction.

The Cognitive Science Certificate in HCI is awarded upon completion of the above requirements and completion of the requirements for the Ph.D. (either as a joint major in Cognitive Science and a home department, or as a Cognitive Science minor and a major in a home department).

CERTIFICATE IN LANGUAGE AND SPEECH

Students will demonstrate proficiency in a broad range of topics that focus on issues related to language and speech. The program of study will emphasize mastery of language structure, language processing, and computational approaches to linguistic analysis. An independent research project exploring some facet of language and speech will be required.

Specific Requirements

1. Students must complete at least five approved graduate courses in the area of language and speech.
2. Courses in language and speech must be taken in at least two different departments.
3. Courses must include at least one dealing with language structure and at least one dealing with language processing or acquisition. Courses in language structure include most linguistics courses, Philosophy P520, and Philosophy P720. Courses in processing and acquisition include Psychology P623, Computer Science B651, Speech and Hearing Sciences S530, and periodic seminars on language-related topics in these departments.
4. Students must demonstrate familiarity with computer modeling of cognitive processes. This requirement can be met through course work (Q580, Psychology P556, or various courses in computer science, including B551, B552, B553, B651, and B652) or through a written report of research which includes a computer program written by the student. This report could be a master's or Ph.D. thesis.
5. The student's cognitive science qualifying examination must include at least one section on a topic in language and speech.
6. The student's dissertation must address issues related to language and speech.

CERTIFICATE IN LOGIC, LANGUAGE, AND COMPUTATION

The area covered by this certificate is applied logic, i.e., logic as applied to information processing. It is an area of research which is of increasing importance in artificial intelligence and computer science. Students will demonstrate their mastery of courses having to do with symbolic information processing.

Specific Requirements

The requirements include at least 18 credit hours of course work (including research and seminars). At least two courses must be taken outside the student's home department. Each proposal for certification would need to demonstrate both breadth and depth in the general area of logic, language, and computation.

1. Prerequisites. Students should demonstrate mathematical maturity by having taken one or more courses in the following: set theory, discrete mathematics, abstract algebra, linear algebra, topology, and mathematical logic.
2. Students must take Philosophy P505-P506 Introduction to Logic Theory, or demonstrate equivalent knowledge of completeness for first-order logic, together with the Gödel incompleteness and undecidability results. If students demonstrate knowledge of this material, they may take other courses from the lists of advanced courses given below.
3. Students must select at least two or more advanced courses from a list that includes B501 Theory of Computing; B510 Introduction to Applied Logic; P550 Systems of Modal Logic; P551 Philosophy and the Foundations of Mathematics; P552 Philosophy of Logic; P600 Visual Reasoning; L626 Semantics of Natural Language; L640 Mathematical Methods in Linguistics; M682 Model Theory; M689 Logic and Decidability; and M583 Set Theory.

4. Students must take a research seminar, either one generally designated as such (e.g., P750 Logic Theory, P751 Logic, or M781-782 Selected Topics in Mathematical Logic), or another seminar approved by the Logic Certificate Committee.
5. Students will be expected to take active part in the weekly Logic Seminar.
6. The student's dissertation must address issues in the general area of logic, language, and computation.

CERTIFICATE IN MODELING IN COGNITIVE SCIENCE

Students will demonstrate their mastery with a broad selection of courses involving mathematical and computer simulation approaches to modeling, with a specialization in at least one area of modeling, and with a research project involving modeling. The program will emphasize both basic techniques and applications in particular content areas.

Specific Requirements

1. Students must fulfill 18 credit hours of courses in the modeling area. Required course: Q550 Models in Cognitive Science, and at least five additional courses in modeling (15 credits minimum).
2. These courses must demonstrate both breadth and specialization, and a grasp of both methods and applications. The course options given below provide examples of courses currently appropriate to accomplish these goals. The courses should include at least one course in basic techniques and methods (P605 Introduction to Mathematical Psychology; Q580 Introduction to Dynamic Systems in Cognitive Science; M447-M448 Mathematical Models and Applications; P550 Systems of Modal Logic); and at least one course in applications (Q750 Neural Networks as Models of Cognition; B651 Natural Language Processing; B652 Computer Models of Symbolic Learning; L611 Models of

Linguistic Structure; P648 Choice Behavior).

The selected courses must be taken from at least two departments excluding courses listed only in the Cognitive Science Program. These courses may not include a course whose content consists almost entirely of a research project (such courses and projects are separately covered below).

3. Students must demonstrate a grasp of modeling in research, either through course work (Q689 Computer Simulation Project; P556 Independent Computer Project), or through a written report of research involving modeling (includes master's or Ph.D. projects).
4. The Ph.D. qualifying examination in the Cognitive Science Program must contain at least one section on a modeling-related topic.

Courses

Q520 Mathematics and Logic for Cognitive Science (3 cr.) Covers the mathematical backgrounds of contemporary work in cognitive science. Includes basic material on both the symbolic and connectionist approaches: machines, logics, networks, games, and probability.

Q530 Programming Methods in Cognitive Science (3 cr.) P: some programming experience. An introduction to computer programming methods for artificial intelligence and computer simulation of cognitive models. Emphasis on the necessary data structures and their applications to cognitive science. Programming projects may be related to state-space search for problem solving and game playing, production systems, and cognitive modeling tasks including memory models and neural simulations.

Q540 Philosophical Foundations of the Cognitive and Information Sciences (3 cr.) Causal issues: cognitive architecture, physical embodiment, neuroscience, networks, dynamic systems. Semantic issues: meaning, interpretation, representation, information flow. The role of both in language, logic, reasoning, action, perception, learning, categorization, and consciousness. Emphasis on writing, analysis, and exposition.

Q550 Models in Cognitive Science (3 cr.) P: Q530 and Q560. An introduction to modeling in various areas of cognitive science, including computer simulation models of complex cognition, models within artificial intelligence, models based on neural mechanisms and networks, and formal and mathematical models in areas such as psychology, linguistics, and philosophy.

Q551 The Brain and Cognition (3 cr.) An introduction to neural mechanisms underlying complex cognition, and a survey of topics in neuroscience related to cognition. It provides a solid background in human biopsychology.

Q560 Experimental Methods in Cognitive Science (3 cr.) Specific goals of this course include: a) an understanding of experimental design and the resources for future studies; b) an understanding of converging measures and programmatic research; c) discussion of current controversies in experimental design; and d) hands-on experience designing, conducting, and critiquing experiments.

Q580 Introduction to Dynamic Systems in Cognitive Science (3 cr.) Introduction to linear and nonlinear dynamic systems including catastrophe and chaos theory. Main aspects include: 1) understanding the basic quantitative theory and techniques of dynamic systems, 2) illustration of major concepts and systems behavior with the aid of computer graphics and numerical software and 3) examples from cognitive science.

Q689 Computer Simulation Project (3 cr.) The student will develop and test a computer simulation of some aspect of cognition. The student will produce a working, documented computer program, and a paper describing both the workings of the program and tests of the program (either theoretical tests, tests of the program against data, or both).

Q700 Seminar in Cognitive Science (3 cr.) Intensive study of specific topics in cognitive science. Topics and instructors will change regularly. May be repeated.

Q733 Colloquium Series (0-1 cr.) Four semesters required for majors, two for credit. The class will meet every week. At some meetings, invited speakers will present colloquia; at others students will present their own work. Each student will be required to make a presentation at least once during the year the course is taken for credit.

Q750 Neural Networks as Models of Cognition (3 cr.) Topical seminar featuring analysis of models based on neural networks. Will usually feature extensive exploration of one or more examples of models of this type.

Q799 Readings and Research in Cognitive Science (1-3 cr.) Tutorial research and study in specialized topics in cognitive science.

Q899 Dissertation Research (1-12 cr.) Dissertation research in specialized topics in cognitive science.

Cross-Listed Courses

The following courses may be used to satisfy the credit hour requirements of the Cognitive Science Program. Additional courses whose content in a given year is sufficiently relevant to cognitive science (including seminars, new courses, or courses with topical content) may also be used to satisfy the requirements, conditional upon acceptance by the Cognitive Science Program of a petition including justification.

ANTHROPOLOGY

L580 Semiotics and Human Ethology (2 cr.)

L840 Ethnolinguistic Seminar (1-2 cr.)

KELLEY SCHOOL OF BUSINESS

S505 Introduction to Management Information Systems (3 cr.)

S535 Advanced Topics in Management Information Systems (3 cr.)

S560 Management Information Systems Design and Applications (3 cr.)

S600 Research Design and Methods in Management Information Systems (3 cr.)

S601 Management Information Systems Research: Topics in Application Systems Development (3 cr.)

S602 Management Information Systems Research: Topics in Administration and Technology (3 cr.)

COMPUTER SCIENCE

B501 Theory of Computing (3 cr.)

B502 Computational Complexity (3 cr.)

B510 Introduction to Applied Logic (3 cr.)

B521 Programming Language Principles (3 cr.)

B522 Programming Language Foundations (3 cr.)

B551 Elements of Artificial Intelligence (3 cr.)

B552 Knowledge-Based Computation (3 cr.)

B553 Biomorphic Computation (3 cr.)

B621 Advanced Concepts in Programming Languages (3 cr.)

B622 Programming Language Type Systems (3 cr.)

B651 Natural Language Processing (3 cr.)

B652 Computer Models of Symbolic Learning (3 cr.)

B657 Computer Vision (3 cr.)

B659 Topics in Artificial Intelligence (1-6 cr.)

ECONOMICS

E626 Game Theory (3 cr.)

SCHOOL OF EDUCATION

H650 Theory of Knowledge and the Educational Process (3 cr.)

P530 Instructional Psychology (3 cr.)

P540 Learning and Cognition in Education (3 cr.)

P544 Applied Cognition and Learning Strategies (3 cr.)

P550 Cognition and Semiotics (3 cr.)

P591 Cognitive Assessment and Intervention (3 cr.)

P600 Topical Seminar in Learning, Cognition, and Instruction (3 cr.)

P640 Thinking and Learning in Social Contexts (3 cr.)

R542 Instructional Graphics Design (3 cr.)

R561 Evaluation and Change in the Instructional Development Process (3 cr.)

R586 Practicum in Instructional Systems Technology (1-3 cr.)

R611 Instructional Technology Foundations (1 cr.)

R622 Learning Environments Design (3 cr.)

R630 Learner Analysis in the Instructional Technology Process (3 cr.)

R695 Topical Inquiry Seminar in Instructional Systems Technology (3 cr.)

Y530 Topics in Computer Analysis of Educational Data (1-3 cr.)

FOLKLORE AND ETHNOMUSICOLOGY

F714 Paradigms of Ethnomusicology (3 cr.)

F722 Colloquium in Theoretical Folklore/Ethnomusicology (3 cr.)

F738 Psychological Issues in Folklore (3 cr.)

FRENCH AND ITALIAN

F576 French Linguistics I (Phonology) (3 cr.)

F577 French Linguistics II (Syntax and Semantics) (3 cr.)

F580 Introduction to French Applied Linguistics (3 cr.)

F603-F604 History of the French Language (3 cr.)

F670 Phonological Structure of French (3 cr.)

F671 Syntactic Structure of French (3 cr.)

F672 French Sociolinguistics and Dialectology (3 cr.)

F673 Topics in the Learning and Teaching of French (3 cr.)

F675 Studies in French Linguistics (3 cr.)

F676 Structure and Sociolinguistics of Haitian Creole (3 cr.)

F677 French Lexicology and Lexicography (3 cr.)	L611 Models of Linguistic Structure (3 cr.)	M546 Control Theory (3 cr.)
F678 French Morphology (3 cr.)	L614 Alternative Syntactic Theories (3 cr.)	M548 Mathematical Methods for Biology (3 cr.)
SCHOOL OF HEALTH, PHYSICAL EDUCATION, AND RECREATION	L625 Bilingualism and Language Contact (3 cr.)	M560 Applied Stochastic Processes (3 cr.)
K542 Neuromuscular Control of Movement (3 cr.)	L630 Lexicology (3 cr.)	M563-M564 Theory of Probability I-II (3 cr.)
HISTORY AND PHILOSOPHY OF SCIENCE	L641 Advanced Phonetics (3 cr.)	M568 Time Series Analysis (3 cr.)
X551-X552 Survey of the Philosophy of Science I-II (3 cr.)	L642 Advanced Phonological Description (3 cr.)	M569 Statistical Decision Theory (3 cr.)
X755 Special Topics in the Philosophy of Science (2-5 cr.)	L643 Advanced Syntax (3 cr.)	M571-M572 Analysis of Numerical Methods I-II (3-3 cr.)
SCHOOL OF LIBRARY AND INFORMATION SCIENCE	L645 Advanced Natural Language Processing (3 cr.)	M584 Recursion Theory (3 cr.)
L542 Introduction to Human-Computer Interaction (HCI) (3 cr.)	L710 Seminar in Acoustic Phonetics (4 cr.)	SCHOOL OF MUSIC
L570 Online Information Retrieval (3 cr.)	L712 Seminar in Phonology (4 cr.)	E519 Psychology of Music (3 cr.)
L578 User Interface Design for Information Systems (1-3 cr.)	L714 Seminar in Syntax (4 cr.)	E530 Learning Processes in Music (3 cr.)
L597 Topics in Library and Information Science (1-4 cr.)	L780 Seminar in Structural Semantics (4 cr.)	T561 Music Theory: Variable Topics (3 cr.) (when appropriate)
L642 Information Usage and the Cognitive Artifact (3 cr.)	T522 Survey of Applied Linguistics (3 cr.)	NEURAL SCIENCE
LINGUISTICS	T532 Second-language Acquisition (3 cr.)	N500 Neural Science I (4 cr.)
L503 Survey of Linguistics I (3 cr.)	T632 Current Research in Second-Language Acquisition (3 cr.)	N501 Neural Science II (3 cr.)
L530 Introduction to Historical Linguistics (3 cr.)	T711 Seminar in Applied Linguistics (4 cr.)	N510 Cellular and Molecular Neuroscience (3 cr.)
L541 Introductory Phonetics (4 cr.)	MATHEMATICS	N550 Seminar: Sensorimotor Neuroplasticity (3 cr.)
L542 Phonological Analysis (3 cr.)	M403-M404 Introduction to Modern Algebra I-II (3-3 cr.)	N611 Neural Basis of Sensory Function (3 cr.)
L543 Syntactic Analysis (3 cr.)	M441-M442 Introduction to Partial Differential Equations with Applications I-II (3-3 cr.)	N613 Neural Mechanisms of Hearing (3 cr.)
L544 Morphological Analysis (3 cr.)	M447-M448 Mathematical Models and Applications I-II (3-3 cr.)	SCHOOL OF OPTOMETRY
L545 Computation and Linguistic Analysis (3 cr.)	M463-M464 Introduction to Probability Theory I-II (3-3 cr.)	V767 Electrophysiology of Vision (3 cr.)
	M540-M541 Partial Differential Equations I-II (3-3 cr.)	V791 Quantitative Methods for Vision Research (3 cr.)
	M544-M545 Ordinary Differential Equations I-II (3-3 cr.)	PHILOSOPHY
		P350 Logic of Sets (3 cr.)

P351 Formal Semantics (3 cr.)	P505 Physiological Psychology (3 cr.)	P638 Experimental Psychology of Reading (3 cr.)
P505-P506 Logical Theory I-II (3-3 cr.)	P506 Sensory Psychology (3 cr.)	P643 Perception and Sensory Memory (3 cr.)
P520 Philosophy of Language (3 cr.)	P507 Theories of Learning (3 cr.)	P644 Attention and Short-Term Memory (3 cr.)
P550 Systems of Modal Logic (3 cr.)	P510 Principles of Research in Psychology (2 cr.)	P645 Learning and Long-Term Memory (3 cr.)
P551 Philosophy and Foundations of Mathematics (3 cr.)	P511 Social Psychology (3 cr.)	P646 Knowledge Systems and Problem Solving (3 cr.)
P552 Philosophy of Logic (3 cr.)	P514 Methods in Biopsychology (2 cr.)	P647 Decision Making under Uncertainty (3 cr.)
P560 Metaphysics (3 cr.)	P517 Methods in the Direct Observation of Behavior (3 cr.)	P648 Choice Behavior (3 cr.)
P561 Philosophy of Mind (3 cr.)	P526 Neurobiology of Learning and Memory (3 cr.)	P651 Perception/Action (3 cr.)
P562 Theory of Knowledge (3 cr.)	P527 Developmental Psychobiology (3 cr.)	P653 Analysis of Variance (3 cr.)
P570 Philosophical Psychology (3 cr.)	P528 Experimental Analysis of Economic Behavior (3 cr.)	P654 Multivariate Analysis (3 cr.)
P571 Philosophy of Nature (3 cr.)	P541 Individual Differences in Intellectual Abilities (3 cr.)	P657 Topical Seminar (when appropriate) (cr. arr.)
P720 Seminar: Philosophy of Language (4 cr.)	P553-P554 Advanced Statistics in Psychology I-II (3-3 cr.)	P658-P659 Mathematical Models in Psychology I-II (4-4 cr.)
P750 Seminar: Logical Theory (4 cr.)	P555 Computer Application in Psychological Research (3 cr.)	P665 Psychophysics of Hearing (3 cr.)
P751 Seminar: Logic (4 cr.)	P557 Representation of Structure in Psychological Data (3 cr.)	P717 Evolutionary Bases of Learning (3 cr.)
P760 Seminar: Metaphysics and Epistemology (4 cr.)	P564 Psychophysics (3 cr.)	P747 Seminar in Cognitive Psychology (1-3 cr.)
POLITICAL SCIENCE	P565 Psychophysics of Vision (3 cr.)	P820 Social Perception (3 cr.)
Y673 Empirical Theory and Methodology (3 cr.) (When Appropriate)	P605 Introduction to Mathematical Psychology (3 cr.)	Slavic Languages and Literatures
PSYCHOLOGY	P615 Developmental Psychology I (3 cr.)	L599 Prague School Linguistics and Poetics (3 cr.)
P417 Animal Behavior (3 cr.)	P616 Advanced Child Psychology (3 cr.)	SOCIOLOGY
P435 Laboratory in Human Learning and Cognition (3 cr.)	P620 Attitudes and Attitude Change (3 cr.)	S650 Statistical Techniques in Sociology (3 cr.)
P438 Language and Cognition (3 cr.)	P623 Psychology of Language (3 cr.)	S651 Topics in Quantitative Sociology (3 cr.)
P502 Developmental Psychology (3 cr.)	P635 Applied Human Learning (3 cr.)	S652 Topics in Qualitative Methods (3 cr.)
P503 Complex Cognitive Processes (3 cr.)		S656 Mathematical Applications in Sociology (3 cr.)

S660 Advanced Topics (3 cr.)
(When Appropriate)

S700 Topical Seminar (3-12 cr.)
(When Appropriate)
**SPEECH AND HEARING
SCIENCES**

**S501 Neural Bases of Speech and
Language (3 cr.)**

S502 Acoustic Phonetics (2 cr.)

**S515 Topical Seminar in Speech
Pathology (1-6 cr.)**

**S520 Theoretical Bases for
Phonological Disorders (3 cr.)**

**S522 Digital Signal Processing (3
cr.)**

**S532 Early Communicative
Development: Intervention Issues
(3 cr.)**

**S534 Language Development in
School Age Children (3 cr.)**

**S537 Diagnosis and Management
of Adult Aphasia (2 cr.)**

**S538 Language Development in
Atypical Populations: Learning
Disabilities, Autism, and Mental
Retardation (3 cr.)**

**S545 Adult Cognitive-
Communication Disorders (3 cr.)**

S550 Stuttering (2 cr.)

**S555 Motor Speech Disorders (3
cr.)**

**S578 Audiological Instrumentation
and Calibration (3 cr.)**

**S601 Experimental Phonetics II (3
cr.)**

**S674 Advanced Seminar in
Audiology (1-3 cr.)**

**S702 Acoustic Research in Speech
(3 cr.)**

TELECOMMUNICATIONS

**T552 Cognitive Approaches to
Media (3 cr.)**

**T571 Applied Cognitive and
Emotional Psychology (3 cr.)**

**T602 Topical Seminar in
Telecommunications Processes and
Effects (1-3 cr.)**

T641 Children and Media (3 cr.)

Communication and Culture

**College of Arts and Sciences
Bloomington**

Chairperson
Professor Gregory Waller

Departmental E-mail
cmcl@indiana.edu

Departmental URL
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Graduate Faculty
(An asterisk [*] denotes associate
membership in University Graduate
School faculty.)

Distinguished Professor
Richard Bauman (Folklore and
Ethnomusicology)

Chancellors' Professor
James Naremore

Professors
James Andrews (Emeritus), Patricia
Hayes Andrews, Gary Cronkhite
(Emeritus), Robert Ivie, Gregory
Waller, William Wiethoff

Associate Professors
Chris Anderson, Carolyn Calloway-
Thomas, Joan C. Hawkins, Barbara
Klinger, John Lucaites

Assistant Professors
Jane Goodman*, Mary Gray,
Phaedra Pezzulo, Yeidy Rivero*,
Ted Striphos, Robert Terrill; Acting
Assistant Professor Michael Kaplan

Adjunct Professors
Peter Bondanella (French and
Italian), Ingeborg Hoesterey
(Emeritus, Germanic Studies), Sumie
Jones (East Asian Languages and
Cultures), Douglas Maynard

(Sociology), Darlene Sadlier
(Spanish and Portuguese)

Adjunct Associate Professor
Gloria Gibson (African American
and African Diaspora Studies),
Beverly Stoeltje (Anthropology)

Director of Graduate Studies
Associate Professor Joan
Hawkins, 113 Mottier Hall, 1790 E.
10th Street, (812) 855-1548

Degrees Offered
Master of Arts, Master of Arts for
Teachers, and Doctor of Philosophy
Students develop individualized
programs of study in consultation
with a plan of study committee
consistent with the department's
interpretive focus on the relationship
between communication and culture
as manifested in and through the
topics of rhetoric, media,
performance, and ethnographic
studies. Graduate students can also
earn a Ph.D. minor that draws upon
the department's focus on
communication and culture.

**Special Departmental
Requirements**
(See also general University
Graduate School requirements and
the departmental *Graduate
Handbook* for additional information
and detailed list of special
requirements for specific degree
programs.)

Master of Arts Degree

Admission Requirements
Undergraduate major in a
communication-related discipline
(e.g., communication and culture,
rhetoric, film, media studies, etc.) or
other liberal arts, with evidence of
adequate academic background for
graduate study. Admission decisions
are also based upon scores on the
Graduate Record Examination
General Test, undergraduate courses
taken and grades received, a
scholarly writing sample, and letters
of recommendation.

Course Requirements
A total of 30 credit hours including:
6 credit hours from among C501,
C502, and C503; 3 credit hours from

among C505, C506, and C507; and 3 credit hours of C700 dedicated to the independent study of the departmental M.A. reading list. A minimum of 15 credit hours must be taken in courses numbered 500 and above; a maximum of 8 hours can be taken outside of the Department of Communication and Culture.

Master of Arts for Teachers Degree

The M.A.T. is a terminal degree designed to give teachers and prospective teachers a broad knowledge of subjects helpful in teaching communication and culture, public speaking, discussion, and debate.

Admission Requirements

Same as for the Master of Arts Degree.

Course Requirements

The M.A.T. degree in communication and culture has the same requirements as the M.A. degree and differs only in the following particulars:

1. A minimum of 36 credit hours is required for the M.A.T., rather than the 30 credit hour minimum for the M.A. degree. A maximum of 16 credit hours of approved course work can be taken outside of the Department of Communication and Culture.
2. Each candidate for the M.A.T. must possess a teacher's certificate by the time the degree is conferred (foreign students need only be certified by the department); for this purpose 16 credit hours may be concentrated in professional education courses.
3. With appropriate approvals it is possible to count up to 6 credit hours of undergraduate courses toward the 36 credit hour minimum.
4. Indiana University graduates may transfer a maximum of 12 graduate hours from other institutions.

Doctor of Philosophy Degree

Admission Requirements

M.A. degree in a communication-related discipline (e.g., rhetoric, communication and culture, film, media studies, etc.) or its equivalent in a related field such as anthropology, education, English, folklore, history, political science, psychology, or sociology. Admission decisions are based upon such evidence as scores on the Graduate Record Examination General Test, undergraduate and graduate courses taken and grades received, a scholarly writing sample, and letters of recommendation.

Course Requirements

A minimum of 90 credit hours, of which eight (3 or 4 credit hour) courses past the M.A. degree must be taken in the Department of Communication and Culture. Dissertation not to exceed 15 credit hours in C810. A minimum of 30 credit hours must be in courses numbered 500 and above.

Minor

Outside minor (typically 12-15 credit hours) required, which must be approved by the advisory committee. With approval of the advisory committee, a second minor may be taken.

Foreign Language Requirement

Reading proficiency in a foreign language. Demonstrated by course work or examination.

Qualifying Examination

Written and oral; may be taken twice only.

Ph.D. Minor in Communication and Culture

Requirements

A minimum of 15 credit hours of course work in communication and culture, including one course from C501, C502, and C503. Course work must be completed with a grade average no lower than B (3.0). Students may transfer a maximum of 3 hours from another university toward this degree with the approval

of the director of graduate studies in the Department of Communication and Culture.

To arrange for the minor in communication and culture, students should consult with the director of graduate studies, who will recommend a member of the faculty to serve as an advisor. In consultation with the advisor, a program of study will be outlined and a copy of the plan filed with the director of graduate studies.

Courses

C406 The Study of Public Advocacy (3 cr.)

C407 Rhetoric and History (3 cr.)

C419 Classical Oratory (3 cr.)

C427 Cross-Cultural Communication (3 cr.)

C440 Organizational Communication (3 cr.)

C444 Political Communication (3 cr.)

C501 Introduction to Rhetoric and Public Culture (3 cr.) A first course for students interested in exploring the relationship between rhetoric and public culture as manifest in modes of practical reasoning, the constitution and performance of self/society, and socio-political critique/judgment. Engages the connection between these modalities by focusing on the premodern and late or postmodern rhetorical theory as they implicate the problematics of contemporary social and political theory, including power, agency, ideology, hegemony, mediation, subjectivity, etc.

C502 Introduction to Performance in Communication and Culture (3 cr.) Introduction to various theories and methods of research in human communication studies. Includes theories of discourse and culture, message production and reception, symbol systems, social constructionism, relational communication, conversation analysis, social influence,

communication competence, and other topics.

C503 Introduction to Media Theory and Aesthetics (3 cr.) Study of classical and contemporary theoretical texts.

C505 Productive Criticism of Political Rhetoric Conceptualizes rhetoric as a mode of social critique while focusing on the problem of the scapegoat in public culture. Critically examines constructions of the threatening Other as they foster alienation and victimization within and between polities. Draws on Kenneth Burke's dramatism as a framework for rhetorical critique.

C506 Methods of Media Research (3 cr.) Introduction to research methods used in critical studies of media and culture.

C507 Methods of Ethnographic Research in Communication and Culture (3 cr.) Exploration of ethnographic research methods in the study of communication and culture, including the ethnography of performance, media, and public discourse. The emphasis is on qualitative methods; course work includes exercises in participant observation and interviewing.

C511 Premodern Rhetorical Theory (3 cr.) Survey of key texts, emphasizing rhetorical theory and practice, in the Greek and Latin traditions. Focus on contextualizing these materials within a continually developing intellectual history of rhetorical studies. Of particular interest is the potential for premodern theory to frame, interpret, and critique contemporary rhetorical practice.

C512 Rhetorical Theories of Cultural Production (3 cr.) Examines theories of rhetoric as a primary source of cultural production. Features Giambattista Vico on eloquence, tropes, and the poetic wisdom of culture; Friedrich Nietzsche on rhetoric, metaphor, and the will to power; Chaim Perelman on the realm of rhetoric and the problem of justice; and Kenneth

Burke on rhetoric, identification, and the drama of human relations.

C513 Rhetoric and Sociopolitical Judgment (3 cr.) Exploration of the role that rhetoric plays in the production and performance of collective or socio-political judgment. The focus will be on the tension between modern and late or postmodern conceptions of judgment as they implicate the problems and possibilities of rhetorical praxis (i.e., negotiating the relationship between knowledge, understanding and action) in contemporary democratic policy.

C523 Theory and Research in Persuasion (3 cr.) Contemporary theories of persuasion and their research base: includes definitions, historical foundations, opinion measurement, source characteristics, receiver characteristics, group effects, interpersonal influence, anticipatory effects, role of language, role of nonverbal behavior, balance theories, theories of subjective probability, subjective expected utility theories, and role of memory and cognition. Research paper required.

C529 Theory and Research in Small-Group Communication (3 cr.) Examines the small-group communication process through the study of diverse theoretical perspectives and related research. Particular emphasis on socioemotional and structural variables that influence decision making, including pressures for uniformity, problem-solving strategies, inference-making cohesiveness, status, and power.

C530 Institutions and Communicative Practice (3 cr.) The comparative study of institutions as communicatively constituted. Topic varies; may be repeated for credit.

C533 Interpersonal Communication (3 cr.) Surveys the social scientific theory and research concerning interpersonal communication. Topics for discussion usually include relational formation and dissolution, the

communication dynamics of ongoing relationships, personality variables and their relationship to interaction, and the interpersonal consequences of interaction, such as relational control, influence, and behavior change.

C545 Introduction to Pedagogy in Communication and Culture (3 cr.) Fundamentals of teaching as applied to communication. Focuses on teaching methods and culture, criticism, communication apprehension, textbook selection, test construction, gender in the classroom, and the place of communication and culture in the liberal arts and sciences.

C552 Media Institutions and the Production of Culture (3 cr.) Study of media institutions, work practices, products, and their relationships with their sociopolitical environment.

C560 Motion Picture Production (3-4 cr.) Introduction to 16mm film production, including cinematography, editing, and sound.

C561 Intermediate Motion Picture Production (4 cr.) P: CMCL C560. Introduces students to the making of 16 mm sound films, including the recording and editing of synch sound. The various stages of production are explored in lectures, lab exercises, and discussions. Each student designs, directs, and edits a short synch sound film and participates as a crew member in the other students' productions.

C562 The Screenplay (3 cr.) Terminology of screenwriting and form of the screenplay. Development of the screenplay from story outline and treatment to the shooting script. The original screenplay. Techniques of adaptation. Contributions of the screenwriter to the *mise-en-scène*. Exercises in screenwriting, culmination in the writing of a full-length original screenplay or adaptation.

C592 Media Genres (3 cr.) Topic varies: the evaluation of typical genres; problems of generic description of definition; themes, conventions, and iconography

peculiar to given genres, etc. May be repeated for credit.

C593 History of European and American Films I (3 cr.) Survey of the development of cinema 1895-1926 (silent film era). Particular attention on representative work of leading filmmakers, emergence of film movements and development of national trends, growth of film industry, and impact of television. May be repeated once for credit with a different topic.

C594 Media History (4 cr.) Media historiography, topics in national history, national and international movements and trends. Topic varies. May be repeated once for credit with different topic.

C596 National Cinemas (3 cr.) Topics varies: historical survey of major national cinemas. Topics may include Brazilian cinema, French national cinema, German film culture, Italian cinema, Indian cinema, and others. May be repeated for credit when topic varies.

C604 Topical Seminar in Mass Communication and Culture (1-3 cr.) P: consent of instructor.

C606 Media Criticism (3 cr.) Study of the main schools and methods of media criticism. Course may be repeated once for credit with a different topic.

C610 Identity and Difference (3 cr.) Political, social, and cultural dimensions of identity and difference. Interrogates the production of marginal and dominant identities (e.g., racial, sexual, colonial) and the emergence of new forms of identification.

C611 Topics in Rhetoric and Public Culture (3 cr.) Systematic review of research related to a specific issue or area in rhetoric and public culture. May be repeated for credit when topic varies.

C612 Constituting Democracy in Rhetorical Discourse (3 cr.) Compares the role of rhetoric in liberal, deliberative democracy to its function in radical, participatory, and

agonistic democracy. Considers problematic constructions of democracy in U.S. political culture and their relationship to exaggerated perceptions of national vulnerability. Explores the rhetorical potential of myth and metaphor for reconstituting the image of democracy from a diseased to a healthy political practice.

C613 Coherence and Fragmentation in Postwar American Discourse (3 cr.) Exploration of essential tensions in U.S. public culture from World War II to the present, including uniformity and diversity, identity and division, isolation and aggression, the individual and society, and power and freedom. Focus is on the manner in which such tensions are animated in and through exemplars of rhetorical discourse, including speeches, films, novels, poetry, television programs, and World Wide Web sites.

C614 Rhetoric, Ideology, and Hegemony (3 cr.) Examination of the relationship between rhetoric, ideology, and hegemony in contemporary social and political thought. The emphasis will be on conceptions of hegemony as a site of praxis for negotiating the tensions between rhetoric and ideology in the production of social and political change (or permanence) in late or postmodernity. Primary readings will draw from twentieth-century rhetorical theory, Marxism, critical theory, and psychoanalysis.

C615 The Problem of Protest in America (3 cr.) Presents key instances of protest discourse both in their historical contexts and through the lenses of rhetorical theories of dissent. The focus is on illuminating the problematic and constitutive role of protest in the public culture of the United States, as manifested across a range of electronic and print media. The American Revolution, southern secession, feminisms, black liberation, and gay/lesbian rights will receive particular attention.

C616 Rhetorical Critiques of War (3 cr.) Rhetoric as an heuristic for critically engaging discourses of war

and transforming the legitimization of war into a cultural problematic. Focuses on the problem of war in U.S. political culture.

C617 Rhetoric and Visual Culture (3 cr.) Examination of the relationship between rhetoric and visual culture. Key topics to be considered include: the relationship between visual rhetoric and collective memory, social and political controversy and dissent, political style and representation, postmodern media communities, race, gender, identity politics, etc.

C618 Rhetoric and Critical Hermeneutics (3 cr.) The political art of rhetorical criticism is compared and contrasted against other modes of critical interpretation. In particular, this course concentrates on the strategies, methods, and assumptions that guide these modes of critical reading and that thus illuminate the special characteristics of rhetorical reading. The goal is to discover the particulars that constitute a rhetorical attitude toward cultural and textual critique.

C619 Feminism and Rhetorical Theory (3 cr.) This seminar explores the relationship between feminism and rhetoric by examining advocacy by/ for women, patriarchal patterns of oppression, and the development of critical perspectives that have arisen out of desires to politically reevaluate contemporary gendered norms. It may be structured as a survey of a wide range of intersections between feminisms and rhetorical theory or as an in-depth critical engagement with a specific tension, theme, or trajectory, such as “the body.”

C620 Media, Politics, and Power (3 cr.) Examination of media institutions (including new media) through various schools of thought. May be repeated once for credit with a different topic.

C626 Studies in Contemporary Communication (3 cr.) Systematic review of research related to contemporary problems in the study of communication; may be theoretical, methodological, or

critical. Topic varies. May be repeated for credit.

C627 Performance in Communication and Culture (3 cr.) Critical examination of performance as a vantage point on communication and culture in specific societies, world areas, or social formations. Topic varies. May be repeated for credit.

C633 Studies in Interpersonal Communication (3 cr.) Focuses on one area of the social scientific study of interpersonal communication. The topic varies to include such issues as power and control in interactions, the formation of relationships, and the foundations of communicative competence.

C640 Studies in Organizational Communication (3 cr.) Critical examination of quantitative and qualitative research in the area of organizational communication. Emphasizes decision making, superior-subordinate interaction, communication networks and climate, and organizational culture. Focuses on critical assessment of research. May be repeated for credit when topic varies.

C645 Topics in the Comparative Study of Communication and Culture (3 cr.) Analysis of communicative forms and practices in comparative perspective. Topic varies. May be repeated for credit.

C646 Pedagogy Practicum (1 cr.) Taken by associate instructors in communication and culture who are pursuing a three-course sequence leading to the Certificate of Pedagogy. Students in C646 will be assigned a faculty mentor who will work with them as they prepare to teach a departmental course that is not under the supervision of a course director. May be repeated for credit.

C652 Globalization of Media (3 cr.) Explores media institutions, practices, and texts across national borders. Topic varies. May examine particular issues such as globalization of media, transnational implications of media texts, transnational data flows, media and

foreign policy. May be repeated once for credit with a different topic.

C680 Theory and Research in Nonverbal Communication (3 cr.) P: consent of instructor. Study of the origins, evolution, physiological bases, and present functions of nonverbal communication behavior. Special attention to the relationship of nonverbal behavior to gender, power, dominance, deception, interpersonal relationship development, and language. May be repeated for credit.

C690 Theories of Symbolic Meaning (3 cr.) P: Linguistics L503 or consent of instructor. Intensive study of referential, behavioral, rule-governed, and cognitive theories of symbolic meaning, with attention to comprehension of words, utterances/sentences, and extended discourse. May be repeated for credit

C691 Authorship in Media (4 cr.) In-depth analysis of individuals in the media who become known as “authors.” May be repeated for credit when topic varies.

C700 Research (cr. arr.)**

C701 Practicum in Communication Research (3 cr.) P: consent of instructor. Students must have ample preparation in some theoretical area and in one or more research methods. Designed to allow students to conduct a research study, including the collection and examination of data (broadly defined), to answer a question, to prove a thesis, or to test a hypothesis relating to communication/rhetorical theory. May be repeated for credit.

C705 Research Seminar in Rhetoric and Public Culture (3 cr.) Problems and issues in rhetoric and public culture. May be repeated for credit.

C706 Theories of Performance in Communication and Culture (3 cr.) Critical examination of

**These courses are eligible for a deferred grade.

theoretical problems in the study of performance in communication and culture. Topic varies. May be repeated for credit.

C710 Research Seminar (1-3 cr.) May be repeated for credit.

C727 Seminar in Cross-Cultural Communications (3 cr.) May be repeated for credit.

C790 Seminar: Pragmatic Functions of Language (3 cr.) P: C501 and C502, or consent of instructor. Study of research dealing with the correlates of language variation, including topics such as language clarity, intensity, obscurity, style, dialects, interactions of language with perception/cognition and mental health, and the constituents of pragmatic language competence. May be repeated for credit.

C792 Advanced Seminar in Media Theory (3 cr.) Topic varies: advanced study in media history and theory; major movements and historical periods and their relationship to the intellectual and cultural climate of the time; studies of technology and modes of production; advanced work in genre or auteur studies; close reading of major works of media theory; new developments in theory and criticism. May be repeated for credit.

C793 Seminar in Media (3 cr.) Topics in media studies. May be repeated once for credit when topic changes.

C800 M.A. Thesis (cr. arr.)

C810 Ph.D. Thesis (cr. arr.)**

Comparative Literature

College of Arts and Sciences
Bloomington

Chairperson
Professor Oscar Kenshur

Departmental E-mail
complit@indiana.edu

Departmental URL

www.indiana.edu/~complit

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Distinguished Professors

Willis Barnstone (Emeritus, Spanish and Portuguese), Peter Bondanella (French and Italian), Bruce Cole (Emeritus, Fine Arts)

College Professor of Cognitive Science and Computer Science

Douglas Hofstadter

Martha C. Kraft Professor of Humanities

Fedwa Malti-Douglas

Chancellors' Professors

James Naremore (English, Communication and Culture), Anya Peterson Royce (Anthropology)

Rudy Professor

Giancarlo Maiorino

Professors Emeriti

Salih Altoma (Near Eastern Languages and Cultures), Luis Beltrán (Spanish and Portuguese), Ernest Bernhardt-Kabisch (English), Peter Boerner (Germanic Studies), Matei Calinescu (English), Claus Clüver (Emeritus), Eugene Eoyang (East Asian Languages and Cultures), Harry Geduld, Ingeborg Hoesterey (Germanic Studies), Kenneth R. R. Gros Louis (English), Yoshio Iwamoto (East Asian Languages and Cultures), H. James Jensen (English), Merritt Lawlis (English), Irving Lo (East Asian Languages and Cultures), Henry Remak (Germanic Studies), Mary Ellen Solt, Ulrich Weisstein (Germanic Studies)

Professors

Gilbert Chaitin (French and Italian), David Hertz, Roger Herzel (Theatre and Drama), Douglas Hofstadter (Cognitive Science), Sumie Jones (East Asian Languages and Cultures), Oscar Kenshur (English, Philosophy), Fedwa Malti-Douglas (Gender Studies), Breon Mitchell (Germanic Studies), James Naremore (Communication and Culture), Anya

Peterson-Royce (Anthropology), Mihály Szegedy-Maszák (Central Eurasian Studies)

Associate Professors

Paul Losensky (Central Eurasian Studies), Herbert Marks (English, Near Eastern Languages and Cultures, Religious Studies), Rosemarie McGerr, Angela Pao, Ilinca Zarifopol-Johnston*, Yingjin Zhang (East Asian Languages and Cultures), Carl Ziegler* (Germanic Studies)

Assistant Professor Vivian Halloran*

Adjunct Professors

Maryellen Bieder (Spanish and Portuguese), J. Peter Burkholder (Music), Dov-Ber Kerler (Germanic Studies), Karen Hanson (Philosophy), Gerald Larson (Religious Studies), Eleanor W. Leach (Classical Studies), Rosemary Lloyd (French and Italian), William Rasch (Germanic Studies), Jack Rollins* (Honors), Suzanne Stetkevych (Near Eastern Languages and Cultures), Bronislava Volkova (Slavic Languages and Literatures), Marc Weiner (Germanic Studies)

Adjunct Associate Professors

Fritz Breithaupt* (Germanic Studies), Juan Carols Conde (Spanish and Portuguese), Joan Hawkins (Communication and Culture), Barbara Klinger (Communication and Culture), Eric MacPhail (French and Italian), William Rasch (Germanic Studies), Helen Sword (English), Purnima Bose* (English)

Adjunct Assistant Professors

Michel Chaouli (Germanic Studies), Deborah Cohn* (Spanish and Portuguese), Rebecca Manring* (India Studies, Religious Studies)

Director of Graduate Studies

Professor Ilinca Zarifopol-Johnston*, Ballantine Hall 917, (812) 855-6242 or (812) 855-9602

Degrees Offered

Master of Arts, dual Master of Arts, dual Master of Arts/Master of Library and Information Science,

Master of Arts for Teachers, and Doctor of Philosophy

Special Program

Requirements

(See also general University Graduate School requirements.) For details about departmental rules and procedures, consult the current Comparative Literature Handbook, available upon request from the Graduate Studies Office, Ballantine Hall 913A.

Admission Requirements

Graduate Record Examination General Test required. For the Ph.D., fluent reading knowledge of at least two foreign languages. For the M.A., fluent knowledge of at least one foreign language. Deficiencies in undergraduate work and foreign languages must be removed within one year. Only students holding the M.A. or its equivalent will be considered for direct admission to the Ph.D. program. (Note: Students admitted on a provisional basis must present proof of completion of the B.A. or M.A. upon their arrival at Indiana University.)

Master of Arts Degree

Course Requirements

A minimum of 30 credit hours, 20 credit hours of which must be in comparative literature, including C501, C502, C507, one course on European literature in the premodern period (C505, C521, C523, or C525), and one course on European literature in the modern period (C506, C529, C533, C535, C537 or C538). In addition, M.A. students must complete a proseminar chosen from the graduate courses in comparative literature that students have not used to fulfill the other course requirements. With the permission of the director of graduate studies, students who have completed a graduate course on teaching in an English or foreign language department may be allowed to substitute that course for C507.

Language Requirements

Reading proficiency in two foreign languages. Proficiency may be certified by: (1) receiving a grade of

B or higher in a graduate-level literature course or an undergraduate literature course at the 300 or 400 level in which the assigned readings are in the foreign language, or (2) passing an examination in translation and explication of literary texts in the foreign language administered by the department of comparative literature in consultation with faculty in other departments. (3) Students whose native language is not English may request certification of English as one of their foreign languages. Prior to registration for classes, all new students at IU Bloomington whose native language is not English are required to take an English Language Proficiency Test administered by the Indiana University Center for English Language Training (CELT) in Memorial Hall, Room 319. When students have passed this proficiency test, they may request permission to designate English as a foreign language by obtaining a form from the comparative literature graduate office to complete and sign. This form will then go to the director of graduate studies and the graduate school dean for their approval. Successful completion of the 491/492 course sequence in a foreign language will not be accepted as certification of reading proficiency.

Master's Project

There are three ways to meet the master's project requirement: (1) by submitting a suitable term or seminar paper as a master's essay (the proseminar requirement is a suitable means for fulfilling this option); (2) by submitting an expansion of a seminar paper; or (3) by writing a formal master's thesis. Consult the *Comparative Literature Handbook* for details. The requirement should be fulfilled by the end of the sixth semester after beginning graduate studies in comparative literature at Indiana University.

Dual Master of Arts Degree

Students admitted to the dual Master of Arts program may obtain M.A. degrees in comparative literature and a related field with fewer credits than would be required if the two degrees were taken separately. Consult the *Comparative Literature Handbook* for details.

Dual Master's Degree in Comparative Literature and the School of Library and Information Science (M.A./M.L.S.)

The joint program consists of a total of at least 50 credit hours: a minimum of 30 credit hours in library and information science and a minimum of 20 credit hours in comparative literature. Consult the *Comparative Literature Handbook* for details.

Master of Arts for Teachers Degree

Admission Requirement

B.A. degree in comparative literature or an individual literature.

Course Requirements

A total of 36 credit hours, 20 of which must be in comparative literature, including C501, C502, one course on European literature in the premodern period (C505, C521, C523, or C525), and one course on European literature in the modern period (C506, C529, C533, C535, C537 or C538).

Language Requirement

Certification of reading proficiency in one foreign language.

Examination

A 90-minute written examination comparing two texts, drawn from an individual reading list. One text may be a work of art in a nonliterary medium. If two literary texts are compared, one must be in a foreign language.

Doctor of Philosophy Degree

Course Requirements

A total of 90 credit hours, including 65 credit hours of course work, of which 35 credit hours must be in comparative literature, including C501, C502, C507, one course on European literature in the premodern period (C505, C521, C523, or C525), and one course on European literature in the modern period (C506, C529, C533, C535, C537 or C538). In addition, Ph.D. students must complete a proseminar chosen

from the graduate courses in comparative literature that students have not used to fulfill the other course requirements. The dissertation must not exceed 25 research credit hours. With the permission of the director of graduate studies, students who have completed a graduate course on teaching in an English or foreign language department may be allowed to substitute that course for C507.

Language Requirement

Reading proficiency in three foreign languages. Proficiency may be certified by: (1) receiving a grade of B or higher in a graduate-level literature course or an undergraduate literature course at the 300 or 400 level in which the readings are in the foreign language, or (2) passing an examination in translation and explication of literary texts in the foreign language administered by the department of comparative literature in consultation with faculty in other departments. Successful completion of the 491-492 course sequence in a foreign language will not be accepted as certification of reading proficiency. (3) Students whose native language is not English may request certification of English as one of their foreign languages. Prior to registration for classes, all new students at Indiana University Bloomington whose native language is not English are required to take an English language proficiency test administered by the Indiana University Center for English Language Training (CELT) in Memorial Hall, Room 319. When students have passed this proficiency test, they may request permission to designate English as a foreign language by obtaining a form from the comparative literature graduate office to complete and sign. This form will then go to the director of graduate studies and the graduate school dean for their approval. (4) With the permission of the director of graduate studies, doctoral students may be allowed to substitute intensive preparation (at least 27 credit hours) in a nonliterary discipline for the third foreign language.

Minors

Two minors (subject concentrations), usually at least 12 credit hours each, or a single intensive minor, usually at least 24 credit hours.

Qualifying Examination

One written exam on three topics (areas). The examination will take into account work done in the minor field(s). At the student's request, one part may be written in a foreign language. Oral examination will follow.

Final Examination

Oral defense of dissertation.

Ph.D. Minor in Comparative Literature

Four courses in comparative literature, including C501; fluent reading knowledge of at least one foreign language.

Ph.D. Minor in Literary Theory

Jointly administered by the Comparative Literature Program and the Department of English, the minor requires a minimum of three courses, including at least one selected from Comparative Literature C503, C504, C601 or C602, and one from English G660, L605, L607, L608, or L707. Other courses approved for the minor include French and Italian F564 and F584; Germanic Studies G505; Slavic Languages and Literatures R598; Spanish and Portuguese S473 and S512; and Theatre and Drama T555 and T556. Courses other than those listed above may also be acceptable toward completion of the requirement; written consent to count such courses must be obtained in advance from the graduate advisor in the Comparative Literature Program or the Department of English.

Ph.D. Minor in Biblical Literature

See this bulletin under "Institute for Biblical and Literary Studies."

Certificate in Literary Translation

Course Requirements

Twenty-two (22) to 24 credit hours, including C580 History and Theory of Translation; three workshops in practical translation (C581), or two

workshops plus C680 Topics in Translation Studies; two further courses in one of the foreign language departments, consisting either of graduate literature courses or advanced courses in the language itself.

Language Requirements

In-depth knowledge of English and one other language.

Translation Project

The student is required to complete an extensive written project under the guidance of a director who has been approved by the Comparative Literature Translation Committee. The project will consist of the translation of a literary or scholarly work or works into or from English, accompanied by an introductory essay. A student revising a translation originally prepared to satisfy the workshop requirements may receive a maximum of 3 credits for the revisions and introductory essay. If the project is completed independently of the workshops, a student may receive up to 4 credits. If the translation project is completed in partial fulfillment of the M.A. degree, the guidelines for the M.A. degree pertain. For further details concerning departmental rules and procedures, consult the current *Comparative Literature Handbook*.

Courses

COURSES REQUIRED FOR M.A. AND PH.D. PROGRAMS

C501 Introduction to Contemporary Literary Studies (3 cr.) Introduces major twentieth-century ideas about the nature of literature and the principles and methods of its study, including contemporary theories that have challenged traditional approaches and inspired new ones. Among the topics to be examined are New Criticism, formalism, structuralism, deconstruction, and psychoanalytic as well as reader-response and ideological criticism.

C502 Fields and Methods of Comparative Literature (1 cr.) Explores the various disciplines and

approaches that constitute the practice of comparative literature at Indiana University and introduces their methods and bibliographical resources. Faculty members will lecture on their specialties. Students will carry out a bibliographical project to be completed by the end of the following semester.

THEORETICAL AND INTERDISCIPLINARY COURSES

C503 Topics in World Criticism and Theory I (4 cr.) Selections from critics, theorists, and critical and theoretical movements before 1750 from an intercultural perspective. As topics vary, may be repeated for credit.

C504 Topics in World Criticism and Theory II (4 cr.) Selections from critics, theorists, and critical and theoretical movements after 1750 from an intercultural perspective. As topics vary, may be repeated for credit.

C545 The Bible and Western Literature (4 cr.) Questions of authority, unity, canonicity, and interpretive license studied with reference to selected texts from the Western tradition and their biblical source. Sample topics: Genesis and poetic origins; theories of inspiration; genealogy and historical narrative; hexameral epic; forms of parable; poetry and prophecy. May be repeated for credit when topic differs.

C546 Sexuality and the Arts (4 cr.) A variable-topics course which examines human sexuality as manifested in various areas of the arts, including sexuality and love in Western literature, sexuality and literature in the East, and sex and censorship in the cinema. A general introduction to methodology will be included. May be repeated once for credit.

C555 Theory and Methods of Interarts Studies (4 cr.) Examination of crucial areas of artistic interrelations and the purposes and methods of studying them. Introduces tools for analyzing

individual literary, pictorial, and musical texts; concepts, terms, and approaches used in inter-art comparisons. Emphasis on signification, representation, intersemiotic transposition, imitation, illustration, style and period parallels.

C601 Studies in the History of Theory and Criticism (4 cr.) May be repeated for credit.

C602 Contemporary Theoretical Issues and Approaches (4 cr.) Examples are topics such as feminist theory, reader response criticism, hermeneutics. May be repeated for credit.

C641 Literature in Its Intellectual and Cultural Contexts (4 cr.)

C643 Literary Studies and the Social Sciences (4 cr.) Topics may include politics and the novel, new historicism, the theory of ideology. May be repeated for credit.

C644 Literary Studies and Psychoanalysis (4 cr.) Topics may include Freud and literature, Lacan and literary theory.

C645 Literary Studies and Religion (4 cr.) Topics may include traditions of Christian literature, mystical poetry. May be repeated for credit.

C647 Literary Studies and Philosophy (4 cr.) Major philosophical themes, such as Platonism, stoicism, skepticism, and mysticism, that appear and reappear in Western literature.

C649 Literary Studies and the Natural Sciences (4 cr.) Topics may include science and the theory of interpretation; the aesthetics of evolution. May be repeated for credit.

C655 Topics in Interarts Studies (4 cr.) Investigation of selected topics concerning the interrelation between literature, music, the visual arts, dance, and intermedia and multimedia texts. May be repeated twice for credit.

C692 Comedy in Film and Literature (4 cr.) Evolution, styles, and techniques of film comedy in America and Europe from the beginnings of cinema to the present. Theories of comedy and humor; relationship of film comedy to comedy in fiction, drama, pantomime, circus, and vaudeville. Work of leading film comedians.

C693 Film Adaptations of Literature (4 cr.) Analysis of the processes and problems involved in turning a literary work (novel, play, or poem) into a screenplay and then into a film. Close study of literary and film techniques and short exercises in adaptation.

C790 Studies in Film and Literature (4-12 cr.) Topic varies: evolution of national literary and cinematic traditions; cinema and the theory of narrative; literary adaptation in cinema; comparative study of cinematic and literary movements (e.g., surrealism, expressionism).

PERIOD COURSES

C521 Ancient Greek and Roman Literature (4 cr.)

C523 Medieval Literature (4 cr.)

C525 The Renaissance and Seventeenth Century (4 cr.)

C529 The Eighteenth Century (4 cr.)

C533 Romanticism (4 cr.)

C535 The Later Nineteenth and Early Twentieth Centuries (4 cr.)

C537 The Twentieth Century I (4 cr.) Early and middle twentieth century. Modernism and the avant-gardes.

C538 The Twentieth Century II (4 cr.) P: consent of instructor. Late twentieth century. Concentrates on postmodernism.

C630 Studies in Literary History (4 cr.) May be repeated for credit.

GENRE COURSES

C511 Drama (4 cr.)

C513 Narrative (4 cr.)

C515 Lyric (4 cr.)

C516 Non-narrative Prose (4 cr.)

C610 Studies in the Theory of Genres (4 cr.) May be repeated for credit.

C611 Topics in Literary Genres, Modes, and Forms (4 cr.) May be repeated for credit.

CROSS-CULTURAL STUDIES

C571 African Literatures and Cultures I (4 cr.)

C572 African Literatures and Cultures II (4 cr.)

C573 Arabic-Western Studies (4 cr.)

C574 Japanese-Western Studies (4 cr.)

C575 Chinese-Western Studies I (4 cr.)

C576 Chinese-Western Studies II (4 cr.)

C670 Topics in Cross-Cultural Studies (4 cr.) May be repeated for credit.

TRANSLATION STUDIES

C580 History and Theory of Translation (4 cr.)

C581 Workshop in Literary Translation (4 cr.)

C680 Topics in Translation Studies (4 cr.) May be repeated for credit.

RESEARCH, TEACHING, AND GENERAL TOPICS

C507 Teaching Methods in Comparative Literature (3 cr.) Examination of the presuppositions, methods, and goals of teaching

literature in a comparative mode at the college level. Topics include teaching literature and composition, interarts, and cross-cultural approaches to literature, foreign language and translation studies, teaching literary theory, and technological resources. Practice in developing courses, assignments, and classroom strategies.

C508 Teaching Literature and Composition (1 cr.)

C509 Teaching Internship in Comparative Literature (1 cr.) A teaching internship in an undergraduate comparative literature course.

C603 Topics in Comparative Literature Studies (4 cr.) Explores specific problems between two literatures or between literature and another area in the humanities. May be repeated for credit.

C604 Individual Readings in Literature (1-4 cr.) Special readings on literature arranged with Department of Comparative Literature faculty member. Faculty authorization is required.

C801 Research (cr. arr.)**

C805 Master's Thesis (cr. arr.)**

C810 Ph.D. Thesis (cr. arr.)**

Cross-Listed Courses

ENGLISH

L607 History of Literary Criticism to the Enlightenment (4 cr.)

L608 History of Literary Criticism from 1750 to 1960 (4 cr.)

FRENCH AND ITALIAN

F564 Issues in Literary Theory (3 cr.)

F647 Contemporary French Theory and Criticism (3 cr.)

**These courses are eligible for a deferred grade.

SLAVIC LANGUAGES AND LITERATURES

R505-R506 Nineteenth-Century Russian Literature I-II (3-3 cr.)

THEATRE AND DRAMA

T555-T556 Drama Theory I-II (3-3 cr.)

T567 European Drama from Molière to Ibsen (3 cr.)

T571 Studies in Renaissance and Baroque Theatre (3 cr.)

T662 Comparative Theatre and Drama: Melodrama (3 cr.)

Computer Science

**College of Arts and Sciences
Bloomington**

Chairperson
Dennis Gannon

Director of Graduate Studies
David Leake

Departmental E-mail
info@cs.indiana.edu

Departmental URL
www.cs.indiana.edu

Graduate Faculty
(An asterisk [*] denotes associate membership in University Graduate School faculty.)

College Professor
Douglas R. Hofstadter

Professors
J. Michael Dunn, R. Kent Dybvig, Geoffrey C. Fox, Daniel P. Friedman, Dennis Gannon, Stanley Hagstrom (Emeritus), Andrew J. Hanson, Steven D. Johnson, David Leake, Daniel Leivant, Michael A. McRobbie, Robert F. Port, Franklin Prosser (Emeritus), Paul W. Purdom, Edward L. Robertson, George Springer (Emeritus), Dirk Van Gucht, David E. Winkel (Emeritus), David S. Wise

Associate Professors
Randall Bramley, Geoffrey Brown, Michael Gasser, Christopher Haynes, Andrew Lumsdaine, Filippo Menczer, Jonathan Mills, Gregory J. E. Rawlins, Amr Sabry

Assistant Professors
Kay Connelly*, Florin Cutu*, Beth A. Plale*, Catharine Wyss*

Adjunct Professors
William Aspray (Informatics, History and Philosophy of Science), Robert Kling (Library and Information Sciences), David McCarty (Philosophy), Lawrence S. Moss (Mathematics)

Adjunct Assistant Professors
Mehmet Dalkilic* (Informatics), Dennis Groth* (Informatics), Sun Kim* (Informatics), Arijit Sengupta* (Business)

Degrees Offered
Master of Science and Doctor of Philosophy

Special Departmental Requirements
(See also general University Graduate School requirements.)

Admission Requirements
Admission to all graduate programs is by approval of the department's graduate admission committee. Requirements for admission: baccalaureate degree (not necessarily with a concentration in computer science) and Graduate Record Examination (subject test also desirable). Undergraduate course prerequisites may be satisfied by equivalent or more advanced courses, and in some cases by professional experience. Prerequisites common to all graduate requirements are course work in computer structures and organization, discrete structures and computing theory, and data structures.

Master of Science Degree Requirements
At least 30 credits in Computer Science or related areas. These include the Course Requirements and

the Creativity Requirement, as defined below.

Course Requirements

1. A total of at least 30 credit hours is required, excluding all A500-level Computer Science courses, except as noted. No credit requirement below is to be read as additional to these 30 credits.
2. Six courses in Computer Science, subject to the following requirements:
 - a. Each course must carry at least 3 credits.
 - b. Normally all six courses should be Computer Science listings at the 500 level or higher.
 - c. With prior written permission of the director of graduate studies, one course of the six may be selected from the computer science courses A595 (equivalent to B401), B403, P423, P436, B443, and the mathematics courses M471 and M472.
 - d. One course must be a Computer Science P course. One course must be a Computer Science course in Foundations.
 - e. Two of the three computer science areas besides foundations (programming languages, systems, and applications) must be represented among the six courses.
3. Additional approved courses carrying graduate credit (courses listed in the university's Graduate School Bulletin). Courses outside of the College of Arts and Sciences must be approved in advance by the director of graduate studies.
4. Y890 Thesis Readings and Research may not be used to satisfy the M.S. requirements.

5. No more than a total of 6 out of the 30 credits required can be earned from a Y790 (Graduate Independent Study: Research and Reading, Software System Development, Master's Research Project, Master's Software Project, or University Master's Thesis), without authorization from the director of graduate studies.
6. Cumulative GPA of at least 3.0 in Computer Science courses.
7. Cumulative GPA of at least 3.0 in all courses.

Creativity Requirement

One of the following options must be completed:

R Master's Research Project (Y790, 6 cr.), consisting of a survey or original research paper at a level appropriate for publication as a departmental technical report or as a conference presentation.

S Master's Software Project (Y790, 6 cr.), consisting of substantial individual input into a major software research and development project, documented in the public domain.

Q Completing the department's written Ph.D. qualifying exams with a full, unconditional pass, along with six additional credits in the natural and mathematical sciences (CS and mathematics permitted), approved in advance by the director of graduate studies.

C Adding to the CS course requirements three courses (9 credits or more) from the computer science listings: one P course carrying graduate credit, and in addition two CS courses at the 500 level or above, of which at most one can be a Y course.

A Adding to the CS course requirements three or more courses (9 credits or more) in an interdisciplinary program that applies computer science to another discipline. These courses must be in a program that has been approved in advance by the graduate faculty of the department; such a program may

put additional constraints on the courses used to fulfill the CS course requirements.

TH University Master's Thesis (Y790, 6 credits), consisting of a formal master's thesis as prescribed by the University Graduate School.

Professional Master Program

For students wishing to accelerate their graduate study by combining it with an undergraduate program, the department offers the Professional Master Program in Computer Science, which leads to a B.S. and an M.S. in five years. It requires more graduate-level courses than the combined total of the B.S. and M.S., but fewer total credits. Admission to the program can be decided at the time of enrollment in the College of Arts and Sciences, but must be decided before completing 45 credit hours. Students in the program are considered undergraduates until the end of the semester in which they complete 122 credits towards the program requirements, at which point they undergo a transition to graduate status.

Doctor of Philosophy Degree

Course Requirements

A total of 90 credit hours of graduate-level course work is required. These courses are defined as any course listed in the university's Graduate School Bulletin that carries graduate credit. Note that no computer science courses in the A500-A598 range nor B599 may be counted towards the 90 credit-hour requirement, nor towards the 24 credit hour requirement specified below.

Computer Science Course Requirements

Ph.D. candidates must take at least 24 credit hours, normally eight courses, in computer science at the 500 level or above, subject to the following conditions:

1. P requirement: At least one must be a P course, with a substantial programming or software development component.

2. Area distribution requirements: Of the eight courses, there must be at least one course each in six of the nine areas (indicated by the middle digit 0-8 in advanced computer science courses).
3. Research course conditions: The Y790 course is excluded from these six area courses, and cannot fulfill the P requirement, but up to 6 hours of Y790 may be counted towards the 24 credit hour requirement. Y890 and G901 are excluded from the 24 credit hours in this requirement.
4. A grade average of B (3.0) is required for computer science courses, in addition to the University Graduate School's requirement of a B (3.0) average for all courses taken.

Minor Area Requirement

Three options are available:

1. An external minor awarded by another Indiana University department or graduate program approved by the Computer Science Department.
2. An internal minor: 9 computer science credits, in courses other than reading and research, and in an area other than the student's specialization. The area and the courses must be approved by the student's advisory committee. These 9 credits cannot be counted towards the six-course requirement.
3. An individualized interdisciplinary minor, as prescribed by the Graduate School Bulletin: at least 12 credits spanning at least two departments, to be recommended by the student's advisory committee and approved by the dean in advance of any course work.

Qualifying Examination

The qualifying examination consists of two written tests (qualifiers), and an oral area qualifier.

Written Qualifiers

The written qualifiers consist of two examinations, each approximately two hours in duration: Exam I covering Foundations (with a syllabus corresponding in general coverage to a single course designated by the faculty, and named in each year's exam description), and Exam II covering Systems (with a syllabus corresponding in general coverage to a single course designated by the faculty, and named in each year's exam description). The department may provide students with a choice of exam syllabi, each requiring only a single course to prepare. The courses used as the bases for the Written Qualifier I and II syllabi will normally be given once each year.

The written qualifiers are offered once a year at the end of August. A student entering the program in August (or, with department approval, January) of a specific calendar year may take both exams in August of that year, the entry year, without penalty for failure. Students without deficiencies are expected to take both qualifiers in August after the first full year of study. Each qualifier may be retaken once, one year later, if the first non-entry attempt was unsatisfactory. Students entering with deficiencies may elect a one-year delay.

Oral Area Qualifier

The oral area qualifier is taken independently of the written qualifiers, normally no later than the first semester of the third year, even if that is the year of the second attempt at the written qualifiers. The oral area qualifier may be retaken once, normally no later than the beginning of the fourth year of study. This examination concentrates on covering in-depth knowledge of the student's intended research area; it is given by the advisory committee, which would typically work with the student to select a reading list covering the chosen specialty.

Thesis Proposal

Given after completion of the qualifying examination (written and oral), consisting of an oral presentation of a written research

plan for the dissertation. This examination is given by the research committee.

Dissertation

A written elaboration of significant original research, which must be successfully presented to the research committee in a defense of dissertation as described in the Graduate School Bulletin.

Ph.D. Minor in Computer Science

Doctoral students in other departments may complete a minor in computer science by satisfying one of the following options:

1. Three computer science courses totaling not less than 9 credit hours at the 500 level or above. A500-level courses and 400-level courses are excluded with these exceptions: A595 (B401), B403, P423, P436, B438, B441, P442, and B443 are approved for graduate credit towards the Ph.D. minor.
2. A593, A594, and any two courses totaling 6 credit hours or more from the list: A595, A596, plus the computer science courses meeting the requirements of the first option above.

Courses

Most of the Computer Science Department's courses at the 400 level and above are classified into four areas:

Foundations (middle digit 0 or 1)

Programming Languages (middle digit 2)

Systems (middle digit 3 or 4)

Applications (middle digit 5, 6, 7 or 8)

General courses not associated with a specific area are numbered with a middle digit 9. Courses that involve a major programming project are designated as "programming-in-the-large," and carry a course number with letter designation P.

A 500-level courses may be taken for graduate credit by graduate students in other departments, but are not applicable towards a graduate degree in computer science. Of these, only A593, A594, A595, and A596 are available for graduate credit towards the Ph.D. minor.

A504 Introductory C++ Programming (2 cr.) P:

programming experience. Topics include aspects of C++ that are not object-oriented, basic data structures, standard libraries, and Unix tools for project management. Credit not given for both A504 and either A304, A597, A592, C212, H212, or BUS K201.

A506 Object-Oriented Programming in C++ (2 cr.) P:

either A201, A304, A504, or A597. Topics include objects, classes, encapsulation, inheritance, polymorphism, templates, and exceptions. Credit not given for both A506 and either A306, A202, A592, A598, C212, or H212.

A538 Network Technologies and Administration (3 cr.) P:

A110, EDUC W200, or equivalent computer literacy. Introduction to network principles and current network technology, both hardware and software. Network administration tools and techniques. Laboratory provides practical experience. Credit not given for both A538 and A338.

A546 User-Interface Programming (3 cr.) P:

either A201, A202, A306, C212, A506, A597, A598, or equivalent experience. Learn to prototype and build graphical user interfaces for computer applications. Contemporary software design methodology. Students design and implement prototype interfaces to applications provided by the instructor. Extensive use will be made of both commercial and experimental software tools. Lab fee. Credit not given for both A546 and A346.

A548 Mastering the World Wide Web (3 cr.) P:

two semesters of programming experience, or equivalent, and some knowledge of

operating systems. Project-oriented course leading to ability to maintain a Web site with full functionality. Topics include background on internet network protocols and programming, Web server administration, advanced web design and authoring, Web protocols, interfacing services into the Web. Lab fee. Credit not given for both A548 and A348.

A591 Introduction to Computer Science (3 cr.) A

A first course in computer science for those intending to take advanced computer science courses. Introduction to programming and to algorithm design and analysis. Using the Scheme programming language, the course covers several programming paradigms. Lecture and laboratory. Credit not given for both A591 and C211.

A592 Introduction to Software Systems (3 cr.) P:

programming experience. Design of computer software systems and introduction to programming. Topics include the C++ programming language and its data structure facilities; building and maintaining large projects; shell tools and system calls. Introduction to object-oriented programming. Lecture and laboratory. Credit not given for both A592 and C212.

A593 Computer Structures (3 cr.) P:

A592. Structure and internal operation of computers. The architecture and assembly language programming of a specific computer are stressed, in addition to general principles of hardware organization and low-level software systems. Lecture and laboratory. Lab fee. Credit not given for both A593 and C335. May be applied towards the Ph.D. minor.

A594 Data Structures (3 cr.) P:

A592. P or C: C241 and A593. Systematic study of data structures encountered in computing problems; structure and use of storage media; methods of representing structured data; and techniques for operating on data structures. Lecture and laboratory. Credit not given for both A594 and C343. May be applied towards the Ph.D. minor.

A595 Fundamentals of Computing Theory (3 cr.) P:

C241. P or C: C212. Fundamentals of formal language theory, computation models and computability, the limits of computability and feasibility, and program verification. Credit not given for both A595 and B401. May be applied towards the Ph.D. minor, graduate credit available for CS M.S. candidates with special permission.

A596 Programming Languages (3 cr.) P:

A594. Systematic approach to programming languages. Relationships among languages, properties and features of languages, and the computer environment necessary to use languages. Lecture and laboratory. Credit not given for both A596 and C311. May be applied towards the Ph.D. minor.

A597 Introduction to

Programming I (3 cr.) Fundamental programming constructs, including loops, arrays, classes, and files. General problem-solving techniques. Emphasis on modular programming, user-interface design, and developing good programming style. Credit not given for both A597 and A201.

A598 Introduction to

Programming II (3 cr.) P: A597, A201, A504, or A304. Advanced programming techniques: user-defined functions and types, recursion vs. iteration, parameter-passing mechanisms. Classic abstract data types and algorithms. Programming style. Object-oriented programming. Credit not given for both A598 and A202.

B403 Introduction to Algorithm Design and Analysis (3 cr.) Credit not given for both B403 and B503.

P423 Compilers (4 cr.) Credit not given for both P423 and P523.

P436 Introduction to Operating Systems (4 cr.) Credit not given for both P436 and P536.

B438 Fundamentals of Computer Networks (3 cr.) Credit not given for both B438 and B538. Not applicable towards a major in computer science.

B441 Digital Design (4 cr.) Credit not given for both B441 and B541. Not applicable towards a major in computer science.

P442 Digital Systems (4 cr.) Credit not given for both P442 and P542. Not applicable towards a major in computer science.

B443 Introduction to Computer Architecture (3 cr.) Credit not given for both B443 and B543.

B501 Theory of Computing (3 cr.) P: C241. Deterministic and nondeterministic automata, regular expressions, pumping lemmas; context-free languages, parsing, pushdown automata, context-sensitive languages, LBA, LR(k) languages, closure and decidability of language classes. Turing machines, random access machines, grammars, general recursive functions, equivalence of computation models, universal machines, relative computing. Unsolvability, semi-recursive sets, Rice's Theorem. Space and time complexity, NP completeness.

B502 Computational Complexity (3 cr.) Study of computational complexity classes, their intrinsic properties, and relations between them. Topics include time and space computational complexity. Reducibility and completeness of problems within complexity classes. Complexity of optimization problems. Complexity hierarchies. Relativization of the $P = ? NP$ conjecture. Parallel computation models and the class NC.

B503 Algorithms Design and Analysis (3 cr.) P: MATH M216, and C343. Models, algorithms, recurrences, summations, growth rates. Probabilistic tools, upper and lower bounds; worst-case and average-case analysis, amortized analysis, dynamization. Comparison-based algorithms: search, selection, sorting, hashing. Information extraction algorithms (graphs, databases). Graphs algorithms: spanning trees, shortest paths, connectivity, depth-first search, breadth-first search.

B510 Introduction to Applied Logic (3 cr.) Structures: relations between structures, term structures. Description: notation and meaning, substitution operations, first order formulas, database languages, program verification conditions, semantics valuation, normal forms, quantifier reduction, axiomatic theories. Proof: resolution, sequential calculi, natural deduction, automated theorem proving, semantic completeness. Limits of formalization: compactness, undecidability of truth, undecidability of canonical theories, non-formalizability of database theory.

P515 Specification and Verification (3 cr.) P: C311. Tools and techniques for rigorous reasoning about software and digital hardware. Safety, reliability, security, and other design-critical applications. Decision algorithms. Projects involving the use of automated reasoning, such as model checkers, theorem provers, and program transformation. Credit not given for both P415 and P515.

B521 Programming Language Principles (3 cr.) Systematic approach to programming languages. Relationships among languages, properties and features of languages, the computer environment necessary to support language execution.

B522 Programming Language Foundations (3 cr.) P: C311 or B521, and B510. Introduction to denotational, operational, and axiomatic approaches to programming language semantics. Semantic analysis of major programming language features. Logics of programs.

P523 Programming Language Implementation (3 cr.) P: B521 or C311. Implementation of traditional and nontraditional computer programming languages. Compilation, including lexical analysis, parsing, optimization, code generation, and testing. Run-time support, including run-time libraries, storage management, input-output. Comparison of implementation

techniques. Extensive laboratory exercises.

B524 Parallelism in Programming Languages and Systems (3 cr.) P: P436 or P536, and either C311, H311 or B521, C343 or H343. Fundamentals of parallel computation, with an emphasis on parallel programming methodology and programming languages. Topics include: parallel algorithms; major paradigms for parallel software construction; (data parallelism, task/thread parallelism and CSP); compiling programs for parallel computers.

B534 Distributed Systems (3 cr.) B534 is a balanced treatment of fundamentals and practice of distributed systems. The foundational models, algorithms, and principles upon which distributed systems are based are studied in detail.

P536 Advanced Operating Systems (3 cr.) P: C335 and C343, or honors versions. Advanced topics in operating systems, such as: multi-tasking, synchronization mechanisms, distributed system architecture, client-server models, distributed mutual exclusion and concurrency control, agreement protocols, load balancing, failure recovery, fault tolerance, cryptography, multiprocessor operating systems.

B538 Networks and Distributed Computing (3 cr.) P: P436 or P536. Basic concepts and technologies of computer networks. Protocols and protocol stacks. Client-server models. Distributed object technology. High-performance and high-bandwidth techniques. Distributed operating systems.

B541 Hardware System Design I (3 cr.) P: C335 or honors version. Structured approach to hardware design, emphasizing hardwired and microprogrammed control. Boolean algebra, hardware building blocks, architecture and control, implementation issues. In the laboratory, students build a working computer using hardware prototyping technologies. Basic

training in the use of design and simulation software. Lecture and laboratory.

P542 Hardware System Design II (3 cr.) P: B541 or B441. Depending on instructor, a selection of topics in system-level design, such as simulation, logic synthesis, high-level synthesis, codesign, embedded software, verification, test, requirements specification, and others. Projects in system-level design. Computer-aided design tools. Lecture and laboratory.

B543 Computer Architecture (3 cr.) P: C335 and C343 or honors versions. Fundamentals of computer design, instruction processing and performance analysis. Architecture of single-processor systems, focusing on pipelining, memory and memory hierarchies, and interconnect technology. Exploration of architecture classes such as high-performance multiprocessors, massively parallel computers, embedded systems.

B551 Elements of Artificial Intelligence (3 cr.) P: C343 or H343, good knowledge of LISP or Scheme. Introduction to major issues and approaches in artificial intelligence. Principles of reactive, goal-based, and utility-based agents. Problem-solving and search. Knowledge representation and design of representational vocabularies. Inference and theorem proving, reasoning under uncertainty, planning. Overview of machine learning.

B552 Knowledge-Based Computation (3 cr.) P: B551. Knowledge-based methods for artificial intelligence systems: knowledge representation, organization, and application. Typical content includes principles of memory organization, indexing and retrieval. Memory-based, analogical, and case-based reasoning. Applications to understanding, explanation, planning, and advisory systems.

B553 Biomorphic Computation (3 cr.) P: B551. Biologically-inspired approaches to the design of

intelligent systems. Distributed and perceptually-grounded representations. Temporal processing. Neural-network approaches to vision and natural language processing. Evolutionary computation. Comparison of symbolic and biomorphic approaches to intelligence. Additional topics may include an introduction to analog computing and dynamical systems.

B561 Advanced Database Concepts (3 cr.) P: C241, C335, and C343 or honors versions. Database models and systems, especially relational and object-oriented; relational database design theory; structures for efficient data access; query languages and processing; database applications development; views. Transaction management: concurrency and recovery.

P565-P566 Software Engineering I-II (3-3 cr.) P: C343, B461 previously or B561 concurrently. Analysis, design and implementation of software systems. Requirements specification: data and process modeling. Software design methodologies. Software quality assurance: testing and verification. Software development processes.

P573 Scientific Computing (3 cr.) P: MATH M303 or M301, M343, and C212 or H212. For students from all scientific, engineering, and mathematical disciplines, this course provides an overview of computer hardware, software, and numerical methods that are useful on scientific workstations and supercomputers. Topics include high-performance computer architectures, software tools and packages, characteristics of numerical methods in common use, graphical presentation of results, and performance analysis and improvement.

B581 Advanced Computer Graphics (3 cr.) P: C343, MATH M301 or M303, or equivalent experience. Introduction to graphics hardware and software. Two-dimensional graphics methods, transformations, and interactive methods. Three-dimensional graphics, transformations, viewing

geometry, object modeling and interactive manipulation methods. Basic lighting and shading. Video and animation methods.

B582 Image Synthesis (3 cr.) P: B581, MATH M215. Raster image display: color theory, gamma correction, and filtering. Advanced shading methods: local illumination models, global illumination models. Surface display, including ray tracing and Z-buffering. Solid modeling: spline surfaces, CSG, superquadrics, and deformations. Scientific visualization: isosurfaces and volume rendering.

B599 Teaching in Computer Science (1 cr.) General principles of teaching and practical experiences that relate to teaching computer science. An important feature of the course is the micro-teaching, in which each participant prepares and delivers short lectures to the seminar participants. Each presentation is followed by critical analysis and discussion.

B603 Advanced Algorithms Analysis (3 cr.) P: B503. Advanced topics in analysis of algorithms, including fast algorithms for classical problems, lower bounds results, and statistical behavior.

B607 Philosophy of Computation (3 cr.) P: consent of the instructor. Critical examination of the conceptual foundations of computing. Several different views assessed with respect to conceptual, explanatory, and empirical criteria. Primary focus on formal symbol manipulation, recursive function theory, effective computability, computational complexity, digitality, and information processing. Some nonstandard approaches also considered: connectionism, dynamics, and artificial life.

B609 Topics in Algorithms and Computing Theory (1-6 cr.) P: instructor's permission. Special topics in algorithms and computing theory. May be repeated for credit with permission.

B619 Topics in Applied Logic (1-6 cr.) P: instructor's permission.

Special topics in applied logic. May be repeated for credit with permission.

B621 Advanced Concepts in Programming Languages (3 cr.) P: either C311, H311, or B521. P or C: P423 or P523. Discussion of current issues in the design of programming languages. Modularity, abstraction, and static analysis. Applicative and nonapplicative models. Single and multiple processing.

B622 Programming Language Type Systems (3 cr.) P: C311 or B521. Theoretical foundations and engineering techniques for modern type systems, focusing on polymorphism and subtyping in typed lambda-calculi; applications, including type systems for objects, abstract data types, and modules; issues in type checker implementation and polymorphic type inference.

B629 Topics in Programming Languages (1-6 cr.) P: C311 or B521 and instructor's permission. Special topics in programming languages. May be repeated for credit with permission.

B644 Very Large Scale Integration (3 cr.) P: B441 or B541. Basic theory and practice required to convert hardware algorithms and architecture to silicon structures. Use of state-of-the-art design tools for integrated circuits. Lab fee.

B649 Topics in Systems (1-6 cr.) P: instructor's permission. Special topics in systems. May be repeated for credit with permission.

B651 Natural Language Processing (3 cr.) P: B551. R: B552 or B553. Theory and methods for natural language processing. Algorithms for sentence parsing and generation. Context-free and unification grammars. Question-and-answer systems. Analysis of narratives. Finite-state approaches to computational phonology and morphology. Machine translation. Machine learning of natural language. Speech recognition. Neural-network and statistical alternatives to symbolic approaches.

B652 Computer Models of Symbolic Learning (3 cr.) P: B552. Symbolic artificial intelligence methods for learning. Inductive and explanation-based generalization. Failure-driven learning. Case-based learning. Typical content includes operationality of explanations and utility of learning. Goal-driven learning. Criteria for when, what, and how to learn. Learning in integrated architectures.

B657 Computer Vision (3 cr.) P: B551. Concepts and methods of machine vision as a branch of artificial intelligence. Basics of digital image processing. Local and global tools for deriving information from image data. Model-based object recognition and scene understanding.

B659 Topics in Artificial Intelligence (1-6 cr.) P: instructor's permission. Special topics in artificial intelligence. May be repeated for credit with permission.

B661 Database Theory and Systems Design (3 cr.) P: B461 or B561. Database models: relational, deductive, complex-object, object-oriented. Query languages: relational algebra and calculus, datalog, fixpoint logics, object-oriented query languages. Transaction management theory: concurrency control, recovery, distribution. Post-relational and object-oriented database systems.

B665 Software Engineering Management I (3 cr.) P: B561 or BUS S560. Topics include the high cost of software, the software life cycle, understanding programming teams, and methodologies for controlling development. Presentation of readings and supervision of programming teams producing software products required.

B666 Software Management Implementation II (1-3 cr.) P: B665. Continuation of projects from B665. Periodic reports and a final paper required. If taken for two or more credits, an additional project or paper is required.

B669 Topics in Database and Information Systems (1-6 cr.) P: instructor's permission. Special topics in database and information systems. May be repeated for credit with permission.

B673 Advanced Scientific Computing (3 cr.) P: P573 and MATH M471. Multiprocessor organization: vectorization, memory organization, processor topologies and architectures. Models of parallelism. Programming language and systems for scientific and high-performance computing. Environments for interactive scientific experiments and databases. Distributed programming tools. Parallelism in scientific problems: parallel algorithmic techniques, parallel algorithms and models, parallel performance analysis and debugging.

B679 Topics in Scientific Computing (1-6 cr.) P: instructor's permission. Special topics in scientific computing. May be repeated for credit with permission.

B689 Topics in Graphics and Human Computer Interaction (1-6 cr.) P: instructor's permission. Special topics in graphics and human computer interaction. May be repeated for credit with permission.

Y790 Graduate Independent Study (1-6 cr.) Independent study under the direction of a faculty member, culminating in a written report. May be repeated for credit. R grade not allowed. The different departmental options for independent study are: Research and Reading, Software System Development, Master's Research Project, Master's Software Project, and a University Master's Thesis.

Y798 Professional Practicum/ Internship (non-credit) P: Current enrollment in graduate degree program in computer science. Provides for participation in graduate level professional training and internship experience.

Y890 Thesis Readings and Research (1-12 cr.) Research under the direction of a member of the graduate faculty leading to a Ph.D. dissertation.

Criminal Justice

College of Arts and Sciences
Bloomington

Departmental E-mail
crimjust@indiana.edu

Departmental URL
www.indiana.edu/~crimjust

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors

Roger J. R. Levesque, Coramae Richey Mann (Emerita), Harold Pepinsky, Leon E. Pettway, Hilliard Trubitt (Emeritus)

Associate Professors

Steven Chermak, Ellen Dwyer (History), Stephanie Kane, Mary Lee Luskin, William Oliver*, Philip Parnell (Anthropology), Dennis Rome, Steve Russell, Marla Sandys, Kip Schlegel, Arvind Verma

Assistant Professors

Veronica Herrera*, William Alex Pridemore, Jody L. Sundt

Graduate Advisor

Associate Professor Steven Chermak, Sycamore Hall 302, (812) 855-9325

Degrees Offered

Master of Arts and Doctor of Philosophy

Program Information

The department offers the opportunity for multidisciplinary graduate degrees in criminal justice that are designed for students coming from a variety of academic backgrounds. A degree in criminal justice may serve as a stepping stone to further graduate work (in the case of those awarded the Master of Arts degree) to law school, or to administrative, research, and

management careers in the criminal justice system or the private sector. The faculty represents a diversity of approaches to criminal justice studies: anthropology, criminal justice, geography, history, law, political science, psychology, and sociology. Students may also study with faculty from other departments and schools who make up the university-wide criminal justice consortium.

Special Departmental Requirements

See also general University Graduate School requirements.

Master of Arts Degree

Admission Requirements

Applicants must submit the following: (1) an official undergraduate transcript; (2) a 300- to 500-word statement of academic and professional goals; (3) scores from the analytical, verbal, and quantitative sections of the GRE; (4) evidence of potential for success in graduate work, as attested by letters of recommendation from those familiar with the applicant's academic performance (two of the applicant's three letters must be from faculty members); (5) international TOEFL is required of all foreign students.

Course Requirements

A total of 36 credit hours, 15 of which must be taken in the Department of Criminal Justice. Required are P501, P502, P594, P595, and P610 or P670.

Thesis

Optional. Students may earn up to 6 credit hours for an M.A. thesis.

Doctor of Philosophy Degree

Admission Requirements

Applicants must submit the following: (1) an official undergraduate transcript; (2) a 300- to 500-word statement of academic and professional goals; (3) scores from the analytical, verbal, and quantitative sections of the GRE; (4) evidence of potential for success in graduate work, as attested by letters

of recommendation from those familiar with the applicant's academic performance (two of the applicant's three letters must be from faculty members); (5) international TOEFL is required of all foreign students.

Course Requirements

A total of 90 credit hours beyond the bachelor's degree, of which 12 credit hours are in core proseminars and another 12 credit hours in other required courses. Of hours needed for the degree, a student must complete 9 credit hours beyond the required core proseminar in each of two areas of specialization within the curriculum and complete a minor, consisting of 6 credit hours beyond the required proseminar in a third area of specialization. The minor may be selected from outside the Department of Criminal Justice. Students are required to complete courses in each of the four substantive tracks that the program is organized: P501, P502, P610, P670. All students are required to complete P594, P595, and P596. A research skill requirement may be satisfied by completing P599 or a research skills course approved by the Director of Graduate Affairs. A dissertation for up to 30 credit hours is required.

Foreign Language/Research Tool Requirement

One of the following: (1) reading proficiency in one of the languages from those approved by the Department of Criminal Justice or a language demonstrably useful in the student's research program; or (2) the research-tool requirement may be satisfied by either 3 credits of advanced research or statistics course work. Students may obtain a list of approved tool-skill courses from the department.

Qualifying Examination

All doctoral students are expected to demonstrate basic proficiency by passing written doctoral examinations in two of the following core areas: (1) nature of crime; (2) criminal justice systems and processes; (3) law and society; (4) cross-cultural studies.

Dissertation Proposal

Dissertation proposals must be submitted only after successfully completing the required qualifying Ph.D. examinations. An oral defense of the dissertation proposal is required.

Final Examination

Oral defense of the dissertation is required.

Ph.D. Minor in Criminal Justice

Students from other departments or schools who wish to minor in criminal justice should consult with the Director of Graduate Affairs, who will ordinarily serve as the minor advisor. The usual requirement for a minor is at least 12 graduate credit hours in criminal justice. P501 and P502 are required and the remaining 6 hours are elective credits in the department. A Declaration of Minor Form must be submitted to the Director of Graduate Affairs.

Courses

Courses in the 300s and 400s listed here are open to graduate students with the prior approval of the director of graduate affairs in criminal justice and the course instructor.

P411 Criminal Justice Management (3 cr.)

P482 The Family and Formal Control Systems (3 cr.)

P501 Proseminar: Criminal Justice I (3 cr.) A proseminar to provide an intensive introduction to the basic areas of criminal justice.

P502 Proseminar: Criminal Justice II (3 cr.) Theories of crime and delinquency.

P512 Corrections (3 cr.) Reviews historical and philosophical bases of correctional system and examines components of system (community corrections, jails, and prisons). Focuses on the structure and functions of the corrections system with particular attention to the role of broader social forces on the development and operation of the system.

P515 Police in Society (3 cr.)

Covers the bases and impacts of recent changes in U.S. policing, particularly with respect to community-oriented policing. Changes are analyzed in terms of the organizational and political contexts in which they occur as well as from historical and cross-cultural perspectives.

P517 Juvenile Justice (3 cr.)

Examines historical development of juvenile justice system, tradition of reform, underlying ideologies, and current debates.

P519 Probation and Parole (3 cr.)

Primary emphasis on the development and evaluation of probation, parole, and other systems of community corrections. Examines the theoretical underpinnings of community programs for offenders, and analysis of recent research will be undertaken. The policy implications for this area will also be studied.

P520 Public Control of Deviant Behavior (3 cr.)

Critical review of theoretical and empirical literature on selected topics in deviant behavior, including prostitution, child abuse, psychopathy, homosexuality, drug abuse, alcohol abuse, and alcoholism.

P594 Introduction to Research Methods (3 cr.)

P: one semester of graduate-level statistics (S540 or equivalent). Research methodology in criminal justice. Research design, scientific methods, quantitative applications, ethical questions, and the role of the criminal justice researcher.

P595 Data Analysis in Criminal Justice I (3 cr.)

Data analysis applied to criminal justice data, including measurement, tables, graphs, probability, nonparametric statistics, matrix algebra, correlation and regression, and tests of significance.

P596 Data Analysis in Criminal Justice II (3 cr.)

P: CJUS P595. Focus on the general linear model and multivariate statistical

techniques such as logit, probit, and structural equation modeling.

P599 Research Practicum (1-6 cr.)

Required course for Ph.D. students. Designed to provide guided experience in conducting research independently. The topic and scope of the student's effort must be approved in advance by the professor.

P600 Theories of Crime Causation (3 cr.)

Examination of theories of crime and criminal behavior from three major perspectives: biology, psychology, and sociology. The goal of the seminar is twofold: (1) to understand the strengths and weaknesses of existing theories from these diverse perspectives, and (2) to suggest that theoretical explanations of crime must of necessity be multidimensional in order to encompass the complexity of the problem.

P602 Courts and Criminal Justice (3 cr.)

Addresses the nature and operation of courts with respect to criminal cases: structure and administration of courts; recruitment and selection of major participants; and specific decisions in the processing of criminal cases, including the decision to charge, pretrial release, trials and plea bargains, and criminal appeals.

P610 Law and Society (3 cr.)

Study of the interaction between social forces and legal processes, focusing on the question of what shapes the law. Subareas to be examined include the courts, sentencing, police, crime, deviance, and community-based justice. Emphasis on the links between crime-related behavior as defined by the law, its social and cultural environments, and the individual.

P619 Crime and Public Policy (3 cr.)

Examines processes by which societies define crime and develop responses to crime. Particular attention is given to case studies of how particular policies were developed and implemented, and what effects these policies produced.

P622 Criminal Careers (3 cr.) A small number of career criminals commit the majority of serious crimes. Seminar explores the major personal and typological dimensions of such criminals by exposing the student to the commonalities among diverse forms of criminal activity and the implications for crime theory development and crime control policies.

P623 Violent Behavior (3 cr.) Critical analysis of current theory and research on violent behavior utilizing a multidisciplinary framework. Topics include concepts and methods in the study of violence; prediction of violence; family and sexual violence; institutional violence; drugs and violence; and prevention of violent behavior.

P625 Correlates of Crime (3 cr.) Examines the incidence and correlates (individual, community, and cultural) of crime and the varying methods of measuring crime. Implications for criminological theory and research are addressed.

P627 White-Collar Crime (3 cr.) Examines the data and research related to white-collar crime in an effort to understand issues of causation and social control of this particular form of crime. Places white-collar crime within the context of general theories of crime, and compares and contrasts the various legal mechanisms (civil administrative and criminal) available to control it.

P629 Victimization (3 cr.) Covers current theory, research and measurement issues pertaining to the nature, extent, causes, and effects of criminal victimization; evaluations of programs for crime victims; and political and ideological differences among varying views of victim rights.

P633 Dispute Settlement (3 cr.) Examines relationships between social and cultural contexts in the fields of crime and law. Focuses on factors that influence the development and use of dispute settlement processes, such as mediation and negotiation, and the

evolution, development, and disintegration of legal and criminal justice systems.

P634 Sentencing Theory and Practice (3 cr.) Examines the theoretical and practical issues relating to the sentencing of criminals. In particular, focuses on the aims of punishment and the construction of sentencing models and alternatives designed to achieve these aims.

P637 Community, Crime, and Criminal Justice (3 cr.) Examines the role of community structure and function in the distribution of crime and the formal and informal response to crime.

P639 History of Criminal Justice in the U.S. (3 cr.) Examination of the development of the American criminal justice system, with particular attention to courts, prisons, and the police. Examines how definitions of deviance and criminality have changed over time and the ways class, gender, and race have shaped law and justice.

P670 Cross-Cultural Studies (3 cr.) Examines significance of cross-cultural research to criminology/criminal justice, research practices and problems, with emphasis on analysis of field experiences and findings.

P671 Comparative Justice Systems (3 cr.) Engages students in comparative issues and research to reveal political, historical, and cultural factors that have influenced criminal justice and law in the United States. Develops student abilities to conceptualize crime and law without using official legal concepts but for purposes of comparative social scientific research.

P672 Ideas About Justice (3 cr.) Explores a school or related schools of thought and practice about what “justice” means and requires. Special topics for the course may vary, focusing, for instance, on feminist justice, “just desserts” theory, restorative justice, retributive justice, or utilitarian justice.

P675 Women and Crime (3 cr.) Provides a flexible forum for the discussion of a previously neglected topic in criminology/criminal justice: women and crime. Includes discussion and debate on the nature and extent of women’s criminality, processing of women through each step of the criminal justice system, and women working in criminal justice.

P680 Seminar: Issues in Criminal Justice (3 cr.) Selected topics in criminal justice that will vary from semester to semester. May be repeated for credit.

P682 Seminar on Law Enforcement and Minorities (3 cr.) Selected topics dealing with problems involving minorities and criminal justice system operations.

P694 Research in Criminal Justice (cr. arr.)** P: P594.

P751 Topical Research Seminar (3-12 cr.) Students are expected to demonstrate their skills in research design and data analysis on a topic agreed upon with the instructor. The instructor may encourage team research for appropriate designs and topics. Students are encouraged to develop topics related to dissertation research.

P794 M.A. Thesis (6 cr.)**
P: P594.

P851 Reading in Criminal Justice (1-6 cr.)** Individualized readings on topics not covered in regular course offerings.

P855 Research in Criminal Justice (1-6 cr.)** P: graduate standing in criminal justice or consent of instructor. The student is expected to make substantial progress toward identification of an eventual dissertation project.

P859 Ph.D. Thesis (cr. arr., 30 cr. max.)**

**These courses are eligible for a deferred grade.

Cross-Listed Courses¹

AFRO-AMERICAN STUDIES

A669 Independent Project in Black Social Issues (3 cr.)

ANTHROPOLOGY

B370 Human Variation (3 cr.)

B600 Seminar in Bioanthropology (3 cr.)

E375 Mental Illness in Cross-Cultural Perspectives (3 cr.)

E380 Urban Anthropology (3 cr.)

E404 Field Methods in Ethnography (3 cr.)

E405 Principles of Social Organization (3 cr.)

E430 Kinship Organization (3 cr.)

E445 Medical Anthropology (3 cr.)

E451 Myth and Legend: Cultural Meanings and Interpretations (3 cr.)

E457 Ethnic Identity (3 cr.)

E480 Theory of Culture Change (3 cr.)

E500 Proseminar in Cultural and Social Anthropology (3 cr.)

E505 Social Organization and Process (3 cr.)

E600 Seminar in Cultural and Social Anthropology (3 cr.)

E606 Research Methods in Cultural Anthropology (3 cr.)

E620 Seminar on Cultural Ecology (3 cr.)

E681 Seminar in Urban Anthropology (3 cr.)

H505 History of Social Anthropology (3 cr.)

L500 Proseminar in Language and Culture (3 cr.)

Note: There are also a number of regional courses that might fit specific Ph.D. candidates, e.g., E510, Problems in African Ethnography and Ethnology (3 cr.).

BUSINESS

W516 Organizational Development and Change (3 cr.)

W601 Theoretical and Historical Foundations of Organization Theory (3 cr.)

W602 Seminar in Organizational Theory (3 cr.)

W603 Special Topics Seminar in Organizational Theory (3 cr.)

Z504 Organizational Behavior and Theory (3 cr.)

Z513 Administration of Personnel Systems (3 cr.)

Z514 Seminar in Industrial Relations (3 cr.)

Z517 Legal Issues in Human Resources (3 cr.)

EDUCATION

H551-H552 Comparative Education I-II (3-3 cr.)

H560 Education and Change in Societies (3 cr.)

GENDER STUDIES

G601 Survey of Contemporary Research in Gender Studies: The Social and Behavioral Sciences (3 cr.)

GEOGRAPHY

G415 Advanced Urban Geography (3 cr.)

G440 Spatial Behavior (3 cr.)

G515 Mathematical Models in Geography (3 cr.)

G614 Seminar in Settlement and Urban Geography (3 cr.)

HISTORY

A325-A326 American Constitutional History I-II (3-3 cr.)

A347 American Urban History (3 cr.)

JOURNALISM

J500 Introduction to Mass Media Research (3 cr.)

J514 International Communication (3 cr.)

J551 Seminar: Reporting the Law (3 cr.)

J572 The Press and the Constitution (3 cr.)

J614 Communication and National Development (3 cr.)

J651 Qualitative Methods in Mass Communication Research (3 cr.)

J672 Topics in Communication Law (3 cr.)

J673 Government and Mass Media (3 cr.)

LAW

B601-B602 Criminal Process I-II (3-3 cr.)

B608 Family Law (3 cr.)

B659 American Legal History (3 cr.)

B701 Juvenile Justice System (3 cr.)

LINGUISTICS

L619 Language and Society (3 cr.)

PHILOSOPHY

P526 Nineteenth-Century Philosophy (3 cr.)

P540 Contemporary Ethical Theories (3 cr.)

¹ A student may choose from the following courses or other approved cross-listed courses to complete M.A. requirements.

P543 Contemporary Social and Political Philosophy (3 cr.)	P555 Computer Application in Psychological Research (3 cr.)	S450 Topics in Methods and Measurement (3 cr.)
P545 Legal Philosophy (3 cr.)	P615 Developmental Psychology I (3 cr.)	S510 Introduction to Social Organization (3 cr.)
POLITICAL SCIENCE	P619 Seminar in Personality (3 cr.)	S530 Introduction to Social Psychology (3 cr.)
Y367 International Law (3 cr.)	P631 Intervention and Evaluation (3 cr.)	S540 Sociological Theory (3 cr.)
Y388 Marxist Theory (3 cr.)	P632 Introduction to Clinical Interventions (3 cr.)	S558 Advanced Research Techniques (3 cr.)
Y565 Public Administration, Law, and Policy: Approaches and Issues (3 cr.)	P634 Advanced Survey of Community Psychology (3 cr.)	S610 Urban Sociology (3 cr.)
Y569 International Relations: Approaches and Issues (3 cr.)	P647 Decision Making under Uncertainty (3 cr.)	S612 Political Sociology (3 cr.)
Y575-Y576 Political Data Analysis I-II (3-3 cr.)	P648 Choice Behavior (3 cr.)	S613 Complex Organizations (3 cr.)
Y580 Research Methods in Political Science (3 cr.)	P721 Conflict, Aggression, and Altruism (3 cr.)	S616 Sociology of Family Systems (3 cr.)
Y663 Political and Administrative Development (3 cr.)	P734 Community Intervention (3 cr.)	S617 Social Stratification (3 cr.)
Y665 Public Law and Policy (3 cr.)	RELIGIOUS STUDIES	S620 Deviance and Social Control (3 cr.)
Y673 Empirical Theory and Methodology (3 cr.)	R661 Religion and Social Criticism (3 cr.)	S631 Intergroup Relations (3 cr.)
Y685 Readings in Public Administration, Law, and Policy (1-4 cr.)	R673 Religion and Violence (3 cr.)	S632 Socialization (3 cr.)
Y763 Political and Administrative Development (3 cr.)	R674 Ethics and Ethos (3 cr.)	S633 Social Interaction: Interpersonal Relations (3 cr.)
Y765 Public Law and Policy (3 cr.)	SOCIOLOGY	S640 Advanced Topics in Sociological Theory (3 cr.)
Y771 Public Administration (3 cr.)	S324 Sociological Aspects of Mental Illness (3 cr.)	S647 Social Change (3 cr.)
PSYCHOLOGY	S325 Criminology (3 cr.)	S649 Theory Construction (3 cr.)
P400 Psychological Measurement and Scaling (2 cr.)	S338 Sociology of Gender Roles (3 cr.)	S657 Community Power, Politics, and Decision Making (3 cr.)
P434 Community Psychology (3 cr.)	S420 Topics in Deviance (3 cr.)	S658 Selected Problems in Cross-Cultural Sociological Research (3 cr.)
P460 Women: A Psychological Perspective (3 cr.)	S427 Social Conflict (3 cr.)	SCHOOL OF PUBLIC AND ENVIRONMENTAL AFFAIRS
P502 Developmental Psychology (3 cr.)	S431 Topics in Social Psychology (3 cr.)	V502 Public Management (3 cr.)
P511 Social Psychology (3 cr.)	S432 Small Group Processes (3 cr.)	V504 Public Organizations (3 cr.)
P540 Principles of Psychological Assessment and Prediction (3 cr.)	S438 Childhood Socialization (3 cr.)	V508 Topics in Quantitative Analysis (3 cr.)
	S441 Topics in Social Theory (3 cr.)	

V512 Public Policy Process
(1-3 cr.)

V516 Public Management
Information Systems (3 cr.)

V517 Public Management
Economics (3 cr.)

V540 Law and Public Affairs
(3 cr.)

V550 Topics in Public Affairs
(1-3 cr.)

V562 Public Program Evaluation
(3 cr.)

V570 Public Sector Labor
Relations (3 cr.)

V576 Comparative Approaches to
Development (3 cr.)

V593 Analytic Methods for
Planning and Policy Analysis
(3 cr.)

V595 Managerial Decision Making
(3 cr.)

V665 Seminar in Policy and
Administration (3 cr.)

V670 Topics in Public Sector
Labor Relations (3 cr.)

Cultural Studies

College of Arts and Sciences
Bloomington

Director
Thomas Foster

Departmental E-mail
cstudies@indiana.edu

Departmental URL
www.indiana.edu/~cstudies/main

Graduate Faculty
(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Distinguished Professors
Richard Bauman (Folklore, Communication and Culture), Patrick Brantlinger (English)

Chancellors' Professor
James Naremore (English, Communication and Culture)

Professors
John Bodnar (History), Gilbert D. Chaitin (Comparative Literature, French and Italian), Donna Eder (Sociology), Thomas F. Gieryn (Sociology), Paula Girshick (Anthropology), Jeffrey Gould (History), Carol Greenhouse (Anthropology, Communication and Culture), Robert Ivie (Communication and Culture), Oscar S. Kenshur (Comparative Literature), Joanne Meyerowitz (History), Christine Ogan (Journalism), Robert Orsi (Religious Studies), John Stanfield (African American and African Diaspora Studies), David P. Thelen (History), Dror Wahrman (History), Jeffrey Wasserstrom (History), Stephen Watt (English), Marc A. Weiner (Germanic Studies), Richard Wilk (Anthropology), David R. Zaret (Sociology)

Associate Professors
Christopher Anderson (Communication and Culture), Joëlle Bahloul (Anthropology, Jewish Studies), Purnima Bose* (English), Maria Bucur-Deckard* (History), Linda Charnes (English), Eva Cherniavsky (English), Nicholas Cullather* (History), Jonathan Elmer (English), Mary Favret (English), Thomas Foster (English), Gloria Gibson (African American and African Diaspora Studies), Margaret Gray (French and Italian), Joan Hawkins* (Communication and Culture), Stephanie Kane (Criminal Justice), Barbara G. Klinger (Communication and Culture), John Lucaites (Communication and Culture), Andrew Miller (English), Carolyn Mitchell (English), Richard Nash* (English), David Pace (History), Philip Parnell (Criminal Justice), Angela Pao* (Comparative Literature), William Rasch (Germanic Studies), Michael Robinson (East Asian Languages and Cultures), Katrin Sieg* (Germanic Studies), Eric Sandweiss (History), Janet Sorensen* (English), Lee Sterrenburg (English), Beverly J. Stoeltje (Folklore, Communication and Culture), Timothy J. Wiles

(English), Yingjin Zhang (East Asian Languages and Cultures)

Assistant Professors
Claudia Breger (Germanic Studies), Nicola Evans (Communication and Culture), Jane E. Goodman (Communication and Culture), Helen Gremillion* (Peg Zeglin Brand Chair in Gender Studies), Candida Jaquez* (Folklore and Ethnomusicology), DeWitt D. Kilgore (English), Roopali Mukherjee* (Communication and Culture), Radhika Parameswaran* (Journalism), Phaedra C. Pezzullo (Communication and Culture), Yeidy M. Rivero (Communication and Culture, Latino Studies), Sue Tuohy* (Folklore)

Academic Advisor
Thomas Foster, 419 Ballantine Hall, (812) 855-5546

Ph.D. Minor in Cultural Studies

Cultural Studies is a multidisciplinary program primarily applicable to the humanities and social sciences. Drawing upon recent developments in cultural, social, and literary theory, this program emphasizes the investigation of cultural production and the social construction of values, ideas, and belief systems. Focusing on both contemporary and historical phenomena, courses in this area pay particular attention to the relationship between cultural forms and power relations in society. Issues of class, race, and gender receive prominent critical attention, as do conventional divisions between “high culture” and more “popular” forms of expression. Students in this program are encouraged to fashion a course of study which meets their particular interests and needs. Cultural Studies is especially useful for those seeking to complement studies in an area of disciplinary specialization with a more interdisciplinary minor

Course Requirements
Four courses for a minimum of 13 hours of credit in courses approved for the Cultural Studies Program, including C601 and either C701 or C790. The remaining hours are

mostly satisfied by taking classes which are cross-listed with the home department of the designated instructor. Students must officially declare the minor during the early phase of their Ph.D. studies by consulting with the director of the Cultural Studies Program.

Examinations

Satisfactory performance on the qualifying examinations in the student's major department required.

Courses

C601 Introduction to Cultural Studies (4 cr.) Survey of main issues, theories, and methods in cultural studies. Topics may include communications and mass culture; gender, race, and the social construction of identity; historiographic and ethnographic approaches to modern cultures and societies.

C701 Special Topics in Cultural Studies (3-4 cr.) P: C601 or consent of instructor. Advanced exploration of a specific issue in cultural studies (for example, "avant-garde" movements in politics and the arts in relation to social and cultural modernity).

C790 Independent Readings in Cultural Studies (1-6 cr.) P: consent of the instructor. Open only to students completing minors in cultural studies.

Dentistry

School of Dentistry Indianapolis

Dean

Professor Lawrence Goldblatt

Departmental E-mail
blerner@iupui.edu

Departmental URL
www.iusd.iupui.edu

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Distinguished Professor

George Stookey (Emeritus)

Professors

David Bixler (Emeritus), Stephen Bonsib, John Chaves, Arden Christen, Richard Gregory, James Hartsfield, Michael Kowolik, Donald LeBlanc, James McDonald, Chris Miller, B. Keith Moore, Byron Olson, Yoshiki Oshida, W. Eugene Roberts Jr., S. Miles Standish (Emeritus), Charles Tomich, Domenick T. Zero

Associate Professors

Mostafa Analoui, Joseph Bidwell, Lawrence Garetto, Thomas Katona*, M. Margaret Vickerman

Assistant Professors

Eric Everett*, Margherita Fontana*, Carlos Gonzalez-Cabezas*, Dominique Galli*, Richard Jackson*, Jeffrey Platt*, L. Jack Windsor*

Adjunct Professor

Janet Hock (Affiliate Graduate Faculty Status)

Adjunct Assistant Professor

Rachelle Galvin (Affiliate)

Senior Scientist

Ann Dunipace (Emerita)

Associate Scientist

Lech Switalski

Associate Dean for Academic Affairs and Graduate Education

Chris Miller, School of Dentistry
105, (317) 274-5349

Director of Ph.D. Program

Richard Gregory, OH 123, (317)
274-5349

Degrees Offered

Master of Science and Doctor of Philosophy. In addition, the School of Dentistry offers the Master of Science in Dentistry; for details see the School of Dentistry Bulletin.

Special School Requirements

(See also general University Graduate School requirements.)

The M.S. and Ph.D. programs are designed principally for students who expect to enter dental education and research upon completion of their programs. The M.S.D. program is intended for students interested primarily in the specialty disciplines of dentistry.

Master of Science Degree

Graduate work in the School of Dentistry leading to the M.S. degree includes advanced laboratory, lecture, library, and seminar courses in dental materials. (See School of Dentistry Bulletin for M.S.D. programs offered in the advanced specialty disciplines in dentistry.)

Admission Requirements

(1) Degree in dentistry from a recognized school of dentistry, or bachelor's degree with appropriate concentration in science (for applicants, other than dentists, who wish to pursue advanced degrees in dental science); (2) overall B (3.0) average; (3) appropriate level of achievement in course work in the major area of concentration; and (4) evidence of potential for success in advanced graduate work, as attested by letters of recommendation from major professors or others familiar with the applicant's academic performance or professional background. A personal interview may be required in some instances.

Grades

Students must maintain an academic average of at least 3.0 (B) on a 4.0 scale.

Course Requirements

A minimum of 30 credit hours of approved courses appropriate to one of the major disciplines given above, including 6 credit hours in an approved minor subject and 6 credit hours of research. Consult the (1) Degree in dentistry from a recognized school of dentistry, or bachelor's degree with appropriate concentration in science (for applicants, other than dentists, who wish to pursue advanced degrees in

dental science); (2) overall B (3.0) average; (3) appropriate level of achievement in course work in the major area of concentration; and (4) evidence of potential for success in advanced graduate work, as attested by letters of recommendation from major professors or others familiar with the applicant's academic performance or professional background. A personal interview may be required in some instances. School of Dentistry Bulletin and individual program directors for specific details on curricula. A maximum of 6 credit hours may be allowed for clinical courses.

Thesis

Students must submit a thesis or a manuscript for publication in a refereed journal based on the original research conducted.

Final Examinations

Comprehensive oral and written examination taken any time after the first semester. A "defense of thesis" examination is required upon submission of the thesis to the student's graduate committee.

Doctor of Philosophy (Ph.D.) Degree in Dental Science

The objective of the Ph.D. in Dental Science Program is to provide a core curriculum that offers a solid scientific base for a career in research and/or teaching in the dental sciences. The Ph.D. degree in Dental Science (Preventive Dentistry, Oral Biology, or Dental Materials track) focuses on basic and clinical science areas as they relate to the human organism and on the effect of dental materials on cariology. Graduates of this program are ideal candidates for academic teaching and/or research positions in dental schools, medical schools, and other basic science departments as well as for research positions in government institutions and industry.

General Information Admission Requirements

The program is open to persons who have earned the Doctor of Dental Surgery degree or its equivalent as well as graduates of bachelor of science degree programs. Applicants must have a minimum grade point

average of 3.0 or higher on a 4.0 scale (grade point averages from the dental degree in the case of dental school graduates). Candidates for the Ph.D. degree program must have a minimum percentile score on the Graduate Record Examination (GRE) of 600 in the verbal, quantitative, or analytical section. In addition, a TOEFL score of 550 or higher must be obtained by applicants from non-English-speaking countries.

Program Requirements

The degree requires 90 credit hours with 32-40 required course credits (depending on the choice of track) and 12 credits in a minor. Disciplines included in the program are anatomy, biochemistry, biomedical engineering, biostatistics, cell biology, chemistry, immunology, materials science engineering, mechanical engineering, microbiology, molecular biology, pathology, physics, and physiology.

Minor

The minor consists of 12 credit hours in any one of the advanced basic science courses (anatomy, biochemistry, biomedical engineering, chemistry, materials science engineering, mechanical engineering, microbiology and immunology, pathology, pharmacology, physics, physiology, life science) or their equivalents, as approved by the student's advisory committee and the chairperson of the minor department. Credit hours for the required courses may not count toward the minor courses.

Teaching Experience

All students participate in the predoctoral dental curriculum by tutoring in small, problem-based learning (PBL) groups for a total of two PBL blocks after successful completion of the IU School of Dentistry tutor-training program. Students who are non-native speakers of English must demonstrate oral English competency (determined by the IUPUI English as a Second-language [ESL] Program) before they can participate in the PBL sessions.

Qualifying Examination (for admission to candidacy)

The qualifying exam consists of two parts: 1) writing and presenting an oral defense of a research proposal; and 2) sitting for a comprehensive written examination.

Core Curriculum

Descriptions of courses below that do not appear on the list of graduate courses in this bulletin can be found in the University Graduate School, School of Medicine, or School of Education bulletins.

Oral Biology Track

(The Oral Biology Track core curriculum has a minimum of 44 course credits, composed of 32 required and 12 minor credits.)

Required Courses (32 cr. min.)

Biochemistry (3-5 cr.)

B500 or B800 and G817

Microbiology (3 cr.)

J822 or J510 or J805

General Graduate (16 cr.)

G651, G652, G504, G865, G655, and J500 or other teaching method course recommended by program director.

Dental/Oral Biology (10-15 cr.)

R959 or G910 and R956

Research (remainder of 90 cr.)

R957 and R958

Preventive Dentistry Track

(The Preventive Dentistry Track core curriculum has a minimum of 52 course credits, composed of 40 required and 12 minor credits.)

Required Courses (40 cr. min.)

R909, R910, F911, G974 and G959

Courses from the following list can be used to complete the total hours required for the major subject: C607, G900, G905, G911, G965, G967, G973, or R953

General Graduate (13 credits)

G651, G652, G504, G655 and J500 or other teaching method course recommended by program director.

Dental/Oral Biology (10-15 cr.)
G910 or R959 and R956

Research (remainder of 90 cr.)
R957 and G930

**Required Dental Sciences
Courses for Non-Dental
Preventive Dentistry Track
Applicants**

Applicants without a dental degree may apply for the Preventive Dentistry Track but are required to take the following courses in the first two years of their program: G981, G969, G988 or G935.

Dental Materials Track
(The Dental Materials Track core curriculum has a minimum of 51 course credits, composed of 39 required and 12 minor credits.)

Required Courses (39 cr. min.)
Courses from the following list can be used to complete the total hours required for the major subject: C607, G900, G911, G965, G967, G973 or R953.

Biochemistry-Microbiology (3 credits)
B500 or G959

General Graduate (16 cr.)
G651, G652, G504, G865, G655 and J500 or other teaching method course recommended by program director.

Dental Materials (20-22 credits)
G910, G911, G912, G913 and R956

Research (remainder of 90 cr.)
R957 and G921

East Asian Languages and Cultures

College of Arts and Sciences
Bloomington

Chairperson
Professor Susan E. Nelson

Departmental E-mail
ealc@indiana.edu

Departmental URL
www.indiana.edu/~ealc

Graduate Faculty
(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors
Y. J. Chih (Emeritus), Jurgis Elisonas (Emeritus), Eugene Eoyang (Emeritus, Comparative Literature), Yoshio Iwamoto (Emeritus, Comparative Literature), Roger Janelli (Folklore and Ethnomusicology), Sumie Jones (Comparative Literature), Gregory Kasza, Paul Kuznets (Emeritus, Economics), Wu-chi Liu (Emeritus), Irving Lo (Emeritus, Comparative Literature), Susan Nelson (Fine Arts), Jean Robinson (Political Science), Michael Robinson, Richard Rubinger, Lynn Struve (History), Natsuko Tsujimura, Jeffrey Wasserstrom (History), George M. Wilson (Emeritus, History), Margaret Yan (Emerita)

Associate Professors
Stephen Bokenkamp, Robert Company (Religious Studies), Laurel Cornell (Sociology), Robert Eno, Charles Greer (Geography), Thomas Keirstead (History), Hyo-Sang Lee*, Jennifer Li-Chia Liu*, John McRae (Religious Studies), Jan Nattier (Religious Studies), Edith Sarra, Yasuko Ito Watt*

Assistant Professors
Andra Alvis*, Scott Kennedy*, Scott O'Bryan*

Senior Lecturer
Sue Tuohy*

Director of Graduate Studies
Associate Professor Thomas Keirstead, Goodbody Hall 250, (812) 855-1992

Degrees Offered
Master of Arts in Chinese or Japanese, Master of Arts in East Asian Studies, Doctor of Philosophy in Chinese or Japanese

Special Departmental Requirements
(See also general University Graduate School requirements.)

Admission Requirements
Graduate Record Examination General Test is required. International students admitted into departmental programs must demonstrate a high level of proficiency in English or take additional courses to remove deficiencies.

Grades
Students must maintain at least a 3.0 (B) grade point average.

Master of Arts Degree in Chinese or Japanese

Admission Requirement
An undergraduate major in Chinese or Japanese, or its equivalent.

Course Requirements
A total of 30 credit hours, including M.A. project hours, in approved courses. Ordinarily, at least 20 of these credit hours, not counting thesis hours, must be from among the courses listed under "Chinese" or "Japanese" (depending on the student's major) on the list that follows, including at least three at the 500 level or above, of which one must be C511 or J511. Please note that fourth-year language courses do not count toward the required 500-level courses. The remaining credit hours may be taken from other departments at the discretion of the director of graduate studies. Except for overseas study credits, normally a maximum of 3 credit hours of E595 may be counted toward the degree.

Language Requirements

In addition to the student's major language (completion of fourth-year level), reading proficiency in another East Asian language or a European language relevant to the student's research, to be determined in consultation with the director of graduate studies. Language courses above the third-year level of the major language and above the second-year level of other East Asian languages may be counted toward the degree. Students planning to apply to the Ph.D. program are strongly encouraged to begin the second East Asian language during the M.A. program.

Project

The student may choose either a thesis or an essay. (1) A thesis (normally 50-80 pages) demonstrates the student's skills in the use of primary sources and scholarly research. May be taken for up to 4 credit hours. The thesis option is strongly recommended to students who wish to be admitted to the Ph.D. program. (2) The essay is normally 40-50 pages, demonstrating the ability to master, use, and critically evaluate a body of scholarly literature in the student's field. May be taken for up to 4 credit hours.

Master of Arts Degree in East Asian Studies

Admission Requirements

An undergraduate major in East Asian studies or a strong major in any field in the humanities or in the social sciences with general knowledge of the culture of East Asia. Entering students who have not had the first two years of an East Asian language must remove this deficiency within the first two years of graduate study.

Course Requirements

A total of 30 credit hours, including M.A. project hours, in approved courses. Ordinarily, at least 20 of these credit hours must be from among the courses listed under "Culture and Area Courses" on the list that follows. At least three courses must be at the 500 level or above. Please note that fourth-year language courses do not count

toward the required 500-level courses. Except for overseas study credits, normally a maximum of 3 credit hours of E595 may be counted toward the degree.

Language Requirement

Satisfactory completion of three years of Chinese, Japanese, or Korean, or the equivalent, as determined by examination. Language courses at the 300 level and above may be counted toward the degree. Students planning to apply to the Ph.D. program in EALC are strongly encouraged to begin the second East Asian language during the M.A. program.

Project

The student may choose either a thesis or an essay. (1) A thesis (normally 50-80 pages) demonstrates the student's skills in the use of primary sources and scholarly research. May be taken for up to 4 credit hours. The thesis option is strongly recommended to students who wish to be admitted to the Ph.D. program. (2) An essay is normally 40-50 pages, demonstrating the ability to master, use, and critically evaluate a body of scholarly literature in the student's field. May be taken for up to 4 credit hours.

Master of Arts in East Asian Studies: Language Pedagogy Track

Course Requirements

A total of 30 credit hours, including M.A. project credit hours, in approved courses. At least 20 of these credit hours must be from among the courses listed under "Chinese" or "Japanese" (depending on the student's major). Of these, students in Chinese language pedagogy must take C525 and C527; students in Japanese must take J525, J421, and J527; students in Korean must take equivalent pedagogical instruction in Korean to be completed through individualized study, along with K527. Also required are one semester of Literary Chinese or Literary Japanese. The remaining credit hours may be taken from courses in Education, Linguistics, and East Asian culture

courses, in consultation with the advisor. Except for overseas study credits, normally a maximum of 3 credit hours of E595 may be counted toward the degree.

Master of Arts in Chinese or Japanese Language Pedagogy Track

Admission Requirements

An undergraduate degree with at least two years of the student's proposed language of specialization.

Course Requirements

A total of 30 credit hours, including MA project hours, in approved courses. At least 20 of these credit hours must be from among the courses listed under "Chinese" or "Japanese" (depending on the student's major). Of these, students in Chinese language pedagogy must take C535, C525, and C527; students in Japanese must take J421, J525, and J527. Also required is one semester of Literary Chinese or Literary Japanese. The remaining credit hours may be taken from courses in education (e.g., L520 and L630), linguistics (e.g., L503), TESOL/Applied Linguistics (e.g., T532 and T550), and East Asian culture courses, in consultation with the advisor. Except for overseas study credits, normally a maximum of 3 credit hours of E595 may be counted toward the degree.

Language Requirements

In addition to the student's major language (completion of fourth-year level), reading proficiency (completion of second-year level) in another East Asian language or a European language.

M.A. Project

An M.A. project demonstrating the student's pedagogical skills is required. The project may take a variety of forms, ranging from an essay involving empirical study of methodological/language acquisition issues to development of concrete teaching tools with pedagogical analyses. Up to 4 credit hours may be counted toward the degree.

Dual Degree: Master of Arts in East Asian Studies and Master of Business Administration

Admission Requirements

Students must separately apply to and be accepted into both the M.B.A. program in business and the M.A. degree program in East Asian studies. The normal criteria for admission to each program apply. You may apply for admission to both programs simultaneously. Alternatively, you may begin your studies in either school and then apply to the other program when you are on campus. Either way, you will spend one year in the College of Arts and Sciences and one year at the School of Business and the final year completing the final requirements (including the thesis) of both programs.

EALC Course Requirements

30 credit hours, including three social science courses, two history courses, and one humanities course. Ordinarily, at least 18 of these credit hours must be from among the courses listed under “Culture and Area Courses” on the list that follows. At least three courses must be at the 500 level or above. Please note that fourth-year language courses do not count toward the required 500-level courses. Except for overseas study credits, normally a maximum of 3 credit hours of E595 may be counted toward the degree. With the approval of the Director of Graduate Studies, up to six of the required thirty credits may be business classes.

Business Course Requirements

Required and elective courses to total 40.5 credit hours of graduate course work. The possibilities of course combinations are many and will depend on your specific career path. For details, contact the MBA program office, 812-855-8006.

Language Requirement

Satisfactory completion of three years of Chinese, Japanese, or Korean, or the equivalent, as determined by examination. Language courses at the 300 level

and above may be counted toward the degree.

Project

Jointly supervised by EALC and Business faculty, the student may choose either a thesis or an essay, combining expertise in East Asian studies and business. (1) A thesis (normally 50-80 pages) demonstrates the student’s skills in the use of primary sources and scholarly research. (2) An essay is normally 40-50 pages, demonstrating the ability to master, use, and critically evaluate a body of scholarly literature in the student’s field. Either way, up to 3 credit hours may be counted toward the degree.

Joint Master of Arts Program in East Asian Studies and Master of Public Affairs

Admission Requirements

Students must separately apply to and be accepted into both the MPA program in SPEA and the MA degree program in East Asian Studies. The normal criteria for admission to each program apply.

EALC Course Requirements

Twenty-four credit hours, including three social science courses, two history courses, and one humanities. Ordinarily, at least 18 of these credit hours must be from among the courses listed under “Culture and Area Courses” on the list that follows. At least three courses must be at the 500 level or above. Please note that fourth-year language courses do not count toward the required 500-level courses. Except for overseas study credits, normally a maximum of 3 credit hours of E595 may be counted toward the degree.

SPEA Course Requirements

Thirty-six credit hours of graduate course work to be distributed as follows: (1) professional development practicum courses; (2) courses in the SPEA core; (3) specialized concentration course, which may include SPEA, EALC and other courses, to be selected in consultation with a SPEA advisor. For details, contact the SPEA

graduate student services office, SPEA 260, 812-855-9485.

Language Requirement

Satisfactory completion of three years of Chinese, Japanese, or Korean, or the equivalent, as determined by examination. Language courses at the 300 level and above may be counted toward the degree.

Project

The student may choose either a thesis or an essay. (1) A thesis (normally 50-80 pages) demonstrates the student’s skills in the use of primary sources and scholarly research. (2) An essay is normally 40-50 pages, demonstrating the ability to master, use, and critically evaluate a body of scholarly literature in the student’s field. Either way, up to 3 credit hours may be counted toward the degree.

Doctor of Philosophy Degree in Chinese or Japanese

Admission Requirement

An M.A. in Chinese or Japanese or its equivalent.

Course Requirements

A minimum of 30 credit hours, beyond those taken for the M.A., in departmental courses, as follows: five courses (15 credit hours) at the 400 and 500 levels, of which a minimum of two courses must be at the 500 level; one course (3 credit hours) in research methods/bibliography; and four seminar courses (16 credit hours), including the seminar in East Asian studies scholarship. Please note that fourth-year language courses do not count toward the five required 400-500-level courses. A dissertation is required.

Minor

A minimum of 12 to 15 credit hours of course work in an outside field, such as comparative literature, fine arts, folklore, history, political science, religious studies, or other approved departments. Examination in the minor if prescribed by the department or program concerned.

Language Requirements

Before the qualifying examination, students must demonstrate proficiency, both oral and reading, in the student's major language, as well as reading proficiency in another East Asian language, and in French, German, or Russian.

Qualifying Examinations

Upon completion of course work, two written examinations in subject fields (one in the major field of specialization, one in a historical period of the major cultural area), and one oral exam.

Dissertation

On an approved subject in the major language or culture. Up to 15 credit hours may be taken for the dissertation. Following approval by the research committee, the dissertation proposal is presented orally to the department.

Final Examination

Upon completion of the dissertation, a final oral examination on the dissertation and major area.

Ph.D. Minor in Chinese or Japanese

Course Requirements

Proficiency in the student's major language (completion of the third-year level) and a minimum of 12 to 15 credit hours, or at least four courses, in the department in the student's major language. Two of these courses must be at the 500 level or above, excluding E505. Courses counted toward fulfillment of the language proficiency requirement may not also be counted toward the minor. A maximum of 3 credit hours of E595 may be counted toward the minor.

Ph.D. Minor in East Asian Studies

Course Requirements

(1) A minimum of four culture courses in the department, two of which must be in fields outside the student's major discipline, with at least two of which must be at the 500 level or above, excluding E505. (2) Proficiency in either Chinese,

Japanese, or Korean (completion of the third-year level). Courses counted toward fulfillment of the language proficiency requirement may not also be counted toward the minor. A maximum of 3 credit hours of E595 may be counted toward the minor.

Courses

CHINESE

Language and Linguistics Courses

C101-C102 Elementary Chinese I-II (2/4-2/4 cr.)¹

C201-C202 Second-Year Chinese I-II (2/4-2/4 cr.)¹

C301-C302 Third Year Chinese I-II (3-3 cr.)

C451-C452 Advanced Classical Chinese I-II (3-3 cr.)

C501-C502 Fourth-Year Chinese I-II (3-3 cr.) P: a grade of C or higher in C302 or equivalent proficiency. Emphasis on advanced reading skills.

C506-C507 Literary Chinese I-II (3-3 cr.)**

Literature Courses: Genres and Periods

C521-C522 Readings in Chinese Literature III (3-3 cr.) Readings and discussions of works in Chinese literature of different genres: poetry, prose, and drama.

¹ Two (2) credits for graduate students, 4 credits for undergraduates.

**These courses are eligible for a deferred grade.

C525 Teaching Chinese as a Foreign/Second-language (3 cr.)

Designed for graduate and advanced undergraduate students who have an interest in acquiring knowledge, skills, and experience in teaching Chinese as a foreign language. Taught in a seminar-practicum format, the course examines the contemporary paradigms of foreign language instruction, identifies critical issues in language pedagogy, and explores various techniques of teaching the four language skills (speaking, listening, reading, and writing). Active participation in the class is mandatory.

C527 Practicum in Chinese Language Pedagogy (2-3 cr.)

Supervised application of language pedagogy. In an actual classroom students will apply the theories, paradigms, and approaches to language learning they have studied. Practicum experience developed in consultation with the advisor, with approval of the Director of Graduate Studies.

C535 Chinese Curriculum and Material Design (3 cr.) For students interested in exploring the theories, issues, and principles of language curriculum design and acquiring practical experience of applying various syllabus frameworks to design sample Chinese materials. Emphasis on developing students' ability to analyze and synthesize factors contributing to an effective language learning program.

C550 Chinese Writing and Rhetoric (3 cr.) P: grade of C or higher/better in C402 or consent of the instructor. Practice in reading, writing, and speaking through analysis of modern prose and literary texts. Examination of how the Chinese frame discourse, so students may develop their ability to present ideas with precise diction, in appropriate registers, in extended discourse.

C558-C559 Readings in Chinese Literary Criticism III (3-3 cr.)

C561-C562 Readings in Chinese Social and Political Texts I-II (3-3 cr.)¹

C571-C572 Readings in Chinese Philosophical Texts III (3-3 cr.)

C581-C582 Readings in Chinese Historical Texts III (3-3 cr.)

Seminars and Research Methods Courses

C511 Basic Reference Works in Chinese Studies (3 cr.) P: C362 or consent of instructor. Instruction in reading and using basic, general reference tools for all aspects of Chinese studies.

C601 Seminar in Chinese Linguistics (4 cr.) Research in the structure and phonology of the Chinese language and dialects.

C651 Seminar in Traditional Chinese Literature (4 cr.)²

C671 Seminar in Modern Chinese Literature (4 cr.)

Special Research¹

E496 Foreign Study (East Asian Exchange Programs) (cr. arr.)**

E595 Individual Readings (1-6 cr.) Intended for advanced students. May be repeated with consent of the Director of Graduate Studies.

E596 Readings in Pedagogy (1-3 cr.) Individualized readings in contemporary paradigms, critical issues, and techniques of teaching Asian languages. With consent of Graduate Studies, may be repeated for a maximum of 6 credit hours.

¹ With consent of the graduate advisor, may be repeated twice (for a total of 12 hours of credit) when topic varies.

² Two (2) credits for graduate students, 4 credits for undergraduates.

³ Six (6) hours count as departmental credit towards graduate degrees.

**These courses are eligible for a deferred grade.

E597 M.A. Essay (1-4 cr.) A capstone project recommended only for students pursuing a terminal M.A.; the essay is intended to strengthen and demonstrate control over the variety of scholarly skills learned through graduate course work, rather than to demonstrate potential to undertake doctoral work. Developed in consultation with the graduate committee, with the approval of the director of graduate studies.

C701 M.A. Essay (1-4) A capstone project recommended only for students pursuing a terminal M.A.; the essay is intended to strengthen and demonstrate control over the variety of scholarly skills learned through graduate course work, rather than to demonstrate potential to undertake doctoral work. Developed in consultation with the graduate committee, with the approval of the director of graduate studies.

C598 Pedagogy Project (1-4 cr.) Demonstration of pedagogical understanding and skills. The project may take either of two forms: empirical study of pedagogical issues or significant materials development (e.g., set of course materials, course Web site, multimedia learning modules, testing instruments). Developed in consultation with the advisor, with approval of the director of graduate studies.

C801 M.A. Thesis (cr. arr.)**

C801 Ph.D. Thesis (cr. arr.)**

JAPANESE

Language and Linguistics Courses

J101-J102 Elementary Japanese I-II (2/4-2/4 cr.)³

J201-J202 Second-Year Japanese I-II (2/4-2/4 cr.)³

J301-J302 Third-Year Japanese I-II (3-3 cr.)

J421 Introduction to Japanese Linguistics (3 cr.)

J501-J502 Fourth-Year Japanese I-II (3-3 cr.) P: a grade of C or better

in J302 or equivalent proficiency. Emphasis on advanced reading skills.

J525 Teaching Japanese as a Foreign/Second-language (3 cr.) Designed for graduate and advanced undergraduate students who have an interest in acquiring knowledge, skills, and experience in teaching Japanese as a foreign language. Taught in a seminar-practicum format, the course examines the contemporary paradigms of foreign language instruction, identifies critical issues in language pedagogy, and explores various techniques of teaching the four language skills (speaking, listening, reading, and writing). Active participation in the class is mandatory.

J506-507 Literary Japanese III (3-3 cr.) P: grade of C or better in J302 or equivalent proficiency. A basic outline of the varieties of written Japanese known collectively as *bungotai* or “literary Japanese.” Initial emphasis on reading and close rhetorical and grammatical analysis of genres from the tenth through fifteenth centuries, with later attention to other periods and texts.

J527 Practicum in Japanese Language Pedagogy (2-3 cr.) Supervised application of language pedagogy. In an actual classroom students will apply the theories, paradigms, and approaches to language learning they have studied. Practicum experience developed in consultation with the advisor, with approval of the Director of Graduate Studies.

J581-J582 Modern Academic and Professional Japanese I-II (3-3 cr.)

Literature Courses: Genres and Periods

J521-J522 Readings in Japanese Literature I-II (3-3 cr.) Readings and discussions of works in Japanese literature of different genres: poetry, prose, and drama.

J541-J542 Readings in Japanese Historical Texts I-II (3-3 cr.)

J551-J552 Readings in Japanese Literary Criticism I-II (3-3 cr.)

Seminars and Research Methods Courses

J511 Research Methods in Japanese Studies (3 cr.) Basic reference works in Japanese and Western languages, methods and tools of research.

J598 Pedagogy Project (1-4 cr.) Demonstration of pedagogical understanding and skills. The project may take either of two forms: empirical study of pedagogical issues or significant materials development (e.g., set of course materials, course Web site, multimedia learning modules, testing instruments). Developed in consultation with the advisor, with approval of the director of graduate studies

J651 Seminar in Modern Japanese Literature (4 cr.)¹

J653 Seminar in Traditional Japanese Literature (4 cr.)¹

SPECIAL RESEARCH

E496 Foreign Study (East Asian Exchange Programs) (cr. arr.)*

E595 Individual Readings (1-6 cr.) Intended for advanced students. May be repeated with consent of the Director for Graduate Studies.

¹ With consent of the graduate advisor, may be repeated twice (for a total of 12 hours of credit) when topic varies.

² Two (2) credits for graduate students, 4 credits for undergraduates.

³ Except for thesis/research courses, no knowledge of Chinese, Japanese, or Korean is required.

⁴ This course will count toward fulfilling departmental requirements when it deals substantially with East Asian materials.

**These courses are eligible for a deferred grade.

701 M.A. Thesis (cr. arr.)**

J801 Ph.D. Thesis (cr. arr.)**

KOREAN

K101-K102 Elementary Korean I-II (2/4-2/4 cr.)²

K201-K202 Second-Year Korean I-II (2/4-2/4 cr.)¹

K301-K302 Third-Year Korean I-II (3-3 cr.)

K431-K432 Readings in Modern Korean Literature I-II (3-3 cr.)

K501-502 Fourth-Year Korean I-II (3-3 cr.) P: a grade of C or better in EALC K302 or equivalent proficiency. Emphasis on advanced reading skills, featuring authentic writings such as newspaper editorials, essays, movie scenarios, and television news.

K527 Practicum in Korean Language Pedagogy (2-3 cr.) Supervised application of language pedagogy. In an actual classroom students will apply the theories, paradigms, and approaches to language learning they have studied. Practicum experience developed in consultation with the advisor, with approval of the director of graduate studies.

K598 Pedagogy Project (1-4 cr.) Demonstration of pedagogical understanding and skills. The project may take either of two forms: empirical study of pedagogical issues or significant materials development (e.g., set of course materials, course Web site, multimedia learning modules, testing instruments). Developed in consultation with the advisor, with approval of the director of graduate studies.

CULTURE AND AREA COURSES³

Comparative Literature

C546 Sexuality and the Arts (4 cr.)⁴

C574 Japanese-Western Studies (4 cr.)

C575 Chinese-Western Studies I (4 cr.)

C576 Chinese-Western Studies II (4 cr.)

East Asian Languages and Cultures

E394 Business and Public Policy in Japan (3 cr.)

E471 Twentieth-Century Chinese Literature (3 cr.)

E472 Modern Japanese Fiction (3 cr.)

E473 History of Japanese Theatre and Drama (3 cr.)

E505 Topics in East Asian Studies (1.5-4 cr.)

E526 Computer-Enhanced East Asian Language Learning (3 cr.) P: basic computer literacy. An examination of research and findings on the effectiveness of technology in language-skill development, and an exploration of the use of computer technology in foreign language learning, to equip students with concepts and tools to improve language studies.

E533 Studies in Chinese Cinema (3 cr.) Critical and historical perspectives on Chinese cinema from the 1930s to the 1990s, including Taiwan and Hong Kong. Lectures and readings on the silent era, melodrama, musical, minority film, adaptation, the fifth generation, ideology, sexuality, urban cinema, and women's cinema.

E554 Society and Education in Japan (3 cr.) Survey of social change in Japan with a focus on educational institutions, patterns of

learning, educational thought, and the spread of literacy.

E574 Early Chinese Philosophy (3 cr.) Origins of Chinese philosophical tradition in the classical schools of Confucianism, Taoism, Mohism, and Legalism. Explores contrasting agendas of early Chinese and Western traditions.

E592 Political Economy of East Asia (3 cr.) Examines the relationship between political circumstances and economic development through the experience of East Asia since World War II. Particular attention is given to the question of the state's role in promoting growth. Comparisons of countries throughout East Asia are combined with transnational and international perspectives.

E595 Individual Readings (1-6 cr.) Repeatable with consent of graduate advisor.

E600 Seminar in East Asian Studies (4 cr.) Seminar on topics of a comparative or interdisciplinary nature relating to East Asia.

E604 Seminar in East Asian Studies Scholarship (4 cr.)

E700 M.A. Thesis (cr. arr.)**

CROSS-LISTED COURSES

Fine Arts

A560 Special Studies in Chinese Art (4 cr.)

A564 Art and Archaeology of Early China (4 cr.)

A566 Early Chinese Painting (4 cr.)

A567 Later Chinese Painting (4 cr.)

A662 Problems in Chinese Painting (4 cr.)

**These courses are eligible for a deferred grade.

Folklore

F600 Asian Folklore/Folk Music (3 cr.)

History

G567 Premodern Japan (3 cr.)

G568 Early Modern Japan (3 cr.)

G569 Modern Japan (3 cr.)

G580 Early China (3 cr.)

G582 Imperial China I (3 cr.)

G583 Imperial China II (3 cr.)

G585 Modern China (3 cr.)

G587 Contemporary China (3 cr.)

H675 Colloquium in East Asian History (4 cr.)

H775 Seminar in East Asian History (4 cr.)

Political Science

Y333 Chinese Politics (3 cr.)

Y334 Japanese Politics (3 cr.)

Y557 Comparative Politics Approaches and Issues (3 cr.)¹

Y657 Comparative Politics (3 cr.)¹

Religious Studies

R554 Religions of East Asia (3 cr.)

R654 The Taoist Tradition (3 cr.)

R655 East Asian Buddhism (3 cr.)

R657 Religion in Japan (3 cr.) Theatre and Drama

T468 Non-Western Drama and Theatre (3 cr.)

¹ This course will count toward fulfilling departmental requirements when it deals substantially with East Asian materials.

Economics

College of Arts and Sciences
Bloomington

Chairperson
James Walker

Departmental E-mail
rcunning@indiana.edu

Departmental URL
www.indiana.edu/~econweb

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Distinguished Professors

Robert Campbell (Emeritus), H. Scott Gordon (Emeritus, History and Philosophy of Science)

Chancellor's Professor
Roy Gardner

Rudy Professors

George von Furstenberg, Pravin Trivedi

Professors

Michael Alexeev, Robert Becker, William Becker, Edward Buffie, Gerhard Glomm, Paul Kuznets (Emeritus), Clarence Morrison (Emeritus), Lloyd Orr (Emeritus), Phillip Saunders (Emeritus), James Walker, Elmus Wicker (Emeritus), Arlington Williams

Associate Professors

Fwu-Ranq Chang, Michael Kaganovich, Eric Leeper, Tong Li, Elyce Rotella, Willard Witte

Assistant Professor

Hugh Kelley*

Director of Graduate Studies

Professor Gerhard Glomm, Wylie Hall 229, (812) 855-8453

Degrees Offered

Master of Arts, Master of Arts for Teachers, Doctor of Philosophy in economics, and Doctor of Philosophy in economics and business (in cooperation with the Kelley School of Business)

Special Departmental Requirements

(See also general University Graduate School requirements.)

Admission Requirements

Twenty-five (25) credit hours of social science and business, including intermediate economic analysis. First-year differential and integral calculus and one semester of linear algebra are required for the Ph.D. and the M.A. Deficiencies in economics must be removed without graduate credit. Graduate Record Examination General Test (verbal, quantitative, and analytical sections) required.

Grades

At least a B (3.0) average in work taken for an advanced degree.

Master of Arts Degree

Course Requirements

A minimum of 30 credit hours, 24 of which must be taken in the Department of Economics, including 9 credits of theory and 6 credits of statistics. A minimum of 18 credit hours of course work in economics must be numbered E500 or above. Consult the director of graduate studies for specific courses. Up to 6 credit hours are allowable for a thesis. In lieu of writing a thesis, a student may complete 6 credit hours of course work (beyond the required 30 credit hours) in one of the following research skills: operations and decision technologies, computer science, mathematics, or econometrics beyond E572. Courses used to fulfill a research skill requirement do not carry graduate credit.

Master of Arts for Teachers Degree

An individual study program of 36 credit hours will be developed for each student, normally including only courses that may be taken for graduate credit.

Doctor of Philosophy Degree

Fields of Study

Choices of fields offered for qualifying examinations must be approved by the Graduate Studies Committee. Fields of study currently available within the department are advanced economic theory, development and economics of transition, econometrics, economic history, games and experimental methods, growth theory, international trade, macroeconomics, monetary economics, and public economics. In addition, industrial organization and finance are offered as fields in partnership with the Kelley School of Business. With the approval of the Graduate Studies Committee, one field may be taken outside the Department of Economics. Fields of study in the Kelley School of Business that are available for the joint Ph.D. degree are accounting, finance, operations management, marketing, and operations and decision technologies. Information about other fields may be obtained from the director of graduate studies.

Course Requirements

A total of 90 credit hours, including the theory sequence E520, E521, E522, E621, E622, and the econometrics-statistics sequence E571, E572, E671. All Ph.D. students join a workshop after passing their core theory exams. There is a minimum requirement of 51 credit hours of course work. A minimum of 48 credit hours must be taken in economics.

Foreign Language/Research-Skill Requirement

Either (a) proficiency in depth in one language, normally selected from French, German, and Russian; or (b) proficiency in mathematics, operations and decision technologies, computer science, or econometrics/applied statistics. Courses used to fulfill a research skill requirement do not carry graduate credit.

Core Theory Examination

Core theory examinations in macroeconomics and microeconomics are taken at the end

of the first year in residence. A maximum of two attempts will be permitted on each section. The exams are given in May and retakes are administered in August.

Qualifying Field Examinations

The Ph.D. students will take examinations in at least two primary fields and will complete course work for a supporting field with grades of B or better. One of these fields may be taken outside the Department of Economics. For a joint Ph.D. in economics and business, examinations in two business fields and two economics fields must be taken. Consult the economics department's "Graduate Study Guide" for further information.

Courses Offered

E471 Econometric Theory and Practice I (3 cr.)

P: E370 or consent of instructor. Emphasis is on the classical linear regression model and the roles that probability and statistical theory play in its formulation and use. Special topics include point and interval estimation, hypothesis testing, extensions to multiple regression, and computer calculation of least squares estimators and test statistics.

E472 Econometric Theory and Practice II (3 cr.)

P: E471. Emphasis is on the matrix formulation and computer estimation methods for single and multiple equation classical regression models using economic and business data. Attention is given to the assumptions required for testing a single coefficient, sets of coefficients, and the complete regression model. Special topics include heteroscedasticity, multicollinearity, errors in variables, autocorrelation, and system identification.

E501 Seminar in Economics (3 cr.)

P: consent of instructor. Advanced topics in economics ranging across all fields.

E502 Teaching Undergraduate Economics (3 cr.)

Planning, presenting, and evaluating undergraduate economics teaching. Content includes learning theory,

instructional objectives, course planning, textbook selection, lecturing and discussion techniques, visual aids and simulation, constructing test and homework problems, grading, student evaluation of instruction, practical classroom teaching problems, and survey of evaluation literature.

E520 Optimization Theory in Economic Analysis (3 cr.) P: calculus and linear algebra. Introduction to concepts and techniques of optimization theory applied in modern micro- and macro-economics. Theory and application of Lagrange multipliers, comparative statics analysis, value functions and envelope theorems. Elements of dynamic programming and other methods of economic dynamics.

E521 Theory of Prices and Markets I (3 cr.) Develops the methodology of economic analysis and teaches the tools and language of price theory. Fundamental elements of consumer theory, producer theory, and economics of uncertainty. Emphasis on comparative statics and the duality theory. Topics include welfare analysis, the theory of price indices, quality of goods, revealed preferences, the theory of derived demand, expected utility theory, attitudes toward risk, and various measures of riskiness.

E522 Macroeconomic Theory I (3 cr.) Introductory course on macroeconomic dynamics; covers growth models and asset pricing theories, endogenous growth theories, optimal growth problems, and competitive dynamic equilibrium models. Dynamic programming tools introduced as needed. All models are cast in a discrete time setup; presents deterministic and stochastic theories.

E529 Economic History (3 cr.) P: E521 or consent of instructor. Use of economic analysis and econometric techniques to examine topics in the development and institutions of the U.S. and European economies.

E530 International Trade (3 cr.) P: E521, E621, or consent of instructor. Introduction to theories of

international trade (including such topics as pattern of trade, gains from trade, testing trade theories) and analysis of trade policies (including such topics as tariffs, quotas, and strategic trade policy).

E541 Labor Market Analysis (3 cr.) P: E520 or E521, or consent of instructor (Bloomington); P: consent of instructor (Indianapolis). An analytical approach to the labor market. Theoretical underpinning and statistical testing of issues in demand and supply of labor, household decision making, human capital, contract theories, unionism, minimum wages, and discrimination.

E550 Monetary Theory and Organization (3 cr.) Theory and practice of monetary control; supply and demand functions for money; instruments of monetary control; channels through which money exerts an influence on the economy.

E551 Monetary Economics II (3 cr.) Introduces alternative models of monetary economies; covers topics in monetary economics such as money and growth and optimal money growth. The course takes a unified approach to macroeconomic policy, treating monetary and fiscal policy as jointly determining macroeconomic equilibria. May include discussion of empirical work on money.

E571 Econometrics 1 - Statistical Foundations (3 cr.) P: undergraduate courses in statistics and calculus. The probability bases for statistical estimation and testing are introduced in the context of issues, theories, and data found in economics. The classical linear regression model is presented as the starting point for multivariate analyses in econometrics. Students work with various computer programs in and out of the scheduled class periods.

E572 Econometrics 2 - Regression and Time Series (3 cr.) P: E571 or equivalent. Regression and time series. Departures from classical regression. Generalized least squares; heteroskedastic models; dynamic regression. Basic

asymptotics. Measurement errors and instrumental variables. Some standard nonlinear models. Course covers theory and data analysis.

E585 Industrial Organization and Control (3 cr.) P: consent of instructor (Indianapolis only). Analysis of interrelated structure, behavior, and performance in industrial markets and multimarket corporations; multidimensional nature of competitive processes. Public controls. Topics include patterns of oligopoly, vertical integration, entry barriers; “cartelized” coalescence, limit pricing, price discrimination, long-term contracts; capacity expansion and utilization, resource reallocation, and innovation.

E591 Macro Topics in Economic Development (3 cr.) P: E521, E522, or consent of instructor. Analysis of new theories of economic growth and various issues related to macroeconomic policy in less-developed countries. Topics include fiscal reform, exchange rate policy, financial liberalization, and money-vs. exchange rate-based stabilization programs.

E592 Trade Policy and Economic Development (3 cr.) Examines the major issues surrounding the conduct of trade policy in less developed countries. Covers arguments for and against import-substituting vs. export-promoting policies, the nature of optimal commercial policy, alternative strategies for liberalization of the trade regime, and the pros and cons of direct foreign investment.

E621 Theory of Prices and Markets II (3 cr.) P: E521, calculus, and linear algebra. Analysis of equilibrium, first- and second-order conditions; statistical derivation of demand and cost curves; activity analysis; general equilibrium; welfare economics; microeconomics of capital theory; pure oligopoly and game theory.

E622 Macroeconomic Theory II (3 cr.) P: E522, calculus, and linear algebra. Extends general equilibrium models from E522 by introducing

nominal variables, monetary and fiscal policies; some exposure to alternative dynamic models, nominal and real rigidities, market imperfections, dynamically consistent policies. Numerical methods introduced to simulate dynamic stochastic general equilibrium models. Time series methods presented to discuss empirical implications of aggregate models.

E624 Mathematical Economics I (3 cr.) P: one year of calculus, one semester of linear algebra, or consent of instructor. Introduction to stochastic control theory with applications to economics. Covers Wiener process, stochastic integration, Ito's lemma and the stochastic Bellman equation. Applications to economics include optimal growth theory, the inverse optimal problem, adjustment cost theory of supply, exhaustible resources, optimal consumption and portfolio rules, and transactions demand for money.

E625 Mathematical Economics II (3 cr.) P: one year of calculus, one semester of linear algebra, or consent of instructor. Mathematical analysis of problems of motion via Central Principle of Motion; dynamic efficiency of centralized and decentralized economic systems; differential games.

E626 Game Theory (3 cr.) P: E521, E621. Mathematical analysis of strategic interaction. Noncooperative games played once or repeatedly, with perfection or imperfect information. Necessary condition for a solution (equilibrium), as well as sufficient conditions (refinements). Cooperative games, such as bargaining and market games. Numerous applications, including experimental games.

E627 Experimental Economics (3 cr.) P: intermediate microeconomics and statistics. Focuses on the use of laboratory experimental methods in applied microeconomics. Specific application areas will include the analysis of resource allocation mechanisms for both private and public goods and individual choice

under uncertainty using both human and nonhuman subjects.

E628 Advanced Macroeconomic Theory (3 cr.) P: E622 or equivalent. The course provides an in-depth treatment of major areas in macroeconomics, advancing to the several frontiers at which its theory is currently most tested. These include convergence to rational expectations equilibrium, near-rational solutions, non-Walrasian equilibrium, and the management of incentives and macroeconomic disturbances through contractual arrangements.

E629 Open Economy Macroeconomics (3 cr.) P: E622. Combines international finance and open-economy macroeconomics with history and current functioning of the international financial system and the policy and exchange regime choices of countries within it. Explorations include determinants of current-account balances and exchange-rate dynamics as well as implications of the international mobility of goods, financial services, and capital, international portfolio and direct investment behavior, and financial derivatives.

E630 International Trade II (3 cr.) P: E530. Second part of the graduate sequence in international trade. Focuses on analyzing strategic situations in an international context. Topics include imperfect competition in international trade, strategic trade policy, trade policy under incomplete information, and tariff and quota games.

E641 Quantitative Studies in Labor Economics (3 cr.) P: E541, E571, and at least concurrent registration in E572 or consent of instructor. Emphasis on the application of statistical and econometric theory and methods in the analysis of current issues in labor economics. The application of models involving discrete choice, search, screening, signaling, contracts, tournaments, and Markov processes to explain various labor market phenomena will be reviewed.

E660 Public Economics I (3 cr.) P: E621 or concurrent registration. Analysis of public expenditures and taxation from a microeconomic viewpoint. Topics include externalities, pure and impure public goods, efficiency and distributional effects of taxation, optimal taxation theory, benefit-cost analysis.

E661 Public Economics II (3 cr.) P: E660. In-depth analysis of selected aspects of public expenditures and taxation. Illustrative topics: intertemporal and aggregative effects of tax and expenditure policies, emphasizing saving and investment incentives; taxation of risky assets; taxation of imperfectly competitive industries; benefit-cost analysis under uncertainty; public choice.

E671 Econometrics 3 - Nonlinear and Simultaneous Models (3 cr.) P: E572 or equivalent. Introduction to econometric theory. Parameter estimation for single and multiple equation systems. Inference and hypothesis testing. Monte Carlo studies.

E672 Macroeconometrics (3 cr.) P: E671 or equivalent. Advanced topics in econometrics. Estimation of dynamic equation systems. Spectrum analysis. Problems of design for large macro econometric models.

E673 Microeconometrics (3 cr.) P: E572 or equivalent. Microeconometrics with applications to labor, health, and public economics. Extensive coverage of limited dependent variable and panel data models. Empirical implementation an essential component of the course.

E685 Advanced Industrial Organization (3 cr.) P: E585. Extends the coverage in E585. Provides greater in-depth coverage of contemporary industrial organization problems from a theoretical perspective and provides coverage of important industrial organization topics not discussed in E585. Topics include mechanism design, signaling and screening, merger theory, incomplete contracting and the firm, and antitrust and regulation.

E698 Comparative Economics and Economics of Transition (3 cr.) P:

consent of instructor. Modern approaches to analysis of nonmarket economic systems and mechanisms. Emphasis on the incentives generated by these mechanisms and information flows in the system. Since the field of comparative economics is both theoretical and institutional, students are required to read both analytical pieces containing formal models and descriptive papers.

E713 Seminar in Economic History (3 cr.) P: E529 or consent of instructor. Advanced topics in economic history (U.S. and European) with particular emphasis on recent debates in the literature of the new economic history.

Application of economic theory and econometric techniques to historical problems.

E724 Seminar in Economic Theory (3-6 cr.) Advanced topics in business cycles, general equilibrium, growth, mathematical economics, and welfare economics. Offered periodically.

E730 Seminar in International Trade (3 cr.) Third part of the graduate sequence in international trade; intended for those writing theses in the field. Focuses on a deeper understanding of topics such as the political economy of protection, cooperation in repeated tariff games, trade negotiations, and multinational enterprises.

E748 Seminar in the Economics of Labor and Human Resource Development (3 cr.) P: E541 or consent of instructor. Selection from current issues in labor: labor markets, comparative labor economics, human capital, workforce planning, and labor relations.

E752 Seminar in Money (3 cr.) Current topics in advanced monetary and banking theory. Preparation of a research paper and oral presentation to a seminar.

E762 Seminar in Public Economics (3 cr.) Advanced topics in public economics. Preparation of a research paper and oral presentation to the seminar.

E770 Seminar in Econometrics (3 cr.) Advanced topics in econometrics in time series and/or cross-sectional data analysis.

E785 Seminar in Industrial Organization (3 cr.) Third course in the graduate industrial organization sequence; intended for those writing in the field. Topics include bargaining, reputation, oligopoly, research and development, vertical restraints, entry deterrence, transaction costs, and international industrial organization.

E792 Workshops in Problems of Development (3 cr.) In-depth study of specific underdeveloped area or specific topic in problems of underdevelopment.

E793 Seminar in Planning Strategies and Techniques (3 cr.) P: E591. Analysis of strategic choices and planning methods in Western economies and socialist economies in transition. Theory and practice of planning in underdeveloped countries.

E800 Research in Economics (cr. arr.)**

E808 Thesis (M.A.) (cr. arr.)**

E809 Thesis (Ph.D.) (cr. arr.)**

E810 Readings in Economic History (1-6 cr.)**

E824 Readings in Economic Theory (1-6 cr.)**

E830 Readings in International Trade (1-6 cr.)**

E840 Readings in Economics of Labor and Human Resource Development (1-6 cr.)**

E850 Readings in Monetary Economics (1-6 cr.)**

E860 Readings in Public Economics (1-6 cr.)**

E870 Readings in Advanced Econometrics (1-6 cr.)**

E880 Readings in Industrial Organization (1-6 cr.)**

E890 Readings in Development and Economics of Transition (1-6 cr.)**

GRADUATE

G590 Population Analysis: Concepts, Issues, Problems (3 cr.)

P: graduate status or approval of instructor. Theoretical issues, empirical questions on social determinants and consequences of biological events like birth and death. Age structure, marriage and household formation, gender, migration, quality of data, population policy in developing countries and advanced industrial societies. Contemporary and historical sources.

G591 Methods of Population Analysis and Their Applications (3 cr.) P: an undergraduate course in statistics. Techniques of measuring and analyzing population size and trends, fertility and mortality patterns, migration flows. Population estimates and projections. Major models of formal demography.

G592 Topics in Population Research (3 cr.) P: G590 and G591 or approval of instructor. Seminar-level course emphasizing class presentations, reviews of advanced literature, and the writing of research papers. Subject areas will include fertility, mortality, migration, economic demographic interrelations, mathematical demography, dynamics of small populations, and population projections.

G593 International Perspectives on Population Problems (3 cr.) International trends in population growth, characteristics, and structure with attention to major social, environmental, economic, and political implications. Comparisons

**These courses are eligible for a deferred grade.

between industrially advanced economies and less developed countries in Latin America, Africa, and Asia. Special emphasis will be placed on local and national circumstances affecting fertility, mortality, migration, and emerging roles of population policies in development planning.

Economics

School of Liberal Arts Indianapolis

Chairperson

Associate Professor Robert Sandy

Departmental E-mail

nasharve@iupui.edu

Departmental URL

www.iupui.edu/~econ

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors

Subir Chakrabarti, Peter Rangazas, Martin Spechler, Richard Steinberg

Associate Professors

Marc Bilodeau, David Bivin*, Jonathan Burke, Paul Carlin, Patrick Rooney*, Anne Royalty, Steven Russell*, Robert Sandy*, Mark Wilhelm

Assistant Professors

Gwendolyn Morrison*, Una Osili*, Geoffrey Warner*

Director of Graduate Studies

Associate Professor Paul Carlin, Cavanaugh 509B, (317) 997-6530

Degree Offered

Master of Arts

The Master of Arts in economics has a twofold objective: (1) to provide students with analytical capabilities and research skills for careers in business, government, and the nonprofit sector; and (2) to prepare those who wish to pursue the Ph.D. at another university or Indiana University Bloomington.

Special Departmental Requirements

(See also general University Graduate School requirements .)

Admission Requirements

(1) Applicants should have completed a bachelor's degree from an accredited institution. Ordinarily, applicants should have a minimum grade point average of 3.0 on a 4.0 scale in their undergraduate course work and in their previous economics courses. Before undertaking graduate study in economics, a student should have knowledge of intermediate-level undergraduate economic theory (E321 and E322), statistics (E270), multivariate differential and integral calculus (the IUPUI equivalents are M163 and M164 offered by the mathematics department). Students with deficiencies in economics and/or mathematics may be admitted on a conditional basis.

The verbal, quantitative, and analytical portions of the Graduate Record Examination (GRE) are required, and applicants are urged to complete the examination by December of the year before admission. Requests to substitute GMAT scores for GRE scores will be considered.

Three letters of recommendation are required. For students with English as a second language, a minimum TOEFL score of at least 550 is recommended. Successful completion of ELS 112 will be accepted in lieu of TOEFL for admission. Those who seek financial support should continue to submit the TOEFL and would normally need a score of 600 or better to receive an award.

Course Requirements

Students must complete a minimum of 30 credit hours of graduate work, which may include up to 6 credits of thesis. Twelve (12) credits are devoted to the following required core courses: E504 Mathematics for Economists, E521 Theory of Prices and Markets, E622 Theory of Income and Employment, and E570 Fundamentals of Statistics and Econometrics. These core courses

serve as the prerequisites for some of the 500-level field courses. No more than 9 of the remaining 18 credits may be earned in courses numbered below 500. If a thesis is written, it must be defended. If a thesis is not written, there will be a comprehensive written examination with an oral defense in an area of specialization within economics.

Students have the option of replacing the thesis with reading proficiency in a foreign language or with 6 credit hours of course work in tool skills such as mathematics, statistics, or computer science. Consult the department's "Graduate Study Guide" for a list of acceptable research-skill courses. Courses carrying graduate credit taken to meet the language or tool skill options are counted toward the 30 credits required for the degree.

Grades

The student must receive at least a C (2.0) in each course and must average at least a B (3.0 on a 4.0 scale) for all courses taken.

Dual Degree: Master of Arts in Economics and Master of Arts in Philanthropic Studies

The dual master's degree in economics and philanthropic studies substantially benefits students intending to pursue a career in independent research, academia, or practice. Normally, those pursuing a career in research or academia continue in a Ph.D. program in economics, finance, accounting, management, marketing, or public policy. Very few doctoral programs include substantial content on philanthropy or nonprofit organizations. As such, the M.A. in philanthropic studies provides a broad interdisciplinary background that makes the future researcher sensitive to the institutional details, values, and history of the sector, thus leading to better research. For the future nonprofit manager or leader, economics provides the principles and methodologies to make informed decisions on the appreciative level, the policy level, and the managerial level.

Admission requirements for the dual degree program are identical to those for each program separately. Separate application must be made to each of the two programs. Students are expected to take responsibility for learning about and meeting the admission requirements of each school individually, which may differ from each other in application documents required, minimal standards of criteria for admission, and deadline dates. Students must make plans early with advisors in both programs to identify (1) common courses and (2) thesis credit.

Study for the two degrees can be combined for a total of 51 credit hours rather than the 66 credit hours that would be required if the two degrees were taken separately. Two of the required core courses for the M.A. in economics may be selected as electives to meet the Philanthropic Studies Program requirement for two applied electives. One of the required philanthropic studies courses, ECON E514 The Nonprofit Economy and Public Policy, may be taken to meet 3 of the 12 credit hours of electives required in the economics program. A common thesis meets the requirements of both departments.

Further information regarding regulations governing advanced degree programs may be obtained from the respective departments.

Courses Offered

E420 History of Economic Thought (3 cr.)

E504 Mathematics for Economists (1-3 cr.) Topics in mathematics that are particularly useful in the application of microeconomic theory, macroeconomic theory, and econometrics. Topics covered include matrix algebra, comparative-static analysis, constrained optimization, difference equations in discrete time, game theory, and set theory as applied to general equilibrium analysis.

E513 Special Topics in Economic History (3 cr.) Explicit methodology and economic analysis applied to

major issues in American and European economic history.

E514 The Nonprofit Economy and Public Policy (3 cr.) P: E201. The role of nonprofit organizations (universities, churches, hospitals, orchestras, charities, day care, research, nursing homes) in mixed economies. Public policy controversies such as regulation of fundraising, antitrust against universities, “unfair” competition with for-profit firms, and the tax treatment of donations. This course may not be taken for credit by anyone who has received credit in ECON E414.

E519 Regional Economics (3 cr.) Regional economics is the study of economic behavior in space. The course examines the internal and interregional determinants of growth and decline of a region from supply-and-demand perspectives. Public policies to influence these determinants are considered.

E521 Theory of Prices and Markets I (3 cr.) Develops the methodology of economic analysis and teaches the tools and language of price theory. Fundamental elements of consumer theory, producer theory, and economics of uncertainty. Emphasis on comparative statics and the duality theory. Topics include welfare analysis, the theory of price indices, quality of goods, revealed preferences, the theory of derived demand, expected utility theory, attitudes toward risk, and various measures of riskiness.

E522 Macroeconomic Theory I (3 cr.) Introductory course on macroeconomic dynamics; covers growth models and asset pricing theories, endogenous growth theories, optimal growth problems, and competitive dynamic equilibrium models. Dynamic programming tools introduced as needed. All models are cast in a discrete time setup; presents deterministic and stochastic theories.

E528 Economic Analysis of Health Care (3 cr.) A graduate introduction to health economics. Applications of economic theory to problems in

various areas in health care. Applications of econometric techniques to the same. Topics include how physicians, institutions, and consumers respond to economic incentives and what policies contribute maximally to efficiency and welfare.

E541 Labor Market Analysis (3 cr.) P: consent of instructor (Indianapolis). An analytical approach to the labor market. Theoretical underpinning and statistical testing of issues in demand and supply of labor, household decision making, human capital, contract theories, unionism, minimum wages, and discrimination.

E545 Applied Labor Economics (3 cr.) Discussion of wage rates and working conditions, searches by workers or firms, investment training, quits and layoffs, shirking, discrimination, the division of household labor, retirement, and implicit contracts. The course also examines the impact of institutions such as unions and the government on the efficiency of the labor market.

E551 Monetary Economics II (3 cr.) Introduces alternative models of monetary economies; covers topics in monetary economics such as money and growth and optimal money growth. The course takes a unified approach to macroeconomic policy, treating monetary and fiscal policy as jointly determining macroeconomic equilibria. May include discussion of empirical work on money.

E568 Public Finance I (3 cr.) P: E360, E470, E521, E522. Partial equilibrium, microeconomic analysis of how tax and subsidy policies affect various types of individual and firm behavior. Theoretical models are introduced to assess and develop quantitative studies of fiscal policy. Summaries of the empirical impact of policy will be formed for the purpose of becoming an “input” in the complete general equilibrium analysis conducted in E569 Public Finance II.

E569 Public Finance II (3 cr.) P: E568. Empirical examination of the

general equilibrium effects of major tax/subsidy programs, such as personal income taxation, corporate profit taxation, income maintenance, Social Security, and government provision of education. In addition, proposed reforms to these programs will be analyzed using empirically based simulation models.

E570 Fundamentals of Statistics and Econometrics (3 cr.) P: E504. Mathematical overview of statistics and econometrics at graduate level. Topics covered include probability and probability distributions, sampling distributions, tests of hypotheses, estimation, simple regression, multiple regression, generalized linear model and its applications, simultaneous equation systems.

E574 Applied Econometrics and Forecasting (3 cr.) P: E570. An overview of techniques employed in economic model building, estimation, and usage. Topics covered include single and multi-equation system estimation, limited dependent variable regression techniques, hypothesis testing, policy analysis, and forecasting. Various forecasting techniques are discussed, including smoothing decomposition methods and time series analysis. A number of projects are assigned throughout the semester in order to give the student hands-on experience with the different techniques.

E581 Topics in Applied Microeconomics I (3 cr.) P: E521 and E570 or consent of instructor. This course is a graduate-level introduction to theoretical and empirical applications in two areas of microeconomics. We will demonstrate how economic concepts can be usefully applied to understanding problems in the subdiscipline under study and discuss and apply estimation techniques appropriate for problems in the area.

**This course is eligible for a deferred grade.

E582 Topics in Applied Microeconomics II (3 cr.) P: E521 and E570 or consent of instructor. This course is a second graduate-level introduction to theoretical and empirical applications in two areas of microeconomics. We will demonstrate how economic concepts can be usefully applied to understanding problems in the subdiscipline under study, and discuss and apply estimation techniques appropriate for problems in the area.

E583 Topics in Applied Macroeconomics (3 cr.) P: E522 and E570 or equivalents, or consent of instructor. This course is a graduate-level introduction to theoretical and empirical applications in two areas of macroeconomics. We will demonstrate how economic theories can be usefully applied to understanding problems in the subdiscipline under study and discuss and apply estimation and calibration techniques appropriate for problems in the area.

E585 Industrial Organization and Control (3 cr.) P: consent of instructor (Indianapolis only). Analysis of interrelated structure, behavior, and performance in industrial markets and multimarket corporations; multidimensional nature of competitive processes. Public controls. Topics include patterns of oligopoly, vertical integration, entry barriers; "cartelized" coalescence, limit pricing, price discrimination, long-term contracts; capacity expansion and utilization, resource reallocation, and innovation.

E600 Readings in Economics (1-6 cr.) Individual readings and research.

E808 Thesis (M.A.) (cr. arr.)**

Education

**School of Education
Bloomington and Indianapolis**

Dean

Professor Gerardo W. Gonzalez

Departmental E-mail

educate@indiana.edu

Departmental URL

www.indiana.edu/~educate/
admiss.html

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Chancellor's Professors

Roger Farr (Emeritus), George Kuh, Martha McCarthy,

Professors

Trudy Banta (I), Charles Barman (I), Christine Bennett, Landon Beyer, Paul Blohm (NW), Curtis Bonk, Ellen Brantlinger, Barry Bull, Leonard Burrello, Cary Buzzelli, Judith Chafel, Phil F. Carspecken, Jack Cummings, Donald Cunningham, Thomas Duffy, Gerardo González, Jesse Goodman, Jerome Harste, Don Hossler, Gary Ingersoll, Susan Klein, Dennis Knapczyk, Frank Lester, David Mank, Larry Mikulecky, D. Keith Morran (I), Daniel Mueller, Samuel L. Odom, John Patrick, James Pershing, Charles Reigeluth, Charles Ridley, Jose Rosario (IN), Thomas Sexton, Marcia Sheridan (SB), Martin Siegel, Edward St. John, Frances Stage, Rex Stockton, Michael Tulley (K), Donald Warren, Susan Whiston, Barbara Wilcox (I), Barbara Wolf, Enid Zimmerman

Associate Professors

Joyce Alexander, Robert L. Appelman*, Sasha Arab, John Bean, Beth Berghoff* (I), Jacqueline Blackwell* (I), James Boland* (NW), Elizabeth Boling, William Boone, Marilynne Boyle-Baise, Catherine Brown, Thomas Brush, Deborah Carter*, Nancy Chism, Beatriz D'Ambrosio (I), Ginette Delandshere, David Flinders, Amy Seely Flint*, Theodore Frick,

Enrique Galindo*, Jerry Galloway (NW), Betty Goerss* (EA), William S. Harwood*, M. Gail Hickey* (FW), Mary Beth Hines*, Mary Howard-Hamilton, Thomas Huberty, Diana Lambdin, Christine Leland (I), Bradley Levinson, Mitzi Lewison, Linda Mabry*, Terrence Mason, Luise Prior McCarty, Mary McMullen, Kim Metcalf, Michael Molenda, Khaula Murtadha-Watts*, Martha Nyikos, Theresa A. Ochoa*, Robert Osgood* (I), Michael Parsons (I), Joanne Peng, Jonathan Plucker, Douglas Priest*, Charlotte Reed* (NW), Floyd Robison (I), Patricia Rogan (I), Pamela Sandoval (NW), Florence Sawicki* (NW), Kenneth Schoon* (NW), Geoffrey Schultz* (NW), Thomas Schwen, David Silk*, Russell Skiba, Anne Dopkins Stright*, Margaret Sutton*, Eugene R. Tempel (I), Neil Theobald, Chalmer Thompson, Michael Tracy, Jerry Wilde*

Assistant Professors

Valarie L. Akerson*, Jeffrey Anderson* (I), Barbara A. Bichelmeyer, Robert R. Bomer*, Cassandra Cole*, Michael Conn-Powers*, Peter Cowan*, Kathleen A. Cruikshank*, Miriam Davidson*, Edward Delgado-Romero*, Dan Doerger*, Joy Egbert*, David Estell*, Karen Gavin*, Teresa Grossi, Janice Grskovic*, Sheri L. Hamilton*, Dwight C. Holliday* (NW), Lara Lackey*, Gerardo Lopez*, Genevieve Manset*, Rebecca Martinez*, Mary Sue Mau* (I), Anastasia Morrone* (I), Victoria Pappas*, Faridah Pawan*, Cathy Pratt*, W. Raymond Smith*, Andrea Walton*

Emeriti

Anita Aldrich, Hans Andersen, Jean Anderson, Robert Arno, Dean Berkley, Harbans Bhola, Laurence Brown, Edward G. W. Buffie, Carolyn Burke, Philip Chamberlain, Clinton Chase, Michael Chiappetta, Lian-Hwang Chiu (K), Lewis Ciminillo* (NW), Gilbert Clark, Michael Cohen (I), T. James Crawford, Ivor Davies, Bette Davis*, Maxine Dunfee, Earl Dvorak, Lee Ehman, Susan Eklund, Meryl Englander, Gene Faris, Leo Fay, Albert Fink, Malcolm Fleming, Dorothy Gabel, William Foster,

Thomas Froehle, Raymond Gibson, Robert Gibson, David Gliessman, Richard Gousha, Thomas Gregory, Sadie Grimmett, Egon Guba, Samuel Guskin, Carolyn Guss, Dale Hall*, Stuart Hart (I), Robert C. Harris, Robert Heinich, Ernest Horn, Guy Hubbard, Lawson Hughes, Edward Jenkinson, Alice Jwaideh, Christian Jung, James Knowlton, DeWayne Kurpius, Duaine Lang, Lawrence Larson, John LeBlanc, William Lynch, James Mahan, Edward McClellan, R. Bruce McQuigg, John McKinley, George Maccia, Donald Manlove, Gerald Marker, Milton Marten*, Jerry McIntosh, Howard Mehlinger, Marianne Mitchell, John Moldstad, Anabel Newman, Anna Ochoa, Norman Overly, Vernon Pace, Dennis Pett, Lewis Polsgrove, Joan Prentice, Sharon Pugh, Edward Robbins (I), Myrtle Scott, Robert Shaffer, June Shane, Carmen Simich-Dudgeon, Carl Smith, Frederick Smith, Gerald Smith, Vernon Smith, Josephine Spear, Elizabeth Steiner, James Walden, James Weigand, Virginia Woodward

Adjunct Assistant Professor

Janice C. Bizzari*

FW after a faculty member's name indicates that the person teaches at the Fort Wayne campus; **I**, at Indiana University–Purdue University Indianapolis; **E**, at the East campus; **K**, at Kokomo; **NW**, at the Northwest campus; and **SB**, at South Bend.

Associate Dean for Graduate Studies

Professor Luise Prior McCarty, 4072 Education, (812) 856-8543

Degree Offered

The Doctor of Philosophy (Ph.D.) degree is offered through the University Graduate School. In addition, the School of Education offers the Master of Science (M.S.) in Education, the Specialist in Education (Ed.S.), and the Doctor of Education (Ed.D.) degrees. (See the School of Education Graduate Bulletin.)

Doctor of Philosophy Degree

Fields of Study

Counseling psychology; curriculum and instruction; educational psychology; higher education; history, philosophy and policy studies in education; instructional systems technology; language education; and special education.

Program of Studies

The Ph.D. degree with a major in education is pursued under the direction of a committee appointed by the University Graduate School and the School of Education. As with other Graduate School doctoral programs, a minimum of 90 credit hours of course work is required. This includes a major (selected from the fields of study listed above), a minor, a series of research courses, and a dissertation. Written and oral qualifying examinations are taken following course work; a final oral defense of the dissertation research completes the program. Up to 30 credit hours of graduate course work may be transferred from other universities, with the approval of the advisory committee.

Admission

Admission recommendations are made by program area and School of Education admission committees and are based on graduate and undergraduate grades (especially in academic courses), scores on the General Test of the Graduate Record Examination, and letters of recommendation. Interviews are required in some programs.

Application forms are available from the School of Education Office of Graduate Studies, Wright Education Building 4010.

Students earning a Ph.D. degree in education must fulfill all requirements of the University Graduate School (as found in this bulletin) and of the School of Education (as found in the School of Education Graduate Program Bulletin).

English

College of Arts and Sciences
Bloomington

Chairperson

Professor Stephen Watt

Associate Chairperson

Kathy O. Smith

Departmental E-mail

engdept@indiana.edu

Departmental URL

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Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Distinguished Professors

Philip Appleman (Emeritus), Susan Gubar, James Justus (Emeritus), Terence Martin (Emeritus), Scott Sanders

Chancellor's Professors

Judith Anderson, Robert Fulk, James Naremore

Rudy Professor/COAS

Distinguished Professor

Patrick Brantlinger

Ruth Lilly Professor of Poetry

Kevin Young

Tarkington Chair of American Literature

George Hutchinson

Culbertson Chair of Writing

John Schilb

Ruth N. Halls Professor

Paul John Eakin (Emeritus)

Professors

Anthony Ardizzone, George Barnett (Emeritus), Frederick Beaty (Emeritus), Ernest Bernhardt-Kabisch (Emeritus), Patrick Brantlinger, Lawrence Clopper, Don Cook (Emeritus), Alfred David (Emeritus), Georges Edelen (Emeritus), Charles Forker (Emeritus), Robert Fulk, Mary Gaither (Emerita), Donald Gray (Emeritus), Kenneth R. R. Gros Louis (Emeritus, Comparative Literature), Robert Gross (Emeritus),

Raymond Hedin, George Hutchinson, Kenneth Johnston (Emeritus), Eugene Kintgen, M. Eugene Lawlis (Emeritus), Peter Lindenbaum (Emeritus), Karma D. Lochrie, Christoph Lohmann (Emeritus), Lewis Miller (Emeritus), Roger Mitchell (Emeritus), Richard Nash*, David Nordloh, Alvin Rosenfeld (Jewish Studies), Murray Sperber (Emeritus), Stuart Sperry (Emeritus), Maura Stanton, Stephen Watt, William Wiatt (Emeritus), Paul Zietlow (Emeritus), Malvin Zirker (Emeritus)

Associate Professors

Purnima Bose*, William Borgan (Emeritus), Linda Charnes, Eva Cherniavsky, Jonathan Elmer, Christine Farris, Mary Favret, Thomas Foster, Paul Gutjahr*, Jeffrey Huntsman, Patricia Ingham, DeWitt D. Kilgore*, Sheila Lindenbaum*, Joan Pong Linton, Joss Marsh, Manuel Martinez, Alyce Miller, Andrew Miller, Michael Rosenblum (Emeritus), John Schilb, Janet Sorensen*, Lee Sterrenburg*, Nicholas Williams, John Woodcock (Emeritus)

Assistant Professors

Dana Anderson, Cathy Bowman, Judith Brown, Yoonmee Chang, Edward Comentale*, Margo Crawford, Ivan Kreilkamp*, Ellen Mackay, Samrat Upadhyay

Adjunct Professors

Mary Ellen Brown, Matei Calinescu (Emeritus), Robert Kelly, Oscar Kenshur (Comparative Literature), John McCluskey Jr. (African American and African Diaspora Studies), James Naremore

Adjunct Associate Professors

Barbara Klinger, Herbert Marks, Melvin Plotinsky (Emeritus), Dror Wahrman

Director of Graduate Studies

Professor Richard Nash, Ballantine Hall 442D, (812) 855-1543

Degrees Offered

Master of Arts, Master of Fine Arts, and Doctor of Philosophy

Special Departmental Requirements

(See also general University Graduate School requirements.)

Admission Requirements

Undergraduate major or its equivalent. Graduate Record Examination, both the General Test and the Subject Test in English Literature. A potentially superior student who has not majored in English may be admitted conditionally, but must remove deficiencies without graduate credit. Students who wish to be admitted for the M.A. or M.F.A. in creative writing must submit samples of their work.

Foreign Language Requirements

For the M.A.T. and M.F.A. degrees, none. For the M.A., reading proficiency in one of the following: French, German, Greek, Italian, Latin, Russian, Spanish. For the Ph.D., either (a) reading proficiency in two languages (one will be French, German, or Latin; the second will be a language from the M.A. list or, by approval of the director of graduate studies, another foreign language or courses in computer science), or (b) proficiency in depth in one language.

Language requirements should be met as soon after beginning graduate work as possible. A student is expected to be working on fulfilling the proficiency requirements every semester until they are completed.

Combined B.A. and M.A.

Candidates for a combined degree must fulfill all requirements for the M.A. (including the language requirement), as well as general and major requirements for the B.A. in English. Upon completion of the 116 credits, including fulfillment of requirements for the English major, students with a minimum GPA of 3.5 overall and 3.7 in English may apply for conditional admission to the graduate program their senior year, which may be counted toward the completion of the M.A. degree in a fifth year of study. (At the discretion of the director of graduate studies, an otherwise qualified student who is still completing an honors thesis may

apply for conditional admission.) No courses used to satisfy the B.A. requirements may be applied toward the M.A. The Graduate Record Examination, both General Test and Subject Test in English Literature, is required and must be taken before admission is completed following the final semester of undergraduate study.

Grades

M.A. students must maintain a 3.0 (B) grade point average; M.F.A. and Ph.D. students, a 3.5 grade point average. Admission to the Ph.D. normally requires a 3.7 grade point average and the recommendations of graduate faculty.

Master of Arts Degree with Concentration in Literature

Course Requirements

A minimum of 30 credit hours, including an L680 or a 700 level seminar. At least one course must be chosen from each of four of the following six fields:

1. Medieval British Literature and Culture
2. Early Modern British Literature and Culture
3. British and/or American Literature and Culture 1640-1830
4. British and/or American Literature and Culture 1800-1900 (including Celtic, Transatlantic, African American)
5. Literatures in English, Twentieth and Twenty-First Centuries (including African American, Hispanic/Latina(o), Asian American, Postcolonial)
6. Literacy, Pedagogy, Composition Theory, Literary Theory, English Language. (International students whose native language is not English must take L500.)

Up to 8 credit hours in graduate courses outside the department may, with the prior approval of the

director of graduate studies, be counted toward the degree.

Thesis

Optional; if elected, 4 hours of credit.

Final Examination

None.

Master of Arts Degree with Special Field Concentration

Course Requirements

A minimum of 30 credit hours, including L680 or a 700-level seminar; at least three courses in a single area of concentration to be chosen in consultation with the director of graduate studies (for example, a genre such as the novel, a period such as the Middle Ages, a specialty such as postcolonial studies, American literature and culture, feminist theory, or composition, rhetoric and literacy). Up to 8 credit hours in graduate courses in a related field outside the department may, with the prior approval of the director of graduate studies, be counted toward the degree.

Thesis

Optional (L699: credit arranged; 4 credit hours maximum).

Final Examination

None.

Note: Students wishing to enter the doctoral program on completion of this M.A. must apply for admission. For admission to the Ph.D. program with concentration in literature, candidates must satisfy the distribution requirements for the M.A. in literature.

Master of Arts Degree with Concentration in Writing

Course Requirements

W611-W612 or W613-W614; five departmental courses in literature, literary criticism, or English language. Poets may substitute Comparative Literature C570 Theory and Practice of Translation for one of the five required departmental courses; writers of fiction may

substitute Theatre and Drama T453 or T454 Playwriting.

Thesis

Required; the candidate must submit, for 4 hours of credit, a body of creative writing of high literary merit and genuine promise.

Final Examination

None.

Master of Arts Degree with Concentration in Language

Course Requirements

A minimum of 30 credit hours, including G500, G780, and at least 12 further credit hours in English language courses, of which at least one course must be selected from G601, G602, G651, and G655.

Thesis

Optional; if elected, 4 hours of credit.

Final Examination

A four-hour written examination. See director of graduate studies for details.

Master of Arts for Teachers Degree

Prerequisite

Public-school certification in English. Applicants lacking no more than 6 credit hours for certification may be permitted to complete the certification requirements as part of the degree program.

Course Requirements

A total of 36 credit hours, of which 20 credit hours must be in graduate English courses, including G500, G601, G651, or G655 (at least 12 of these 20 credit hours must be taken on the Bloomington campus); 6 credit hours in graduate education courses, including L516 and one additional advanced curriculum course (recommended: S503 or S530); if a minor is to be professionalized, at least 12 credit hours in the subject area. No undergraduate courses will be counted toward the degree.

Thesis and Final Examination

None.

Master of Fine Arts in Creative Writing

Course Requirements

A total of 60 credit hours, including 16 credit hours of writing workshops (W611-W612 or W613-W614); four courses in literature, culture and language (12-16 hours), at least two of which are on the 600 level or above, from offerings from English, African American and African Diaspora Studies, Comparative Literature and/or Communication and Culture (courses from other departments to be approved on an individual case basis by the director of creative writing in consultation with the director of graduate studies); and W554; and W664, or W680. Those teaching in W103 Introductory Creative Writing are required to take W554 in their first semester of teaching. Students can take up to 12 credit hours in W699 M.F.A. Thesis. The remaining credit hours are elective. At least 48 credit hours of the degree requirements must be completed in residence.

Thesis

Required; the student must submit, for 4-12 hours of credit, a book-length manuscript.

Dual Master of Arts in English and Master of Library Science Degree

Admission Requirements

Undergraduate major or its equivalent. Graduate Record Examination, both General Test and Subject Test in English Literature. A superior student who has not majored in English may be admitted conditionally, but must remove deficiencies without graduate credit. Admission to each of the two master's programs is approved separately on the same basis as for other applicants not in the dual program.

Foreign Language Requirements

Reading proficiency in one of the following: French German, Greek, Italian, Latin, Russian, Spanish.

Prerequisites

None

Course Requirements

Study for these two degrees can be combined for a total of 54 credit hours rather than the 66 credit hours required for the two degrees taken separately. Students take 24 credit hours in English. All students must fulfill the core requirements as outlined in the English department's Master of Arts with Concentration in Literature or Special Field Master of Arts degree requirements. No thesis or examination is required for the M.A. degree in English. Students take 30 credit hours in library science, including L524; L505 or L520; L528; L509, L643 or L651; L527 or another management course; and L623. The remaining 12 credit hours are electives chosen in consultation with the library science graduate advisor.

Doctor of Philosophy Degree

Admission Requirements

Students are eligible for admission to the Ph.D. programs upon successful completion of the M.A. requirements; additional prerequisites include one course from L502, L506, L605, L607, L608, or, with permission of the director of graduate studies, L707. Students are also required to take at least two additional 700-level seminars.

Periodic Review

Each year the graduate faculty will examine the grades and instructors' reports on all students and will discourage from further work those whose achievements and potential are below standard. Students who fail to maintain a 3.7 grade point average or who accumulate three or more grades of Incomplete will be placed on departmental probation.

Minors

Ph.D. students in English may take minors in the following departments and programs: American studies, African American and African Diaspora Studies, art history, comparative literature, cultural studies, English and German philology, film studies, folklore, French, gender studies, German, Greek, history, Italian, journalism, Latin, linguistics, medieval studies, performance studies, philosophy,

religion, Renaissance studies, Slavics, Spanish, theatre and drama, Victorian studies, and West European studies. Requirements for the minor are set by the minor department.

The Department of English offers the following minors: American literature, British literature, children's literature, pedagogy, creative writing, English and Germanic philology, English language, literary theory, and textual studies. Minors within the department must be approved by the director of graduate studies.

Qualifying Examination

A two-part examination, written and oral. All students choose topics in consultation with their advisory committees. The five-hour written part may be taken at the convenience of the student and his/her advisory committee. The two-hour oral part will be administered as soon as possible after the written part. Details are available from the director of graduate studies. The examination may not be taken until the student has fulfilled the language proficiency requirement. The examination may be repeated once.

Research Proposal

After advancement to candidacy, the student will select a research committee consisting of no fewer than three members of the English department faculty and a representative of the minor. When the director of the research committee has approved the dissertation proposal, the student will formally present it to a meeting of the research committee for comment and approval.

Final Examination

Oral, primarily a defense of the dissertation.

Doctor of Philosophy Degree with Concentration in Literature

Course Requirements

A total of 90 credit hours; students will be required to take 16 credit hours in English beyond the 30 credit hours required for the M.A., and to

take at least one course in a fifth distribution field (for a total of course work in five out of the six fields). At least four 700-level seminars in English are required for the Ph.D. Students must also satisfy course requirements for a graduate minor.

Doctor of Philosophy Degree with Concentration in Composition, Literacy, and Culture

Course Requirements

A total of 90 credit hours, including at least 16 credit hours (four courses) beyond the 30 credit hours required for the M.A. degree, to include at least three 700-level departmental seminars. The total must include L502, W605, L705, a course in language/discourse analysis, and a course that brings a strong historical dimension to the study of writing. Information about relevant courses, including those offered by other departments, is available from the chair of the Composition Committee and the student's advisory committee.

Ph.D. Minor in English and Germanic Philology

Four courses, to include G601 Old English and at least one of the other older Germanic languages, i.e., German G632 Gothic, G635 Old Icelandic, G638 Old High German, G639 Old Saxon, and G640 Middle High German. The remaining courses may be chosen from: English G602 Middle English, G655 History of the English Language, L710 Beowulf, L711 Old English Literature; German G532 History of the German Language, and G625 Colloquium in Germanic Linguistics (when the topic is appropriate), G640 Reading Middle High German, G636 Old Icelandic Literature, G835 Seminar in Germanic Linguistics (when the topic is appropriate), and any of the remaining older Germanic languages listed above.

Ph.D. Minor in Feminist Critical Studies

The Minor in Feminist Critical Studies emphasizes feminist

criticism and theory. It requires four courses (at least 15 hours of credit), including English L663 Introduction to Feminist Critical Studies and at least one course outside the Department of English; each course must be passed with a grade of B+ (3.3) or higher. Relevant courses include English L605, L700, L707, and L773, Fine Arts A474 and A674, Cultural Studies C601 and C602, Communication and Culture C551 and C604, and Telecommunications T651. Students should consult with the minor advisor in the English department about specific courses of study.

Ph.D. Minor in Literacy Studies

Jointly administered by the Department of English and the School of Education, the minor requires a minimum of four courses, including English L502, Education L630, and two courses selected from an approved list, at least one of which must be outside the English department. For School of Education students, three of the four courses must be outside the student's major area. Students should confer with one of the advisors of the Literacy Studies minor; their names can be obtained from the director of graduate studies.

Ph.D. Minor in Literary Theory

Jointly administered by the Departments of English and Comparative Literature, the minor requires a minimum of three courses, including at least one selected from Comparative Literature C503, C504, C601, or C602; and one from English G660, L605, L607, L608, or L707. Other courses approved for the minor are: French and Italian F584 and G560; Germanic Studies G800; Slavic Languages and Literatures R521; Spanish and Portuguese S473 and S512; and Theatre and Drama T555 and T556. Courses other than those listed above may also be acceptable toward completion of the requirement; written consent to count such courses must be obtained in advance from the graduate advisor in the Department of English or Comparative Literature.

Ph.D. Minor in Literature and Science

The literature and science minor consists of four courses. Two of the four will be Department of English courses from the area of literature and science. One of those English courses will be L769 Literature and Science, the "core" course for the minor. The non-English department courses will either come from a relevant science, or from the Department of History and Philosophy of Science or from some other relevant (nonliterary) discipline. The minor will be administered by the director of graduate studies in English, in consultation with the literature and science faculty as necessary.

Area Certificate in English and Germanic Philology

Also offered is a certificate in English and Germanic philology, requiring four courses in addition to the four required for the minor. These may include any of the courses listed above, as well as courses in other departments (e.g. linguistics, folklore, classical studies, and anthropology) that are relevant to the history and prehistory of the Germanic languages, and to early Germanic literature and culture. For information about relevant courses, see the graduate advisor in the Department of English.

Courses Offered

500 LEVEL

G500 Introduction to the English Language (4 cr.) An introduction to the English language: its nature, structure, and development.

L500 Introduction to Graduate Study for International Students (4 cr.) The methods and assumptions of graduate study in English and American literature, with special emphasis on classroom participation, the preparation and delivery of reports, and the writing of critical essays based on individual research. Admission must be approved by the departmental advisor for international students.

L501 Professional Scholarship in Literature (4 cr.) Materials, tools, and methods of research.

L502 Contexts for the Study of Writing (2-4 cr.) Historical and cognitive effects of writing, reading, and language use, and the implication of these effects for the teaching and study of literature and writing.

L503 Teaching of Literature in College (2-4 cr.) Classroom teaching of literature in the light of current approaches.

L505 Teaching Children's Literature at the Post-Secondary Level (2 cr.) Classroom teaching of children's literature in the light of current approaches.

L506 Issues and Motives of Literary Studies (4 cr.) The conditions and assumptions of studying English, with emphasis on the application of theory to a culturally and historically diverse range of writings.

L507 English Outside the Academy (4 cr.) Primarily for Special Field M.A. candidates. Explores discourses and domains of thought and language use that link the academy with areas of expertise outside it, including law, publishing, the media, advertising, health, and counseling.

L553 Studies in Literature (1-3 cr.) Primarily for secondary-school and junior-college teachers of English. Emphasis on thematic, analytic, and generic study. With consent of instructor, may be repeated once for credit.

L599 Internship in English (1-4 cr.) Primarily for Special Field M.A. candidates. Students will define a project and secure both a faculty and an external sponsor. Likely external sponsors will include the IU Foundation, the IU Press, advertising agencies, charities, legal or political offices, health agencies, and writing centers. Number of credit hours depends on length of commitment.

W500 Teaching Composition: Issues and Approaches (4 cr.) Consideration of fundamental issues in the teaching of writing and the major approaches to composition instruction. Specific topics include teaching invention and revision, diagnosing errors, teaching style and organization, making assignments, and evaluating student writing.

W501 Teaching of Composition in College (1-2 cr.) Practical teaching of composition; current theories and policies.

W511 Writing Fiction (4 cr.) Either W511 or W513 may count once for the M.A. or M.F.A., but not toward specified course requirements for the Ph.D.

W513 Writing Poetry (4 cr.) Either W511 or W513 may count once for the M.A. or M.F.A., but not toward specified course requirements for the Ph.D.

W553 Theory and Practice of Exposition (1-3 cr.) Primarily for secondary-school and junior-college teachers of English.

W554 Teaching Creative Writing (2 cr.) Theory and practice of teaching the writing of poetry and fiction at the college level, with attention to matters of curricular design and classroom technique. Required of those teaching W103 for the first time. Open also to graduate students not in the creative writing program.

600 LEVEL

600-level courses in literature may be taught either as topical colloquia or historical surveys, at the discretion of the instructor. All courses at this level will be understood as prefatory to the kind of work done in 700-level seminars, without prerequisites.

G601 Introduction to Old English (4 cr.) G500 recommended but not required. Introduction to the phonology, morphology, and syntax of Old English; intensive reading of major prose and verse texts.

G602 Introduction to Middle English (4 cr.) P: G601 or equivalent.

G603 Celtic Languages and Literature (4 cr.) P: G500 or its equivalent. Introduction to such languages as Old Irish and Welsh, or literatures in these languages. Topic varies.

G651 American English (4 cr.) Growth and development of the English language in America from the first settlements to the present; dialectal diversity of American English.

G655 History of the English Language (4 cr.) A survey of the evolution of the English language from its earliest stages to the present, with reference to its external history and to its phonology, morphology, syntax, and vocabulary.

G660 Stylistics (4 cr.) Survey of traditional and linguistic approaches to the study of prose and poetic style. Attention will center on the description of the verbal characteristics of texts, what those characteristics reflect about the author, and how they affect the reader.

L605 Critical and Interpretive Theory (4 cr.) Introduction to one or more major modes of contemporary criticism or critical theory.

L607 History of Literary Criticism to the Enlightenment (4 cr.) A survey of the history of literary criticism and theory from Plato and Aristotle to the Enlightenment, including works by Greco-Roman, medieval, and Renaissance figures.

L608 History of Literary Criticism from 1750 to 1960 (4 cr.) A survey of the history of literary criticism and theory from the late Enlightenment or early Romantic periods to 1960, including a variety of modern literary critics and theorists.

L612 Chaucer (4 cr.) Critical analysis of *The Canterbury Tales*, *Troilus and Criseyde*, and selected shorter poems.

L613 Middle English Literature (4 cr.) P: L612 or G602 or equivalent.

L616 English Drama to the 1590s, Exclusive of Shakespeare (4 cr.)

L621 English Literature 1500-1660 (4 cr.) Extensive reading in nondramatic literature.

L622 Spenser and Milton (4 cr.) Critical analysis of the major texts.

L623 English Drama from the 1590s to 1800, Exclusive of Shakespeare (4 cr.) P: familiarity with half a dozen plays of Shakespeare.

L625 Shakespeare (4 cr.) Critical analysis of selected texts.

L631 English Literature 1660-1790 (4 cr.) Extensive reading in poetry and nonfictional prose.

L639 English Fiction to 1800 (4 cr.)

L641 English Literature 1790-1900 (4 cr.) Extensive reading in poetry and nonfictional prose.

L645 English Fiction 1800-1900 (4 cr.)

L649 British Literature since 1900 (4 cr.) Extensive reading in all genres.

L651 American Literature 1609-1800 (4 cr.) Intensive historical and critical study of all genres from John Smith through Charles Brockden Brown.

L653 American Literature 1800-1900 (4 cr.) Intensive historical and critical study of all genres from Washington Irving through Frank Norris.

L655 American Literature and Culture 1900-1945 (4 cr.) Study of American literature and culture from the turn of the century to 1945.

L656 American Literature and Culture 1945 to the Present (4 cr.) Studies in American literature and culture from 1945 to the present.

L663 Introduction to Feminist Critical Studies (4 cr.) An introduction to and examination of major works, methods, issues, and developments in feminist theory and criticism.

L666 Survey of Children's Literature (4 cr.) Survey of literature written for children and adolescents from the medieval period to the present.

L671 Modern British and Irish Drama (4 cr.)

L672 Modern American Drama (4 cr.)

L673 Studies in Women and Literature (4 cr.) Women's literary accomplishments and representations of women in English from the sixteenth century to the present.

L674 Studies in International English Literature (4 cr.) Literatures from Africa, the Caribbean, Australia, New Zealand, the Pacific islands, the Indian subcontinent, or Canada.

L680 Special Topics in Literary Study and Theory (4 cr.) Readings in sociological, political, psychological, and other approaches to literature.

L695 Individual Readings in English (1-4 cr.)

L699 M.A. Thesis (cr. arr.)

W601 Development of Rhetoric and Composition (4 cr.) Traces the development of rhetorical theory from Plato through the Renaissance and up to the present; puts special emphasis on exploring how present-day composition programs and practices reflect the past.

W602 Contemporary Theories in Rhetoric and Composition (4 cr.) An introduction to current research in rhetoric and composition. Draws on insights from linguistic theory, cognitive theory, and rhetorical theory to develop greater understanding of the writing process and build pedagogical applications.

W609 Directed Writing Projects (1-4 cr.)

W610 Indiana Writing Workshop (2 cr.) P: acceptance to the Indiana Writers' Conference held in June of each year. Intensive training in various forms of writing at the conference; submission of significant body of writing before the end of the last summer session.

W611-W612 Writing Fiction I-II (4-4 cr.) May be repeated once for credit.

W613-W614 Writing Poetry I-II (4-4 cr.) May be repeated once for credit.

W615 Writing Creative Nonfiction (4 cr.) Writing workshop in such modes as personal essay, autobiography, and documentary. Open also to graduate students not in the creative writing program.

W664 Topics in Current Literature (4 cr.) The study of recent poetry and prose, emphasizing special formal, technical, and intellectual concerns of author and work. Open also to graduate students not in the creative writing program.

W680 Theory and Craft of Writing (4 cr.) Elements of poetic prosody or the major fictive techniques or both: nature of stress, concepts of meter, nature of rhythm, prosodic use of syntax, theories of fictive realism, nature of fictive romance, point of view, etc. Students will do some writing. Open also to graduate students not in the creative writing program.

W697 Independent Study in Writing (1-4 cr.) P: two semesters of W611, W612, W613 or W614.

W699 M.F.A. Thesis (cr. arr.)

700 LEVEL

The following courses are seminars requiring directed individual study and investigation. For each the prerequisite is advanced graduate standing, or a 600-level course in the subject, or the consent of the instructor; it is recommended that a student take L501 before enrolling in

a seminar. With consent of the instructor, a student may take a 700-level course twice for credit.

G780 Special Studies in English Language (4 cr.) P: G500 or equivalent.

L700 Topics in Feminist Critical Studies (4 cr.) Readings in feminist theories of representation, gender, sexuality, the institution, or other areas of feminist critical endeavor.

L701 Descriptive Bibliography and Textual Problems (4 cr.)

L705 Problems in Composition, Literacy, and Culture (4 cr.)

L707 Studies in Literary Theory and Criticism (4 cr.)

L710 Beowulf (4 cr.) P: G601. Critical reading of the text of the poem, with consideration of its relationship to other writings in Old English and the heroic tradition in literature.

L711 Old English Literature (4 cr.) P: G601 or equivalent.

L712 Chaucer (4 cr.) P: L612 or L613 or equivalent.

L713 Middle English Literature (4 cr.) P: L612 or L613 or equivalent.

L715 English and Scottish Popular Ballads (4 cr.) Student investigation of principal problems met in ballad scholarship. Special attention to textual relationships, dissemination, and unique qualities of genre.

L721 Spenser (4 cr.)

L723 Elizabethan and Jacobean Drama (4 cr.)

L725 Shakespeare (4 cr.)

L730 Renaissance Poetry and Prose (4 cr.)

L731 Milton (4 cr.)

L733 Restoration and Augustan Literature (4 cr.)

L736 Age of Johnson (4 cr.)

L739 English Fiction to 1800 (4 cr.)

L741 Romantic Literature (4 cr.)

L743 Victorian Literature (4 cr.)

L745 English Fiction 1800-1900 (4 cr.)

L749 Twentieth-Century British Literature (4 cr.)

L751 Major American Writers 1700-1855 (4 cr.) Two or three writers. Techniques and thematic comparisons.

L753 Major American Writers 1855 to the Present (4 cr.) Two or three writers. Techniques and thematic comparisons.

L761 American Poetry (4 cr.)

L763 American Fiction (4 cr.)

L766 Children's Literature (4 cr.) Issues in the critical and historical study of literature for children or young adults.

L769 Literature and Science (4 cr.) Major developments in modern science, the philosophical issues they raise, and their influence on modern thought and literature.

L773 Topics in Feminist Literary History (4 cr.) Feminist critical research on literary texts in cultural contexts, or focusing on a particular historical period, theme, genre, or author.

L774 Topics in International English Literature (4 cr.) Topics in English literature from Africa, the Caribbean, Australia, New Zealand, the Pacific Islands, the Indian subcontinent, or Canada.

L775 Studies in Modern Drama (4 cr.)

L776 Comparative Drama (4 cr.) Selected topics in comedy or tragedy.

L779 Literature and Society (4 cr.) Analysis of representative works of different periods to illustrate the study of literature in relation to its

age, or as a social product. Consideration of economic, political, class, and other cultural influences.

L780 Special Studies in English and American Literature (4 cr.)

L790 Independent Study (cr. arr.) Consent of the instructor required. Open to Ph.D. candidates in English only.

L799 Ph.D. Thesis (cr. arr.)

W780 Special Studies in Composition (4 cr.)

English

School of Liberal Arts
Indianapolis

Chairperson
Professor Christian Kloesel

Departmental E-mail
english@iupui.edu

Departmental URL
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Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors

John D. Barlow (Emeritus), Barbara Cambridge*, Edwin F. Casebeer (Emeritus), Ulla M. Connor, Kenneth W. Davis, Jonathan Eller, Sharon Hamilton, Christian J. W. Kloesel, Missy Dehn Kubitschek, William M. Plater, Helen J. Schwartz, Judith A. Spector* (Columbus), William F. Touponce, Richard C. Turner*

Associate Professors

Dennis Bingham, Frederick DiCamilla*, Stephen L. Fox*, Susan Harrington*, David Hoegberg*, Karen R. Johnson*, Karen Kovacic*, Kim Brian Lovejoy*, Melvin L. Plotinsky (Emeritus), Cynthia B. Roy, Jane Schultz, Susan C. Shepherd*, Mary K. Trotter*, Thomas Upton*, Harriet Wilkins*

Assistant Professors

Marjorie Rush Hovde*, Thomas Fletcher Marvin*, Edwin Nagelhout*, Robert Rebein*

Graduate Studies Office

For graduate student information and advising, call (317) 274-2258, Cavanaugh Hall 502L.

Degree Offered

Master of Arts

Program Information

IUPUI's graduate English program has been designed to prepare students for careers in the analysis and production of "texts." To this end, the program covers issues and skills in reading and writing, in the richest sense of these words, in order to prepare students to address these issues and to teach these skills. Graduates of the program should be prepared for such careers as teaching writing and literature, teaching English as a second language, and writing for business, government, and other professions.

In contrast to traditional M.A. programs, which place heavy emphasis on literary history, the IUPUI program focuses on the application of English studies to contemporary situations and problems. While interested students will be encouraged to take courses in literary history, graduates of this program will no doubt have to take additional literary history courses to be qualified candidates for traditional doctoral programs. Because of IUPUI's urban, nonresidential setting, its English graduate program will strive, in its curriculum and scheduling, to meet the special needs of part-time, nonresidential students.

Special Departmental Requirements

See also general University Graduate School requirements.

Master of Arts Degree

Admission Requirements

1. Applicants should have a bachelor's degree from an accredited college or university,

with a minimum grade point average of 3.0 on a 4.0 grading scale in the student's undergraduate major, documented by an official transcript. Applicants are normally expected to have been English majors, but admission will be considered also for those who otherwise demonstrate the competency necessary for successful graduate work in English.

2. Applicants must have taken the Graduate Record Examination (GRE) General Test and earned a score of 600 in at least one of the three areas. Applicants are encouraged to take the examination by December of the year prior to admission.
3. Applicants must submit three letters of recommendation.

Foreign Language Requirements

None, but M.A. students continuing on for the Ph.D. are encouraged to validate their reading proficiency in a foreign language according to University Graduate School standards.

Grades

M.A. students must maintain a 3.0 (B) grade point average.

Course Requirements

The degree requires 36 credit hours, including 12 credit hours of "core" courses, 20 credit hours of "area" courses (possibly including an internship), and 4 credit hours of thesis work. The three core courses provide an introduction to three major areas in the discipline of English: Language: G500 Introduction to the English Language; Writing: W500 Teaching Composition: Issues and Approaches; Literature: L506 Issues and Motives of Literary Studies. These courses, which carry 4 credit hours each, should be taken at the beginning of the graduate program.

Certificate in Teaching English as a Second Language (TESL)

The Certificate in Teaching English as a Second Language (TESL) is a

six-course, 21 credit program. The five required courses include ENG G500, G541, and L535, as well as LING L532 and L534. The elective course can be chosen from ENG G625, G652, and LING T600; courses in other departments relevant to TESL are acceptable with approval from the director. An emphasis in English for Specific Purposes (ESP) can be earned by taking LING T600 as the elective course and completing the practicum in an ESP setting. For more information about the certificate, contact the ESL Program in the Department of English, or visit the IUPUI TESOL Web site at www.liberalarts.iupui.edu/tesol/.

Certificate in Professional Editing

See the section titled "Certificate in Professional Editing" for more information.

Courses Offered

500 LEVEL

The 500 level is reserved for courses that are methodologically, professionally, and pedagogically oriented.

G500 Introduction to the English Language (4 cr.) An introduction to the English language: its nature, structure, and development.

G541 Materials Preparation for ESL Instruction (4 cr.) Students will learn about materials preparation, syllabus design, and test preparation by applying a variety of theories to books and other ESL (English as a Second-language) teaching devices (e.g., tapes, videotapes, software programs) in order to evaluate their usefulness and will learn to evaluate ESL materials for adequateness.

L501 Professional Scholarship in Literature (4 cr.) Materials, tools, and methods of research.

L502 Introduction to Literacy Studies and the Teaching of College English (2-4 cr.) Historical and cognitive effects of writing, reading, and language use, and the

implication of these effects for the teaching and study of literature and writing.

L506 Issues and Motives of Literary Studies (4 cr.) The conditions and assumptions of studying English, with emphasis on the application of theory to a culturally and historically diverse range of writings.

L532 Second-Language Acquisition (3 cr.) (offered as Linguistics L532 at Bloomington)

L534 Linguistics Resources and TESOL (3 cr.)

L553 Studies in Literature (1-3 cr.) Primarily for secondary-school and junior-college teachers of English. Emphasis on thematic, analytic, and generic study. With consent of instructor, may be repeated once for credit.

L560 Literary Studies in England and Scotland (6 cr.) Provides on-site opportunities in England and Scotland to explore the literary landscapes of British authors in relation to the English and Scottish school systems. Designed primarily for education majors and continuing certification credits. Offered biannually.

L573 Studies of Literary Appreciation I (3 cr.)

L590 Internship in English (4 cr.) A supervised internship in the uses of language in the workplace. Each intern will be assigned a problem or task and will develop the methods for solving or completing it. Each intern will complete a portfolio of workplace writing and self-evaluation.

W500 Teaching Composition: Issues and Approaches (4 cr.) Consideration of fundamental issues in the teaching of writing and the major approaches to composition instruction. Specific topics include teaching invention and revision, diagnosing errors, teaching style and organization, making assignments, and evaluating student writing.

W510 Computers in Composition (4 cr.) Based in current theories about the process of writing, this course surveys the use of computer programs (such as word processing) as writing tools, computer-assigned instruction as teaching aids, and computer programs as research aids to study writing.

W553 Theory and Practice of Exposition (1-3 cr.) Primarily for secondary-school and junior-college teachers of English.

W590 Teaching Composition: Theories and Application (4 cr.) Current theories of composition and their pedagogical implications.

600 LEVEL
600-level courses in literature may be taught either as topical colloquia or historical surveys, at the discretion of the instructor. All courses at this level will be understood as prefatory to the kind of work done in 700-level seminars, without prerequisites.

G625 Introduction to Text Linguistics/Discourse Analysis (4 cr.) This course introduces students to current approaches to text and discourse coherence, including recent theories of cognitive and interactional text modeling.

G652 English Language Sociolinguistics (4 cr.) A survey course in American and British sociolinguistics, this course investigates the theoretical bases, the major works, and the methodological approaches of current sociolinguistics.

L655 American Literature and Culture 1900-1945 (4 cr.) Study of American literature and culture from the turn of the century to 1945.

L681 Genre Studies (variable title: The Epic) (4 cr.)

L695 Individual Readings in English (1-4 cr.)

L699 M.A. Thesis (cr. arr.)

W600 Topics in Rhetoric and Composition (4 cr.) Covers selected issues in current composition and

rhetorical theory. May be repeated once for credit with a different topic.

W609 Directed Writing Projects (1-4 cr.)

700 LEVEL
The following courses are seminars requiring directed individual study and investigation. For each the prerequisite is advanced graduate standing, or a 600-level course in the subject, or the consent of the instructor; it is recommended that a student take L501 before enrolling in a seminar. With consent of the instructor, a student may take a 700-level course twice for credit.

L701 Descriptive Bibliography and Textual Problems (4 cr.)

CROSS-LISTED COURSE

Linguistics

L535 TESOL Practicum (3 cr.)

English and Linguistics

Fort Wayne

Chairperson

Professor Richard Ramsey

Departmental E-mail
ramseyr@ipfw.edu

Departmental URL
www.ipfw.edu/engl

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors

Avon Crismore, Rodney Farnsworth*, Lynette Felber, Lawrence Friedman* (Emeritus), Henry Kozicki (Emeritus), John Minton*, James Woolf (Emeritus)

Associate Professors

Stuart Blythe*, John P. Brennan*, Beverly Hume*, Michael Kaufmann*, Michael O'Hear*, Richard Ramsey*, Beth Simon,

Arline Standley (Emerita), Chad Thompson*, Hermine J. van Nuis*

Assistant Professors
Lidan Lin*, Hao Sun*

Director of Graduate Studies
Associate Professor Stuart Blythe*,
Classroom-Medical Building 117,
(260) 481-6770

Degrees Offered
Master of Arts (M.A.) and Master of
Arts for Teachers (M.A.T.)

**Special Departmental
Requirements**
(See also general University
Graduate School requirements .)

Admission Requirements
To be regularly admitted to a
master's program in English, you
must have completed an
undergraduate major or minor in
English with a cumulative GPA of at
least 3.0 (B) and a GPA of at least
3.0 in all English courses. In
addition, all applicants must earn a
satisfactory score on the general
aptitude section of the Graduate
Record Examination. If these
requirements are not met, an
applicant may be admitted
conditionally. Conditions might, for
example, require completing
prerequisite courses without credit
toward the graduate degree, or
maintaining a given GPA over the
first 6-12 credits earned in the
program.

To receive the M.A.T., a candidate
must hold at least provisional public
school certification in English. If
such certification is lacking when a
candidate enters the program,
certification requirements must be
fulfilled while the M.A.T.
requirements are completed.

Grades
A GPA of 3.0 must be maintained
while in the program.

Master of Arts Degree

Course Requirements
At least 30 credit hours in courses
administered by the department must
be completed. (Courses are generally

3 credit hours.) Students must also
demonstrate reading proficiency in
an approved foreign language,
normally by passing with a grade of
A or B a 300-level literature course
offered by the Department of
Modern Foreign Languages. (A
graduate-level foreign language test
provides an alternative for students
who are prepared to read literature
and criticism in an approved
language.) Students must maintain a
GPA of at least 3.0 in courses taken
to fulfill degree requirements.

The total of 30 credit hours must
include at least one course in
professional scholarship, one course
in critical theory, and one 700-level
seminar. The total must include at
least three courses in each of two of
five available concentrations: (1)
British literature before 1700, (2)
British literature after 1700, (3)
American literature, (4) English
language and linguistics, (5) writing,
rhetoric, and composition.

All degree requirements must be
completed within five years of
admission to the program.

Foreign Language Requirement
Reading proficiency in French,
German, Spanish, or other approved
foreign language normally
demonstrated by passing with a
grade of A or B a 300-level literature
course offered by the Department of
Modern Foreign Languages in which
the reading is done in the foreign
language. A graduate-level foreign
language test provides an alternative
for students who are prepared to read
literature and criticism in an
approved language. A student should
begin working on the proficiency
requirement as soon as admitted and
continue to do so every semester
until it is satisfied.

Thesis (3-6 cr.)
Required of students who do not
stand for the final examination;
optional for others.

Final Examination
Required of students who do not
complete a thesis, a comprehensive
written examination. See director of
graduate studies for details.

Master of Arts for Teachers Degree

Prerequisite
Provisional public school
certification in English. Students
without provisional certification
must fulfill certification
requirements as well as requirements
for the M.A.T.

Course Requirements
To earn this degree, students must
complete at least 36 credit hours of
graduate-level courses: at least 24
credits must be in courses
administered by the Department of
English and Linguistics, including
one course in linguistics or the
English language, one course in
composition theory or rhetorical
theory, and one course in ethnic or
minority literature. Up to 12 of the
36 required credit hours may be
elected from approved courses
administered by another department.
For students working toward
certification, some graduate-level
education courses may count as
electives for the M.A.T.

Foreign Language Requirements
None.

Thesis (3-6 cr.)
Required of students who do not
complete at least one 700-level
seminar.

**Graduate Certificate in Teaching
English as a New Language
(TENL)**
The Graduate Certificate in Teaching
English as a New Language is
intended primarily for students
working toward a graduate degree in
English and for practicing teachers
who wish to be trained in teaching
English to nonnative speakers. It also
serves people who are preparing to
live abroad or who wish to facilitate
their employment abroad, and those
who have technical or business
expertise and wish to work with
nonnative speakers in professional
settings. The required courses will
familiarize students with the major
theoretical foundations of teaching
English as a new and foreign
language. Students will become
acquainted with ENL pedagogy and
resources and will acquire

experience by teaching ENL learners in real classrooms. The TENL certificate can stand alone as a separate credential or be integrated with the requirements of the M.A. or M.A.T. program in English.

Course Requirements

Grammar

ENG G500 Introduction to the English Language (3-4 cr.)

Methods

LING P511 Methods and Materials for TESOL I (3 cr.)

LING P512 Methods and Materials for TESOL II (3 cr.)

Language Acquisition

LING L532 Second Language Acquisition (3 cr.)

Sociolinguistics

LING L619 Language and Society (3 cr.)

Practicum

LING L535 TESOL Practicum (3 cr.)

For further information, contact Professor Hao Sun, TENL Certificate Program Coordinator, Department of English and Linguistics, Indiana University–Purdue University Fort Wayne, 2101 E. Coliseum Blvd., Fort Wayne, IN 46805-1499, telephone (260) 481-6775, e-mail sunh@ipfw.edu.

Courses

The following courses are taught in the Department of English and Linguistics at the Fort Wayne campus.

LITERATURE

B501 Professional Scholarship in Literature (3 cr.) Materials, tools, and methods of research.

B502 Introduction to Literacy Studies and the Teaching of College English (3 cr.) Historical and cognitive effects of writing, reading, and language use, and the implication of these effects for the teaching and study of literature and writing.

B553 Studies in Literature (3 cr.) Primarily for secondary-school and junior-college teachers of English. Emphasis on thematic, analytic, and generic study. May be repeated once for credit with a different topic.

B605 Modern Approaches to Literature (3 cr.) Survey of contemporary critical approaches, emphasizing methods of literary analysis.

B609 History of Literary Criticism (3 cr.) Survey of literary criticism and theory from Plato and Aristotle to 1960, including a variety of literary critics and theorists.

B612 Chaucer (3 cr.) Critical analysis of *The Canterbury Tales*, *Troilus and Criseyde*, and selected shorter poems.

B613 Middle English Literature (3 cr.) Selected themes and writers in English from 1100 to 1500.

B622 Elizabethan Poetry (3 cr.) Spenser and other major Elizabethan poets.

B624 Elizabethan Drama and Its Background (3 cr.) English drama, excluding Shakespeare, from the Middle Ages to 1642.

B625 Shakespeare (3 cr.) Critical analysis of selected texts.

B627 English Poetry of the Early Seventeenth Century (3 cr.) Major poets and their intellectual milieu, 1600-1660.

B628 Milton (3 cr.) Poetry and prose, with special attention to *Paradise Lost*, *Paradise Regained*, and *Samson Agonistes*.

B635 British Literature 1660-1790 (3 cr.) Poetry and nonfiction prose. Emphasis on Dryden, Pope, Swift, and Johnson and his circle.

B637 Restoration and Eighteenth-Century Drama (3 cr.) English drama from 1660 to 1800.

B639 British Fiction to 1800 (3 cr.)

B642 Romantic Literature (3 cr.) Blake, Wordsworth, Coleridge, Byron, Shelley, Keats, and other writers of the British Romantic movement.

B644 Victorian Literature (3 cr.) Poetry and nonfiction prose from 1837 to 1900.

B645 British Fiction 1800-1900 (3 cr.)

B648 Twentieth-Century British Poetry (3 cr.)

B649 Twentieth-Century British Fiction (3 cr.)

B651 American Literature 1800-1865 (3 cr.)

B652 American Literature 1865-1914 (3 cr.)

B654 American Literature since 1914 (3 cr.)

B655 American Fiction to 1900 (3 cr.)

B656 Twentieth-Century American Fiction (3 cr.) American fiction since 1900, including such writers as Dreiser, Lewis, Fitzgerald, Hemingway, and Faulkner.

B657 Recent Writing (3 cr.) May be repeated once for credit with a different topic.

B660 Studies in British and American Writers (3 cr.) May be repeated once for credit with a different topic.

B666 Survey of Children's Literature (3 cr.) Survey of literature for children and adolescents from the medieval period to the present.

B668 Topics in Children's Literature (3 cr.) Study of a period, a genre, or a group of writers. May be repeated once for credit with a different topic.

B673 Studies in Women and Literature (3 cr.) Women writers and literary representations of women.

B675 Studies in American Ethnic and Minority Literature and Culture (3 cr.) May be repeated once for credit with a different topic.

B680 Special Topics in Literary Study and Theory (3 cr.) Readings in sociological, political, psychological, and other approaches to literature. May be repeated once for credit with a different topic.

B688 Irish Literature and Culture (3 cr.) Study of one writer, a group of writers, a period, or a genre. May be repeated once for credit with a different topic.

B695 Individual Readings in English (1-3 cr.) Independent study.

B699 Master's Thesis (3-6 cr.)

B712 Chaucer (3 cr.) P: ENG B612, B613, or equivalent.

B725 Shakespeare (3 cr.)

B731 Milton (3 cr.)

B733 Restoration and Augustan Literature (3 cr.)

B739 British Fiction to 1800 (3 cr.)

B741 Romantic Literature (3 cr.)

B743 Victorian Literature (3 cr.)

B745 British Fiction 1800-1900 (3 cr.)

B749 Twentieth-Century British Literature (3 cr.)

B751 Major American Writers 1700-1855 (3 cr.)

B753 Major American Writers 1855 to the Present (3 cr.)

B780 Special Studies in British and American Literature (3 cr.)

WRITING AND RHETORIC

C501 Teaching of Composition in College (1-2 cr.) Practical teaching of composition; current theories and policies.

C505 Teaching Composition: Issues and Approaches (2-3 cr.) P: permission of instructor. Fundamental issues in the teaching of writing. Topics include teaching invention and revision, diagnosing errors, teaching style and organization, making assignments, and evaluating student writing.

C507 Writing Center Theory and Praxis (3 cr.) Examines techniques for responding to writers in writing centers, including nontraditional populations and writers in various disciplines. Understand and test cognitive, social constructionist, and collaborative theories through consulting in the writing center mentored by experience writing consultants and the director. Write journals, a case study outline, and a paper linking theory to practice.

C511 Writing Fiction (3 cr.) P: permission of the instructor.

C513 Writing Poetry (3 cr.) P: permission of the instructor.

C521 Introduction to Professional Writing (3 cr.) Discourse in professional disciplinary contexts (e.g., engineering, sciences, social sciences, humanities). Emphasis on research tools in professional writing and on methods of contextual, intentional, structural, and stylistic analysis.

C531 Theory and Practice of Exposition (3 cr.) Primarily for secondary-school and junior-college teachers of English.

C532 Advanced Argumentative Writing (3 cr.) Techniques for analyzing and constructing arguments for different disciplines and professions, especially the use of proofs, evidence, and logic; major issues of argument, such as the ethics of persuading audiences and the uses of style.

C601 History of Rhetoric (3 cr.) Development of rhetorical theory from Plato to the present, including the influence of historical rhetoric on present-day composition theory.

C602 Contemporary Theories of Composition (3 cr.) Current research in rhetoric and composition. Draws on insights from linguistic theory, cognitive theory, and rhetorical theory to develop greater understanding of the writing process and build pedagogical applications.

C611 Writing Fiction (3 cr.) P: C511 or permission of the instructor. May be repeated once for credit.

C613 Writing Poetry (3 cr.) P: C513 or permission of the instructor. May be repeated once for credit.

C682 Topics in Rhetoric and Composition (3 cr.) May be repeated once for credit under a different topic.

C697 Independent Study in Writing (1-3 cr.)

C780 Special Studies in Rhetoric and Composition (3 cr.) May be repeated once for credit under a different topic.

LANGUAGE

D501 Introduction to the English Language (3 cr.) An introduction to the nature, structure, and development of the English language.

D552 Linguistics and the Teacher of English (3 cr.) Topics in applied English linguistics, intended for English teachers at all levels.

D600 History of the English Language (3 cr.) Survey of the evolution of the English language from its earliest stages to the present, with reference to its external history and to its phonology, morphology, syntax, and vocabulary.

D601 Introduction to Old English (3 cr.) Introduction to the phonology, morphology, and syntax of Old English and intensive reading of major prose and verse texts.

D660 Stylistics (3 cr.) Survey of traditional and linguistic approaches to the study of prose and poetic style. Attention to the verbal characteristics of texts, what they reflect about the

author, and how they affect the reader.

CROSS-LISTED COURSES

Comparative Literature

C541 Modern Drama (4 cr.)

C586 Colloquium in Literature and the Other Arts (4 cr.)

C592 Genre Study in Film (3 cr.)

FILM

K502 Genre Study in Film (3 cr.)

LINGUISTICS

L430 Language Change and Variation (3 cr.)

L485 Topics in Linguistics (3 cr.)

L534 Linguistic Resources and the Teaching of English as a Second-language (TESOL) (3 cr.)

L535 TESOL Practicum (3 cr.)

L543 Syntactic Analysis (3 cr.)

L575 Introduction to Linguistic Theory (3 cr.)

L619 Language and Society (3 cr.)

L690 Variable Title (1-4 cr.), to match the undergraduate offerings

Environmental Programs

School of Public and Environmental Affairs
Bloomington

Departmental E-mail
spea@indiana.edu

Note: Be sure to specify which program you are interested in when sending mail.

Departmental URL
www.spea.indiana.edu

Graduate Faculty

Unless otherwise noted in parentheses, the faculty member's

primary affiliation is with the School of Public and Environmental Affairs.

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Arthur E. Bentley Professors

Lynton Caldwell (Emeritus), Elinor Ostrom (Political Science)

Distinguished Professors

Gary Hieftje (Chemistry), Ronald Hites (Chemistry and Public and Environmental Affairs)

Professors

Randall Baker, Simon Brassell (Geological Sciences), Keith Clay (Biology), Jeremy Dunning (Geological Sciences), George Ewing (Emeritus, Chemistry), Hendrik Haitjema, Theodore Miller, Emilio Moran (Anthropology), Craig Nelson (Biology), David Parkhurst, Lisa Pratt (Geological Sciences), J. C. Randolph, Edwardo Rhodes, Eugene Tempel (Education), Donald Whitehead (Emeritus, Biology), Jeffrey White, Daniel Willard (Emeritus)

Associate Professors

Debera Backhus, Chris Craft*, C. Susan B. Grimmond (Geography), Diane Henshel, Kerry Krutilla, Vicki Meretsky*, Flynn Picardal, Sara Pryor (Geography), Ingrid Ritchie* (I), Scott Robeson (Geography), Hans Peter Schmid (Geography)

Assistant Professors

Matthew Auer*, Philip Stevens*

An (I) after a faculty member's name indicates that the person teaches at Indiana University–Purdue University Indianapolis

Academic Advisor

Professor Hendrik Haitjema, SPEA 440, (812) 855-0563

Doctoral Student Advisor

Professor J. C. Randolph, SPEA 447, (812) 855-4953

Program Information

The environmental programs described below are cooperative undertakings of the School of Public and Environmental Affairs (SPEA),

the College of Arts and Sciences, and the University Graduate School. They are administered by SPEA or the University Graduate School or both and provide courses and degree programs for students, not only in SPEA, but across the university.

Degrees Offered

Dual master's degrees in environmental science (M.S.E.S.) and ecology/ evolutionary biology (M.A.), dual master's degrees in environmental science (M.S.E.S.) and geological sciences (M.S.), dual master's degrees in environmental science (M.S.E.S.) and geography (M.A.) (all three dual degrees are offered jointly with SPEA), and the Doctor of Philosophy in environmental science. In addition, SPEA offers the Master of Science in Environmental Science (M.S.E.S.), the Master of Public Affairs (M.P.A.) with a concentration in environmental policy and natural resources management, a combined M.S.E.S./M.P.A. degree, a combined M.S.E.S. and Doctor of Jurisprudence, and a combined M.P.A. and Doctor of Jurisprudence. The latter two combined degrees are offered jointly with the School of Law. For information regarding ecology and evolutionary biology, geography, and geological sciences, consult the respective department listings elsewhere in this bulletin; for information regarding the degrees offered exclusively or jointly by the School of Public and Environmental Affairs and the School of Law, see their respective bulletins or call (812) 855-2840.

Dual Master Degrees

The student must apply to and be accepted by both the School of Public and Environmental Affairs and either the program in ecology and evolutionary biology of the Department of Biology, the Department of Geography, or the Department of Geological Sciences. The student must select a supervisory committee of at least three faculty members, representing both the School of Public and Environmental Affairs and either ecology and evolutionary biology, geography, or geological sciences.

Requirements

A total of 60 credit hours that qualify the student for two master's degrees. For specific program requirements, see the departmental listings in this bulletin and the School of Public and Environmental Affairs Bulletin.

Doctor of Philosophy Degree

The doctoral program is administered by the School of Public and Environmental Affairs in cooperation with the biology, chemistry, geography, and geological sciences departments. The Ph.D. in environmental science is awarded by the University Graduate School.

The program provides a rigorous, comprehensive education in environmental science. The specific objectives of the program are: (1) to conduct advanced research and scientific analysis of environmental events, issues, and problems; (2) to further understanding of the nature and management of natural and human environments; and (3) to provide an opportunity for students and faculty members in several departments to engage in collaborative environmental research in an interdisciplinary mode.

Admission

A student must apply to the School of Public and Environmental Affairs for doctoral studies; those accepted will be recommended to the University Graduate School for formal admission into the Ph.D. program. Applicants to this program must have completed at least a bachelor's degree in science, mathematics, engineering, or a closely related field. Prospective students are required to submit (1) a statement of purpose, which should be as specific as possible and, preferably, should refer to potential research mentors by name; (2) official results of the Graduate Record Examinations (GRE); (3) official transcripts of all undergraduate and graduate course work completed; and (4) three letters of recommendation. Applicants whose native language is not English must also submit results of the Test of English as a Foreign Language (TOEFL).

Degree Requirements

The degree requires: (1) substantial knowledge in a primary environmental science concentration; (2) breadth in related environmental science and policy; (3) an understanding of research methods; (4) an in-depth knowledge of the dissertation topic; and (5) a dissertation that demonstrates the student's ability to analyze, explain, and interpret research clearly and effectively.

Advisory Committee

During the first semester of enrollment, each student must organize an advisory committee. Normally this committee consists of at least four faculty members; at least two should be from the School of Public and Environmental Affairs; the others may be from other departments. Membership of the advisory committee is approved by the director of the Doctoral Program in Environmental Science and the dean of the University Graduate School. At least three members of the advisory committee must be members of the graduate faculty.

Fields of Study

Each student defines a principal field of study and describes it in a narrative statement. This statement should discuss the student's previous educational experiences, outline a program of course work that lies within the student's proposed field of study, and state the student's career objectives. The principal field may be interdisciplinary. The student should prepare a proposal outlining a program of course work that the student believes lies within that field.

Each student is also required to prepare a program of course work that fulfills the requirements for breadth in environmental science and policy. The breadth requirement may be fulfilled by using a wide spectrum of environmentally related courses, including areas such as economics, law, and management, in addition to other science courses.

Each student is also required to prepare a statement of activities for meeting the research methods requirement. Normally these include

subjects such as computer science, geographic information systems, remote sensing, statistics, and mathematical modeling, although other technical skill areas such as electronics and analytical chemical techniques may be appropriate for some students.

The research undertaken by the student will be interdisciplinary. Because a knowledge of the basic sciences is necessary to understand environmental problems, and the application of that knowledge is necessary for the development of solutions to those problems, the research may be primarily basic, primarily applied, or some mixture of both.

Course Requirements

The exact nature and amount of course work in each of the three areas—principal field of study, breadth in environmental science and policy, and research methods is determined by the advisory committee after review and approval of the student's plan of study in each of these areas. Selection of specific courses is based on obtaining (1) adequate knowledge for qualifying examinations, (2) appropriate preparation for a research project, and (3) a mixture of courses that meet the individual professional goals of the student.

The Ph.D. requires the completion of at least 90 credit hours in advanced study and research beyond the bachelor's degree. A student must complete a minimum of 30 credit hours of advanced course work in environmental science and policy. Students must also complete a minimum of 30 credit hours of research, normally taken as SPEA E625 or SPEA E890. The student, with approval of the advisory committee, should complete some combination of additional course work and research sufficient to meet the 90 credit hour requirement. Students are required to enroll in SPEA E680 Seminar in Environmental Science and Policy (1 credit hour/semester) for six semesters during the course of their degree program. Students enrolled in SPEA E680 may either make a

formal presentation or write a brief synopsis and critique of four presentations attended during the semester. Six (6) credit hours of SPEA E680 may be used to fulfill a portion of the breadth requirement. Students are also required to enroll at least once in SPEA E710 Advanced Topics in Environmental Science during the course of their degree program. SPEA E710 may be taken multiple times, as the topics vary. Advanced topics courses may be used to meet requirements in either the principal field of study or breadth in environmental science and policy, depending upon the topic and the student's area of interest.

Students should note that all 30 credit hours of advanced course work, if properly selected, and 6 credit hours of research, may be applied toward the Master of Science in Environmental Science (M.S.E.S.) degree. With an additional 12 credit hours of approved course work, a student may be awarded the M.S.E.S. degree while completing the requirements for the Ph.D. degree in environmental science. Completion of the M.S.E.S. degree as part of this doctoral program is not a requirement; however, this option may be appropriate for some students.

Qualifying Examinations

Before a student is admitted to candidacy, all requirements determined by the advisory committee must be met and the qualifying examinations passed. A student who fails qualifying examinations may retake them only once.

The decision to admit a student to doctoral candidacy is made by the advisory committee, which evaluates the student's performance in the written examination, research proposal, and oral examination.

Written Examination

This examination should be taken by the end of the student's fifth semester in the Ph.D. program. The exam focuses on topics covered by the student's course work and related to the student's research interests. The examination is written and

graded by the student's advisory committee. The written examination is graded as "pass," "conditional pass," or "fail."

Research Proposal

No later than the end of the fifth semester, the student should submit a written research proposal for review by the advisory committee. The proposal should be documented, clearly stating a research objective, the approach to be taken, and the significance of the work.

Oral Examination

Each candidate is examined orally by the advisory committee. The oral examination will be comprehensive in nature and covers the student's research proposal.

Research Committee

Upon the student's successful completion of the qualifying examination, a research committee will be formed. Normally this committee consists of at least four faculty members. At least two should be from the School of Public and Environmental Affairs; the others may be from other departments. The director of the Doctoral Program in Environmental Science recommends the student's research committee to the dean of the University Graduate School. At least three members of the research committee must be full members of the graduate faculty.

Dissertation

A dissertation is required and must be of sufficient value to warrant publication. The dissertation must represent a substantial research effort, both in quality and quantity. The dissertation requirement may be met by preparing a traditional dissertation or by preparing a portfolio of research documents including publications, manuscripts in press, and a completed manuscript suitable for submission to a journal. These documents may have multiple authors, although the doctoral candidate must demonstrate that he or she made significant contributions to at least two of the publications or manuscripts submitted for review. The research portfolio must have introductory and concluding chapters to integrate across the topics, and

sufficient transitional material between documents to meet the University Graduate School's requirements for dissertations. A public presentation of the dissertation research is required. The dissertation must be approved by the research committee.

Ph.D. Minor in Environmental Studies

(12 credit hours)

Students in Ph.D. programs at Indiana University may, with the consent of their advisory committee, choose environmental studies as an outside minor. The minor is flexible and is usually designed by students in accordance with their needs.

Requirements

1. The doctoral candidate must secure a faculty advisor in consultation with the director of the Doctoral Program in Environmental Science. The advisor may not be from the candidate's major department. The candidate's advisor serves as the representative in all examinations or other requirements of the candidate's Ph.D. program that relate to the minor. The advisor decides on the character of the examination, if any, in the minor field and certifies that the candidate has met the requirements of the minor.
2. The candidate must take at least 12 credit hours of graduate-level courses related to environmental studies. These courses must be from at least two different disciplines outside the candidate's major department. The choice of courses should be made in consultation with the candidate's advisor and must be approved by the director of the Doctoral Program in Environmental Science. Acceptance of the proposed minor is based on two criteria: (1) the courses must have a direct relationship to environmental studies, and (2) the courses must not normally

be required as part of major or tool-skill options in the student's major department. Courses in the minor program should be selected according to the student's interest. Students majoring in areas other than the natural sciences, for example, may wish to consider course offerings in the natural sciences; similarly, natural science students might consider course offerings in the social and behavioral sciences.

3. A minimum cumulative grade point average of 3.0 (B) must be attained in all courses used for the minor.

Courses

For descriptions of courses offered by the School of Public and Environmental Affairs, see the School of Public and Environmental Affairs Graduate Programs Bulletin.

Ethnomusicology

College of Arts and Sciences
Bloomington

Director

Professor Ruth Stone

Departmental E-mail

stone@indiana.edu

Departmental URL

www.indiana.edu/~folklore/
ethnomusicologyinstitute.htm

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors

George List (Emeritus, Folklore),
Portia Maulsby (African American
and African Diaspora Studies,
Folklore and Ethnomusicology),
Lewis Rowell (Music), Ruth M.
Stone (Folklore and
Ethnomusicology, Music)

Associate Professors

Mellonee Burnim (African American
and African Diaspora Studies,
Folklore), Candida Jaquez* (Folklore
and Ethnomusicology), Gloria

Gibson (African American and
African Diaspora Studies, Folklore
and Ethnomusicology)

Assistant Professor

Sue Tuohy* (East Asian Languages
and Cultures, Folklore)

Ph.D. Minor in Ethnomusicology

The Ethnomusicology Program offers an interdepartmental doctoral minor that enables students to take courses in ethnomusicology from several departments. Students wishing to enroll in the program must first consult with the program director. An advisor will be assigned to each student, taking into consideration the academic interests of each individual.

Graduate students may pursue a concentration in ethnomusicology at the M.A. and Ph.D. levels through the Department of Folklore and Ethnomusicology; consult the requirements for that department.

Course Requirements

Four approved courses, for a total of 12 credit hours, including two of the four core courses (Folklore F523, F714, F740, and F794) and two courses chosen from the others listed below. All courses must first be approved by the student's ethnomusicology advisor. With the consent of the advisor, courses other than those listed below may be chosen.

Grades

A minimum of a B (3.0) is required in each course that is to count toward the minor.

Examination

The student's advisor from the ethnomusicology faculty must be invited to participate in both the written and oral portions of the qualifying examination. The program director may, however, waive the written portion of the examination if the student's performance in the program has been of sufficiently high quality.

Master of Arts Track in Ethnomusicology

Course Requirements F501, F510, F523, F527, F714, F740, F794, F803 and one additional course in the Department of Folklore and Ethnomusicology.

Foreign Language Requirement

Reading proficiency in one modern foreign language. Must be completed before M.A. project/thesis is submitted.

Project/Thesis Students may earn up to 6 credit hours for an M.A. project/thesis. A comprehensive oral examination is given when the project/thesis is submitted.

Ph.D. Track in Ethnomusicology

We offer the core courses in a two-year sequence. In 2002-2003 we offered F510, F527 and F714. In 2003-2004, we will offer F794, and F523.

Courses

AFRO-AMERICAN STUDIES

A590 Special Topics in Afro-American Studies (3 cr.) (Topic: Seminar in Black Religious Music)

A594 Black Music in America (3 cr.)

A597 Popular Music of Black America (3 cr.)

ANTHROPOLOGY

E305 Introduction to Ethnomusicology (3 cr.)

E661 Seminar in Ethnomusicology I (3 cr.)

E662 Seminar in Ethnomusicology II (3 cr.)

FOLKLORE AND ETHNOMUSICOLOGY

**F523 Fieldwork in Folklore/
Ethnomusicology (3 cr.)**

F600 Asian Folklore/Folk Music (3 cr.)

**F609 African and Afro-American
Folklore/Folk Music (3 cr.)**

F617 Middle East Folklore/Folk Music (3 cr.)

F625 North American Folklore/Folk Music (3 cr.)

F635 European Folklore/Folk Music (3 cr.)

F638 Latin American Folklore/Folk Music (3 cr.)

F640 Native American Folklore/Folk Music (3 cr.)

F651 Pacific Folklore/Folk Music (3 cr.)

F714 Paradigms of Ethnomusicology (3 cr.)

F722 Colloquium in Theoretical Folklore/Ethnomusicology (3 cr.)

F731 Archiving Principles and Bibliography in Folklore and Ethnomusicology (3 cr.)

F740 History of Ideas in Folklore/ Ethnomusicology (3 cr.)

F792 Traditional Musical Instruments (3 cr.)

F794 Transcription and Analysis in Folklore/ Ethnomusicology (3 cr.)

F803 Practicum in Folklore/ Ethnomusicology (1-3 cr., 6 cr. max.)

F804 Special Topics in Folklore/ Ethnomusicology (1-3 cr.)

MUSIC

M596 Art Music of Black Composers (3 cr.)

T561 Music Theory (3 cr.) (Topics: Art Musics of Asia; Art Music of India)

Film Studies

College of Arts and Sciences
Bloomington

Director

Associate Professor Barbara Klinger

Departmental E-mail
klinger@indiana.edu or
ormunsond@indiana.edu

Departmental E-mail
www.indiana.edu/~cmcl

Graduate Faculty

Chancellors' Professor

James Naremore (Communication and Culture, Comparative Literature, English)

Professors

Gregory Waller (Chair, Communication and Culture)

Adjunct Professors

Peter Bondanella (Comparative Literature, French and Italian),
Sumie Jones (Comparative Literature, East Asian Languages and Cultures),
Gloria Gibson (Folklore and Ethnomusicology),
Darlene Sadlier (Spanish and Portuguese)

Graduate Advisor

Associate Professor Joan Hawkins,
Mottier Hall, 1790 E. 10th Street,
Bloomington (812) 855-1548

Degrees Offered

Students wishing to concentrate on film studies can pursue a Master of Arts and/or a Doctor of Philosophy degree in the Department of Communication and Culture. Specific topics in film studies are offered under media course titles each semester. Graduate students from other departments can also earn a Ph.D. minor in communication and culture with a focus on film. For more information, see degree requirements and the overview of media curriculum for graduate study under the listing for Communication and Culture.

Courses

COMMUNICATION AND CULTURE

C503 Introduction to Media Theory and Aesthetics (3 cr.)

C506 Methods of Media Research (3 cr.)

C552 Media Institutions and the Production of Culture (3 cr.)

C560 Motion Picture Production (3-4 cr.)

C561 Intermediate Motion Picture Production (4 cr.)

C562 The Screenplay (4 cr.)

C592 Media Genres (3 cr.)

C594 History of European and American Films II (4 cr.)

C596 National Cinemas (3 cr.)

C606 Media Criticism (3 cr.)

C610 Identity and Difference (3 cr.)

C620 Media, Culture, and Politics (3 cr.)

C652 Globalization of Media (3 cr.)

C691 Authorship in the Cinema (4 cr.)

C792 Film History and Theory (4 cr.)

C793 Seminar in Media Studies (3 cr.)

COMPARATIVE LITERATURE

C692 Comedy in Film and Literature (4 cr.)

C693 Film Adaptations of Literature (4 cr.)

C790 Studies in Film and Literature (4-12 cr.)

EAST ASIAN LANGUAGES AND CULTURES

E533 Studies in Chinese Cinema (3 cr.)

ENGLISH

L780 Special Studies in English and American Literature (4 cr.)
Topics on film.

ITALIAN

M455 Readings in the Italian Cinema (3 cr.) May be repeated once for credit.

M500 Seminar in Italian Cinema (3 cr.)

TELECOMMUNICATIONS

R540 Special Projects in Telecommunications (cr. arr.)

Fine Arts

College of Arts and Sciences
Bloomington

Director and Chair, Studio Art
Georgia Strange

Chair, Art History
Janet Kennedy

Departmental E-mail
Studio Art: faoffice@indiana.edu

Departmental URL
www.fa.indiana.edu

Graduate Faculty
(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Distinguished Professor
Rudolph Pozzatti (Emeritus)

Rudy Professor
Robert Barnes (Emeritus)

Ruth N. Halls Professors
Sarah Burns, Jeffrey A. Wolin

Professors
Ed Bernstein, Paul Brown*, Barry Gealt, John Goodheart, William Itter, Janet Kennedy, Randy Long, Patrick McNaughton, Susan Nelson, Bonnie Sklarski, Joan Sterrenburg, Georgia Strange, Jeffrey A. Wolin

Associate Professors
Wendy Calman, Michelle Facos, Adelheid Gealt, James Reidhaar

Assistant Professors
John Bowles*, Giles Knox*, Diane Reilly*

Faculty Emeriti
Robert Barnes, Tom Coleman, Jean-Paul Darriau, Molly Faries, Jerald Jacquard, Marvin Lowe, Rudolph Pozzatti, Budd Stalnaker

Associate Scholars
Diane Pelrine*, Judy Stubbs

Degrees Offered
Master of Arts (History of Art),
Master of Arts for Teachers, Master of Fine Arts (Studio), and Doctor of Philosophy (History of Art)

Special School Requirements
See also general University Graduate School requirements.

Master of Arts Degree (History of Art)

Admission Requirements
Bachelor's degree with a major in the history of art or its equivalent. GPA of 3.0 expected. Appropriate level of achievement on the Graduate Record Examination (GRE) General Test. Three letters of recommendation. Writing sample.

Grades
A minimum grade point average of 3.5 must be maintained.

Course Requirements
A minimum of 30 credit hours. No fewer than three seminars in two areas; four lecture courses at the 400 and 500 levels in no fewer than three areas, at least two of which must be in Western art; the research sources course (A575).

Foreign Language Requirement
Reading proficiency in one language; usually German or French is selected. Proficiency must be demonstrated by the beginning of the third semester of study.

Essay
Required.

Master of Arts for Teachers Degree
The M.A.T. degree is offered in all studio areas of the School of Fine Arts. Contact the faculty to receive M.A.T. enrollment approval.

Admission Requirements
Bachelor's degree with a major in art; at least 24 credit hours in undergraduate fine arts courses; portfolio of work showing reasonable skill and creative ability. Students without certification must fulfill certification requirements as well as requirements for the M.A.T.

Course Requirements
A total of 36 graduate-level credit hours, of which 20 credit hours must be in studio courses approved by student's advisor and 12 credit hours in art history (in at least two areas). Only those courses listed in this University Graduate School Bulletin have been approved for graduate credit.

Final Examination
Oral: review of studio work by the student's committee.

Residence
Many students attempt to complete this degree in summer sessions only. The department strongly recommends that at least one semester should be completed on the Bloomington campus during the regular academic year.

Dual Master of Arts and Master of Library Science Degrees
This program permits the student to coordinate a Master of Arts degree in fine arts (history of art major) with a Master of Library Science degree. The dual program requires the completion of 60 credit hours as opposed to the 70 credit hours that would have to be taken if the degrees were pursued independently.

Admission Requirements
Students must apply for admission to both the School of Fine Arts and the School of Library and Information Science and meet the admissions requirements established by each.

Requirements

Thirty (30) credit hours in the School of Fine Arts, including A500, A575, and no fewer than two seminars in two areas and four lecture courses at the 400 and 500 levels in no fewer than three areas, at least two of which must be in Western art. Thirty (30) credit hours are required in the School of Library and Information Science, including L503, L505, L507, L520, L524, L528, L596, L623, L630, at least one elective chosen from L526, L570, and L583.

Master of Fine Arts Degree (Studio)

Admission Requirements

Bachelor's degree with a fine arts major in studio courses. Portfolio of work (color slides) showing a high degree of skill and creativity. Fall admission only.

Grades

A grade point average of 3.0 (B) must be maintained.

Course Requirements

A total of 60 credit hours at the graduate level, with emphasis in one chosen area of studio work. Only those courses listed in this bulletin have been approved for graduate credit. The distribution of course work, including art history courses where appropriate, to be determined in consultation with the student's major advisor.

Thesis

An exhibition of a group of works of art in the chosen studio area preceded by an oral qualifying examination, which will be given at least one semester before the exhibition. The qualifying examinations are designed to test the ability of students to speak articulately about the ideas and directions of their work, their ability to express themselves clearly in analyzing other works of art, and their general knowledge of the history of art.

Periodic Review

Student's eligibility to continue in the M.F.A. program will be subject to a periodic review of their progress.

Residence

This degree requires a minimum residency of two to three academic years to be determined in consultation with the advising faculty. Summer residency will not be counted in the fulfillment of this requirement.

Doctor of Philosophy Degree

Course Requirements

A total of 90 credit hours including a core of four lecture courses and three seminars (28 credit hours) in the major field, 16 credit hours in an inside minor, 9-12 credit hours in a second minor. An additional 18 credit hours of art history courses and seminars, or in some cases courses from other departments, will be chosen in consultation with the student's major field advisor. Up to 16 credits may be taken as dissertation credit hours. The major fields are Ancient, Byzantine and Medieval, Renaissance and Baroque, Modern (Nineteenth and Twentieth Centuries), Asian, and African/Oceanic/Pre-Columbian Art. A minimum of three seminars in the major field is required. The 16 credit hours for the inside minor must include a minimum of two seminars (600 level); reading courses and studio courses do not satisfy the inside minor requirement. The second minor may be taken in another department, which defines its own requirements (usually 9-12 credit hours), or in the history of art (12 credit hours).

Areas

Ancient, Medieval, Renaissance/Baroque, Modern, Asia, African/Oceanic/Pre-Columbian, General

Grades

A minimum grade point average of 3.5 is required in the major field and the departmental minor(s).

Foreign Language Requirement

Reading proficiency in two languages (usually French and German). An additional foreign language may be required by the major field advisor.

Qualifying Examination

Three written examinations in the

major field; oral examination at discretion of department.

Final Examination

Oral, covering the dissertation.

Ph.D. Minor in Art History

A Ph.D. minor in art history is available to students outside the School of Fine Arts. Normally, it consists of a minimum of two graduate-level courses and one seminar in a single area (12 credit hours) or four graduate-level courses (16 credit hours). All programs must be determined in consultation with the art history graduate advisor. A grade point average of 3.5 is required.

Courses

With the consent of the instructor, all 600-level courses listed below may be repeated twice (for a maximum of 12 credit hours).

ART HISTORY

Ancient

A410 Topics in Ancient Art (3-4 cr.)¹

A411 (Classics C411) The Art and Archaeology of Anatolia (4 cr.)¹

A412 (Classics C412) The Art and Archaeology of the Prehistoric Aegean (4 cr.)¹

A413 (Classics C413) The Art and Archaeology of Greece (4 cr.)¹

A414 (Classics C414) The Art and Archaeology of Rome (4 cr.)¹

¹ Three (3) credits for undergraduates.

A416 Greek Architecture (4 cr.)

A418 Roman Architecture (4 cr.)

A518 Roman Sculpture (4 cr.)

Critical analysis of historical reliefs, portraiture, and sarcophagi.

A519 Roman Painting (4 cr.)

Critical analysis of Roman painting from second century B.C. through early fourth century A.D.

Classics

C419 The Art and Archaeology of Pompeii (4 cr.)

A513 Greek Vase Painting (4 cr.)

A514 Greek Sculpture: Fifth Century (4 cr.)

A516 Greek Sculpture: Hellenistic (4 cr.)

A517 Early Italian and Etruscan Art (4 cr.)

A611 Problems in Prehistoric Aegean Archaeology (4 cr.)

A612 Problems in Greek Archaeology (4 cr.) Sources for the history of Greek art and civilization of various periods.

A613 Problems in Greek Architecture (4 cr.)

A614 Problems in Greek Sculpture (4 cr.)

A615 Problems in Greek Painting (4 cr.)

A616 Problems in Roman Art (4 cr.)

MEDIEVAL

A421 Early Christian Art (4 cr.)

A423 Romanesque Art (4 cr.)

A424 Gothic Art (4 cr.)

A425 Byzantine Art (4 cr.)

A520 Topics in Medieval Art (4 cr.)

A522 Early Medieval Painting (4 cr.) Survey of the major schools of monumental and miniature painting during the early medieval period.

A523 Early Christian Architecture (4 cr.) Intensive investigation of secular and church architecture in the Mediterranean from the Tetrarchy to Iconoclasm in terms of its relationship to topography, urban development, functions, liturgical planning, and related types of monuments.

A527 Formation of Islamic Art (4 cr.) Surveys Islamic art and culture in its formative period from the seventh through the fourteenth centuries. Representative works will be examined from all media. A major goal of the class will be to distinguish the unique characteristics of Islamic art despite its diverse sources and tremendous regional variations.

A621 Problems in Early Christian Art (4 cr.) Selected topics in early Christian art.

A622 Problems in Early Medieval Art (4 cr.) Selected topics in early medieval art.

A623 Problems in Romanesque Art (4 cr.) Discussion of the major problems of eleventh- and twelfth-century sculpture; knowledge of French and one other foreign language necessary.

A624 Problems in Early Gothic Art (4 cr.)

A625 Problems in Late Gothic Art (4 cr.)

A626 Problems in Byzantine Art (4 cr.)

RENAISSANCE AND BAROQUE

A430 Trecento Italian Painting (4 cr.)

A433 Seventeenth-Century Art in Rome (4 cr.)

A436 Italian Art of the Fifteenth Century (4 cr.)

A437 Early Netherlandish Painting (4 cr.)

A531 Fifteenth- and Sixteenth-Century Italian Architecture (4 cr.) Validity of concepts of High Renaissance and Mannerism and their application to architecture.

A537 Selected Topics in Northern Painting (4 cr.)

A632 Problems in Early Italian Painting (4 cr.) Selected topics in Italian painting of the thirteenth and fourteenth centuries.

A633 Problems in Italian Art of the Fifteenth Century (4 cr.)

A634 Problems in Italian Art of the Sixteenth Century (4 cr.)

A635 Problems in Italian Art of the Seventeenth Century (4 cr.)

A637 Problems in Early Netherlandish Painting (4 cr.)

A638 Problems in Sixteenth-Century Art outside Italy (4 cr.)

A639 Problems in Seventeenth-Century Art outside Italy (4 cr.)

MODERN

A440 Nineteenth-Century Painting I (4 cr.)

A441 Nineteenth-Century Painting II (4 cr.)

A442 Twentieth-Century Art, 1900-24 (4 cr.)

A445 American Art to 1860 (4 cr.)

A446 American Art, 1860-1900 (4 cr.)

A449 Twentieth-Century Art, 1925-70 (4 cr.)

A540 Topics in Modern Art (4 cr.) Special topics in the history and

study of nineteenth- and twentieth-century European and American Art. May be repeated twice for credit when topic varies.

A541 European Romantic Landscape Painting, 1750-1850 (4 cr.)

A542 American Painting from the Revolution to World War I (4 cr.)

A543 History of Twentieth-Century Photography (4 cr.)

A544 Russian Art, 1700 to Present (3 cr.) Survey of Russian art concentrating on the period from 1700 to the present. In dealing with Russian realism, turn-of-the-century art, and the Russian avant-garde the course focuses on changing concepts of national identity and on the social role of art.

A545 Post-impressionism and Symbolism (4 cr.) P: consent of instructor. The major post-impressionist artists and the art of the 1890s: symbolism, the nabis, art nouveau, the secession movements.

A546 Roots and Revolution: Early Twentieth-Century Mexican Art (4 cr.) Critical analysis of painting, printmaking, and photography from 1890 to 1950 in relation to political and cultural phenomena.

A547 Dada and Surrealism (4 cr.) Stylistic peculiarities, literary affinities, psychological and philosophical concerns of dada and surrealist art will be discussed, with emphasis on the historic position of this art vis-à-vis other modernist movements, especially cubism and abstract expressionism. Works of key figures will be examined, including Duchamp, Picabia, Ernst, Arp, Miró, Tanguy, Magritte, and Matta.

A548 American Architecture (4 cr.) Surveys American architecture from the colonial period to the late twentieth century, including public, commercial, and domestic design, with emphasis on historical context and the role of architecture as signifier of social, cultural, and political ideologies.

A549 Modernism and Antimodernism in American Art, 1900-1945 (4 cr.) Surveys painting, sculpture, photography, design, and commercial art. Topics include the urban realism of the Ashcan School; the early avant-garde; New York dada; the cult of the machine; regionalist painting and the American heartland; the expressionist landscape; and surrealism, American style. Graduate credit not given for both FINA A449 and A549.

A550 History of Photography (4 cr.) Surveys the history of photography from its beginning to the mid-twentieth century, with focus on theoretical issues as well as the cultural and social contexts of photography and its practices.

A640 Problems in Modern Art (4 cr.) Special topics in the problems in modern art. May be repeated with different topics for a total of 8 credits.

A641 Problems in Romantic Art (4 cr.)

A642 Problems in British Painting (4 cr.)

A643 Problems in American Art (4 cr.)

A644 Problems in French Art (4 cr.)

A645 Problems in Late Nineteenth- and Early Twentieth-Century European Art (4 cr.)

A646 Problems in Twentieth-Century European Art (4 cr.)

A647 Problems in Contemporary European and American Art (4 cr.)

ART OF AFRICA, OCEANIA, AND PRE-COLUMBIAN AMERICA

A452 Art of Pre-Columbian America (4 cr.)

A453 Art of Sub-Saharan Africa I: Art of Africa's Western Sudan (4 cr.)

A454 Art of Sub-Saharan Africa II: Arts of the West African Coast (4 cr.)

A551 Art of the South Pacific (4 cr.)

A552 Art of Eastern and Southern Africa (4 cr.)

A555 Art, Craft, and Technology in Sub-Saharan Africa (4 cr.)

A556 Art of Central Africa (4 cr.) Analysis of visual art traditions of central Africa, focusing primarily on Zaire, but also including arts from Cameroon, Gabon, Congo, the Central African Republic, and Angola.

A650 Problems in African Art (4 cr.)

ASIA

A560 Special Studies in Chinese Art (4 cr.) Topics vary; each is focused on a specific aspect or issue in Chinese art, studied in the context of social and intellectual history. Readings and discussion will emphasize current debates in the field and approaches to the material. May be repeated twice for credit.

A564 Art and Archaeology of Early China (4 cr.) Chinese art and material culture from prehistoric times through the Han dynasty (to ca. 200 A.D.), with particular attention to major archaeological discoveries. Topics include the relationships between art, ritual, and politics; changing beliefs about society and the spirit world as seen in the archaeological record; regional cultures and traditions; and problems in methodology and interpretation.

A566 Early Chinese Painting (4 cr.) Chinese painting and pictorial art from the Six Dynasties through the Song dynasty (ca. 200-1300 A.D.). Topics include figure and narrative painting; the culture of landscape, from mountains to gardens; the iconography of flowers,

birds, and other small motifs drawn from nature; institutional and private patronage; and the relationships between painting, poetry, and calligraphy.

A567 Later Chinese Painting (4 cr.) A history of Chinese painting from the Yuan dynasty (1279-1368) to the twentieth century: art and political protest, the culture of amateur painting, court and professional painters, the development of regional styles, painting as social exchange and interaction, patronage and collecting, and artists' writing on the themes of nature, style, and self-expression.

A661 Problems in Japanese Print (4 cr.) The development of style, technique, and iconography in the Japanese print from the seventeenth century to 1860.

A662 Problems in Chinese Painting (4 cr.)

ART THEORY

A471 Art Theory I (4 cr.) Art theory from antiquity through the thirteenth century. Topics include Classical Greek and Roman art theory/early Christian art theory or medieval art theory: East and West. May be repeated with a different topic for a maximum of 8 credits.

A472 Art Theory II (4 cr.) Art theory of the late Middle Ages and the Renaissance. Topics include fourteenth and early-fifteenth-century art theory in Italy and fifteenth-century art theory in Florence. May be repeated with a different topic for a maximum of 8 credits.

A473 Art Theory III (4 cr.) Art theory of the seventeenth and eighteenth centuries. Topics include eighteenth-century background in romanticism: England and Germany and classicism and romanticism: 1750-1850 England and France. May be repeated with a different topic for a maximum of 8 credits.

A474 Art Theory IV (4 cr.) Art theory of the nineteenth and twentieth centuries. Topics include

romanticism/realism in France, Baudelaire and romantic theory in France, nineteenth-century German art theory, and late-nineteenth-century French art theory. May be repeated with a different topic for a maximum of 8 credits.

A671 Problems in Art Theory I (4 cr.) Problems in art theory from antiquity through the thirteenth century.

A672 Problems in Art Theory II (4 cr.) Problems in art theory of the late Middle Ages and the Renaissance.

A673 Problems in Art Theory III (4 cr.) Problems in art theory of the seventeenth and eighteenth centuries.

A674 Problems in Art Theory IV (4 cr.) Problems in art theory of the nineteenth and twentieth centuries.

GENERAL

A458 Topics in the Ethnographic Arts (4 cr.) [Art of Africa, Oceania, and Pre-Columbian America]

A476 History of the Print (4 cr.)

A478 History of Ceramics (2 cr.)

A480 Russian Art [Modern] (3 cr.)

A495 Readings and Research in Art History (1-4 cr.)²

A500 Historiography of Western Art (4 cr.)

A575 Research Sources in Art History (2 cr.) Required of all entering M.A. degree candidates. Introduction to basic bibliography and literature of the history of art.

A580 Topics in Spanish Art (4 cr.) Special topics in the history and study of Spanish art in various centuries. May be repeated twice with different topics.

¹ May be repeated for a total of 12 credit hours.

² Maximum of 8 credit hours.

³ May be repeated for a total of 16 credit hours.

**This course is eligible for a deferred grade.

A590 Museum Studies (4 cr.)

Designed to utilize the resources of the Indiana University Art Museum for academic research. Topics vary and include cataloging, technical examination, and organizing exhibitions. May be repeated for credit when topic varies.

A595 Master's Essay Research (1-4 cr.) Readings and research for the M.A. essay in the history of art. The essay is required; enrollment in the course is optional.

A690 Burke Seminar in the History of Art (1-4 cr.) A seminar conducted by a visiting professor in conjunction with a member of the art history faculty. The topic, format, and length of the seminar will vary. May be repeated, with different topics, for a maximum of 8 credits.

A775 Advanced Readings and Research (cr. arr.)**²

A778 Tutorial Using Infrared Reflectography (2-6 cr.) P: consent of instructor. Individual instruction, readings, and problems of interpretation related to the use of infrared reflectography in the technical examination of works of art.

A779 Directed Field Work (cr. arr.)³ Specialized research in museums and libraries or archaeological sites, in fields closely related to student's doctoral dissertation.

A780 Fieldwork Using Infrared Reflectography (2-6 cr.) P: consent of instructor. Individual instruction, readings, and problems of interpretation related to fieldwork using infrared reflectography in the gathering of data for specific research projects.

A879 Doctoral Dissertation (cr. arr.)**¹

STUDIO

Ceramics

S461 Ceramics III (cr. arr.)¹

S561 Graduate Ceramics (cr. arr.)
Studio techniques: advanced practice in the use of clay for expression or functional ceramics purposes. Theory: clay and body compositions glaze; materials, oxides, glaze compositions and calculation, firing procedures.

S564 Basic Glaze Composition (3 cr.) An investigation of the effect of high-oxide glaze materials and their mixtures in terms of fusibility, transparency temperatures on single and multiple opacity, surface, and other qualities. Will include much weighing, applying, and firing of glaze test batches. Also blending systems, glaze calculations, and compositional charting.

S569 M.F.A Ceramics Seminar (1 cr.) P: admission to the M.F.A. program in ceramics. Discussions, critiques, and research projects in ceramic art. Required each semester for M.F.A. candidates in ceramics. May be repeated for a total of 8 credits.

Computer Art, Digital Imagery

D731 Digital Seminar (2 cr.)

Through advanced studio projects involving digital media, the student will produce refined artistic statements involving experimentation with technology, installations and multimedia incorporating elements of video, animation and audio. Topics will focus on conceptual and experimental approaches related to current developments in contemporary art.

D732 Themes in Research

Technologies (3 cr.) This course investigates the relationship between arts, aesthetics, computers and technology such as virtual environments, computer networks and the World Wide Web. It seeks to understand the significance of the computer arts through oral and written study of significant topics in computer arts research, current trends, history, criticism, and theory.

T520 Video Art (3 cr.) Exploration of the medium of video as an aesthetic expression. Time and sound are elements incorporated into visual composition's traditional concern. Emphasis on technical command of one-half-inch VHS camera and editing procedures in conjunction with development of a visual sensitivity. Readings and a research project are also required.

U539 Computer Art: Advanced Seminar (3 cr.) Opportunity for students to investigate the computer as an interactive tool in the process of art-making while examining aesthetics and processes of major artists working in this field. Provides the opportunity for exploration of the computer's potential use in the artwork of each class member.

Drawing

S401 Drawing III (cr. arr.)¹

S501 Graduate Drawing (cr. arr.) Concentrated and advanced work in drawing for graduate students in the School of Fine Arts. Advanced problems in drawing for graduate fine arts majors. Work is done under supervision in the classroom or independently at the discretion of the instructor.

S503 Anatomy for the Artist (3 cr.)

Intensive lecture/studio course describing all of the bones and muscles of the body. The emphasis is on joint movement and proportion. The areas of the body are divided into 3-D mass conception, bone and muscle description, and joint description. Students draw from the skeleton, plaster cadaver casts, and the human figure.

Graphic Design

S451 Graphic Design Problem Solving (cr. arr.)¹

G551 Graduate Design (cr. arr.)
Graphic design as an integral element of all visual communication media. Self-defined and assigned study to assure as wide as possible exposure to the problem-solving process.

S559 Graphic Design Advanced Seminar: Topics in History, Theory, and Criticism (3-5 cr.)

Provides background on major graphic design movements, the design of the alphabet and type styles, the use of tools (printing press, woodcut, engraving, camera, airbrush, computer). Social and political forces such as industrial development and nationalism will be considered. Writings of theorists and historians will be reviewed.

Hand Papermaking

S417 Hand Papermaking I (3 cr.)

S418 Hand Papermaking II (1-3 cr.)

Jewelry Design and Silversmithing

S481 Jewelry Design and Silversmithing III (cr. arr.)¹

S581 Graduate Jewelry Design and Silversmithing (cr. arr.) P: S481. Creative designing and drawing of two- and three-dimensional forms for jewelry, hollowware, flatware, enameling and casting (e.g., bracelets, pins, necklaces, rings, chains); stone setting. Experiments in texture and repoussé; filigree, gilding, and granulation. Stretching, krimping, coursing, and seaming techniques in silversmithing. Cloisonné, champlevé, plique-à-jour, and sgraffito enameling.

S582 Graduate Seminar in Jewelry Design and Silversmithing (1 cr.)

Weekly critique, assigned readings, discussions, slide lectures, and special research projects for graduate students enrolled in the M.F.A. program in jewelry design and silversmithing.

¹ May be repeated for a total of 20 credit hours.

Painting

S431 Painting III (cr. arr.)¹

S438 Water Media (cr. arr.)

S530 Graduate Nonsource Drawing Seminar (1-6 cr.) Drawing away from a specific source. Students are encouraged to generate their own sources and technical choices under close faculty supervision. Content and composition are stressed, as is craftsmanship. (Open to M.F.A. painters only.)

S531 Graduate Painting (cr. arr.) Independent work in painting for candidates for the M.F.A. degree majoring in painting.

S532 Graduate Painting Seminar (1 cr.) Weekly critical review of student work. (Open to M.F.A. painters only.)

S535 Graduate Drawing Seminar (1-3 cr.) General seminar on source drawing. Sessions from the model will be made available. Examples of drawing from the history of art are used in reference to each student's particular stylistic bias. Stylistic development as well as composition are stressed along with a concentration on craftsmanship.

Photography

S491 Advanced Photography II (cr. arr.)² P: S392 and consent of instructor. May be repeated for a total of 20 credit hours.

S591 Graduate Photography (cr. arr.)

S595 Graduate Photography Seminar (4 cr.) Primarily for graduate students in photography. Oral and written study of significant topics in the history, criticism, and theory of photography. Topic varies.

Textiles

S411 Printed and Dyed Textile Design III (cr. arr.)¹

¹ May be repeated for a total of 20 credit hours.

S511 Graduate Textile Design (Printed) (cr. arr.) Variety of silkscreen procedures, blockprinting, batik, tie-dye, and commercial dyeing as these apply to design for yardage and to compositional hangings. Emphasis on drawing, two-dimensional design, and creative exploration in mixed printing and dyeing media. Research in the history of textiles.

S421 Woven and Constructed Textile Design III (cr. arr.) P: S321.

S521 Graduate Textile Design (Woven) (cr. arr.) Advanced study in the creative application of design principles to textile construction, in combination with research in the history of textiles, their materials, methods, and techniques. Multiharness and multilayer weaves, hooked and knotted rug techniques, appliqué, stitchery, spinning, and primitive techniques will be explored for their aesthetic implications.

Printmaking

S441 Printmaking III Intaglio (cr. arr.)¹

S443 Printmaking III Lithography (cr. arr.)¹

S444 Printmaking III Silkscreen (cr. arr.)¹

S541 Graduate Printmaking (cr. arr.) Open to M.F.A. printmaking students only.

S545 Graduate Printmaking Seminar (3 cr.) Deals with both theoretical and practical issues in contemporary art. Discussions will be based on selected readings, including relevant suggestions from the participants. Students will make slide presentations on the influences and development of their work as well as a collaborative project.

S546 Relief Printmaking Media (1-12 cr.) P: S240 or consent of instructor. Woodcut, linocut, monotype, and collograph. Students will create prints in each medium in both black and white and in color using a variety of traditional and

innovative techniques such as photography and the computer.

Sculpture

S471 Sculpture III (3-6 cr.)¹

S571 Graduate Sculpture (cr. arr.) Students working on an advanced level develop a body of work while working under the guidance of a faculty member.

S572 Graduate Sculpture Seminar (1 cr.) Addresses issues of relevance to artists working today, e.g., the current political and social climate affecting the art world, historical references from which we have developed. In addition, the seminar provides an opportunity to critique and review students' artwork.

General

N408 Advanced Drawing for the Nonmajor (3 cr.)

R508 Contemporary Art Issues and Cultural Themes (3 cr.) Examines the shifting of the Western world's art center from Paris to New York. Focuses on art movements since 1980 and the most recent trends in art and the cultural theories that inform them.

R590 Seminar in the Visual Arts (2 cr.) Examination of issues posed by recent art and criticism. Topics vary with the instructor and year. Consult *Schedule of Classes* for current information on content. May be repeated for credit with different topics and instructors.

S695 AI Training Seminar (1 cr.) Topics include effective communication of ideas about the visual arts; health and safety regulations relevant to studio courses; grading; critiquing; and a number of course-specific teaching issues. Students also will make practice teaching presentations, which will be videotaped and reviewed by the class.

² Three (3) credits for undergraduates.

U501 Special Topics in Studio Art (1-3 cr.) Selected topics in studio art not ordinarily covered in other departmental courses. May be repeated once with a different topic.

U750 Advanced Studio Projects (cr. arr.)**

G800 M.F.A. Thesis (cr. arr.)**

Folklore and Ethnomusicology

College of Arts and Sciences
Bloomington

Chairperson
Professor Ruth M. Stone

Director, Folklore Institute
Distinguished Professor Richard Bauman

Director, Ethnomusicology Institute
Professor Ruth M. Stone

Departmental E-mail
folkethn@indiana.edu

Departmental URL
www.indiana.edu/~folklore

Graduate Faculty
(An asterisk [*] denotes associate membership in University Graduate School faculty.)

College Professor
Henry Glassie

Distinguished Professors
Richard Bauman, Linda Dégh (Emerita)

**This course is eligible for a deferred grade.

Professors
Mary Ellen Brown, Sandra K. Dolby, Hasan El-Shamy, William Hansen (Classical Studies), Roger L. Janelli, George List (Emeritus), Portia Maulsby, John H. McDowell, Lewis Rowell (Music), Ruth M. Stone, William Wiggins Jr. (Emeritus), African American and African Diaspora Studies)

Associate Professors
Mellonee Burnim, Gloria Gibson, Cándida Jáquez*, John W. Johnson, Gregory Schrempp, Beverly J. Stoeltje (Anthropology)

Associate Scholar Inta Gale Carpenter

Assistant Professors
Cándida Jáquez*, Pravina Shukla*, Sue Tuohy*, Daniel Reed*

Adjunct Professors
John Bodnar (History), Raymond DeMallie (Anthropology), Anya Peterson Royce (Anthropology)

Adjunct Associate Professor
Stephanie C. Kane (Criminal Justice)

Adjunct Assistant Professors
Michael Evans* (Journalism), Jane E. Goodman* (Communication and Culture)

Director of Graduate Studies
Associate Professor Gregory Schrempp

Degrees Offered
Master of Arts and Doctor of Philosophy

Fields of Study
The Department of Folklore and Ethnomusicology offers training in a number of subfields of folklore, including oral narrative, song, material culture, ritual, festival, worldview, as well as ethnomusicology, the study of music as culture, with emphasis on area studies, theory, and presentation and preservation of music. The department is dedicated to the study of expressive forms traditional, contemporary, vernacular, and popular within an integrative academic program. Students and faculty conduct research in a range

of world areas, using diverse research methods: ethnographic, historical, archival, and laboratory. Students prepare for careers in a variety of academic and public settings.

Special Requirements

See also general University Graduate School requirements.

Admission Requirements

A good undergraduate record in any of the humanities or social sciences will be acceptable for admission to graduate study in folklore and ethnomusicology. Graduate Record Examination General Test scores are required (recommended but not required for international students whose first language is not English). Students may be admitted to graduate study in folklore and ethnomusicology, concentrating in either folklore or ethnomusicology, in one of three categories: (1) M.A., (2) Ph.D., or (3) M.A./Ph.D.

Grades

The department will accept no course for credit toward a degree in which the grade is lower than a B- (2.7). All students must earn a B (3.0) or better in the required department courses and maintain a grade point average of at least 3.2.

Master of Arts Degree

Foreign Language Requirement
Reading proficiency in one modern foreign language. Must be completed before M.A. project/thesis is submitted.

Project/Thesis

Project/Thesis required. Students may earn up to 6 credit hours for an M.A. project/thesis. A comprehensive oral examination is given when the project/thesis is submitted.

Master of Arts Track in Folklore

Course Requirements

A minimum of 30 credit hours, including F501, F516, F523, and F525 or F517. Four additional approved courses in the department.

Master of Arts Track in Ethnomusicology

Course Requirements

A minimum of 30 credit hours, including F501, F510, F523, F527, F714, F794, F803 and one additional course in the Department of Folklore and Ethnomusicology.

Dual Master's Degrees

Foreign Language Requirement

Reading proficiency in one modern foreign language. Must be completed before M.A. project/thesis is submitted.

Project/Thesis

Project/thesis required. Students may earn up to 6 credit hours for the project/thesis. A comprehensive oral examination is given when the project/thesis is submitted.

Admission Requirements

Students must be admitted by both programs to pursue the dual degree.

Dual Master of Arts and Master of Library Science Degrees

Study for these two degrees can be combined for a total of 51 credit hours rather than the 66 credit hours required for the two degrees taken separately. Students take at least 30 graduate credit hours in library science and at least 21 credit hours in folklore and ethnomusicology.

Folklore and Ethnomusicology Course Requirements

F501; one of the following: F516, F517, or F714; and either F523 or F525; four additional approved courses in the department and a project/thesis.

Dual Master of Arts and Master of Information Science Degrees

The joint program consists of a total of at least 57 credit hours: a minimum of 36 graduate credit hours in information science and a minimum of 21 credit hours in folklore and ethnomusicology.

Folklore and Ethnomusicology Course Requirements

F501; one of the following: F516, F517, or F714; and either F523 or F525; four additional approved courses in the department and a project/thesis.

Dual Master of Arts Degree: Journalism and Folklore and Ethnomusicology

The School of Journalism and the Department of Folklore and Ethnomusicology offer a joint Master of Arts Degree. This degree is intended for a wide range of students, including those interested in community-based journalism, management and public relations work at various arts organizations, and other areas.

Folklore and Ethnomusicology Course Requirements

A total of 24 credit hours, F501; one of the following: F516, F517, or F714; and either F523 or F525; five additional approved courses in the department.

A final project or presentation that integrates the folklore/ethnomusicology and journalism facets of the course of study. This project or presentation must be done as an independent study for 2 additional credit hours (in either folklore and ethnomusicology or journalism) and must be approved and supervised by a committee consisting of at least one folklore professor and at least one journalism professor.

Doctor of Philosophy Degree

Admission Requirement

M.A. degree (may comprise 30 of the 90 required credits).

Minors

At least one minor required; a second minor is optional. Students opting for the Ph.D. program with a double major may count the area outside of folklore and ethnomusicology as the equivalent of two minors if approved by the Department of Folklore and Ethnomusicology.

Foreign Language Requirement

Reading proficiency in two foreign languages. Must be completed before qualifying examination is taken.

Qualifying Examinations

Written examination in three parts (theory, genre, and area specialties), followed by oral examination.

Research Proposal

Must be approved by the research committee, a majority of whose members must be faculty of folklore and ethnomusicology.

Final Examination

Defense of the dissertation.

Ph.D. Track in Folklore Course Requirements

A total of 90 credit hours, 36 of which are specific folklore courses including F501, F516, F517, F523 and F525, seven additional approved courses in the department, and a dissertation.

Ph.D. Track in Ethnomusicology Course Requirements

A total of 90 credit hours, 30 of which are specific ethnomusicology courses including F501, F510, F523, F524, F527, F714, F740, F794, and F803. One additional course in the Department of Folklore and Ethnomusicology, and an additional 9 credit hours in a track to be chosen from:

- social and cultural theory
- preservation and presentation
- world area

Ph.D. Minor in Ethnomusicology

See section under Ethnomusicology elsewhere in this bulletin.

Ph.D. Minor in Folklore

Doctoral students in other departments may obtain a minor in folklore by completing 12 credit hours (four graduate folklore courses). Three (3) credit hours must be in one of the required courses: F501, F516, F517, F523, or F525. Contact the graduate advisor for approval of courses.

Ph.D. Internal Minor in Folklore for Students in the Ethnomusicology Track

Students pursuing the Ethnomusicology track may earn an internal minor in Folklore by completing four courses (for a total of 12 hours) that are outside of their major requirements and that deal with non-musical folklore topics (for example, material culture or oral narrative). Students must complete one of the following courses: F516, F517, or F525. All other courses must be approved in advance for the minor by the Director of the Folklore Institute. Students should contact the Director of the Folklore Institute for further information on this minor.

Courses

F501 Colloquy in Folklore/Ethnomusicology (3 cr.) Introduces students to the content, methodologies, and theoretical perspectives, and intellectual histories of folklore and ethnomusicology.

F510 Multimedia in Ethnomusicology (3 cr.) Explores the use of multimedia technology in five basic areas of ethnographic activity: field research, laboratory research (transcription and analysis), preservation, presentation, and publication. Knowledge of technological concepts and skill development in the use of various technologies are pursued through a project-based approach, which emphasizes learning by doing.

F516 Folklore Theory in Practice (3 cr.) An introduction to scholarly practice, developing an integrated idea of folklore as a topic of study and as a way to conduct research.

F517 History of Folklore Study (3 cr.) Graduate introduction to conceptual foundations in folklore, such as social base of folklore, tradition, folklore and culture history, folklore as projection, genre, function, structure, text, and context, through a historical survey of approaches to folklore topics.

F523 Field Work in Folklore/Ethnomusicology (3 cr.) Theories and methods of conducting field research, including research design, methods of data gathering, research ethics, and presentation of research results.

F525 Readings in Ethnography (3 cr.) Historical survey of main styles of ethnographic research, with emphasis on three types of theoretical considerations: 1) relationship between ethnographic research and the changing academic, political, cultural, and artistic contexts in which it is situated; 2) ethnographers as individuals whose specific backgrounds and aspirations influence their work; and 3) close attention to the methods employed by specific ethnographers.

F527 Folk Poetry and Folksong (3 cr.) Examination of written and performed folk poetry, ritual, political, domestic, or occupational verse, blues, or popular song; scholarly perspectives associated with these forms. May be repeated for credit when topics vary.

F535 Ritual and Festival (3 cr.) Traditional rituals and festivals include symbolic forms of communication and a range of performance units: drama, religious expression, music, sports, the clown. Interpretive models permit cross-cultural examination of these phenomena in the United States, Africa, Latin America, Europe, Asia, etc., though study focuses only on a few events in context.

F540 Material Culture and Folklife (3 cr.) Material culture presented within the context of folklife, including folk architecture, folk crafts, folk art, traditional foodways, folk museums, folklife research methods, and the history of folklife research. May be repeated for credit when topics vary.

F545 Folk Narrative (3 cr.) Examination of myths, folktales, legends, jokes, fables, anecdotes, personal narratives, or other forms of folk narrative. Attention given to the content, form, and functions of the narratives as well as the variety of

theories and methodologies employed in their study. May be repeated for credit when topics change.

F600 Asian Folklore/Folk Music (3 cr.) Folk religion, material culture, social customs, oral literature, and folk music of Asian societies. Relationship between political movements and the use of folklore scholarship. Transformations of traditions in modern contexts. May be repeated for credit when topics vary.

F609 African and Afro-American Folklore/Folk Music (3 cr.) Folklore, oral prose and poetry, and music of African societies from the precolonial to the modern national period. The perpetuation of African traditions and the creation of new folklore forms among Afro-Americans in the United States. May be repeated for credit when topics vary.

F617 Middle East Folklore/Folk Music (3 cr.) Intensive comparative studies of selected genres, including epics, oral narratives, folk drama, ritual and festival, riddles, proverbs, and folk music. Emphasis on analyses of genres in their social and cultural contexts. May be repeated for credit when topics vary.

F625 North American Folklore/Folk Music (3 cr.) Folk and popular traditions of the United States and Canada. Topics include the social base of American folklore, analytical frameworks for the study of American folklore, prominent genres of American folklore and folk music, national or regional character, and American folk style. May be repeated for credit when topics vary.

F635 European Folklore/Folk Music (3 cr.) Forms of folklore and folk music in Europe; historical and contemporary European scholarship in folklore and ethnomusicology. May be repeated for credit when topics vary.

F638 Latin American Folklore/Folk Music (3 cr.) In-depth treatment of traditional expressive forms (musical, verbal,

kinetic, festive, etc.) in the various populations of Latin America, with emphasis on the historical evolution of these forms and their contribution to the articulation of contemporary Latin American identities. May be repeated for credit when topics vary.

F640 Native American Folklore/ Folk Music (3 cr.) Comparative examination of various verbal, musical, and dance forms of Native American societies in North and South America. Examination of contributions of folklore and ethnomusicological scholarship to Native American studies. May be repeated for credit when topics vary.

F651 Pacific Folklore/Folk Music (3 cr.) Folklore, folklife, music, and dance of Australia, New Zealand, and native Oceanic societies. Topics include the cultures of aboriginal and settler populations, retention and adaptation of European traditions, perpetuation and adaptation of aboriginal materials, and the emergence of “native” traditions among the settler and immigrant groups. May be repeated for credit when topics vary.

F714 Paradigms of Ethnomusicology (3 cr.) Examination of current paradigms for study of ethnomusicological problems. Emphasis on theoretical frameworks and specific examples of application. Required of Ph.D. students in ethnomusicology. May be repeated for credit when topics vary.

F715 (ENG L715) English and Scottish Popular Ballads (4 cr.) Students’ investigation of principal problems met in ballad scholarship. Special attention to textual relationships, dissemination, and unique qualities of genre.

F722 Colloquium in Theoretical Folklore/Ethnomusicology (3 cr.) Intensive examination of social scientific theories and an assessment of their relevance to folklore/ethnomusicology scholarship. May be repeated for credit when topics vary.

***This course is eligible for a deferred grade.

F731 Archiving Principles and Bibliography in Folklore and Ethnomusicology (3 cr.) History, methods, and principles of field collections and documentation, storage and preservation, cataloging and classification, bibliography, and ethical concerns. May be repeated for credit when topics vary.

F734 Folklore and Literature (3 cr.) The study of folklore forms and themes as they articulate with literary forms. Emphasis on understanding folklore concepts and theories for literary interpretation, and on the problems posed by literature that contribute to the interpretation of folklore. May be repeated for credit when topics vary.

F736 Folklore and Language (3 cr.) Linguistic or linguistically informed approaches to speech play and verbal art that are especially relevant to the concerns of folklorists. May be repeated for credit when topics vary.

F738 Psychological Issues in Folklore (3 cr.) P: consent of instructor. Major areas addressed: psychological principles in early folklore scholarship; principles of learning applied to traditions; social learning; attitudes: performance and retention; systemic qualities; cybernetics: “material” and “kinetic” culture; folkloric behavior in mental health and morbidity; unrecognized ties to psychological theories; uses of folklore to educators and psychologists.

F740 History of Ideas in Folklore/ Ethnomusicology (3 cr.) Examination of the intellectual history of folklore and ethnomusicology, emphasizing the social, political, and ideological forces that have influenced the development of the field. Required for M.A. and Ph.D. students. May be repeated for credit when topics vary.

F750 Performance Studies (3 cr.) Examination of performance-centered theory and analysis in folklore, ethnomusicology, and adjacent fields. May be repeated for credit when topics vary.

F755 Folklore, Culture, and Society (3 cr.) Relationship of folklore, culture, and social organization. Beliefs, values, and social relations in the folklore of various societies. Special topics include gender, children, and ethnicity. May be repeated for credit when topics vary.

F792 Traditional Musical Instruments (3 cr.) Classification, distribution, and diffusion of folk and traditional musical instruments. Construction and performance practices. Relation to cultural and physical environment. Demonstration with instruments in the collection of the university museum.

F794 Transcription and Analysis in Folklore/Ethnomusicology (3 cr.) P: consent of instructor. Problems in transcription, analysis, and classification of music sound and texts. Required of M.A. and Ph.D. students in ethnomusicology. May be repeated for credit.

SPECIAL FUNCTION COURSES

F800 Research in Folklore (cr. arr., maximum 9 hrs.)**

F801 Teaching Folklore (0-3 cr.) A consideration of the philosophical, cultural, and practical issues attached to the teaching of folklore. May be repeated once.

F802 Traditional Arts Indiana (1-3 cr.) Designed as a practicum for students to work collaboratively in applying the methods and approaches of folklore studies to public needs and public programs. Students will engage in a variety of outreach projects linking the university to the larger community in the areas of public arts and culture and cultural documentation. May be repeated once for credit.

F803 Practicum in Folklore/Ethnomusicology (1-3 cr., 6 cr. max.) P: consent of instructor. Individualized, supervised work in publicly oriented programs in folklore or ethnomusicology, such as

public arts agencies, museums, historical commissions, and archives. Relevant readings and written report required. May be repeated.

F804 Special Topics in Folklore/Ethnomusicology (1-3 cr.)

Topics will be selected in areas of folklore or ethnomusicology not covered in depth in existing courses. May be repeated for credit (6 cr. max.) when topics vary.

F840 Research Seminar (3 cr.)

Prepares students for their dissertation research by examining the research process and requiring from them a short draft and an expanded draft of a research proposal. This course is strongly recommended for students in the Ph.D. program. May be repeated once for credit.

F850 Thesis (cr. arr.)**

MUSIC COURSES

M596 Art Music of Black Composers (3 cr.)

T561 Music Theory (3 cr.) (Topic: Art Musics of Asia; Art Music of India)

French and Italian

College of Arts and Sciences
Bloomington

Chairperson
Professor Andrea Ciccarelli

Departmental E-mail
fritdept@indiana.edu

Departmental URL
www.indiana.edu/~frithome

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Distinguished Professor
Peter Bondanella (Comparative Literature, West European Studies)

**This course is eligible for a deferred grade.

Rudy Professors of French and Italian

Rosemary Lloyd (Gender Studies), Albert Valdman (Emeritus, Linguistics)

Professors

Michael Berkvam, Julia Bondanella, Richard Carr (Emeritus), Gilbert Chaitin (Comparative Literature), Andrea Ciccarelli, Eileen Julien (Comparative Literature, African American and African Diaspora Studies), Edoardo Lèbano (Emeritus), Emanuel Mickel, Samuel Rosenberg (Emeritus)

Associate Professors

Guillaume Ansart*, Julie Auger, Laurent Deydtspotter*, Margaret Gray, Mona Houston (Emerita), Eric MacPhail, Jacques Merceron, Russell Pfohl (Emeritus), Wayne Storey, Barbara Vance

Assistant Professors

Kevin Rottet*, Massimo Scalabrini*, Rebecca Wilkin*

Academic Advisors

Associate Professor Barbara Vance (French), Ballantine Hall 617, (812) 855-2702; Distinguished Professor Peter Bondanella (Italian), Ballantine Hall 622, (812) 855-3127

Degrees Offered

Master of Arts (French Literature, French Linguistics, French Instruction, Italian), and Doctor of Philosophy (French Literature, French Linguistics, Italian)

Special Departmental Requirements

(See also general University Graduate School requirements.)

All associate instructors in French are required to take F572 and F573.

Master of Arts Degree—French Instruction

Admission Requirements
Completion of a major in French or the equivalent; the General Test of the Graduate Record Examination. For further details, contact the graduate secretary in the department.

Course Requirements

A total of 30 credit hours, at least 20 credit hours of which must be in French, including F572, F573, F574 or F578, and F580. Additional work must include courses from each of four areas: French language, Francophone civilization, Francophone literature, and foreign language methodology/applied linguistics/second-language acquisition.

Language Proficiency Requirement

At the end of the first year of graduate study, students will be interviewed in French using a system based on the oral interview procedures developed by the American Council on the Teaching of Foreign Languages and the Educational Testing Service. A score equivalent to “Advanced High” on the ACTFL/ETS scale is required

Final Examination

Written examinations in the following two areas (one essay written in French): applied French linguistics and foreign language methodology/second language acquisition. Oral examination in one of the following two areas of the student’s choice: Francophone civilization or Francophone literature.

Master of Arts Degree—French Literature

Admission Requirements

Completion of a major in French or the equivalent; the General Test of the Graduate Record Examination. For further details, contact the graduate secretary in the department.

Course Requirements

A total of 30 credit hours, at least 23 credit hours of which must be in French.

Language Requirement

Reading proficiency in one of the following: German, Classical Greek, Italian, Latin, Russian, or Spanish.

Final Examination

Four-hour written examination based on reading list. Three essays (one written in French) on any three of the following: Middle Ages, sixteenth, seventeenth, eighteenth, nineteenth, and twentieth centuries. One may be an *explication de texte*.

Master of Arts Degree— French Linguistics

Admission Requirements

Completion of a major in French or the equivalent; the General Test of the Graduate Record Examination. For further details, contact the graduate secretary in the department.

Course Requirements

A total of 30 credit hours, of which 20 must be in French, including F574 or F578, F580, F576 (plus prerequisite Linguistics L542), F577 (plus prerequisite L543), and F603.

Language Requirement

Reading proficiency in one of the following: German, Classical Greek, Latin, Russian, or a Romance language other than French.

Final Examination

Written examination on three of the following areas of the student's choice: French phonology, French syntax, applied French linguistics, history of the French language and pedagogy/language acquisition. To be admitted to the Ph.D. program, students must select their three examinations from the first four areas listed above.

Doctor of Philosophy Degree—French Literature

Admission Requirements

Successful completion of the curriculum and final examination constituting the department's M.A. program in French literature. Students with an M.A. from another institution must pass the department's M.A. examination, which may be taken near the end of the first year of study in the department or at the beginning of the second; courses taken during the first year count toward the Ph.D.

Course Requirements

65 credit hours of course work plus 25 thesis hours (F875). F564, F574, and F603 or their equivalents are required.

Language Requirement

Reading proficiency in two of the following: Catalan, German, Classical Greek, Italian, Latin, Portuguese, Russian, Spanish. One of the languages chosen must be German or Latin.

Minor(s)

A total of 9 to 12 credit hours each, as required by the minor department(s) or program(s).

Ph.D. Minor in French Literature

Doctoral students from other departments may complete a minor in French literature by successfully completing no fewer than four French literature courses (12 credit hours) listed in the University Graduate School Bulletin as carrying credit toward the Ph.D., of which no more than two may be at the 400 level.

Qualifying Examination

Oral and written exams covering six literary periods and literary theory. Students may choose to be exempted from written exams on two of the six literary periods, provided they have achieved a grade of B or higher in two courses from each of these areas. Students may also be exempted from literary theory if they have successfully completed F564. Transfer courses may be used to qualify for exemption only if their content is verified through completion of the departmental master's exam for French literature. Students failing their qualifying exams more than once are dropped from the program but may be reinstated after one year by special petition. Examination on the minor subject is at the discretion of the minor department.

Doctor of Philosophy Degree—French Linguistics

Admission Requirements

Successful completion of the curriculum and final examination constituting the department's M.A.

program in French linguistics.

Students with an M.A. from another institution must pass the department's M.A. examination, which may be taken near the end of the first year of study in the department or at the beginning of the second; courses taken during the first year count toward the Ph.D.

Course Requirements

A total of 90 credit hours: 65 credit hours of course work plus 25 thesis hours (F875). Students must complete at least four 600-level courses from the following list: F604, F670, F671, F672, F673, F675, F676, F677, and F678.

Language Requirement

(1) Reading proficiency in Latin, German, and one Romance language other than French; or (2) Reading proficiency in Latin and advanced proficiency in one Romance language other than French. Note: Specialists in the history of French must take option (1).

Minor

Twelve (12) credit hours of course work required in (1) general linguistics, excluding Linguistics L542-L543 and L503, or (2) applied linguistics, excluding Linguistics L503.

Qualifying Examination

Written examination on any five of the following eight areas in French linguistics: (1) applied linguistics/second-language acquisition/foreign language methodology, (2) phonology, (3) syntax, (4) morphology, (5) lexicology and semantics, (6) dialectology and sociolinguistics, (7) history of the French language, (8) Romance linguistics.

Degrees in Italian

MASTER OF ARTS DEGREE

Admission Requirements

Completion of a major in Italian or the equivalent; the General Test of the Graduate Record Examination. For further details, contact the graduate secretary in the department.

Course Requirements

A total of 30 credit hours, of which 20 must be in Italian.

Language Requirement

Reading proficiency in one of the following: French, German, Classical Greek, Latin, Spanish.

Final Examination

Written exam based on reading list covering all periods of Italian literature.

DOCTOR OF PHILOSOPHY DEGREE

Admission Requirement

Successful completion of the department's M.A. program in Italian or the equivalent. For further details, contact the graduate secretary in the department.

Course Requirements

A total of 90 credit hours. 65 credit hours of course work plus 25 thesis hours (M875).

Language Requirement

Reading proficiency in two of the following: French, German, Classical Greek, Latin, Spanish. One of the languages chosen must be French, German, or Latin, according to the dissertation topic.

Minor(s)

A total of 9 to 12 credit hours each, as required by the minor department(s) or program(s).

Ph.D. Minor in Italian

Doctoral students from other departments may complete a minor in Italian by successfully completing no fewer than four Italian courses (12 credit hours) listed in this bulletin as carrying graduate credit.

Qualifying Examination

Two written examinations: (1) Medieval, Renaissance and Baroque, (2) Modern and Contemporary (with cinema option).

Courses

GRADUATE

F613-F614 Provençal I-II (3-3 cr.)

P: knowledge of Old French, Italian,

Latin, or Spanish. F613 or equivalent is a prerequisite for F614. Poetry of the medieval troubadours.

G611 Romance Linguistics I (3 cr.)

FRENCH

Courses at the 400 level that are listed below may be taken for graduate credit with the consent of the graduate advisor, unless otherwise indicated. For 400-level course descriptions, please see the College of Arts and Sciences Bulletin.

F401 Structure and Development of French (3 cr.)

F410 French Literature of the Middle Ages (3 cr.) Not open to M.A. or Ph.D. candidates in French.

F413 French Renaissance (3 cr.)

F423 Seventeenth-Century French Literature (3 cr.) Esthetic and intellectual traditions such as the Baroque, libertinage erudit, preciosity, the moralists, and classicism. Genres include poetry, fiction, theatre, the epistle, memoirs, and the essay.

F424 Ideas and Culture in Seventeenth-Century France (3 cr.) Study of political ideology and theory, images and text, scientific and philosophic innovation, social mores, or social and religious institutions. Focus on absolutism, religious controversies, social and intellectual status of women, or other issues

F435 Enlightenment Narrative (3 cr.)

F436 Voltaire, Diderot, and Rousseau (3 cr.)

F443 Great Novels of the Nineteenth Century (3 cr.)

F445 Nineteenth-Century Drama (3 cr.)

F446 Great Poetry of the Nineteenth Century (3 cr.)

F450 Colloquium in French Studies—Traditions and Ideas (2-3 cr.)

F453 *Le Roman au XXe siècle I* (3 cr.)

F454 *Le Roman au XXe siècle II* (3 cr.)

F461 *La France contemporaine: Cinema et Culture* (3 cr.)

F463 *Civilisation française I* (3 cr.)

F464 *Civilisation française II* (3 cr.)

F473 Writing of Expository French Prose (2 cr.)

F474 *Thème et version* (2 cr.)

F475 *Le Français Oral: Cours Avancé* (2 cr.)

F501-F502 Medieval French Literature I-II (3-3 cr.)

Introductory survey; all texts read in original language; no previous knowledge of Old French required. F501 or equivalent a prerequisite for F502.

F503 Reading Old French (1 cr.) P: F501 or equivalent. Oral translation of Old French texts and elucidation of textual and grammatical difficulties. May be repeated twice for credit.

F505 Middle French Literature (3 cr.) Representative works of fourteenth and fifteenth centuries; each semester focuses on a particular writer or genre.

F507 Foreign Language Institute (1-6 cr.)

F510 Foreign Study in French (2-8 cr.) Formal study in a French university; language, literature, and culture of France. Credit to apply only to the M.A. in French Instruction degree. Program must be approved by department.

F513 French Renaissance I (3 cr.) Rabelais; early humanism; poetry to 1550.

F514 French Renaissance II (3 cr.) Pléiade and Mannerist poetry; Montaigne.

F520 Advanced French Phonetics (3 cr.) General introduction to French phonetics and phonemics; training in the evaluation of pronunciation accuracy and the teaching of French pronunciation at the secondary school and university level; remedial practice.

F523 French Classicism I (3 cr.) Malherbe and his opponents, Pascal, Descartes, Voiture, Balzac, d'Urfé, Sorel, Scarron; scepticism; religious movement; *préciosité*. Dramatic literature largely omitted, but critical ferment considered.

F524 French Classicism II (3 cr.) Classical movement (1660-1685); changing postclassical climate. Boileau, La Fontaine, Sévigné, Fénelon, Bossuet, Fontenelle, Bayle, La Bruyère, La Fayette, Furetière. Some attention to Molière and Racine as interpreters of the contemporary scene.

F535 Le XVIIIe siècle: l'Essai (3 cr.) Introduction to one of the two major genres of the Enlightenment, broadly defined and exemplified by writers like Montesquieu, Voltaire, Diderot, and Rousseau.

F536 Le Roman au XVIIIe siècle (3 cr.) Introduction to the study of the French novel in the eighteenth century with special emphasis on three major genres of the period: the memoir-novel, the epistolary novel, and the philosophical novel.

F540 La Poésie au XIXe siècle I (3 cr.) From early Romanticism through Baudelaire.

F541 La Poésie au XIXe siècle II (3 cr.) Parnassian and Symbolist poets.

F545 Le Roman au XIXe siècle I (3 cr.)

F546 Le Roman au XIXe siècle II (3 cr.)

F548 La Pensée française au XIXe siècle I (3 cr.) Philosophers, historians, social critics, and religious writers, such as

Chateaubriand, Michelet, Taine, Renan.

F552 La Poésie au XXe siècle I (3 cr.) Panorama: poets such as Cendrars, Apollinaire, Valéry, Claudel, *les surréalistes*, Saint-John Perse, Ponge, Michaux.

F553 La Poésie au XXe siècle II (3 cr.) Concentration on one or several authors; a school, e.g., surrealism; certain formal aspects.

F555 Le Roman au XXe siècle I (3 cr.) Representative French and Francophone novels from 1900 to 1940. Novelists such as Proust, Gide, Colette, Celine, Bernanos, Sartre.

F556 Le Roman au XXe siècle II (3 cr.) The novel after 1940.

F557 Le Théâtre au XXe siècle (3 cr.) Jarry, Cocteau, Apollinaire, Claudel. Surrealism and theatre of the absurd: Vitrac, Ionesco, Adamov, Beckett, Genet, Arrabal, Artaud.

F559 L'Essai au XXe siècle (3 cr.) Important essays of the twentieth century, technical philosophy excluded. Authors such as Bergson, Valéry, Sartre, Camus, Weil, Artaud, Lyotard.

F561 Studies in French Civilization (3 cr.) Content varies. May include historical survey of the development of French civilization since the revolution, taking into consideration sociopolitical history, history of ideas, fine arts, literature. Field of study may be extended to the French-speaking world. May be repeated twice for credit.

F563 Introduction to Graduate Study and Research (1 cr.; S/F grading)

F564 Issues in Literary Theory (3 cr.) Important issues and methods of literary study, such as catharsis, genre, meaning, periodization, representation, rhetoric, and *vraisemblance*, studied in an historical perspective.

F572 Practicum in College French Teaching (1 cr.) Focused classroom observations followed by

discussions; identification and evaluation of teaching techniques. Required of new associate instructors; offered only in fall semester.

F573 Methods of College French Teaching (3 cr.) Theoretical notions underlying current approaches; testing; evaluation of teacher performance and instructional materials. Required of all associate instructors; offered only in spring semester.

F574 Thème et version: cours avancé (3 cr.) Translation of contemporary texts from English into French, occasionally from French into English. Emphasis on problems of literary styles.

F575 Introduction to French Linguistics (3 cr.) Introduction to the structure of the French language: phonology, morphology, and syntax.

F576 French Linguistics I (3 cr.) P: LING L542. Study of French phonology and the phonology/morphology interface within the framework of recent linguistic models, including solutions to major descriptive problems proposed from the early twentieth century to the present.

F577 French Linguistics II (3 cr.) P: LING L543. Study of French syntax and semantics within the framework of recent linguistic models.

F578 Contrastive Study of French and English (3 cr.) Advanced contrastive study of written French and English, with emphasis on problems of interference. Readings, exercises.

F580 Applied French Linguistics (3 cr.) Introduction to the lexical, phonological, morphological, and syntactic structure of French from a pedagogical perspective. Presentation of the several types of variation in the French language worldwide and linguistic diversity in France.

F584 Stylistics and Semantics (3 cr.) Relations between types of

interpretation and stylistic factors. Ludic-esthetic (including literary) uses of words versus cognitive-moral uses. Emphasis on the former; genre divisions; analysis of texts focused on basic problems of interpretive decision.

F603-F604 History of the French Language I-II (3-3 cr.)

Consideration of all aspects of the subject; concentration on internal development (phonology, morphology, syntax) from Latin to modern French. First semester offers an overview; second semester, intensive study of selected aspects of internal evolution. Knowledge of Latin useful. F603 or equivalent is a prerequisite for F604.

F605 History of French Prose Style (3 cr.) Philological and literary study of major figures and trends in prose style from late Middle Ages to the present. Ciceronianism, *style coupé*, oratorical styles, *écriture artiste*, etc.

F615 Studies in Medieval French Literature (3 cr.) P: knowledge of Old French. Intensive study of one writer, work, theme, or genre, such as Chrétien de Troyes, the *Roman de la rose*, lyric poetry. May be repeated twice for credit.

F620 Studies in Sixteenth-Century French Literature (3 cr.) Intensive study of a writer, genre, or aspect of the century, such as Rabelais, Montaigne, poetry, humanism. May be repeated twice for credit.

F630 Studies in Seventeenth-Century French Literature (3 cr.) Intensive study of one writer, work, or theme, such as Racine, Corneille, Molière, Baroque poetry. May be repeated twice for credit.

F635 Studies in Eighteenth-Century French Literature (3 cr.) Intensive study of one writer, work, or theme, such as theatre, novel, Diderot, Voltaire. May be repeated twice for credit.

F640 Studies in Nineteenth-Century French Literature (3 cr.) Studies in Nineteenth-Century French Literature. Topics vary. May include fantasy and ideology in

nineteenth-century narrative; Hugo, Zola and the *roman politique*; jealousy and narrative; experiments in verse; symbolism and its roots; painting and literature; decadence and aesthetics; women writers and critics. May be repeated twice for credit.

F647 Contemporary French Theory and Criticism (3 cr.) P: F564. Recent movements and concepts in French theory influential in determining current practice in literary study. Structuralism, psychoanalysis, neo-Marxism, intertextuality, deconstruction.

F650 Etudes de littérature contemporaine (3 cr.) Intensive study of one writer, work, or theme, such as Céline, literary manifestos, Proust, colonialism, or existentialism. May be repeated twice for credit.

F670 Phonological Structure of French (3 cr.) Advanced phonological description of French, involving readings of both European and American descriptivists.

F671 Syntactic Structure of French (3 cr.) Advanced syntactic and semantic description of French, emphasizing recently proposed linguistic models.

F672 French Dialectology (3 cr.) Geographical and social variation in French; traditional and modern dialectology, oil dialects and North American varieties of French, languages in contact, norm(s), variationist studies.

F673 Topics in the Learning and Teaching of French (3 cr.) P: F580 or equivalent. Survey of major issues in the learning and teaching of French and discussion of how these issues and research results bear on approaches to second-language teaching. Designed for prospective teachers of French and students interested in second-language acquisition and classroom research.

F675 Studies in French Linguistics (3 cr.) Content varies. May include general or intensive study in syntax, semantics, lexicography, or other

linguistic topics. May be repeated twice for credit.

F676 Structure and Sociolinguistic Aspects of Haitian Creole and Haitian French (3 cr.) Description of the phonological, morphosyntactic, and lexical structure of Haitian Creole and comparison with Haitian French. Review of the linguistic situation of Haiti, including the respective functions of Creole and French and attitudes and values associated with each language.

F677 French Lexicology and Lexicography (3 cr.) P: F580 or equivalent. Study of the structure of the French lexicon. Examination of the process of dictionary compilation and evaluation. Hands-on experience in the use of computer technology for lexicographic and lexicological tasks such as the compilation of databases, use of the optic scanner, and automatic text analysis.

F678 French Morphology (3 cr.) P: F576. Survey of word structure from a variety of theoretical perspectives, including inflection, derivation, and compounding.

F810 Individual Readings in French Civilization (cr. arr.)

F815 Individual Readings in French Literature and Linguistics (1-6 cr.)**

F825 Seminar in French Literature (3 cr.) Intensive study of a topic involving more than one period of French literature. May be repeated twice for credit.

F875 Research in French Literature and Language (1-12 cr.)**

**These courses are eligible for a deferred grade.

ITALIAN

M500 Seminar in Italian Cinema (3 cr.) Intensive study of one director, genre, or period in Italian cinema. May be repeated twice for credit when topics vary.

M501 Dante I (3 cr.) Seminar on Dante's *Divine Comedy*

M502 Dante II (3 cr.) Seminar on Dante's works and times.

M503 Medieval Italian Literature and Culture (3 cr.) Class may be taught as a survey course or may focus on any author, period, genre, or cultural theme from the "Scoula Siciliana" to Petrarch.

M504 Renaissance Italian Literature and Culture (3 cr.) Class may be taught as a survey course or may focus on any author, period, genre, or cultural theme from Petrarch to the late 1500s.

M505 Modern Italian Literature and Culture (3 cr.) Class may be taught as a survey course or may focus on any author, period, genre, or cultural theme from the Enlightenment to Modernism.

M511 History of the Italian Language (3 cr.)

M513 Italian Renaissance Epic (3 cr.) Survey or specific course on the Italian epic tradition from Pulci to Tasso.

M550 Seminar in Italian Poetry (3 cr.) Class may focus on any aspect of Italian lyric tradition from the origins to present.

M553 Modern Italian Novel (3 cr.) Survey course on the major Italian novelists from Manzoni to present time. Class may also function as a seminar focusing on specific issues of the novelistic genre in Italy.

M554 Modern Italian Theatre (3 cr.) Class may be taught as a survey course on Italian theatre from Goldoni to present time, or may focus on specific authors or periods of modernity.

M564 Twentieth-Century Italian Poetry (3 cr.) Major developments in contemporary Italian poetry. Emphasis on the works of Ungaretti, Montale, Saba, and Quasimodo.

M565 Readings in the Italian Cinema (3 cr.) Analysis of specific movements, topics, or directions in Italian cinema. Attendance of film series for M390 required. Subject may vary with each listing and is identified in the *Schedule of Classes*. May be repeated once for credit.

M573 Problems and Methods of Italian Language Teaching (1 cr.) Focuses on a broad variety of pedagogical and didactic aspects of Italian language instruction.

M603 Seminar in Medieval Italian Literature (3 cr.) Intensive study of one writer, work, theme, or genre in the medieval period. May be repeated for credit with consent of the graduate advisor.

M604 Seminar in Renaissance Italian Literature (3 cr.) Intensive study of one writer, work, theme, or genre of the Renaissance. May be repeated for credit with consent of the graduate advisor.

M605 Seminar in Modern Italian Literature (3 cr.) Intensive study of one writer, work, theme, or genre in the modern era. May be repeated for credit with consent of the graduate advisor.

M815 Individual Readings in Italian Literature (1-6 cr.)

M825 Seminar in Italian Literature (3 cr.) Course content varies; may include literary theme, major author, literary movement, cinema, or cultural topic. Offered regularly. May be repeated for credit with permission of the graduate advisor.

M875 Research in Italian Literature (1-12 cr.)

COURSES FOR GRADUATE READING KNOWLEDGE

F491 Elementary French for Graduate Students (3 cr., no grad. cr.)

F492 Readings in French for Graduate Students (3 cr.; no grad. cr.)

M491 Elementary Italian for Graduate Students (3 cr.; no grad. cr.)

M492 Readings in Italian for Graduate Students (3 cr.; no grad. cr.)

Gender Studies

College of Arts and Sciences
Bloomington

Chairperson

Professor Suzanna Danuta Walters

Departmental E-mail

gender@indiana.edu

Departmental URL

www.indiana.edu/~gender

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professor Emerita

M. Jeanne Peterson

Martha C. Kraft Professor of Humanities in the College of Arts and Sciences

Fedwa Malti-Douglas

Peg Zeglin Brand Chair in Gender Studies

Helen Gremillion

Professors

Judith A. Allen (History), M. Jeanne Peterson (Emerita, History), Suzanna Danuta Walters, Richard Wilk (Gender Studies/Anthropology)

Associate Professors

Laurel Cornell (Gender Studies/Sociology), Anne Pyburn (Gender Studies/Anthropology), Stephanie Sanders (Gender Studies/Kinsey Institute)

Assistant Professor

Peg Zeglin Brand* (Gender Studies/Philosophy), Sara Friedman (Gender Studies/Anthropology), Brenda Weber

Affiliated Graduate Faculty

Professors

Maryellen Bieder (Spanish and Portuguese), Susan Gubar (English), Karen Hanson (Philosophy), Ellen Ketterson (Biology), Rosemary Lloyd (French and Italian), Lauren Robel (Law), Anya Peterson Royce (Anthropology), Darlene Sadlier (Spanish and Portuguese), Frances Stage (Education), Pamela Walters (Sociology), Mary Jo Weaver (Religious Studies), Susan Williams (Law), William Yarber (HPER), Enid Zimmerman (Education)

Associate Professors

Ellen Dwyer (Criminal Justice), Wender Gamber (History), Stephanie Kane (Criminal Justice), Catherine Larson (Spanish and Portuguese), Kathleen Myers* (Spanish and Portuguese), Beverly Stoeltje (Folklore and Ethnomusicology)

Assistant Professors

Elizabeth Armstrong (Sociology), Claudia Breger (Germanic Studies), Mary L. Gray (Communication and Culture), Radhika Parameswaran* (Journalism)

Academic Advisor

Professor Suzanna Danuta Walters, Memorial Hall East 130, (812) 855-0101

Ph.D. Minor in Gender Studies

The interdisciplinary Ph.D. minor in gender studies offers students an up-to-date, problem-oriented understanding of gender. Masculinity and femininity, often referred to as gender, have evolved throughout history and are still evolving. Gender is a feature of all known cultures. It is subject to continual reinterpretation and wide cross-cultural variation. Studying gender is not only fascinating in itself, but often provides important clues about other fundamental characteristics within and across cultures. Gender studies examines gender issues related to sexuality; the body; race and class; business and politics;

health; developing societies; artistic movements; academic institutions and knowledge; sports and leisure; law; the media, and many other areas. Courses explore issues related to gender across academic disciplines to develop new approaches to knowledge about gender-related issues, and to transform traditional disciplines and fields of study. The evaluation and analysis are pursued through courses offered by the Gender Studies Program; by the College of Arts and Sciences Departments of African American and African Diaspora Studies, Anthropology, Biology, Comparative Literature, Criminal Justice, Economics, English, Folklore and Ethnomusicology, French and Italian, History, History and Philosophy of Science, Philosophy, Political Science, Psychology, Religious Studies, and Sociology; and by the Schools of Education, Library and Information Science, Law, Music, Nursing, Public and Environmental Affairs, and Health, Physical Education, and Recreation. The program is open to all graduate students.

Course Requirements

Four courses (at least 12 credit hours) from the list of courses approved by the Gender Studies Program, at least one of which must be G601 or G602. Candidates for the Ph.D. minor are required to take courses in both the humanities and social and behavioral sciences and 6 to 9 of the 12 credit hours outside the primary degree-granting department. Plans for the minor must be made in consultation with the director.

Grades

Only grades of B (3.0) and above will count for credit.

Examination

None required. A Ph.D. minor advisor may be invited to attend the student's oral qualifying examination.

Courses

G600 Concepts of Gender (3 cr.)

G601 Concepts of Gender (3 cr.)

G602 Survey of Contemporary Research in Gender Studies: The Humanities (3 cr.)

G695 Graduate Readings and Research in Gender Studies (1-6 cr.)

G701 Graduate Topics in Gender Studies (1-4 cr.)

General Science

Bloomington

Interdepartmental Graduate Committee on General Science

Associate Professor William Harwood (Chemistry, Education), Chairperson; Professor Emeritus Gary Lane (Geological Sciences); Professor Catherine Olmer (Physics); Professor Albert Ruesink (Biology); Professor Emeritus V. Jack Shiner (Chemistry)

Graduate Advisor

Professor William Harwood, Wright Education Building 3010, (812) 856-8164

Degree Offered

Master of Arts for Teachers

Special Program Requirements

(See also general University Graduate School requirements.)

Admission Requirements

Bachelor's degree with 35 credit hours in science or in science and mathematics. It should be understood that the program of study for this degree is not designed to allow one to continue for the Ph.D. degree.

Course Requirements

Sixty-five (65) credit hours in science and mathematics (counting courses taken as an undergraduate) to include:

1. 35 credit hours in the physical sciences, distributed as follows: astronomy (3 credit hours), chemistry (10 credit hours), geology (6 credit hours), physics (10 credit hours), and electives (6 credit hours);

2. 25 credit hours in the biological sciences, distributed as follows: plant sciences (10 credit hours), microbiology (5 credit hours), and zoology (10 credit hours). Certain general biology courses may count toward this requirement (see below); and
3. 5 credit hours in mathematics or computer science.

At least 36 credit hours are required beyond the bachelor's degree, including 26 credit hours in the above-named sciences, mathematics, or computer science, the remaining 10 credit hours in science, mathematics, or education.

These minimum requirements are to be met by selecting from the following courses; an advisor in the program should be consulted regarding the acceptability of other courses.

1. Physical Sciences
Astronomy: A100, A105 (or A110), A201, A202, A451, A452, X311
Chemistry: C105 and C125, C106 and C126, C315, C317, C318, C335, C341, C342, C343, C344, C360
Geological Sciences: G111, G112, G221, G222, G300, G301 (or G411), G316, G319, G334, G404
Physics: P201-P202 (or P221-P222), E250, P300, P301, P302, P310, P331, P340, P360, P421, P431
2. Biological Sciences
General Biology: L111, L112, L113, L211, L311, L312, L313, L318, L319, L323
Microbiology: M310, M315
Plant Sciences: B300, B351, B352, B364, L313, B371, B372, B373
Zoology: Z265, Z373, Z374, Z375, Z406, Z460, Z464, Z466
3. Mathematics and Computer Science
Mathematics: M215, M216
Computer Science: C201

Other 300- and 400-level science courses must be approved by your advisor.

Grades

B (3.0) average or higher; at least B in science courses.

Certification Requirements

All students seeking the M.A.T. degree must be eligible for certification to teach at the middle school or high school level in Indiana or another state.

Geography

Apply electronically for admission

www.indiana.edu/~grdschl/infoadm.html

College of Arts and Sciences Bloomington

Chairperson

Professor William R. Black

Departmental E-mail

conway@indiana.edu

Departmental URL

www.indiana.edu/~geog

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors

William Black, Dennis Conway, C. Susan Grimmond, Daniel Knudsen, John Odland

Associate Professors

Charles Greer, Sara Pryor, Scott Robeson, Hans Peter Schmid, Jon Unruh*

Assistant Professors

Tom Evans*, Philip L. Keating*

Emeritus Faculty

Don Bennett, Ernest Wohlenberg

Associate Scientist

Rebecca Barthelmie*

Senior Lecturer

Roman Zlotin

Adjunct Professors

David B. Audretsch (Public and Environmental Affairs), Bennet Brabson (Physics), David MacKay (Business), Theodore Miller (Public

and Environmental Affairs), Emilio Moran (Anthropology, CIPEC)

Adjunct Associate Professors

Timothy Brothers* (Indianapolis), Gregory Olyphant (Geological Sciences), John Ottensmann (Indianapolis), Catherine Souch (Indianapolis)

Adjunct Assistant Professors

Owen Dwyer* (Indianapolis), Philip Stevens* (Public and Environmental Affairs)

Director of Graduate Studies

Professor Dennis Conway, Student Building 120, (812) 855-6303

Degrees Offered

Master of Arts, Master of Arts for Teachers, Master of Arts in Geography and Master of Science in Environmental Science (SPEA), Master of Science, Master of Science in Geography and Master of Science in Environmental Science (SPEA), and Doctor of Philosophy

Special Departmental Requirements

(See also general University Graduate School requirements.)

Grades

B (3.0) average or higher; B in core courses.

Master of Arts Degree

Admission Requirement

Undergraduate major in geography or its equivalent. Applicants not meeting this requirement may be expected to take additional work.

Fields of Study

Atmospheric Science, Human-Environment Interaction, Human Geography, and Geographic Information Science. For subfields available see section about doctoral study.

Course Requirements

A minimum of 30 credit hours, including a core curriculum consisting of G500, G501, and G504. In addition, each student should select one topical field of concentration and complete a

sequence of courses involving a minimum of 9 graduate credits in that field (including at least one seminar).

Thesis or Research Papers

Students have the option of writing a thesis (G850) or two research papers (G845). Up to 6 credit hours are allowed for a thesis and up to 3 credit hours are given for each research paper.

Final Examination

Oral examination covering the topic of specialization, the thesis or research papers, and other aspects of geography.

Master of Science Degree

Admissions Requirement

Undergraduate major in geography, atmospheric science, mathematics, physics, chemistry, biology, or equivalent. Applicants not meeting this requirement may be expected to take additional work.

Fields of Study

Atmospheric science or geographic information science.

Course Requirements

A minimum of 30 credit hours, including a core curriculum consisting of G500, G501, and G504. In addition, each student should select a topical field of concentration in either atmospheric science or geographic information science and complete a minimum of 9 graduate credits in that field (including at least one graduate seminar).

Thesis or Research Papers

Students have the option of writing a thesis (G850) or two research papers (G845). Up to 6 credit hours are allowed for a thesis and up to 3 credit hours are given for each research paper.

Master of Arts for Teachers Degree

Admission Requirements

A full undergraduate major in geography is not required, but applicants should have had

introductory courses in physical, environmental, or human geography.

Program

An individual program of study will be arranged for each student. A general description of the M.A.T. requirements is found elsewhere in this bulletin.

Master of Arts/Master of Science in Geography and Master of Science in Environmental Science (Public and Environmental Affairs)

Admission Requirement

The Department of Geography and the School of Public and Environmental Affairs (SPEA) offer a three-year, 60 credit hour program that qualifies students for two master's degrees. A student must apply to and be accepted by the School of Public and Environmental Affairs for study toward the Master of Science in Environmental Science (M.S.E.S.) and by the Department of Geography and the Graduate School for study toward the M.A. or M.S. degree. The student must select an advisory committee of at least three faculty members representing both the Department of Geography and SPEA.

Course Requirements

A minimum of 60 credit hours, distributed as specified among the following six areas in environmental science and geography: (1) environmental sciences (12 cr.), (2) environmental management and policy (10 cr.), (3) environmental science electives (6-9 cr.), (4) geography (13 cr.) including core curriculum, G500, G501, and G504, and one 3-credit seminar, (5) geography electives (11 cr.), and (6) research (6 cr.).

Research Project, Thesis, or Research Papers

Students may opt for either a research project, thesis, or two research papers. They may complete up to 6 credit hours (of the 60 required) of area 6 (research) in SPEA E625 for a research project; GEOG G850 for a thesis; or G845 if

choosing the option of two research papers. The research report, thesis, or research papers must be acceptable to the student's advisory committee, the director of graduate studies in geography, and the director of the M.S.E.S. program.

Doctor of Philosophy Degree

Admission Requirement

M.A. or M.S. degree in geography or related discipline.

Fields of Study

Atmospheric Science, Human-Environment Interaction, Human Geography, and Geographic Information Science. Within these broad fields, students may develop research specializations in subfields. In Atmospheric Science, general fields of active research include air pollution meteorology, micro- and boundary-layer meteorology, forest and urban meteorology, climatic change, and statistical climatology. Within Human-Environment Interaction, the primary areas of research include human-environment interactions, resource management and sustainability, biogeochemical cycling, and global change. In Geographic Information Science (GIS), particular emphasis is placed on the application of GIS, remote sensing and statistical and numerical modeling. In Human Geography, areas of particular focus are development, location analysis, and land use, population, migration and labor markets, and transportation.

Course Requirements

A minimum of 90 credit hours, including dissertation (20 credit hours). Each student must select a major within the field of geography chosen from the fields of study listed above. Students must complete a minimum of 12 credit hours beyond the M.A. in the major. The dissertation must be written in the major field of study within geography.

Minors

At least one outside minor required. It should be closely related to the internal major and must be chosen from approved programs of study outlined in this bulletin (unless

exceptions are approved by the University Graduate School).

Qualifying Examination

Written and oral, covering the areas of concentration, other aspects of geography, and the tentative dissertation problem.

Research Proposal

The proposed research for the dissertation must be approved by the research committee and presented at a departmental colloquium.

Final Examination

Oral defense of the dissertation.

Ph.D. Minor in Geography

The requirements for the Ph.D. minor are flexible. A student's specific program should be developed in consultation with the minor-field advisor in geography. Typical fields include Atmospheric Science, Human-Environment Interaction, Human Geography, and Geographic Information Science. A minimum of 9 credit hours of course work, including at least one graduate seminar, is required.

Courses

G425 Africa: Contemporary Geographic Problems (3 cr.)

G427 Russia and Its Neighbors (3 cr.)

G428 Geography of Europe (3 cr.)

G500 Research Problems in Geography (4 cr.) Examination of current research areas and research problems in geography. Introduction to research design and research methods.

G501 Research Problems in Geography II (3 cr.) P: G500. Further development of research formulation and design skills. Approaches to geographic research and the preparation of research problem statements and proposals that may lead to thesis or dissertation research. May be repeated for a maximum of 6 credits in second graduate degree.

G502 Introduction to Transportation Analysis (3 cr.) An examination of classical and contemporary approaches to the analysis of transport systems, spatial interaction, sustainable transport, and related environmental and economic aspects of transport at regional and national scales.

G504 Advanced Quantitative Methods in Geography (3 cr.) P: G488 or G588 or equivalent. Further development of quantitative techniques to geographic problems. Methods of multivariate analysis, multiple response models, and mapping of three-dimensional or greater space.

G505 Hydroclimatology (3 cr.) P: G304 or G532 or consent of instructor. Hydroclimatic processes at a range of spatial scales. Topics include cloud and precipitation processes, soil water physics, runoff, and evaporation. Lecture and laboratory.

G507 Climate Dynamics (3 cr.) P: G304 or G532 or consent of instructor. Climate and its interannual and longer-term variations from the perspectives of theory, observations, and modeling. Topics include climate sensitivity, stability, and feedbacks; oceans-air-land-ice interactions; teleconnections and their regional expression; drought; climate reconstruction, and prediction using numerical models.

G508 Mathematical Models in Geography (3 cr.) P: G504 or consent of instructor. An examination of formal mathematical models of spatial processes and spatial structures. Emphasis on optimization models of location and movement, spatial equilibrium models, and probabilistic models of spatial patterns.

G509 Seminar in the History and Philosophy of Geography (3 cr.) P: consent of instructor. This course examines the history of geography. Particular reference is made to the use of philosophical traditions of positivism, structuralism, humanism, and postmodernism within geography and to the major debates

about philosophy and methodology in the last two centuries within the discipline.

G512 Urban Transportation Analysis (3 cr.) P: G312 or G502 or consent of instructor. Aspects of urban transportation planning process. Existing travel patterns, variations in trip generation, spatial interaction and distribution models, assignment of trips to existing networks, and the evaluation of future networks.

G513 Advanced Economic Geography (3 cr.) P: G313 or consent of instructor. Advanced economic geographic theory and location decision making. Applications include agricultural, industrial, and commercial location decision making as well as geographic understanding of the wider regional development process. Students will be expected to demonstrate understanding of theories and location decision making graphically and mathematically.

G514 Regional Transport Systems (3 cr.) P: G312 or G502 or consent of instructor. Theoretical and empirical analysis of transport problems and policies for state and multi-state areas. Network measurement, location theory, and flows. Regional transport planning methods for flow forecasting, flow distribution, modal choice, impact analysis, and alternative evaluation.

G515 Advanced Urban Geography (3 cr.) P: G314 or consent of instructor. In-depth study of contemporary theories of city system organization and the internal structure of cities. Emphasizes hierarchical city systems and interaction in global economy, the internal transformation of cities, and problems of urbanization such as racial and ethnic segregation, economic restructuring, and urban decline.

G517 Geography of Developing Countries: Critical Perspectives (3 cr.) Critical examination of development theories and development experiences of Third

World countries in recent times. Emphasis is on global structural forces, spatial processes, political ecological relations of the poor, and the processes of migration, urbanization, rural development, and resource exploitation.

G519 Urban Land Use Planning (3 cr.) P: G314, G415, or consent of instructor. Land use planning principles including the comprehensive planning process, land use assessment, urban design, zoning and land use regulation, site and subdivision design, capital improvements, and historical preservation. Emphasizes applied aspects of land use planning in public and private sectors.

G520 Migration and Population Redistribution (3 cr.) P: G314, G320, or consent of instructor. Study of international regional and intraurban migration using micro- and macro-level approaches, and the impacts of population redistribution on origin and destination. Topics include illegal immigration to the U.S., rural to urban migration in LDCs, international migration and refugees, and gender differences in migration behavior.

G530 Transport Planning Topics (3 cr.) P: G312 or G502 or consent of instructor. Developments in transportation planning. Topics such as rail planning, urban transit planning, transportation of energy, entropy flow models, behavioral travel models. May be repeated three times for a maximum of 9 credit hours.

G531 Dynamic Meteorology (3 cr.) P: MATH M211-M212, PHYS P201 or P221 (P221 recommended), GEOG G304 or G532 or consent of instructor. Introduction to dynamical processes and analysis in the atmosphere. Principles of fluid dynamics and their application to the atmosphere. Basic conservation laws and equations of motion. Circulation and vorticity. Dynamics of synoptic systems: quasigeostrophic analysis; oscillations and waves; baroclinic instability; and cyclogenesis. General circulation. Numerical modeling.

G532 Physical Meteorology and Climatology (3 cr.) Fundamental atmospheric properties and interrelationships. Radiation theory, components of energy and moisture balance, atmospheric circulation, upper-air surface relationships, and global weather system.

G533 Synoptic Meteorology and Climatology (3 cr.) P: G304 or G532 or consent of instructor. Analysis and prediction of synoptic scale weather systems, emphasizing the mid-latitudes. Other topics covered include severe weather and atmospheric/oceanic teleconnections.

G534 Air Pollution Meteorology (3 cr.) P: G304 or G532 or consent of instructor. Analysis of the physical laws that govern the transport, transformation, and removal of atmospheric pollutants. Primary emphasis will be on physical and chemical processes, although biological impacts will also be considered.

G535 Introduction to Remote Sensing (3 cr.) Principles of remote sensing of the earth and its atmosphere, emphasizing satellite data in visible, infrared, and microwave portions of the electromagnetic spectrum. Emphasis on practical applications and digital image analysis. A satellite data analysis project is required.

G536 Advanced Remote Sensing: Digital Image Processing (3 cr.) P: G535 or consent of instructor. Advanced remote sensing theory and digital image processing techniques with an emphasis on environmental science applications. Hands-on computer exercises provide significant experience in digital image processing techniques for extraction of qualitative and quantitative information about Earth's terrestrial and aquatic environments.

G537 Computer Cartography and Graphics (3 cr.) compilation, design, production, and evaluation of maps and related graphic materials. Includes cartometric procedures, symbolization, color use guidelines, map typography, photographic

manipulations, computer animation, and geographic visualization techniques.

G538 Geographic Information Systems (3 cr.) Overview of the principles and practices of Geographic Information Systems (GIS). Spatial data models, database design, introductory and intermediate GIS, operations and case studies of real-world GIS applications. Laboratory exercises will provide significant hands-on experience. Lecture and laboratory.

G539 Advanced Geographic Information Systems (3 cr.) P: G538 or consent of instructor. Intermediate and advanced topics in geographic information science and spatial analysis techniques using GIS software. This advanced course is for students who seek a greater understanding of this rapidly developing field and want to learn how to construct, manage, and analyze their own GIS data and models.

G540 Topics in Environmental Geography (3 cr.) P: G305 or G315 or consent of instructor. Selected topics focus on the human dimensions of environmental change/conservation. Example focus topics: population-environment interactions, transport-environment interactions, and urban-environment interactions. May be repeated four times with a different topic for a maximum of 12 credit hours.

G543 Cognitive Mapping and Spatial Analysis (3 cr.) An examination of theoretical, experimental, and empirical studies of cognitive mapping of spatial phenomena. Application of analytical procedures in the construction and analysis of cognitive maps is stressed.

G550 Instrumentation and Field Methods in Atmospheric Science (3 cr.) P or C: G304 or G532 or consent of instructor. Sampling, instrumentation, measurement, analysis, and interpretation of data concerning features and processes of the atmospheric environment. Use of field and laboratory equipment

within the context of research and standard projects. Practical application of climatological and meteorological principles.

G560 Geography Internship (1-4 cr.) P: graduate level courses in geography and consent of instructor. Faculty-directed study of geographical problems based on an internship experience. Student's area of placement must be related to major field of study. Offered fall, spring, and each summer session. Student may complete more than one internship, but total credit earned cannot exceed 4 credit hours.

G570 Micrometeorology (3 cr.) P: G304 or G532, MATH M211-M212, or consent of instructor. Atmospheric processes at the micro and local scale. Topics include energy and mass exchange over simple non-vegetated surfaces, vegetated surfaces, non-uniform terrain, and inadvertent climate modification.

G571 Topics in Micro- and Boundary- Layer Meteorology (3 cr.) P: G570, MATH M211-M212, PHYS P201 or P221 (P221 recommended), or consent of instructor. Topics may include surface-vegetation-atmosphere interaction; dynamics of turbulent transport; boundary-layer dynamics; turbulent kinetic energy and stability; dimensional analysis and similarity theory; effects of surface inhomogeneity on boundary-layer dynamics; patchiness; urbanization; regional aggregation of surface atmosphere exchange; applications to mesoscale modeling and air pollution dispersion modeling.

G572 Advanced Instrumentation and Field Methods in Atmospheric Science (3 cr.) P: G350 or G550 or consent of instructor. Sampling, instrumentation, measurement, analysis and interpretation of data concerning fluxes and variables in the boundary layer. Emphasis is on research and practical applications of micrometeorological principles.

G573 Topics in Mesoscale Meteorology (3 cr.) P: MATH M211-M212 PHYS P201 or P221 (P221 recommended), and GEOG

G304 or G532 or consent of instructor. Topics may include application of principles of dynamic meteorology and thermodynamics to mesoscale atmospheric phenomena; mesoscale circulations and boundary layer; fronts and frontogenesis; hurricanes and tornadoes; and flow topography interactions.

G575 Climate Change (3 cr.) P: at least two undergraduate courses in the physical sciences or consent of instructor. Evidence for and theories of climate change over a range of time scales. Sources and interpretation of proxy climate data are presented along with modeling tools for assessing climate response to a range of forcing and paleoclimate perspectives on future climate change.

G577 Topics in Atmospheric Science (3 cr.) P: G304 or G532 or consent of instructor. Selected topics in microclimatology, dynamic meteorology, statistical methods in climatology and meteorology. May be repeated for a maximum of 12 credit hours.

G588 Applied Spatial Statistics (3 cr.) P: consent of instructor. Extension of traditional statistical analysis to spatial data. Spatial means and spatial variances, the examination of differences in samples over space, spatial autocorrelation, nearest neighbor analysis, map comparison techniques. Emphasis on practical applications.

G589 Atmospheric Data Analysis (3 cr.) P: an introductory course in statistics or consent of instructor. Introduction to methods of data analysis used in the atmospheric sciences, emphasizing applications. Topics include statistical forecasting, spatial interpolation, spectral analysis and filtering, vector data analysis, and model evaluation.

G602 Topical Seminar in Atmospheric Science (3 cr.) Topics will vary to consider aspects of atmospheric science. May be repeated for a maximum of 12 credits.

G603 Topical Seminar in Urban and Regional Systems (3 cr.) P: consent of instructor. Topics will vary to consider aspects of urban and regional geography. May be repeated for a maximum of 12 credits.

G604 Topical Seminar in Environmental Geography (3 cr.) Topics will vary to consider aspects of environmental geography. May be repeated for a maximum of 12 credits.

G639 Topical Seminar in Geographic Information Science (3 cr.) Applications of geographic information science principles in the collection and analysis of spatial data. Integration of GIS, remote sensing, and GPS technologies. Review of current literature on techniques, theory, technology, and applications with an emphasis on environmental topics. Discussion, laboratory, and research project.

G830 Readings in Geography (cr. arr.; 12 cr. max.) P: advanced courses in geography or closely related fields. Supervised readings on selected topics.

G831 Advanced Research in Geography (1-6 cr.) P: Consent of faculty member. Individual research. S/F grading.

G840 Research in Geography (cr. arr.)** P: consent of faculty member. Individual research.

G845 Master's Papers (1-6 cr.) P: consent of instructor. Research papers under supervision of faculty.

G850 Master's Thesis (cr. arr.; 6 cr. max.)** Thesis.

G860 Ph.D. Thesis (cr. arr.)**

**These courses are eligible for a deferred grade.

EDUCATION

M530 Geography in Education
(2 cr.)

GRADUATE

**G591 Methods of Population
Analysis and Their Applications**
(3 cr.)

Geography

**School of Liberal Arts
Indianapolis**

Chairperson

Associate Professor Timothy
Brothers

Departmental E-mail
geogdept@iupui.edu

Departmental URL
www.iupui.edu/~geogdept/

Graduate Faculty

(An asterisk [*] denotes associate
membership in University Graduate
School faculty.)

Professor

Catherine Souch

Associate Professors

Timothy Brothers*, Jeffrey Wilson

Assistant Professor

Owen Dwyer*

Director of Graduate Studies

Associate Professor Jeffrey Wilson,
Cavanaugh Hall 317, (317) 274-1128

Degrees Offered

Graduate Certificate in Geographic
Information Science and Master of
Science in Geographic Information
Science

Special Departmental Requirements

(See also general University
Graduate School requirements.)

Grades

B (3.0) average or higher.

Graduate Certificate in Geographic Information Science

Admission Requirements

Bachelor's degree from an accredited
institution. Recommended minimum
undergraduate GPA of 3.0.
Appropriate work experience also
will be taken into account in making
decisions about admission. Three
letters of recommendation and a
personal statement.

Course Requirements

Minimum of 15 credit hours,
including a core curriculum
consisting of G535, G538, and G539.
The remaining courses are to be
chosen from G536, G539, and
G588.

Master of Science in Geographic Information Science

Admission Requirements

Undergraduate degree in geography
or related discipline. Recommended
minimum undergraduate GPA of 3.0.
Appropriate work experience also
will be taken into account when
making decisions about admission.
Satisfactory scores on the Graduate
Record Examinations, three letters of
recommendation, and personal
statement.

Course Requirements

A minimum of 30 credit hours
including core requirements in GIS
theory and methods from three of the
following four courses: (G535,
G537, G538, G588). All students
must take G560 and G539.

Thesis or Research Papers

Students have the option of writing a
thesis (G580) or two research papers
(G845). Up to 6 credit hours are
allowed for a thesis and up to 3
credit hours are given for each
research paper.

Courses

**G535 Introduction to Remote
Sensing (3 cr.)** Principles of remote
sensing of the earth and its
atmosphere, emphasizing satellite

data in visible, infrared, and
microwave portions of the
electromagnetic spectrum. Emphasis
on practical applications and digital
image analysis. A satellite data
analysis project is required.

**G536 Advanced Remote Sensing:
Digital Image Processing (3 cr.)** P:
G535 or consent of instructor.

Advanced remote sensing theory and
digital image processing techniques
with an emphasis on environmental
science applications. Hands-on
computer exercises provide
significant experience in digital
image processing techniques for
extraction of qualitative and
quantitative information about
Earth's terrestrial and aquatic
environments.

**G537 Computer Cartography and
Graphics (3 cr.)** compilation,
design, production, and evaluation of
maps and related graphic materials.
Includes cartometric procedures,
symbolization, color use guidelines,
map typography, photographic
manipulations, computer animation,
and geographic visualization
techniques.

**G538 Geographic Information
Systems (3 cr.)** Overview of the
principles and practices of
Geographic Information Systems
(GIS). Spatial data models, database
design, introductory and intermediate
GIS, operations and case studies of
real-world GIS applications.
Laboratory exercises will provide
significant hands-on experience.
Lecture and laboratory.

**G539 Advanced Geographic
Information Systems (3 cr.)** P:
G538 or consent of instructor.

Intermediate and advanced topics in
geographic information science and
spatial analysis techniques using GIS
software. This advanced course is for
students who seek a greater
understanding of this rapidly
developing field and to learn how to
construct, manage, and analyze their
own GIS data and models.

**G560 Geography Internship (1-4
cr.)** P: graduate level courses in
geography and consent of instructor.

Faculty-directed study of geographical problems based on an internship experience. Student's area of placement must be related to major field of study. Offered fall, spring, and each summer session. Student may complete more than one internship, but total credit earned cannot exceed 4 credit hours.

G639 Topical Seminar in Geographic Information Science (3 cr.) Applications of geographic information science principles in the collection and analysis of spatial data. Integration of GIS, remote sensing, and GPS technologies. Review of current literature on techniques, theory, technology, and applications with an emphasis on environmental topics. Discussion, laboratory, and research project.

G845 Master's Papers (1-6 cr.) P: consent of instructor. Research papers under supervision of faculty.

G850 Master's Thesis (cr. arr.; 6 cr. max.)** Thesis.

Geological Sciences

College of Arts and Sciences
Bloomington

Chairperson

Herman B. Wells Professor Abhijit Basu

Malcolm and Sylvia Boyce Chair
Mark A. Person

Haydn H. Murray Chair
David L. Bish

Departmental E-mail
geograd@indiana.edu

Departmental URL
www.indiana.edu/~geosci/

**This course is eligible for a deferred grade.

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Distinguished Professor

Peter Ortoleva (Chemistry)

Professors

Abhijit Basu, David Bish, Simon Brassell, Jeremy Dunning, Hendrik Haitjema (Public and Environmental Affairs), Christopher G. Maples (Leave of Absence), Enrique Merino, Gary Pavlis, Mark Person, Lisa Pratt, Edward Ripley, Jeffrey White (Public and Environmental Affairs), Robert Wintsch

Associate Professors

James Brophy, Michael Hamburger, Claudia Johnson*, Gregory Olyphant, Juergen Schieber, Chen Zhu

Professors Emeriti

J. Robert Dodd, John Droste, Donald Hattin, Norman Hester, Erle Kauffman, Noel Krothe, Gary Lane, Judson Mead, Haydn Murray, Albert J. Rudman, Lee J. Suttner, David Towell

Senior Scientists

John Comer, Arndt Schimmelmann, John Steinmetz

Associate Scientist

Chusi Lee

Assistant Scientists

Bruce Douglas*, Erika Elswick*, Peter Sauer

Associated Research Faculty

Ned Bleuer*, Brian Keith, Maria Mastalerz*, Carl Rexroad (Emeritus), Todd Thompson

Graduate Advisor

Professor Mark A. Person, Geology Building 429, (812) 855-7214 or (800) 553-2592

Degrees Offered

Master of Science and Doctor of Philosophy

Special Departmental Requirements

(See also general University Graduate School requirements.)

Admission Requirements

An undergraduate degree in the physical or natural sciences. It is expected that students will have an undergraduate background that includes course work in allied sciences/mathematics, equivalent to one year of chemistry and physics or biology, mathematics through differential and integral calculus, plus at least 6 credit hours of higher-level courses. A substantive foundation course in field geology or comparable independent field experience is also expected. Students with degrees in engineering or other related fields are also encouraged to apply. The general Graduate Record Examination is required.

Master of Science Degree

Course Requirements

A minimum of 30 graduate credit hours in geological sciences.

Doctor of Philosophy Degree

Course Requirements

A total of 90 credit hours, including dissertation and 35 credit hours of course work approved for graduate credit (excluding G600, G700, and G810), of which a minimum of 20 credit hours must be taken within the Department of Geological Sciences. All graduate students working toward the Ph.D. degree are expected to satisfy the master's degree requirements unless they can show cause to the geological sciences faculty for having that requirement waived.

Minor

Outside minor in a related field (including chemistry, physics, biology, mathematics, and environmental sciences), or, under certain conditions, in geochemistry, geophysics, or geobiology.

Foreign Language/Research-Skill Requirement

Reading proficiency in one foreign language (French, German, Russian, or Spanish) or a research skill in mathematics, computer science, chemistry, or physics. Courses taken to satisfy this requirement do not carry graduate credit. For specific details concerning approved research-skill courses, consult the graduate advisor.

Other Provision

All students in the Ph.D. program are encouraged to serve at least one semester as associate instructors during their graduate study.

Qualifying Examination

Comprehensive: written and oral.

Final Examination

Oral defense of the dissertation.

Courses Offered

Courses offered at Bloomington are loosely organized as introductory, advanced, and multidisciplinary (at the convergence of different areas). Introductory courses cover topical research issues and quantitative skills, stressing interdisciplinary approaches and problem-solving skills. Advanced courses provide the in-depth instruction within each of the department's major disciplines: environmental geoscience, geobiology, geochemistry, sedimentary systems, and solid-earth dynamics. Many new core courses are offered under the course number G690; these include Isotope Systematics, Origin of Sedimentary Rocks, Basin Analysis, Computation Methods, Magmatic Geochemistry, and Evolution of Ecosystems. The topic Environmental Field Methods was initially offered as G700. Advanced topics in specialized subdisciplines and seminars in interdisciplinary themes have included the courses Chemical Oceanography and Cenozoic Climate Change as well as courses covering topics such as invertebrate paleontology, paleoecology, stratigraphy, sedimentology, and coal geology.

All core courses will be offered on the Bloomington campus during the

academic years 2004–2006; several will be taught as G690 topics. A selection of advanced courses, dependent on the research interests of the student body, will also be offered. The courses available in Bloomington are:

G404 Geobiology (3 cr.) P: Biology L105 and G334. Application of biological principles and use of fossils in the study of earth history. Origin of life and the early fossil record; evolution; approaches of taxonomy; chemistry of fossils; ecology of ancient life; use of fossils to measure geologic time.

G406 Introduction to Geochemistry (3 cr.) P: G222, Mathematics M212 or M216, and Chemistry C106. Chemistry in the study of the earth, employing elementary chemical thermodynamics, the phase rule, chemical equilibria, redox, reactions, the radioactive decay law, and organic chemistry.

G411 Invertebrate Paleontology (3 cr.) P: Biology L105 or S105; and one 300–400-level course in biology or geology. Structure, classification, habitats, and geological history and significance of the invertebrate phyla. Laboratory study of fossils.

G413 Introduction to Earth Physics (3 cr.)

G415 Geomorphology (3 cr.) P: G222, college chemistry and mathematics or consent of instructor. Natural processes that form landscapes, surficial, geologic materials, and soils. Physics and chemistry of weathering. Dynamics of streams, wind, waves, glacier ice, and mass movement. Interactions of geomorphology and environment.

G416 Economic Geology (3 cr.) P: G334; Chemistry C106–C126 or consent of instructor. Geologic occurrence and genesis of economic mineral deposits, including petroleum and coal. Introduction to mining, processing, and exploration methods. Two lectures and one 2-hour laboratory per week.

G417 Optical Mineralogy (3 cr.) P: G222. Theory and use of optics in the identification and classification of rock-forming minerals in fragments and thin sections. One lecture and two 2-hour laboratory meetings per week.

G418 Igneous and Metamorphic Petrology (3 cr.) P: G222 or equivalent. The petrogenesis of igneous and metamorphic rocks. Both the lecture and laboratory portions of the course will stress the application of modern petrographic, mineralogic, geochemical and phase equilibria techniques to the solution of relevant petrologic problems. Two lectures and one 2-hour laboratory meeting per week.

G420 Regional Geology Field Trip (1–2 cr.) P: consent of instructor. Field investigation of selected regions of North America for study of mineralogical, lithological, stratigraphic, structural, paleontological, geomorphological, or other geological relationships. Six to ten days in the field. May be repeated.

G423 Methods in Applied Geophysics (4 cr.) P: G413 or equivalent. Application of geophysical principles to field and laboratory experiments, with emphasis on data acquisition, analysis, and geologic interpretation. Experiments include earthquake seismology, electrical resistivity, magnetic and gravity surveys, and reflection and refraction seismology.

G427 Introduction to X-Ray Mineralogy (1 cr.)

G429 Field Geology in the Rocky Mountains (7 cr.)

G451 Principles of Hydrogeology (3 cr.)

G501 Sedimentary Processes and Environments (3 cr.) P: graduate standing. Origin and controls of facies distribution in sedimentary systems. Field study of selected ancient facies systems.

G503 Phase Equilibria (3 cr.) P or C: C360, G406, or consent of

instructor. Thermodynamic functions and conditions of equilibria in unary, binary, ternary, and multicomponent systems. Mixing properties of crystalline solutions. Chemical potential and activity diagrams.

G504 Metamorphic Petrology (3 cr.) P: G418, G503. The evolution of mineral assemblages and compositions during prograde metamorphism. Reaction mechanisms. Effect of fluid composition on mineral assemblages. Theoretical basis and description of various projection schemes. Appraisal of selected experimental studies.

G506 Principles of Igneous Petrology (3 cr.) P: G418. Origin, composition, classification, phase relationships, and distribution of igneous rocks; economic considerations. Emphasis on province, associations, and facies type.

G509 Theoretical Geochemistry (4 cr.) P: C360, C361, P340, or G406 or the equivalent; consent of instructor. Thermodynamics and solution chemistry as tools in geochemistry; designed for students planning advanced work or research in geochemistry.

G513 Seismology I (3 cr.) P: MATH M343 or M313; PHYS P222. Earthquakes, propagation of elastic waves, interpretation of seismological data, theory of seismological instruments. Core: solid-earth dynamics.

G514 Geophysical Signal Analysis (3 cr.) P: PHYS P222; MATH M343 or M313. Construction, analysis, and interpretation of geophysical signals. Filter theory, spectral analysis, signal-to-noise enhancement, transform theory, seismic wave propagation, computer applications.

G515 Analysis of Earthquake Seismograms (1 cr.) P: G413. Analysis of local, regional, and teleseismic phases recorded on the Indiana University long- and short-period seismographs. Use of seismic records to determine earthquake source parameters, deep earth

structure, and near-station structure. Surface wave dispersion and structure of the lithosphere.

G521 Micropaleontology (3 cr.) P: G404 or G411 or advanced standing in biological sciences. Morphology, biology, ecology, biostratigraphy, and phylogenetic relationships of microfossils. Course will survey the common fossil groups, including cyanobacteria, diatoms, dinoflagellates, acritarchs, foraminifera, and radiolaria.

G524 Carbonate Facies and Environments (2 cr.) P: graduate standing. Carbonate environments from modern and ancient examples (including subsurface). Various ramp and platform margin depositional models. Emphasis on types and origin of facies. Current and classical literature on carbonates.

G535 Quaternary Geology (3 cr.) P: G415 or consent of instructor. Characteristics, distribution, and origin of Pleistocene and recent deposits; stratigraphy and chronology; formation of associated landforms, landscapes, paleosols, and soils; quaternary environments. Core: Environmental Geoscience.

G550 Surface Water Hydrology (3 cr.) P: G451 and M216, or consent of instructor. Mechanics of surface runoff and open channel flow. Rainfall-runoff equations, probability analysis of stream flow, and watershed simulation models. Chemistry of surface waters and stream pollution. Core: environmental geoscience.

G551 Advanced Hydrogeology (3 cr.) P: G451. Basic principles and quantitative aspects of physical flow systems and chemistry of ground water and surface water. The relationships between water and geologic materials. Core: environmental geoscience.

G553 Gravitational and Magnetic Field Analysis (2 cr.) P: G413; MATH M343 or M313; PHYS P222. Potential field theory and its application in interpretation of gravity and magnetic fields. Core: solid-earth dynamics.

G554 Fundamentals of Plate Tectonics (3 cr.) P: graduate standing in geology or consent of instructor. Synthesis of observations from diverse disciplines of geology leading to the development of modern plate tectonic theory. Applications of plate tectonic principles to fundamental problems of continental and marine geology. Core: solid-earth dynamics.

G561 Paleoecology (3 cr.) P: G334 and G404 or G411. Relationships between modern and fossil organisms and their physical, chemical, and biological environments; emphasis on techniques for interpreting past environmental conditions.

G571 Principles of Petroleum Geology (3 cr.) P: G323. Origin, geochemistry, migration, and accumulation of petroleum; reservoir rocks; types of entrapment; exploration procedures and their rationale; methods and devices for data gathering and detection.

G572 Basin Analysis and Hydrocarbons (3 cr.) P: G323 and G334. Modern concepts of tectonics and sedimentary basin analysis. Geologic application of geophysical logs and seismic stratigraphy to basin analysis, facies distribution, and structural style in a variety of basin types with specific examples from around the world. Techniques of hydrocarbon assessment in basinal settings.

G587 Organic Geochemistry (3 cr.) P: consent of instructor. Application of organic geochemical methods in determining origins of fossil fuels and in defining biological and environmental histories of rocks.

G591 Physical Sedimentology (3 cr.) P: G415, G501 or equivalent. Dynamics of fluid flow, hydraulics of sediment transport, interaction of physical processes in depositional environments. Field study of selected modern depositional environments.

G592 Chemical Sedimentology (3 cr.) P: G509, G418, or consent of instructor. Study of low-temperature (< 300 degrees C) mineral

assemblages in order to infer their chemical conditions of formation.

G600 Advanced Techniques (cr. arr.)** P: consent of instructor. Training in special geologic methods such as exploration seismology, experimental petrology, X-ray spectroscopy, electron probe microanalysis, isotopic and organic mass spectrometry.

G601 Clay Mineralogy (3 cr.) P: consent of instructor. Composition, structure, properties, methods of identification, and origin and distribution of clay minerals. Core: sedimentary systems.

G612 Inverse Methods in Geophysics (2 cr.) P: MATH M301, M303, or equivalent. Mathematical techniques to infer the properties of the deep interior of the earth from geophysical data and to appraise the reliability of the results. Theory of generalized inverses in finite dimensional vector spaces and Hilbert space. Resolving power of data. Nonlinear inverse methods.

G613 Seismology II (3 cr.) P: G513. Theory of wave propagation in layered elastic media: Lamb's problem, Cagnaird's method, and propagator matrices. Body force equivalents and the moment tensor representation of seismic sources. Additional selected topics.

G616 Metalliferous Mineral Deposits (3 cr.) P: G416 and G406, or equivalent. Geological processes controlling ore deposition. Application of stable and radioactive isotopes, fluid inclusions, and thermodynamics to the study of ore deposits. Laboratory study of opaque minerals using reflected light microscopy.

G617 Geochemical Exploration (3 cr.) P: G416. Application of geochemical methods in the search for mineral deposits, including analytical techniques, migration of elements, data interpretation, and field problems. Lecture and laboratory.

**These courses are eligible for a deferred grade.

G626 Industrial Minerals (3 cr.) P: G416. Origin, mode of occurrence, distribution, and uses of mineral commodities other than ores and fuels. Geology of the rocks and minerals used for building materials, chemical raw materials, refractories, fillers, abrasives, fertilizers, fluxes, insulation, filtering agents, and pigments.

G633 Advanced Geophysics Seminar (1-3 cr.) P: consent of instructor. Selected topics in earth physics. S/F grading.

G637 Seminar in Tectonics (1 cr.) P: consent of instructor. Multidisciplinary seminar focusing on regional-scale deformation of the earth's lithosphere.

G690 Advanced Geology Seminar (cr. arr.) P: consent of instructor. Seminars on critical research issues and topical themes. S/F grading.

G700 Geologic Problems (1-5 cr.)** P: consent of instructor. Consideration of special geological problems.

G810 Research (cr. arr.)**

Geological Sciences

School of Science
Indianapolis

Chairperson
Associate Professor Gabriel Filippelli

Departmental E-mail
gfilippe@iupui.edu

Departmental URL
www.geology.iupui.edu

Graduate Faculty
(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professor
Robert D. Hall

Associate Professors
Andrew P. Barth, Gabriel Filippelli, Joseph Pachut Jr., Gary D. Rosenberg, Lenore Tedesco

Assistant Professors
Kathy Licht*, Jeffrey Swope*

Emeritus Faculty
Arthur Mirsky

Adjunct Faculty
Timothy Brothers*, Christopher Craft*, Frederick Kleinhans (Physics), Greg Lindsey* (School of Public and Environmental Affairs), Catherine Souch (Geography), Xianzhong Wang* (Biology), Jeffrey Wilson*

Graduate Advisor
Associate Professor Lenore P. Tedesco, Engineering/Science/Technology Building, SL 118, (317) 274-7484

Degree Offered

Master of Science in Geology, with concentration in environmental geology.

Special Departmental Requirements

(See also general University Graduate School requirements.)

Admission Requirements
Prospective students should have a bachelor's degree in geology, including a summer field course, and a minimum of a B (3.0) average in geology courses. One year of chemistry and mathematics through college algebra and trigonometry are required. Individuals with a bachelor's degree in another area of science are also encouraged to apply; the departmental graduate advisory committee will prescribe a plan of study to remove deficiencies. The Graduate Record Examination General Test is required. Each student must submit three letters of recommendation.

Course Requirements
Both thesis and nonthesis options are available. Both options require at least 18 credit hours of nonresearch course work in geology and at least 3

credit hours in courses approved for graduate credit from allied sciences, mathematics, or the environmental program of the School of Public and Environmental Affairs (SPEA). Up to 6 credit hours of 400-level courses approved for graduate credit may be counted toward the degree with the approval of the graduate advisor. The thesis option requires the completion of 30 credit hours, 6 of which are taken as G810 Research (the thesis). The nonthesis option requires the completion of 36 credit hours, 3 of which consist of a research project taken as G700 Geologic Problems. The departmental graduate committee must approve elective credits outside the Department of Geology for both options.

Admitted students will be assigned a three-person advisory committee at the beginning of the first year of graduate study. The committee will prescribe a study program based on the interests of the student and the principal graduate advisor. Students must complete all degree requirements within six years of beginning this study program. A B (3.0) average or higher must be maintained, and no grade below C is acceptable.

Grades

A B (3.0) average or higher must be maintained; no more than 6 credit hours of C are acceptable.

Courses Offered

G525 Glacial Geology (3 cr.)

Formation, dynamics, and regimen of glaciers. Erosional and depositional processes and landforms. Glaciation of North America with emphasis on stratigraphy, soils, climates, and physical changes resulting from glacial processes and environments. Field investigations and a student research project required.

G527 Geological Oceanography (3 cr.)

P: graduate standing, G334, and G413. Geological features and processes operating in the oceans; continental shelf, slope and ocean-basin geomorphology, sedimentology, structure, and composition; origin and geologic history of seawater and ocean basins.

G535 Quaternary Geology (3 cr.)

P: G415 or consent of instructor. Characteristics, distribution, and origin of Pleistocene and recent deposits; stratigraphy and chronology; formation of associated landforms, landscapes, paleosols, and soils; Quaternary environments. Core: environmental geoscience.

G545 Applied Analytical Techniques in Geology (3 cr.)

Principles of advanced analytical techniques including X-ray analysis, electron beam imaging and analysis, and mass spectrometry, with applications in geosciences. Lectures on theory followed by laboratory exercises. Students will complete individual or collaborative research projects.

G550 Surface Water Hydrology (3 cr.)

P: G451 and M216, or consent of instructor. Mechanics of surface runoff and open channel flow. Rainfall-runoff equations, probability analysis of stream flow, and watershed simulation models. Chemistry of surface waters and stream pollution. Core: environmental geoscience.

G551 Advanced Hydrogeology (3 cr.)

P: G451. Basic principles and quantitative aspects of physical flow systems and chemistry of ground water and surface water. The relationships between water and geologic materials. Core: environmental geoscience.

G585 Environmental

Geochemistry (3 cr.) Aquatic and environmental geochemistry, including freshwater and marine systems, natural and human-induced changes to geochemical systems, and the geochemical record of paleoceanographic and paleoclimatic variations.

G595 Data Analysis Techniques in Geoscience (3 cr.)

P: STAT 301 and CSCI 207, or equivalent. Application of statistical and numerical analysis techniques to geoscience data, including sampling methods, confidence intervals, least squares methods, correlation, time series analysis, and multivariate techniques. Emphasis on using a

computer to solve geoscience problems.

G601 Clay Mineralogy (3 cr.) P: consent of instructor. Composition, structure, properties, methods of identification, and origin and distribution of clay minerals.

G621 Modeling Hydrological

Systems (3 cr.) Introduction to ground water flow and solute transport modeling. Includes development of equations describing ground water flow and applied ground water/contaminant transport modeling using a variety of current software packages.

G635 Soil Geomorphology (3 cr.)

Application of geomorphic principles in evaluation of weathering and soil formation; systems analysis of soil-landscape models; paleogeomorphology and paleopedology. Lectures and discussion; field and laboratory problems.

G640 Fluvial Geomorphology (3 cr.)

Survey of fluvial processes including sediment transport, bed and bank erosion, and river metamorphosis. Examination of the controls on channel form. Analysis of landform genesis with an emphasis on feature sedimentology and stratigraphy. Application of fluvial geomorphic principles to land management and restoration of riparian ecosystems.

G645 Carbonate Sedimentology (3 cr.)

P: G334 or consent of instructor. Spring. Course focuses on origin and generation of carbonate grains, description of modern carbonate depositional environments, interpretation of ancient limestone and dolomite sequences, and carbonate diagenesis.

G690 Advanced Geology Seminar

(cr. arr.) P: consent of instructor. Seminars on critical research issues and topical themes. S/F grading.

G700 Geologic Problems (1-5 cr.)** P: consent of instructor. Consideration of special geological problems.

G810 Research (cr. arr.)**

Institute of German Studies

College of Arts and Sciences
Bloomington

Director
Professor Marc A. Weiner

Departmental E-mail
germanic@indiana.edu

Departmental URL
www.indiana.edu/~germanic/
graduate/institute.html

Graduate Faculty

Professors

George Buelow (Emeritus, Music), Matei Calinescu (Emeritus, Comparative Literature), Frederick Churchill (Emeritus, History and Philosophy of Science), James Diehl (Emeritus, History), Paul Eisenberg (Emeritus, Philosophy), Norman Furniss (Political Science), Maurice Garnier (Sociology), Ingeborg Hoesterey (Emerita, Germanic Studies, Comparative Literature), Breon Mitchell (Germanic Studies, Comparative Literature), Elinor Ostrom (Political Science), Robert Rohrschneider (Political Science), Alvin Rosenfeld (English), Terence Thayer (Germanic Studies), Marc A. Weiner (Germanic Studies, Comparative Literature)

Associate Professors

Fritz Breithaupt* (Germanic Studies), David Pace (History), William Rasch (Germanic Studies)

Assistant Professors

Michel Chaouli* (Germanic Studies), Michelle Facos (Fine Arts)

**These courses are eligible for a deferred grade.

Academic Advisor

Professor Marc A. Weiner,
Ballantine Hall 668, (812) 855-2033

Program Information

The Institute of German Studies provides graduate students with a flexible curriculum to pursue study and research in the society and cultural production of German-speaking Europe from 1740 to the present. Most work on this subject unfolds through consideration of diverse critical paradigms, including those in current American culture studies. Study in the institute is linked closely, but not exclusively, to the master's degree in modern German culture in the Department of Germanic Studies and is also open to students from related disciplines (e.g., West European Studies, History, Political Science, Philosophy, the Program in Cultural Studies, the Jewish Studies Program, and the School of Music). The institute also offers a Ph.D. minor. Courses are taught by the faculty of the Department of Germanic Studies specializing in 1740 to the present and by instructors in the above-mentioned related disciplines.

Ph.D. Minor in German Studies

The Ph.D. minor in German studies is available to doctoral students in all departments except Germanic Studies; 15 credit hours of course work are required. Consult the director of the institute for information regarding courses acceptable for the minor.

Courses

The following, nonexclusive list contains examples of the kinds of courses that may be taken outside of the Department of Germanic Studies for credit in the institute.

V605 Selected Topics in German Studies (2-4 cr.; 12 cr. max.)

V815 Individual Readings in German Studies (1-8 cr.) May be repeated for credit.

ANTHROPOLOGY

E607 Selected Topics in German Studies (2-4 cr.; 12 cr. max.)

V815 Individual Readings in German Studies (1-8 cr.) May be repeated for credit.

COMPARATIVE LITERATURE

C504 Topics in World Criticism and Theory II (4 cr.)

C546 Sexuality and the Arts (4 cr.)

C555 Theory and Methods of Interarts Studies (4 cr.)

C602 Contemporary Theoretical Issues and Approaches (4 cr.)

C655 Topics in Interarts Studies (4 cr.)

FILM STUDIES

C590 Film and Society (4 cr.)

C693 Film Adaptations of Literature (4 cr.)

C790 Studies in Film and Literature (4 cr.)

C792 Film History and Theory (4 cr.)

FINE ARTS

A442 Twentieth-Century Art 1900-1924 (4 cr.)

A495 Readings and Research in Art History (1-4 cr.; 8 cr. max.)
Topic: Twentieth-Century German Art.

GERMANIC STUDIES

G503 Introduction to Graduate Study in German Literature (3 cr.)

G563 German Culture Studies I (3 cr.)

G564 German Culture Studies II (3 cr.)

G575 Historical Study of German Literature III (3 cr.)

G577 Historical Study of German Literature IV (3 cr.)

G625 Colloquium (3 cr.)

G825 Seminar in German Literature (4 cr.)

HISTORY

B366 Paris and Berlin in the 1920s: A Cultural History (3 cr.)

B378 History of Germany since 1648 II (3-3 cr.)

B393 German History: From Bismarck to Hitler (3 cr.)

H523 The Holocaust (3 cr.)

H620 Colloquium: Modern Western European History (4 cr.)
Topic: Problems in Modern German History.

HISTORY AND PHILOSOPHY OF SCIENCE

X567 Science in Germany: Nineteenth and Twentieth Centuries (3 cr.)

SCHOOL OF MUSIC, DEPARTMENT OF MUSICOLOGY

M502 Composers (3 cr.) Topic: Wagner/Beethoven/Strauss.

PHILOSOPHY

P522 Topics in the History of Modern Philosophy (3 cr.)

P544 Selected Topics in History of Social and Political Philosophy (3 cr.)

POLITICAL SCIENCE

Y657 Comparative Politics (3 cr.)

RELIGIOUS STUDIES

R680 Religion and the Problems of Modernity (3 cr.)

SOCIOLOGY

S660 Advanced Topics (3 cr.)
Topic: The Sociological Structures of the United States and Germany.

WEST EUROPEAN STUDIES

W301 Modern European Politics and Society (3 cr.)

W302 Modern European Culture and National Identities (3 cr.)

Additional courses are often drawn from the nonexclusive list of departments and programs given above. Consent of the director of the institute and from the individual instructor of each course must be obtained to enroll.

Germanic Studies

**College of Arts and Sciences
Bloomington**

Chairperson

Associate Professor William Rasch

Departmental E-mail

germanic@indiana.edu

Departmental URL

www.indiana.edu/~germanic/graduate/intro.html

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors

Theodore M. Andersson (Emeritus), Frank Banta (Emeritus), Peter Boerner (Emeritus, West European Studies), Catherine Fraser, Kari Ellen Gade, Ingeborg Hoesterey (Emerita, Comparative Literature), Albrecht Holschuh (Emeritus), Dov-Ber Kerler, Breon Mitchell (Comparative Literature), Ferdinand Piedmont (Emeritus), Hugh Powell (Emeritus), Eberhard Reichmann (Emeritus), Henry Remak (Emeritus, Comparative Literature, West European Studies), William Shetter (Emeritus), Terence Thayer, Stephen Wailles (Emeritus), Marc Weiner, Ulrich Weisstein (Emeritus, Comparative Literature)

Associate Professors

Fritz Breithaupt*, William Rasch, Rex Sprouse

Assistant Professor

Michel Chaouli*, Claudia Breger*

Director of Graduate Studies

Professor Kari Ellen Gade,
Ballantine Hall 676, (812) 855-8138

Degrees Offered

Master of Arts, Master of Arts for Teachers, and Doctor of Philosophy

Special Departmental Requirements

See also general University Graduate School requirements.

Master of Arts Degree

Students may follow one of two different curricula in pursuit of the M.A. degree: Master of Arts in Germanic Studies and Master of Arts in Modern German Culture.

Admission requirements are the same for both programs, and the official degree title for both options is the M.A. in Germanic Studies.

Admission Requirements

Near-native command of German and undergraduate major in the field or other evidence of adequate background. Deficiencies may be removed by course work or special examination.

Master's Project

Both the Master of Arts in Germanic Studies and the Master of Arts in Modern German Culture require successful completion of a master's project, which is intended to give students experience in carrying out a limited scholarly investigation to their fullest potential. The project is normally submitted after three or four semesters of study but may be submitted as early as the first year. It entails appropriate revision and oral defense of a research paper of 20 to 30 pages originally written for a graduate course in Germanic Studies. The paper should demonstrate command of expository English or German, competence in the use of bibliographic and research tools, ability to conceive and develop a scholarly project, and effective critical and analytical thinking. It is recommended that students consult with appropriate faculty members regarding selection and revision of

the project paper. A three-person faculty committee evaluates each project and conducts an oral defense that examines the candidate's ability to present concisely the main argument(s) of the project, place the project in larger scholarly contexts, discuss sources and scholarly literature used, and respond effectively to committee members' questions and comments. Students have the option of enrolling in German G850 Master's Project for one credit so that the project's completion is reflected on their permanent academic record and transcripts.

Master of Arts in Germanic Studies

Course Requirements

A total of 30 credit hours, including G503, G532, G548, G551, G558 or G640; and one seminar or colloquium at Indiana University. At least 9 additional credit hours in Germanic studies and one Germanic Literature course numbered 500 or above.

Language Requirement

Reading proficiency in an additional foreign language, preferably French.

Thesis

Not required.

Master of Arts in Modern German Culture

Course Requirements

A total of 30 credit hours, including G503, G563, G564; and V815 or equivalent. Nine (9) additional credit hours in Germanic Studies. Up to 9 further credit hours may be taken in other relevant programs and departments (history, comparative literature, etc.); specific courses must be approved by the director of graduate studies. Max Kade Fellows should seek approvals for specific courses from the director of the Institute of German Studies.

Language Requirement

Reading proficiency in an additional foreign language, preferably French.

Master of Arts for Teachers Degree

Admission Requirements

20 credit hours of course work (or the equivalent) beyond first-year German.

Course Requirements

A total of 36 credit hours; at least 20 of these must be in Germanic Studies, including G500, G540, two courses from G548, G551, and G558; two literature or culture courses in German, one of which may be at the 400 level. Students must demonstrate proficiency in depth in German; contact the language coordinator in the department for information.

Doctor of Philosophy Degree

General Information

Admission Requirement

M.A. in German or equivalent. Students with a master's degree in a related discipline who have completed extensive graduate-level work in German may also apply.

Credit Transfer

Entering doctoral students may present up to 30 credit hours of previous graduate-level work towards the 90-hour minimum required for the Ph.D. degree, subject to the regulations and approval of the University Graduate School.

Language

Reading proficiency in French. A substitution may be permitted; such a substitution should serve the candidate's major research interests.

Other Requirements

Specific departmental course and credit-hour requirements for each of the three Ph.D. majors are outlined below.

Examinations

A two-part written examination followed by an oral examination. The form, content, and scheduling of the separate examinations vary from major to major.

Teaching

All doctoral students are required to complete at least one year of service as an associate instructor in Germanic Studies.

Ph.D. in Germanic Linguistics and Philology

Professional courses		Seminars (two required at IU)	
G500	3	G825 or G835	3-4
G503	3	G825 or G835	3-4
	6		6-8
Linguistics courses		Literature courses	
Four from the following: G532, G540, G548, G551, G558, G632, G635, G638, G639, G640, G601 Intro. to Old English, G655 Hist. of Engl. Lang		G571	3
		Any other literature course numbered 500 or above	3
	12-14		6
Dissertation	up to 20	Outside minor Total hours	at least 12 90

Ph.D. in Medieval and Early Modern German Literature and Culture

This major is intended as one in medieval literature and culture, and the languages involved are regarded as tools rather than as ends in themselves. The interdepartmental outside minor must be taken in medieval culture. The 30-32 hours of required course work in German literature should include sufficient study of modern literature to prepare the candidate to teach college courses in this area on the second- and third-year levels.

Professional courses	Seminars (two required at IU)	
G500	3 G825 or G835	3-4
G503	3 G825 or G835	3-4
	<hr/>	<hr/>
	6	6-8
German literature	Germanic linguistics	
G571	3 G635	3
G636	3 G640	3
G625 (with medieval topic)	3 Recommended: any one from G532, G638, G825 (with medieval topic)	(3)
Other literature courses	17-19 G639	
	<hr/>	<hr/>
	30-32	6-9
Dissertation	Outside minor: medieval culture	
up to 20	Either F501 Med. French Lit. I or L505 Medieval Latin Additional hours in medieval culture	3 4 15-19
	<hr/>	<hr/>
Total hours		18-22 90

Ph.D. in Modern German Literature and Culture

Professional courses		Seminars (two required at IU)	
G500	3	G825 or G835	4
G503	3	G825 or G835	4
	<hr/>	<hr/>	<hr/>
	6		8
Literature courses		Linguistic courses	
Any three from: G571, G573, G575, G577	9	G548 or G551 or G558 Any additional Germanic Linguistics course	3 3
	<hr/>		<hr/>
	9		6
Dissertation	up to 20	Outside minor	at least 12
		Total hours	90

Outside Minors for the Ph.D.

All three Ph.D. program options in Germanic studies require the completion of an outside minor. The outside minor is selected in consultation with the graduate director or faculty advisor. Requirements for the outside minor are set by the outside minor department or program (i.e., not Germanic Studies). Please note that Dutch or Yiddish may be selected by Ph.D. students in Germanic Studies as an outside minor. Some Ph.D. candidates in Germanic Studies complete the minor entirely outside the department, for example in cognitive science, French, West European studies, or gender studies. Detailed information about minors offered by other departments and programs can be found elsewhere in this bulletin. Detailed below are sample minor programs.

1. Dutch: 12 credits, consisting of N402, N403, N404, and N450.
2. Comparative Literature: four courses in Comparative Literature, including C501; fluent reading knowledge of at least one foreign language.

3. Cultural Studies: 4 courses for a minimum of 13 credits in courses approved for the Cultural Studies program, including C601 and either C701 or C790. Students must officially declare the minor during the early phase of their Ph.D. studies by consulting with the director of the Cultural Studies program. Satisfactory performance on the qualifying examinations in the student's major department is also required.
4. English and Germanic philology: four courses, to include English G601 Introduction to Old English and at least one of the other older Germanic languages, i.e., German G632, G635, G638, G639, and G640. The remaining courses may be chosen from ENG G602 Introduction to Middle English, G655 History of the English Language, L710 Beowulf, L711 (Topic: Old English Literature), GER G532, G625 with appropriate topic, G636, G835 with appropriate topic, and any of the remaining older Germanic languages listed. Also offered is an Area Certificate in English and Germanic Philology, requiring four courses in addition to the four required for the minor. These may include any of the courses listed above, as well as courses in other departments that are relevant to the history and prehistory of the Germanic languages, and to early Germanic literature and culture.
5. Linguistics: 12 credits in linguistics or related courses, with a grade point average of 3.0 (B) or higher. The specific program for satisfying this requirement should be developed in consultation with the linguistics outside minor advisor.
6. Yiddish: 12 credits, consisting of Y502, Y503, Y504; and Y505 or Y506.

Ph.D. Minor in Germanic Studies

Doctoral students from other departments desiring to minor in Germanic studies will choose one of the following:

1. German: 12 credit hours, including at least two courses numbered 500 or higher.
2. German studies: 15 credit hours, including G563, G564, and V605.
3. Netherlandic: N402, N403, N404, and N450.
4. Yiddish: Y502, Y503, Y504; Y505, Y506, Y815 or other courses focusing on non-language Yiddish topics.

For further information concerning the graduate program in Germanic Studies, see the *Guide to Graduate Study*, issued annually by the department.

Courses

GENERAL COURSES

G400 Deutsch: Oberstufe (3 cr.)

G403 Deutsche Literatur: Mittelalter bis Romantik (3 cr.)

G404 Deutsche Literatur seit der Romantik (3 cr.)

G500 College German Teaching (3 cr.) Required of associate instructors in their first year of teaching. An overview of teaching methodologies, their underlying theories, and their practical application in college-level German courses.

G503 Introduction to Graduate Study in German Literature (3 cr.) Required of graduate students in their first year. Techniques of literary analysis, conventions of scholarly writing, use of bibliographic tools. Methodological approaches of various critical schools applied to selected works. Research paper on a literary text.

COURSES IN GERMANIC LITERATURE AND CULTURE

G505 New Literary Theory and the German Text (3 cr.) P: G503. Survey of literary theory currently used in Germanic studies; differences between theory in German and in American *Germanistik*. Areas such as reception theory, Frankfurt School, structuralism, poststructuralism, psychoanalytic criticism, feminist criticism, New Historicism.

G563 German Culture Studies I (3 cr.) R: G363, G464, or HIST B377-B378. The formation of cultural traditions in the German-speaking countries prior to the twentieth century.

G564 German Culture Studies II (3 cr.) R: G363, G464, or HIST B378. Culture of the German-speaking countries in the twentieth century.

G571 Historical Study of German Literature I (3 cr.) Historical treatment of a literary topic involving substantial developments within the time period before 1600. Topics range from individual genres, types, or movements; to themes or ideas; to sociopolitical contexts of literature or its relationships to other art forms. May be repeated once for credit with different topic.

G573 Historical Study of German Literature II (3 cr.) Historical treatment of a literary topic involving substantial developments within the time period between 1600 and 1800. Topics range from individual genres, types, or movements; to themes or ideas; to sociopolitical contexts of literature or its relationships to other art forms. May be repeated once for credit with different topic.

G575 Historical Study of German Literature III (3 cr.) Historical treatment of a literary topic involving substantial developments within the time period between 1800 and 1900. Topics range from individual genres, types, or movements; to themes or ideas; to sociopolitical contexts of literature or

its relationships to other art forms. May be repeated once for credit with different topic.

G577 Historical Study of German Literature IV (3 cr.) Historical treatment of a literary topic involving substantial developments within the time period from 1900 to the present. Topics range from individual genres, types, or movements; to themes or ideas; to sociopolitical contexts of literature or its relationships to other art forms. May be repeated once for credit with different topic.

G605 Special Topics in Teaching German (3 cr.) P: two years of college-level teaching experience. Advanced course in the theory and practice of teaching college-level German. Topics include task design for teaching different text types, language assessment and effective test development, and the role of technology in foreign language education.

G625 Colloquium (3 cr.) Emphasis on a particular topic, author, or genre, to be announced in advance. Assigned readings, reports, discussions. May be repeated.

G627 Lyric (3 cr.) Interpretation of lyric poetry as an expression of changing aesthetic values and social concerns. Selections from major literary periods from the Middle Ages to the present.

G636 Old Icelandic Literature (3 cr.) P: G635 or equivalent. Medieval Icelandic poetic and prose literary texts; history of the literature. Some consideration of medieval Norwegian, Swedish, and Danish literature.

G815 Individual Readings (1-3 cr.) Guided readings in Germanic literature, linguistics, and culture. May be repeated.

G820 Research Tutorial (1-3 cr.) Work under faculty supervision that results in a scholarly paper, lecture, translation, bibliography, syllabus, or comparable product. May be repeated for credit once with a different topic.

G825 Seminar in German Literature (var. 3-4 cr.; may be repeated)

G850 Master's Project (1 cr.)
Revision and oral defense of a substantial research paper originally written for a graduate course in Germanic Studies.

G875 Research in German Literature (cr. arr.)**

V605 Selected Topics in German Studies (2-4 cr.; 12 cr. max.)

V815 Individual Readings in German Studies (1-8 cr.; may be repeated)

COURSES IN GERMANIC LINGUISTICS

G532 History of the German Language (3 cr.) Development from Primitive Germanic to New High German; German dialect geography. German as a member of the Germanic family and of the European linguistic area.

G540 Acquisition of German as a First and Second-language (3 cr.)
P: knowledge of German; graduate standing or permission of instructor. Introduction to recent generativist scholarship on acquisition of German as a first and second-language. Consideration of broader theoretical issues. No prior knowledge of linguistics assumed.

G548 German Phonetics and Phonology (3 cr.) Introduction to phonetics and phonology of modern German with emphasis on description, analysis, and theory. Relevance of German data to issues in phonological theory.

G551 Structure of Modern German (3 cr.) Structural problems in the grammar of Modern Standard German, investigated by means of various current methodological approaches.

**These courses are eligible for a deferred grade.

G558 Principles of German Morphology (3 cr.) In-depth study of the principles underlying word formation (morphology) in German. Comparative study of inflection, derivation, and compounding in German and English. Relevance of German data to morphological theory.

G632 Gothic (3 cr.) Transition from Indo-European to Germanic. History and development of Germanic dialects, with emphasis on prehistory of English and German. Comparative and descriptive analysis of Gothic phonology, morphology, and syntax.

G635 Old Icelandic (3 cr.)
Descriptive grammar. Survey of literature and extensive reading of prose and poetry. History of Scandinavian in comparison with other Germanic languages.

G638 Old High German (3 cr.)
Descriptive and comparative analysis of Old High German texts, with their dialect features.

G639 Old Saxon (3 cr.) Study of the Old Saxon (Old Low German) language. Readings from the Heliand and brief examination of other OS documents.

G640 Middle High German (3 cr.)
Introduction to Middle High German language, literature, and culture. Translation, linguistic analysis, and close reading of selections from major texts of the period 1170-1220.

G835 Seminar in Germanic Linguistics (4 cr.; may be repeated)

G885 Research in Germanic Linguistics (cr. arr.)**

COURSES IN NORWEGIAN

K501 Beginning Norwegian I (3 cr.) Development of listening comprehension, speaking, reading, and writing skills in a cultural context. Introduction to grammar.

K502 Beginning Norwegian II (3 cr.) P: K501 with the grade of C- or higher or equivalent. Further development of listening

comprehension, speaking, reading and writing skills. Introduction to Norwegian literature and culture. Review of grammar and study of new grammatical topics.

K503 Intermediate Norwegian I (3 cr.) P: K502 with the grade of C- or higher or equivalent. Further development of oral and written command and language structures. Reading and discussion of literary and nonliterary texts in a cultural context. Review of grammar and study of new grammatical topics.

K504 Intermediate Norwegian II (3 cr.) P: K503 with the grade of C- or higher or equivalent. Advanced reading proficiency, systematic vocabulary building, composition, and discussion of literary and nonliterary texts in cultural and historical contexts. Review of grammar.

COURSES IN NETHERLANDIC

N401 Intensive Dutch I (3 cr.)
Development of speaking ability, with stress on pronunciation, leading to fluency on restricted topics. Introduction to grammar. Reading of annotated stories.

N402 Intensive Dutch II (3 cr.) P: N401 or consent of instructor. Completion of grammatical study begun in N401; continued stress on speaking Dutch on selected topics; rapid expansion of reading ability using literary and cultural materials.

N403 Dutch Reading, Composition, and Conversation I (3 cr.) P: N402 or consent of instructor. Development of oral fluency; attention to idiom. Further grammatical study; attention to formal writing style. Readings in Dutch literature and culture.

N404 Dutch Reading, Composition, and Conversation II (3 cr.) P: N403 or consent of instructor. Further development of style and idiom in speaking and writing. Reading of novels. Oral and written practice on topics of contemporary Dutch life.

N450 Introduction to the Civilization of the Netherlands (3 cr.)

COURSES IN SCANDINAVIAN

S591 Scandinavian Languages for Researchers (3 cr.) Introduction to the structure of Swedish, Norwegian, and Danish necessary for reading, followed by critical reading in texts in the area of Scandinavian studies.

COURSES IN YIDDISH

Y501 Beginning Yiddish I (3 cr.) Introduction to the Yiddish language and selected aspects of Yiddish-language culture. Development of listening comprehension, simple speaking proficiency, controlled reading and writing skills.

Y502 Beginning Yiddish II (3 cr.) P: Y501 with grade of C- or higher or equivalent. Introduction to the Yiddish language and selected aspects of Yiddish-language culture. Development of listening comprehension, simple speaking proficiency, controlled reading and writing skills.

Y503 Intermediate Yiddish I (3 cr.) P: Y502 or consent of instructor. Development of speaking, reading, writing, and listening skills. Review of basic grammar and study of new grammatical topics. Reading of short fictional texts and other writings on Jewish culture. Taught in alternate years.

Y504 Intermediate Yiddish II (3 cr.) P: Y503 or consent of instructor. Continuing development of active and passive skills. Additional new grammar concepts. Emphasis on development of reading skills and cultural knowledge through literary and journalistic texts, including texts in nonstandardized orthographies. Taught in alternate years.

GER Y505 Topics in Yiddish Literature (3 cr.)

¹ Four (4) credit hours for undergraduates.

GER Y506 Topics in Yiddish Culture (3 cr.)

Y815 Individual Readings in Yiddish Studies: Language, Literature, and Culture (1-4 cr.) Guided readings. May be repeated.

COURSES FOR GRADUATE READING KNOWLEDGE

G491 Elementary German for Graduate Students (3 cr.; no grad. cr.)¹

G492 Readings in German for Graduate Students (3 cr.; no grad. cr.)¹

Health, Physical Education, and Recreation

**School of Health, Physical Education, and Recreation
Bloomington**

Dean
Professor David L. Gallahue
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Departmental URL
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Graduate Faculty
(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors
Anita Aldrich (Emerita), David Austin, Herbert Brantley (Emeritus), John Cooper (Emeritus), James Crowe (Emeritus), Jesus Dapena, Evelyn Davies (Emerita), Theodore Deppe (Emeritus), Ruth Engs (Emerita), Alan Ewert, Lawrence Fielding, David Gallahue, Leroy Getchell (Emeritus), Barbara Hawkins, Lynn Jamieson, David Koceja, Donald Ludwig (Emeritus), Janet MacLean (Emerita), Joel Meier, Tony Mobley (Emeritus), Mary Lou Remley (Emerita), Thomas Rillo (Emeritus), Ruth Russell, John Seffrin, John B. Shea, Joel Stager, Clinton Strong (Emeritus), Paul Surburg (Emeritus),

Mohammad Torabi, Wynn Updyke (Emeritus), William Yarber

Associate Professors
Robert Billingham, Earl Blair*, S. Kay Burrus (Emerita), Dominic M. Cooper, Donetta Cothran, Nancy Ellis, Millicent Fleming-Moran*, Alyce Fly, Georgia Frey*, Kathleen Gilbert, Doug Knapp*, Youngkhill Lee, Alice Lindeman, David Lohrmann, W. Donald Martin (Emeritus), Bryan McCormick, Craig Ross, Gary Sailes*, Nathan Shier, Joel Stager, Janet Wallace, Sarah Young

Assistant Professors
Deborah Fravel*, Matthew Heath*, Francis M. Kozub, Timothy Mickleborough, Michael Reece*

Clinical Assistant Professors
Noy S. Kay*, Catherine Sherwood-Puzzello*

Executive Associate Dean, Graduate Studies
Professor Jerry D. Wilkerson;
Health, Physical Education, and Recreation Building 111; (812) 855-1561

Lecturers
Trent Applegate* (Visiting), Dong-Chul Seo

Degree Offered
Doctor of Philosophy in health behavior, human performance, and leisure behavior. In addition, the School of Health, Physical Education, and Recreation offers the following graduate degrees: Masters of Science in Applied Health Science, in Kinesiology, and in Recreation; Master of Public Health and Director of Recreation. For full information see the School of Health, Physical Education, and Recreation Bulletin.

Program Information
The Ph.D. is a research degree especially designed to prepare graduates for careers in fields devoted to the study of health behavior, human performance and leisure behavior. Specific emphases currently available in human performance include adapted physical education, biomechanics,

exercise physiology, motor development, and motor learning/control. Other areas of study are also available for graduate degrees offered through the School of Health, Physical Education, and Recreation.

Special School Requirements

See also general Graduate School requirements.

Doctor of Philosophy Ph.D. Information

Admission Requirements

Applicants for the Ph.D. in health behavior, human performance, or leisure behavior must possess at least the equivalent of an undergraduate minor in the field of study to be pursued. Appropriate academic background in the physical, biological, and social and behavioral sciences is required. Prescribed deficiency work ordinarily cannot be counted among credit hours required for the degree. Other admission criteria are grade point averages earned in all undergraduate and graduate work, scores on the Graduate Record Examination General Test, and letters of recommendation from professors or others who are able to evaluate the applicant's potential for success in advanced graduate study. Admission applications can be completed online at: http://www.hper.indiana.edu/admissions/apply_now/

Course Requirements

A minimum of 90 credit hours beyond the baccalaureate degree, of which at least 30 credit hours must be in the major area of emphasis. The remaining credit hours are to be distributed among the minor(s), supportive electives that include a substantial amount of work in statistics and research methodology, and dissertation (20-30 credit hours). Fifteen (15) credit hours excluding courses taken to complete the research and languages requirement are required outside of the School of Health, Physical Education, and Recreation.

Elective or minor course work must clearly support the development of research competency in the major field. Frequent involvement in research projects (with or without academic credit) is essential to the program. Deficiencies in course work must be removed during the first year of study.

All Ph.D. students must present T590 and T591, or their equivalents, as prerequisites to the major work.

Grades

All doctoral students must maintain a grade point average of at least 3.0 (B). Grades of C- (1.7) and below will be calculated in the student's grade point average, but courses in which such grades are earned cannot be counted toward degree requirements.

Minor(s)

At least one minor in a supporting area outside the major department is required, which must be in a discipline related to, but distinct from, the major field(s) of study. The number of required credit hours is determined by the unit in which the minor is taken (usually 12-15).

Foreign Language/Research-Skill Requirement

One of four options:

1. reading proficiency in two languages;
2. proficiency in depth in one language;
3. reading proficiency in one language plus an approved research skill;
4. other approved combination of research skills (9 credit hour minimum).

The option pursued must clearly enhance the student's ability to pursue research in the specific field of study and must have the approval of the student's advisory committee and the associate dean of academic program administration.

Research skills may be selected from, but are not limited to, areas such as computer science, mathematics, electronics, engineering, chemistry, and statistics.

Qualifying Examination

Written and oral; may not be taken until all prescribed course work and the foreign language/research-skill requirement have been completed. Examination periods are regularly scheduled for September, February, and June. Applications must be filed at least 30 days in advance.

Research Proposal

The proposal meeting will be open to faculty and students in the university community. During the first portion the student will formally present her/his dissertation proposal in an open forum. Committee members and visitors will have the opportunity to ask questions. Visitors will leave after the formal presentation. The remaining time will be determined by the student's research committee.

Final Examination

Oral defense of the dissertation.

Ph.D. Minor in Human Performance

Doctoral students in other departments can complete a minor in a specific emphasis by satisfactorily completing 15 credit hours of graduate-level course work which has been approved by the minor field representative on the doctoral advisory committee. A qualifying examination is required. No more than 6 of the required 15 credit hours may be transferred from another institution.

Ph.D. in Human Performance—Sport Management Track

Admission

Successful applicants for the doctoral program in sport management will typically have GRE scores at or above the 50th percentile in at least two of the three sections (verbal, quantitative, analytical), including a score above 600 in one of these sections; an undergraduate GPA of at least 3.0; a graduate GPA of at least 3.5; a strong set of recommendations; and experience working in the field of sport management or a related professional field. Applicants for the Ph.D. tract in sport management will be required

to submit a 500-word statement of purpose and a writing sample (e.g., master's thesis, published paper, master's research paper). A formal interview with the sport management doctoral program committee is required before an applicant can be admitted to the program.

Requirements

A minimum of 90 credit hours beyond the baccalaureate degree, of which at least 30 credit hours must be in the major area of sport management. The remaining credit hours are to be distributed among minor(s), supportive electives that include a substantial amount of work in theoretical analysis, data collection and analysis, and research methodology, and dissertation (20-30 credit hours). At least 15 credit hours excluding courses taken to complete the Research and Language requirements are required outside the School of Health, Physical Education, and Recreation. Elective or minor course work must clearly support the development of research competency in the major field. Frequent involvement in research projects is considered essential to the program. Deficiencies in course work must be removed during the first year of study. All Sport Management Ph.D. students must complete T590 and T591, or their equivalents as prerequisite to their major course work.

Language Requirement

One of the following four options:

1. Reading proficiency in two languages;
2. Proficiency in depth in one language;
3. Reading proficiency in one language plus an approved research skill;
4. Other approved combination of research skills (9 credit hour minimum).

Courses

Complete course listings for the Ph.D. in health behavior, human performance, and leisure behavior can be found in the School of Health, Physical Education, and Recreation Bulletin. For additional information,

see also the *HPER Graduate Student Handbook*.

History

**College of Arts and Sciences
Bloomington**

Chairperson

Chancellor's Professor John Bodnar

Departmental E-mail

gradsec@indiana.edu

Departmental URL

www.indiana.edu/~histweb

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Distinguished Professors

Robert Ferrell (Emeritus), Edward Grant (Emeritus, History and Philosophy of Science), James Riley (College of Arts and Sciences, Graduate School), Denis Sinor (Emeritus, Central Eurasian Studies), Gerald Strauss (Emeritus), David Thelen

Chancellor's Professor

John Bodnar

Robert F. Byrnes Professor

David Ransel

Ruth Halls Professor

Phyllis Martin

Donald F. Carmony Chair

Eric Sandweiss

Mendel Chair in Latin American History

Daniel James

Thomas and Kathryn Miller Professor

James Madison

University Professor

Norman Pounds (Emeritus)

John W. Hill Associate Professor

Maria Bucur-Deckard

Professors

Judith Allen, George Alter, John Bodnar, George Brooks, Donald Carmony (Emeritus), Jamsheed K.

Choksy (Central Eurasian Studies), Nancy Demand (Emerita), James Diehl (Emeritus), Allen Douglas, Ben Eklof, Dyan Elliott, Jurgis Elisonas (Emeritus, East Asian Languages and Cultures), Lawrence J. Friedman, Jeffrey Gould, Michael Grossberg, Charles Jelavich (Emeritus), George Juergens (Emeritus), Herbert Kaplan (Emeritus), Irving Katz (Emeritus), Hiroaki Kuromiya, James Madison, Phyllis Martin (Emerita), Michael McGerr, Howard Mehlinger (Emeritus, Education), Muriel Nazzari (Emerita), Irene Neu (Emerita), M. Jeanne Peterson (Emerita), Otto Pflanze (Emeritus), Robert Quirk (Emeritus), Alexander Rabinowitch (Emeritus), David Ransel, James Riley, Bernard Sheehan (Emeritus), Lynn Struve, Jeffrey Wasserstrom, George M. Wilson (Emeritus, East Asian Languages and Cultures)

Associate Professors

Maria Bucur-Deckard, Ann Carmichael, Claude Clegg, Nick Cullather, Ellen Dwyer, Arthur Field, Wendy Gamber, Peter Guardino, John Hanson, Carl Ipsen, Tom Keirstead, David Pace, Eric Sandweiss, Leah Shopkow, Steven Stowe, Jeffrey Veidlinger, Dror Wahrman

Assistant Professor

Jonathan Sheehan

Visiting Assistant Professor

Robert Bieder

Adjunct Professors

Robert Eno (East Asian Languages and Cultures), Owen Johnson (Journalism), David Nord (Journalism), Toivo Raun (Central Eurasian Studies), Richard Rubinger (East Asian Languages and Cultures), Steven Stein (Religious Studies)

Adjunct Associate Professors

David Brakke (Religious Studies), James Capshew (History and Philosophy of Science), Kathleen Myers (Spanish and Portuguese)

Director of Graduate Studies

Professor Carl Ipsen, Ballantine Hall 702, (812) 855-8234

Degrees Offered

Master of Arts, Master of Arts for Teachers, dual Master of Arts and Master of Library Science (jointly with the School of Library and Information Science), and Doctor of Philosophy

Program Information

The graduate program in history at Indiana University includes formal course work and opportunities for independent study in nearly all recognized fields, both chronological and geographical. Moreover, the department is strongly committed to interdisciplinary programs, and it works closely with area studies programs, journals, and historical organizations. The graduate program is designed to help students in the development of their knowledge and of their critical and analytical skills. Courses and programs in the Department of History prepare students for work as professional historians in a variety of settings: in public history, editing, librarianship, and government service, as well as in historical research and teaching at all levels.

Special Departmental Requirements

See also general University Graduate School requirements.

Master of Arts Degree

Admission Requirements

(1) Bachelor's degree from a recognized institution, including 24 undergraduate credit hours in history, an overall undergraduate B (3.0) average, and a superior record in history; (2) At least one score above 600 on the Graduate Record Examination (GRE) General Test; (3) three letters of recommendation; (4) a personal statement concerning intellectual interests and professional aspirations; and (5) a sample of written work, such as a term paper, thesis, or any other piece of writing that indicates ability to communicate well in nonfiction prose. Ideally, a writing sample should also demonstrate the applicant's ability to conduct historical research.

Grades

No grade below B- (2.7) in history courses will be counted toward this degree.

Course Requirements

A total of 30 credit hours; at least 20 of these credit hours must be in the Department of History. Students are required to complete H601 and at least one seminar and two colloquia; the remaining credit hours in history must be completed in graduate colloquia, seminars, or readings courses. Graduate students will be allowed to receive credit for undergraduate courses only in special cases (such as in the study of fields not commonly available at the undergraduate level, or in small fields).

Foreign Language Requirement

Reading proficiency in one of the following languages: Arabic, Chinese, French, German, ancient Greek, Italian, Japanese, Latin, Portuguese, Russian, Spanish, or another language appropriate to the student's program of study, if approved by the University Graduate School.

Students may demonstrate proficiency by any of the three methods normally sanctioned by the University Graduate School or by passing a reading examination prepared by members of the history department faculty. The examination includes two texts of approximately 400 words each, one drawn from primary historical sources and the other typically drawn from historiographical sources. A student will be expected to translate the first text and answer critical questions about the second.

Final Examination

None, unless the student has a grade point average less than 3.3 in history courses, in which case an oral examination is required.

Field Review

M.A. candidates wishing to enter the Ph.D. program and those terminating their program with the master's degree must be recommended for the M.A. degree by the appropriate field committee. Graduate students who

enter with an M.A. from another institution will be reviewed a year after pursuing graduate work at IU.

Master of Arts for Teachers Degree

Admission Requirements

Same as for the Master of Arts degree except that reading ability in a foreign language is not required.

Grades

No grade below B- (2.7) in history courses will be counted toward this degree.

Course Requirements

Requirements A361, A362, B391, and others for a total of 20 or more credit hours in history and 36 credit hours in all courses.

Foreign Language Requirement

None.

Final Examination

None.

Dual Master of Arts and Master of Library Science Degrees

Study for these two degrees can be combined for a total of 50 credit hours rather than the 66 credit hours required for the two degrees taken separately. Students take 20 credit hours in history as outlined above under course requirements for the Master of Arts degree and 30 credit hours of library science, including L503, L505, L507, L520, L524, L528, L586 (or History H547 with the topic "Archives"), L596, and L625, plus 3 credit hours of electives in the School of Library and Information Science. Admission to each of the two areas of study is approved separately on the same basis as for other applicants not in the dual program.

Doctor of Philosophy Degree

Admission Requirements

(1) Completion of the M.A. degree at Indiana University or another recognized institution, (2) a superior record in history, (3) certification in one foreign language, and (4) review and approval by a field committee

consisting of faculty in the student's major field. For students with an M.A. degree from Indiana University, this review must take place by the end of a student's third semester of full-time graduate study; for other students, this review is done by a subcommittee prior to admission. For those with M.A. degrees from another institution, a writing sample, a personal statement and three letters of recommendation are required.

Grades

No grade below B- (2.7) in history courses will be counted toward this degree.

Course Requirements

The minimum course requirements for the Ph.D. degree are six colloquia (courses H600-H699) distributed in two or more fields, two seminars (courses H700-H799) taught by different instructors, one of which must be in the major field; H601 Introduction to the Professional Study of History during the first semester at IU; and courses to complete the outside minor. For those students transferring M.A. credits, a minimum of two colloquia and one seminar must be completed on the IU Bloomington campus. Students may take dissertation credits (H899) to fulfill the 90 credit hours required by the University Graduate School to complete the Ph.D. Students enrolled in the dual concentration program in cultural history must complete H680 and H780 in addition to the requirements listed above.

Foreign Language/Research Skill Requirement

Reading proficiency in two of the following languages: Arabic, Chinese, French, German, ancient Greek, Italian, Japanese, Latin, Portuguese, Russian, Spanish, or others appropriate to the student's program of study, if approved by the University Graduate School. Proficiency may be demonstrated by the means indicated under the heading "Foreign Language Requirement" in the section on the M.A. degree. As a substitute for the second language in certain fields, the student may demonstrate proficiency

in an approved research skill clearly useful for the study of history; the choice of a specific skill is subject to the approval of the student's advisory committee and the department's director of graduate studies. With the necessary approval, a student may demonstrate proficiency by earning a grade of B+ (3.3) or higher in a two-course methodological sequence such as History H540 and H541, Anthropology E500 and E606, Folklore and Ethnomusicology F516 and F517, Journalism J500 and J520, or Telecommunications T501 and T510. A student may also demonstrate proficiency in the use of a research skill by achieving an appropriate score on a written examination prepared by members of the history department faculty. The above requirements must be met by the time the student has completed no more than 30 credit hours beyond the M.A. or has been admitted to the Ph.D. program. Some fields, such as Latin American history and ancient history, require proficiency in additional languages.

Qualifying Examination

(1) A rigorous oral examination of no longer than three hours will be required. The purpose of the examination is to demonstrate general command of the major and minor fields of study. The examination should assess students' scholarly preparation to teach courses in their fields through the demonstration of the ability to discuss key issues and problems in these areas. At least two representatives of the student's major field and at least one representative of his/her inside minor field must be present at the examination. The faculty representative for the student's outside minor has the option of participating or waiving participation. Students enrolled in the dual concentration in a time/place field and cultural history should have at least two representatives from the time/place field and two from the cultural history field on their examination committees. (2) There will be a public defense (open to all faculty and graduate students) of the student's dissertation prospectus,

which the student's exam committee will preside over. The defense can take place as early as one week, but no later than six months, after the student passes the oral examination. The prospectus will be distributed at least one week in advance of the defense. It should be substantial and should take the form of a grant proposal. It should explain the potential significance of the proposed dissertation project and place it in historiographical context. Students must receive passing grades on both parts of the examination in order to advance to Ph.D. candidacy. The student's examination committee grades both parts of the examination.

Termination of Enrollment in the Doctoral Program

If a doctoral student fails the oral qualifying examination two times, falls below a 3.0 (B) grade point average, fails to meet the language/research-skill requirement by the time 30 credit hours of post-M.A. credit have been earned, or fails to complete the oral qualifying examinations by the end of the approved length of time, the director of graduate studies, in consultation with the advisory committee, can initiate steps to terminate the student's enrollment in the program. The student, however, may make a formal appeal to be given a third chance to pass the qualifying examinations or to be given additional time to raise the grade point average or to complete the qualifying examination. If the appeal is denied, the director of graduate studies will recommend to the dean of the University Graduate School that the student's enrollment in the doctoral program be terminated.

Final Examination

Oral defense of dissertation.

Ph.D. Minor in History

Students in other departments may minor in history by completing, with a grade point average no lower than B (3.0), at least 12 credit hours of course work in history, including one colloquium. No more than 6 credit hours of work transferred from another university may be applied toward this requirement, and such

credit must be approved by the director of graduate studies in the Department of History.

To arrange for a history minor, students should consult the director of graduate studies, who will recommend a member of the faculty to serve as an advisor. In consultation with the advisor, a program of study will be outlined and a copy of the plan filed with the director of graduate studies. Upon completion of the course work, either the student's history advisor or the director of graduate studies will attest to the successful completion of the outside minor.

Further information regarding departmental regulations governing advanced degree programs may be found in *A Guide to Graduate Studies in History*, available on from the department's graduate Web page: www.indiana.edu/~histweb

Courses Offered

HISTORY COURSES

A301-A302 American Colonial History I-II (3-3 cr.)

A303-A304 United States, 1789 to 1865 I-II (3-3 cr.)

A313 Origins of Modern America (3 cr.)

A314 The United States, 1917-1945 (3 cr.)

A315 United States since World War II (3 cr.)

A317 American Social and Intellectual History (3 cr.)

A325-A326 American Constitutional History I-II (3-3 cr.)

A329-A330 Social History of American Enterprise I-II (3-3 cr.)

A337-A338 The American Frontier I-II (3-3 cr.)

A339-A340 History of the South I-II (3-3 cr.)

A345-A346 American Diplomatic History I-II (3-3 cr.)

A347 American Urban History (3 cr.)

A348 Civil War and Reconstruction (3 cr.)

A352 History of Latinos in the United States (3 cr.)

A353-A354 American Economic History I-II (3-3 cr.)

A355-A356 Afro-American History (3-3 cr.)

A361-A362 Studies in American History for Teachers I-II (3-3 cr.)

A364 History of Black Americans (3 cr.)

A371-A372 History of Indiana I-II (3-3 cr.)

A402 Readings in American Environmental History (3 cr.)

A410 American Environmental History (3 cr.)

A421 Topics in United States History (3 cr.) Intensive study and analysis of selected historical issues and/or problems in United States history. Topics will vary from semester to semester.

A507 American Cultural History (3 cr.) Central topics in American cultural life and thought from the late nineteenth century to the present. Special focus on the changing sense of personal selfhood among specific ethnic and religious groups, social classes, genders, and professions. Examination of how this changing sense has manifested itself in cultural forms.

B341 History of Spain and Portugal (3 cr.)

B351 Western Europe in the Early Middle Ages (3 cr.)

B352 Western Europe in the High and Later Middle Ages (3 cr.)

B353 The Renaissance (3 cr.)

B354 The Reformation (3 cr.)

B355 Europe: Louis XIV to French Revolution (3 cr.)

B356 French Revolution and Napoleon, 1763-1815 (3 cr.)

B357 Modern France (3 cr.)

B359-B360 Europe from Napoleon to the First World War I-II (3-3 cr.)

B361-B362 Europe in the Twentieth Century I-II (3-3 cr.)

B363-B364 European Diplomatic History since 1870 I-II (2-2 cr.)

B366 Paris and Berlin in the 1920s: A Cultural History (3 cr.)

B377-B378 History of Germany since 1648 I-II (3-3 cr.)

B383-B384 European Intellectual History I-II (3-3 cr.)

B391 Themes in World History (3 cr.)

B393 German History: From Bismarck to Hitler (3 cr.)

B421 Topics in European History (3 cr.)

B568 Modern Italy (3 cr.) Risorgimento and unification; liberal Italy and the mutilated victory (WWI); Italian opera; Fascism; alliance with Nazi Germany and defeat (WWII); Christian Democrats vs. Communists; major cultural movements; the economic miracle; the Mafia; left- and right wing violence and terrorism; the kickbacks scandal and the Second Republic.

C386 Greek History (3 cr.)

C388 Roman History (3 cr.)

C391 History of the Medieval Near East (3 cr.)

C392 History of the Modern Near East (3 cr.)

C393 Ottoman History (3 cr.)

C394 Inner Asia before the Mongol Conquest (3 cr.)

C580 History of Ancient Medicine (3 cr.) Covers the history of ancient medicine in Mesopotamia, Egypt, Greece (Homeric, Hippocratic, and Asclepian), China, India, Alexandria, and Rome (Soranus, Galen, and the medical service of the Roman army), and modern uses of humoral theory. Major focus is on the Hippocratic treatises as primary sources.

D313 Russian Social and Cultural History, 1801-1917 (3 cr.)

D314 Soviet Social and Cultural History (3 cr.)

D401-D402 History and Civilization of the Byzantine Empire I-II (3-3 cr.)

D418 Russian and Soviet Foreign Policy in the Twentieth Century (3 cr.)

D419 The Mongols and Medieval Europe (3 cr.)

D430 History of the Eastern and Southern Baltic Region (3 cr.)

D506 Muscovy and Imperial Russia, 1500-1801 (3 cr.)

D510 Russian Revolutions and the Soviet Regime (3 cr.)

D521 Hungarian History and Civilization to 1711 (3 cr.)

D522 Hungarian History and Civilization, 1711-1918 (3 cr.)

D525 Path to Emancipation: Nationalism in the Balkans, 1804-1923 (3 cr.)

D527 The People vs. The Emperor: Nation-Making and Imperial Decline in East Central Europe, 1780-1918 (3 cr.)

D528 The Search for European Integration: Eastern Europe in the Twentieth Century (3 cr.)

E531 African History from Ancient Times to Empires and City States (3 cr.)

Origins and groupings of African peoples; political, social, and economic evolution to ca. 1750; Africa's contacts with the ancient world, trans-Saharan and Indian ocean trades; growth of states and empires; spread of Islam.

E532 African History from Colonial Rule to Independence (3 cr.)

The slave trade and its abolition; European imperialism and colonial rule; impact of Islam and Christianity; nationalism and the struggle for independence; reassertion of African culture and identity; development issues.

E533 Conflict in Southern Africa (3 cr.)

Early populations and environment; spread of European settlement, interaction with African societies and early race relations; Zulu power and white power; discovery of minerals and industrialization; urbanization and segregation; African and Afrikaner nationalism; south Africa and its neighbors; Mandela and the new South Africa.

E534 History of Western Africa (3 cr.)

E536 History of East Africa (3 cr.)

Developments over the past two millennia in East Africa (Ethiopia, Somalia, Kenya, Uganda, Tanzania, Malawi, and northern Mozambique). Topics include the environment and peoples of the region, the emergence of hierarchical societies, the economic and political changes of the nineteenth century, the era of European imperialism, the transformations associated with the colonial period, and African independence.

E538 History of Muslim West Africa (3 cr.) Introduction to the history and historiography of Muslim West Africa; develops the origins of Islam in West Africa and the ways West Africans have incorporated, transformed, and amplified Muslim beliefs and practices throughout history.

F341 Latin America: Discovery, Conquest, and Empire (3 cr.)

F342 Latin America: Evolution and Revolutions since Independence (3 cr.)

F432 Twentieth-Century Revolutions in Latin America (3 cr.)

F536 Modern Central American History (3 cr.)

Studies social, economic, cultural, and political development from 1821 to 1990. Major topics include coffee and liberalism, United States and Nicaragua, the era of reform, revolution and counterrevolution.

F543 Modern Brazil since 1850 (3 cr.)

F546 Modern Mexico (3 cr.) Places contemporary Mexico in historical perspective, focusing on the nineteenth and twentieth centuries. Topics include nineteenth-century social and political movements, the causes and consequences of the 1910 revolution, the formation of Mexico's political system, problems of economic growth, and the changing patterns of gender, class, and ethnicity in Mexican society.

G465 Chinese Revolutions and the Communist Regime (3 cr.)

G467 Traditional Japan (3 cr.)

G468 Early Modern Japan (3 cr.)

G567 Premodern Japan (3 cr.)

Society and culture on the Japanese archipelago from their origins to the high middle ages. Prehistoric Jomon and protohistoric Yayoi. Formation of the Japanese state under the influence of Chinese and Korean models. Heian courtly culture. Ascendancy of military elites and developments in popular culture during Kamakura and Muromachi periods.

G568 Early Modern Japan (3 cr.)

Samurai culture, expansion of Buddhism, and sectarian violence. High feudalism, unification, and the Tokugawa settlement after 1600. Encounter with European

civilization, closed country. Urbanization, social and cultural change, rise of agrarian prosperity in the Edo period to about 1800.

G569 Modern Japan (3 cr.)

Western impact and social and intellectual change in late Tokugawa Japan from about 1720. The Meiji Restoration. State capitalism and the Japanese development process. Empire, war, defeat, U.S. occupation, and renewal in the twentieth century. Japan's rise to the front rank of world economic powers after World War II.

G580 Early China (3 cr.) China from its neolithic background through the Qin and Western Han dynasties. Examines the Shang tribal polity, royal and aristocratic phases of the Zhou state, and the creation of the imperial system in the Qin-Han period. Changing patterns of ideology, political legitimacy, and social organization through archaeological and textual sources.

G582 Imperial China I (3 cr.) The Chinese empire from the Han through the Tang dynasties (second century B.C. through tenth century A.D.). Relations among demographic patterns, political forms, social classes, economic developments, religious movements, and cultural diversification, investigated through secondary and translated primary sources. Credit given for only one of G582 or G461.

G583 Imperial China II (3 cr.) The Chinese empire from the Song through the middle Qing dynasties (tenth through eighteenth centuries A.D.). Relations among demographic patterns, political forms, social classes, economic developments, philosophical movements, and cultural diversification, investigated through secondary and translated primary sources. Credit given for only one of G583 or G461.

G585 Modern China (3 cr.) Survey of the final century of dynastic rule and the rise to power of the Nationalist and Communist parties, highlighting social and cultural developments, the impact of Western imperialism, and the evolution of

revolutionary ideologies. Credit given only for G585 or G462.

G587 Contemporary China (3 cr.)

Survey of recent Chinese history focusing on social, cultural, and political life in the People's Republic of China and post-1949 Taiwan. Events covered include the Long March, the Cultural Revolution, and the Tiananmen Square protests of 1989. Credit given for only one of G587 or G462.

H425 Topics in History (1-3 cr.)

T500 Topics in History (3 cr.)

Intensive study and analysis of selected historical issues and problems of limited scope from the perspective of social and historical studies. Topics will vary but will ordinarily cut across fields, regions, and periods. May be repeated for credit.

GENERAL AND PROFESSIONAL SKILLS COURSES

H500 History of Historical Thought (4 cr.)

Approaches to the historian's craft and reflections on history as a type of scholarly thinking. Recommended for new graduate students and others interested in history as a branch of knowledge. With the consent of the director of graduate studies, may be repeated for credit when the instructor differs.

H501 Historical Methodology (4 cr.)

Discussion and application of the various methods and strategies used in historical research.

H509 Special Topics in European History (3 cr.)

Study of special topics in history of Europe at graduate level. May be repeated once for credit.

H511 Special Topics in United States History (3 cr.)

Intensive study and analysis of selected topics in United States history. Topics will vary from semester to semester.

H520 Shaping Careers in History (2 cr.)

Introduces students to the history profession in order to

facilitate planning of careers in the university and beyond. Emphasis placed on the changing nature of careers inside and outside academia and ways students might construct a program of study to serve their professional goals.

H521 Special Topics in African, Asian, or Latin American History (3 cr.)

Intensive study and analysis of selected topics in African, Asian, or Latin American history. Topics will vary from semester to semester, e.g., traditional Asia, modern Asia, Latin American intellectual History.

H523 The Holocaust (3 cr.)

Intensive introduction to the historical events and intellectual developments leading up to and surrounding the destruction of European Jewry during World War II. The Holocaust will be examined against the backdrop of modern Jewish and modern German history.

H524 Issues in Contemporary Historiography (4 cr.)

Overview of the discipline of history. Focuses on understanding and placing in perspective current debates in the field. Topics vary, but attention will be paid in each case to overarching themes such as the differences between historical subfields and the overlaps and divergences between history and other disciplines.

H540 Quantitative Methods in History (4 cr.)

H541 Advanced Quantitative Methods (4 cr.)

H542 Public History (4 cr.) The application of history to public needs and public programs. Historic preservation, archival management, oral history, editing, public humanities programming, historical societies, etc.

H543 Practicum in Public History (1-4 cr.)

P: H542. Internships in public history programs, field work, or research in the historical antecedents of contemporary problems.

H546 History of Science, Medicine, and Technology (3 cr.)

Study of

topics in the history of science, medicine, and technology. May be repeated once for credit.

H547 Special Topics in Public History (3 cr.) Intensive study and analysis of selected topics in public history. Topics will vary from semester to semester, e.g., to include historic preservation, material history, archival practice, and historical editing.

H575 Graduate Readings in History (cr. arr.)**

H580 The Teaching of College History (1-2 cr.) Approaches to college-level instruction in history, either (1) through training to be an associate instructor, or (2) through work as a course assistant, assisting a faculty member in planning and teaching a 300- or 400-level history course. May be repeated once for credit. S/F grading.

H591 Teaching World History (3 cr.) Introduction to the teaching of the undergraduate courses in world history. Topics include current curricula in world history; textbooks and other readings in world history; and multimedia resources. Students will prepare an undergraduate course syllabus of their own design.

H592 Teaching World History Practicum (3 cr.) A first practical experience in teaching an undergraduate advanced topics course in world history. Topics are at the discretion of the student, but require authorization by the instructor and the Department of History. Students will have complete responsibility for the course taught.

H593 Teaching United States History (3 cr.) Introduction to teaching undergraduate courses in United States History. Topics include: curricula in U.S. history, pedagogy in U.S. history, textbooks, and multimedia resources. Students will design two undergraduate course syllabi.

H594 Teaching United States History II: Practicum (3 cr.) A first practical experience in teaching an undergraduate advanced topics

course in United States history. Topics are at the discretion of the student, but require authorization by the instructor and the Department of History. The student will have complete responsibility for the course taught.

H601 Introduction to the Professional Study of History (4 cr.) Introduces graduate students to the demands of the historical profession, introduces theory and methods of history, historiography, and fundamental research skills.

COLLOQUIA

These colloquia are of seminar size and involve oral and written study of the problems, bibliographies, interpretations, and research trends in the fields with which they respectively deal; they are the chief means by which a student becomes knowledgeable in history at a professional level and prepares for the doctoral qualifying examination. Any of them may be taken more than once, upon approval of the student's advisory committee.

H605 Colloquium in Ancient History (4 cr.)

H610 Colloquium in Medieval European History (4 cr.)

H615 Colloquium in Early Modern Western European History (4 cr.)

H620 Colloquium in Modern Western European History (4 cr.)

H630 Colloquium in British and British Imperial History (4 cr.)

H640 Colloquium in Russian History (4 cr.)

H645 Colloquium in East European History (4 cr.)

H650 Colloquium in United States History (4 cr.)

H665 Colloquium in Latin American History (4 cr.)

H675 Colloquium in East Asian History (4 cr.)

H680 Colloquium in Cultural History (4 cr.)

H685 Colloquium in Near Eastern History (4 cr.)

H695 Colloquium in African History (4 cr.)

H699 Colloquium in Comparative History (4 cr.) Selected topics that cut across conventional geographic and chronological periods. May be used by thematic minors as one of the three colloquia required of Ph.D. candidates.

SEMINARS

These courses involve research at a mature level with primary sources in specialized topics and problems in the field with which they respectively deal. They train the student in historical scholarship. Any of them may be taken more than once, upon approval of the student's advisory committee.

H705 Seminar in Ancient History (4 cr.)

H710 Seminar in Medieval European History (4 cr.)

H715 Seminar in Early Modern European History (4 cr.)

H720 Seminar in Modern Western European History (4 cr.)

H730 Seminar in British and British Imperial History (4 cr.)

H740 Seminar in Russian History (4 cr.)

H745 Seminar in East European History (4 cr.)

H750 Seminar in United States History (4 cr.)

H765 Seminar in Latin American History (4 cr.)

H775 Seminar in East Asian History (4 cr.)

H780 Seminar in Cultural History (4 cr.)

H785 Seminar in Near Eastern History (4 cr.)

H799 Seminar in World History (4 cr.)

THESIS AND DISSERTATION

H898 M.A. Thesis (1-6 cr.)**

H899 Ph.D. Dissertation (cr. arr.)**

CROSS-LISTED COURSES

Graduate

G773 Seminar in Economic History (1-6 cr.) Selected topics in economic history. Offered by Departments of Economics and History and the Department of Business Economics and Public Policy in the School of Business. May be taken more than once for credit.

Victorian Studies

V711 Social Science and Social Philosophy in the Victorian Age (4 cr.)

History

**School of Liberal Arts
Indianapolis**

Chairperson

Associate Professor Philip V. Scarpino*

Departmental E-mail
history@iupui.edu

Departmental URL
www.iupui.edu/~history

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

**Mary O'Brien Gibson Professor
John McKivigan**

Professors

David J. Bodenhamer, Bernard Friedman (Emeritus), Ralph Gray (Emeritus), Miriam Z. Langsam* (Emerita), William H. Schneider, Peter Sehlinger (Emeritus), Jan Shipps (Emerita), Marianne Woceck

Associate Professors

Robert Barrows, Kenneth Cutler* (Emeritus), Ch. Didier Gondola*, Elizabeth Kryder-Reid* (Adjunct), Justin Libby (Emeritus), Monroe Little*, Elizabeth Brand Monroe*, Berthold Riesterer (Emeritus)*, Kevin Robbins*, Philip Scarpino*, Xin Zhang*

Assistant Professors

Annie Gilbert Coleman*, Sheila Cooper* (Emerita), Kevin Cramer*, Natalia Lozovsky*, Nancy Robertson*, Michael Snodgrass*

Director of Graduate Studies

Associate Professor Robert Barrows, Cavanaugh Hall 532, (317) 274-5840.

Degrees Offered

Master of Arts, dual Master of Arts and Master of Library Science, dual Master of Arts in History and Philanthropic Studies

The M.A. program in history on the Indianapolis campus offers three areas of concentration: United States history, European history, and public history. United States and European history are traditional areas of concentration and will serve the needs of persons intending to pursue a doctoral program, those seeking a collateral degree to complement such other fields as education or library science, and individuals seeking personal fulfillment. Public history is designed to prepare persons interested in pursuing careers as historians in such settings as historical societies, museums, historic preservation organizations and historic parks, governmental agencies, and business corporations. With its proximity to a large number of such institutions, the Indianapolis campus is an ideal location at which to pursue a degree in public history.

Special Departmental Requirements

See also general University Graduate School requirements.

Master of Arts Degree

Admission Requirements

1. Bachelor's degree from an accredited college or university, with an overall undergraduate grade point average of at least 3.0 (B) and a minimum grade point average of 3.0 (B) in the student's undergraduate major (an undergraduate major in history is not required, but applicants without such a background may be required to take additional course work in history at the undergraduate level as a condition for acceptance into the program);
2. appropriate level of achievement on the Graduate Record Examination General Test;
3. three letters of recommendation; and
4. two years of foreign language as an undergraduate with appropriate level of achievement.

Grades

No grade below B- (2.7) in history courses will be counted toward this degree.

Course Requirements

Students pursuing any one of the three concentration areas must take H500 or H501. Those electing United States history must take at least one graduate colloquium and one graduate seminar in United States history and at least one course in non-United States history. Students electing European history must take a graduate colloquium and seminar in that area and at least one course outside their concentration. With the consent of their faculty advisor, students may take as many as 6 credits outside the Department of History. Six (6) credits will be granted upon successful completion of the required master's thesis. A total of 30 credit hours is required

**These courses are eligible for a deferred grade.

for students concentrating in United States and in European history.

Students choosing public history as their area of concentration must take H500 or H501, H542, and a colloquium and seminar in United States history, and do an internship. Four (4) hours of credit will be granted upon satisfactory completion of the internship project. Public history students must also take at least one course outside United States history. With the consent of their faculty advisor, they may take as many as 6 credits outside the Department of History. Two (2) credits will be granted upon successful completion of the required public history paper. A minimum of 36 credit hours is required for students concentrating in public history.

Students choosing public history as their area of concentration must take (1) H500 or H501, (2) H542, and (3) a colloquium and seminar in United States history, and (4) do an internship. Four (4) hours of credit will be granted upon satisfactory completion of the internship project. Public history students must also take at least one course outside United States history. With the consent of their faculty advisor, they may take as many as 6 credits outside the Department of History. Two (2) credits will be granted upon successful completion of the required master's thesis. A minimum of 36 credit hours is required for students concentrating in public history.

Foreign Language Requirement

None required for the degree. However, if a student has not met the foreign language admission requirement, that deficiency must be removed prior to the thesis defense. Students planning to go on for the Ph.D. are urged to validate their reading proficiency in a foreign language according to University Graduate School standards.

Dual Degree: Master of Library Science and Master of Arts in History

Study for these two degrees can be combined for a total of 50 credit hours rather than the 66 credit hours required for the two degrees if taken separately. Students take 20 credit hours in history, which must include one graduate seminar and one graduate colloquium. No thesis is required for students earning an M.A. degree in history who are also earning a Master of Library Science (M.L.S.) under this dual degree program. However, students must satisfy the foreign language proficiency requirement as spelled out in the University Graduate School Bulletin. No area of concentration is required, but students wishing to focus on public history for the M.A. in history must also include History H542 among the required 20 credits of history course work. Such students may, if they wish, do a public history internship and count a maximum of 2 credit hours of History H543 toward the degree. (Students may enroll in H543 only after having taken or while taking H542.)

The remaining 30 credit hours are taken in the School of Library and Information Science (SLIS). These include 15 credit hours of M.L.S. Foundation courses, 9 credit hours of other required courses, and 6 credits of SLIS electives. See the SLIS Bulletin for details.

Dual Degree: Master of Arts in History and Master of Arts in Philanthropic Studies

The dual M.A. in History and M.A. in Philanthropic Studies creates a unique opportunity to pursue critical inquiry into the historical, cultural, philosophical, and economic implications of voluntary action for the public good. Historians routinely study the role of nonprofit organizations, self-help groups, and philanthropic institutions. This dual degree program offers an interdisciplinary focus on the past, present, and future. This degree will be attractive to students wishing to

pursue (1) careers that demand the skills and talents developed by cross-training in history and philanthropy; or (2) doctoral programs that encourage new and creative approaches to the historical study of philanthropy, broadly defined.

Admission requirements for the dual degree program are identical to those for each program separately. A separate application must be made to each of the programs. Prospective students are expected to take responsibility for learning about and meeting the different admission requirements and deadlines of each department. Students must make plans early with advisors in both programs to identify (1) common courses and (2) a thesis topic.

Study for these two degrees can be combined for a total of 51 credit hours (U.S. or European history concentrations) or 54 credit hours (public history) rather than the 66 or 72 credit hours that would be required if the two degrees were taken separately. For all concentrations, the required 700-level seminar for the M.A. in history may be selected as an elective to meet the philanthropic studies requirement for one of two theoretical electives. The required history courses with philanthropic studies topics HIST H509 (Topic: History of Philanthropy in the West) or HIST H511 (Topic: History of American Philanthropy) may be taken to meet the history requirement for a history elective. Required courses PHIL P542 Ethics and Values of Philanthropy, or PHST P512 Human and Financial Resources for Philanthropy, may be taken to meet 3 credits of the 6 credits of outside electives that may be taken in the history program. For public history students, HIST H543 Practicum meets the requirement for PHST P590 Internship for the Philanthropic Studies program. A common thesis meets the requirements of both departments.

Certificate in Professional Editing

See the section titled “Certificate in Professional Editing” for more information.

Courses Offered

300- AND 400-LEVEL COURSES

A301-A302 American Colonial History I-II (3-3 cr.)

A303-A304 United States, 1789 to 1865 I-II (3-3 cr.)

A313 Origins of Modern America, 1865-1917 (3 cr.)

A314 The United States, 1917-1945 (3 cr.)

A315 United States since World War II (3 cr.)

A317 American Social and Intellectual History (3 cr.)

A325-A326 American Constitutional History I-II (3-3 cr.)

A345-A346 American Diplomatic History I-II (3-3 cr.)

A347 American Urban History (3 cr.)

A348 Civil War and Reconstruction (3 cr.)

A352 History of Latinos in the United States (3 cr.)

A364 History of Black Americans (3 cr.)

A371-A372 History of Indiana I-II (3-3)

A402 Readings in American Environmental History (3 cr.)

A410 American Environmental History (3 cr.)

A421 Topics in United States History (3 cr.)

B351 Western Europe in the Early Middle Ages (3 cr.)

B352 Western Europe in the High and Later Middle Ages (3 cr.)

B353 The Renaissance (3 cr.)

B354 The Reformation (3 cr.)

B355 Europe: Louis XIV to French Revolution (3 cr.)

B356 French Revolution and Napoleon, 1763-1815 (3 cr.)

B357 Modern France (3 cr.)

B359-B360 Europe from Napoleon to the First World War I-II (3-3 cr.)

B361-B362 Europe in the Twentieth Century I-II (3-3 cr.)

B393 German History: From Bismarck to Hitler (3 cr.)

B421 Topics in European History (3 cr.)

C386 Greek History (3 cr.)

C388 Roman History (3 cr.)

D313 Russian Social and Cultural History, 1801-1917 (3 cr.)

D314 Soviet Social and Cultural History (3 cr.)

F341 Latin America: Discovery, Conquest, and Empire (3 cr.)

F342 Latin America: Evolution and Revolutions since Independence (3 cr.)

F432 Twentieth-Century Revolutions in Latin America (3 cr.)

G467 Traditional Japan (3 cr.)

G468 Early Modern Japan (3 cr.)

G585 Modern China (3 cr.)

H425 Topics in History (1-3 cr.)

GENERAL AND PROFESSIONAL SKILLS COURSES

H500 History of Historical Thought (4 cr.) Approaches to the historian's craft and reflections on history as a type of scholarly thinking. Recommended for new graduate students and others interested in history as a branch of knowledge. With the consent of the director of graduate studies, may be repeated for credit when the instructor differs.

H501 Historical Methodology (4 cr.) Discussion and application of the various methods and strategies used in historical research.

H509 Special Topics in European History (3 cr.) Study of special topics in history of Europe at graduate level. May be repeated once for credit.

H511 Special Topics in United States History (3 cr.) Intensive study and analysis of selected topics in United States history. Topics will vary from semester to semester.

H521 Special Topics in African, Asian, or Latin American History (3 cr.) Intensive study and analysis of selected topics in African, Asian, or Latin American history. Topics will vary from semester to semester, e.g., traditional Asia, modern Asia, Latin American intellectual history.

H542 Public History (4 cr.) The application of history to public needs and public programs. Historic preservation, archival management, oral history, editing, public humanities programming, historical societies, etc.

H543 Practicum in Public History (1-4 cr.) Internships in public history programs, fieldwork, or research in the historical antecedents of contemporary problems.

H546 History of Science, Medicine, and Technology (3 cr.) Study of topics in the history of science, medicine, and technology. May be repeated once for credit.

H547 Special Topics in Public History (3 cr.) Intensive study and analysis of selected topics in public history. Topics will vary from semester to semester, e.g., to include historic preservation, material history, archival practice, and historical editing.

H575 Graduate Readings in History (cr. arr.)**

COLLOQUIA

These colloquia are of seminar size and involve oral and written study of the problems, bibliographies, interpretations, and research trends in the fields with which they respectively deal; they are the chief means by which a student becomes knowledgeable in history at a professional level and prepares for the doctoral qualifying examination. Any of them may be taken more than once, upon approval of the student's advisory committee.

H615 Colloquium in Early Modern Western European History (4 cr.)

H620 Colloquium in Modern Western European History (4 cr.)

H630 Colloquium in British and British Imperial History (4 cr.)

H640 Colloquium in Russian History (4 cr.)

H650 Colloquium in United States History (4 cr.)

H665 Colloquium in Latin American History (4 cr.)

H699 Colloquium in Comparative History (4 cr.) Selected topics that cut across conventional geographic and chronological periods. May be used by thematic minors as one of the three colloquia required of Ph.D. candidates

**These courses are eligible for a deferred grade.

SEMINARS

These courses involve research at a mature level with primary sources in specialized topics and problems in the field with which they respectively deal. They train the student in historical scholarship. Any of them may be taken more than once, upon approval of the student's advisory committee.

H715 Seminar in Early Modern European History (4 cr.)

H720 Seminar in Modern Western European History (4 cr.)

H730 Seminar in British and British Imperial History (4 cr.)

H750 Seminar in United States History (4 cr.)

THESIS AND DISSERTATION

H898 M.A. Thesis (1-6 cr.)**

History and Philosophy of Science

College of Arts and Sciences
Bloomington

Chairperson

Professor Elisabeth Lloyd

Departmental URL

www.indiana.edu/~hpscdept

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Distinguished Professors

H. Scott Gordon (Emeritus, Economics), Edward Grant (Emeritus, History)

Professors

Domenico Bertoloni Meli, Frederick Churchill (Emeritus), W. Michael Dickson, Noretta Koertge (Emerita), Elisabeth Lloyd, William Newman

Associate Professors

James Capshew, Ann Carmichael (History)

Assistant Professors

Jordi Cat*, Sander Gliboff*, Christopher Martin*

Graduate Advisor

Associate Professor James Capshew, Goodbody Hall 130, (812) 855-3622

Degrees Offered

Master of Arts, dual Master of Arts and Master of Library Science (jointly with the School of Library and Information Science), and Doctor of Philosophy

Special Departmental Requirements

(See also general University Graduate School requirements.)

Admission Requirements

Either (1) an undergraduate major in a science or a related group of sciences with a minor in either history or philosophy or (2) an undergraduate major in either history or philosophy with a strong minor in science; or a similar background.

Master of Arts Degree

Course Requirements

A total of 36 credit hours of course work or 30 credit hours of course work together with a satisfactory M.A. thesis. Students who do not write a thesis must choose at least one course which requires the writing of a major research paper. Both options require 24 hours of course work in the department; at least four courses must be selected from the core courses listed below (X506, X507, X551, X552, X556, X706). Students intending to take Ph.D. qualifying exams are advised to take more than the minimum number of core courses required for the M.A.

Grades

A 3.3 (B+) grade point average in departmental courses is required.

Foreign Language/Research-Skill Requirement

Proficiency in one language or one research skill. Students are typically expected to complete this requirement before registering for

their third semester in the department.

Dual Master of Arts and Master of Library Science Degrees

Study for these two degrees can be combined for a total of approximately 51 credit hours rather than the 66 credit hours required for the two degrees taken separately. Students must take 21 credit hours in history and philosophy of science, including three core courses (X506, X507, X551, X552, X556, or X706). The course of studies must be planned in consultation with a history and philosophy of science advisor. Students must also complete 30 credit hours of School of Library and Information Science (SLIS) courses, including 9 credit hours minimum from the common core and 9 credit hours minimum from the M.L.S.-specific core for a total of 18 credit hours in addition to SLIS L586, L624, and L596. Admission to each of the two areas of study is approved separately on the same basis as for other applicants not in the dual program.

Doctor of Philosophy Degree

Admission Requirement

M.A. in History and Philosophy of Science or equivalent; demonstration of ability to do independent research.

Fields of Study

A student may concentrate in either the history or the philosophy of science or pursue both fields simultaneously.

Course Requirements

A total of 90 credit hours, including courses that meet all requirements for the M.A., plus at least two additional courses approved by the department from its offerings. Students intending to take Ph.D. qualifying exams are advised to take more than the minimum number of core courses required for the M.A. A maximum of 30 credit hours for dissertation work (X700 and X800) may be counted toward the 90 credit hours.

Minor

One minor outside the department is required. The requirements for this minor are set by the department involved. Outside minor fields that students in the history and philosophy of science program have commonly taken include history, mathematics, philosophy, or one of the sciences.

Foreign Language/Research-Skill Requirement

Proficiency either (1) in two languages, or (2) in one language and one research skill, or (3) in one language in depth, depending on the recommendation of the student's advisory committee. Students are normally expected to complete one of these requirements before their third semester in residence and the second-language or tool-skill requirement before their fifth semester.

Qualifying Examination

Written and oral. Examination in minor area is left to the discretion of the minor department. Examinations may not be taken more than twice, except in extraordinary cases.

Research Proposal

Upon advancement to candidacy, if not before, the student must submit and gain departmental approval of a research proposal.

Ph.D. Minor in History and Philosophy of Science

Graduate students from other departments desiring a minor in history and philosophy of science must complete 12 graduate credit hours of course work in the department with a B+ or higher. The set of courses should represent a coordinated objective and must be approved by the department.

Courses

CORE COURSES

X506 Survey of History of Science up to 1750 (3 cr.) Ancient, Medieval, Renaissance, and Enlightenment science.

X507 Survey of History of Science since 1750 (3 cr.) Growth of

physical, biological, and social sciences during the nineteenth and twentieth centuries. Attention will be paid not only to the scientific contents but to the institutional and social context.

X521 Research Topics in the History and Philosophy of Science (1-3 cr.)

X551 Survey of the Philosophy of Science (3 cr.) Science claims to tell us what the world is like, even the part of the world we cannot see, and to explain why things happen the way they do. But these claims are controversial. Examination of competing models of scientific explanation and the ongoing debate over whether scientific theories should or even can be interpreted realistically.

X552 Modern Philosophy of Science (3 cr.) Origin and character of twentieth-century philosophy of science. Examination of the historical development of the philosophy of science-in interaction with parallel developments within the sciences themselves-from 1800 to the early twentieth century.

X556 Philosophy of Science in Antiquity (3 cr.) Historical survey of philosophical discussions of the nature of science, in the premodern period, to include figures such as Plato, Aristotle, Epicurus, Augustine, and Aquinas.

X706 Special Topics in the History and Philosophy of Science (2-4 cr.)

Content and instructors will vary; students may thus receive credit more than once. Admission by consent of instructor or chairperson.

SEMINARS IN HISTORY OF SCIENCE

X602 Seminar in Medieval Science (3 cr.) P: X506 or consent of instructor. Selected topics.

X603 Seminar in Renaissance Science (3 cr.) P: X506 or consent of instructor. Selected topics.

X609 Seminar in Modern Science (3 cr.) P: X507 or consent of instructor. Selected topics.

X705 Special Topics in the History of Science (2-5 cr.) Content and instructors will vary; students may thus receive credit more than once. Admission by consent of instructor or chairperson.

ISSUES IN PHILOSOPHY OF SCIENCE

X755 Special Topics in the Philosophy of Science (2-5 cr.) Content and instructors will vary; students may thus receive credit more than once. Admission by consent of instructor or chairperson.

X756 Special Topics in the Philosophy of Science (2-5 cr.) Content and instructors will vary; students may thus receive credit more than once. Admission by consent of instructor or chairperson.

X790 Space, Time and Relativity of Theory (3 cr.) Topics in the philosophy of space, time, and space-time. Theory of motion and Zeno's paradoxes; St. Augustine on time; time and becoming; relational versus absolute theories of space and time; Mach's principle; introduction to Einstein's theory of relativity and space-time.

CONCEPTUAL FOUNDATIONS OF MODERN PHYSICAL SCIENCES

X332 History of Modern Physics (3 cr.) P: PHYS P222 or consent of instructor. Origins and development of the electromagnetic theory of radiation, special relativity, and nonrelativistic quantum theory. Contributions of Faraday, Maxwell, Lorentz, Einstein, Planck, Bohr, Heisenberg, and Schrödinger.

X791 Philosophical Issues in Quantum Theory (3 cr.) Examination of philosophical problems and challenges raised by quantum theory, with topics including Heisenberg uncertainty relations, nonlocality and EPR paradox, hidden variables, interpretations of quantum theory.

No previous knowledge of quantum theory assumed.

CONCEPTUAL FOUNDATIONS OF THE LIFE SCIENCES

X493 Structure and Methods of the Life Sciences (3 cr.)

X508 History of Biology (3 cr.) P: junior standing or consent of instructor. Survey of the important concepts in biology from antiquity to the twentieth century. Emphasis on changes in evolution theory and concepts of development and inheritance. A familiarity with biology is helpful but not necessary.

X632 Seminar: Historical Problems in Evolutionary Biology (3 cr.) P: X325 or X408/X508 or consent of instructor. Historical examination of such topics as pre-Darwinism, *Naturphilosophie*, Darwin and *The Origin of Species*, rise of modern systematics, and concepts of race. Content will vary; students may receive credit more than once.

CONCEPTUAL FOUNDATIONS OF THE SOCIAL AND BEHAVIORAL SCIENCES

X642 History of Psychology (3 cr.) Explores the scientific, professional, and cultural dimensions of modern psychology, including its emergence as an academic discipline in the late nineteenth century. Focus on interpretive issues raised by recent scholarship.

X654 Seminar: Philosophy of the Social Sciences (4 cr.) P: X552 or consent of instructor. Examination of such topics as objectivity, generality, social laws, role of values in social inquiry, methodological individualism, and relation of the social sciences to psychology, operationism, behaviorism, and other reductivist proposals.

SCIENCE IN CULTURAL CONTEXTS

X301 Growth of Scientific Establishment (3 cr.) Development of the modern scientific community from its origins to the twentieth

century. Special attention to the impact of the ever-increasing involvement of science in industrial, medical, and military technology.

X645 History of American Science (3 cr.) An historical exploration of the intellectual and institutional development of science in the United States from colonial times to the present. Examines recent scholarship in the history of American science and related historiographical trends and issues.

X670 Science and Gender (3 cr.) The role of science and technology in constructions of masculinity and femininity from 1600 to present. Historical and philosophical analysis of the interaction between science and technology and ideologies of gender. Evaluation of proposals for transforming science.

X671 Topics in the Science of Sex and Gender (3 cr.) P: may vary with topic. Possible topics include history of theories of sexuality, critique of current scientific concepts of sex and gender, philosophical perspectives on sexology, and the history of theories of sex evolution and determination. May be repeated twice for credit with different topic.

CROSS-LISTED COURSE IN ANTHROPOLOGY

H500 History of Anthropological Thought in the Nineteenth and Twentieth Centuries (3 cr.)

CROSS-LISTED COURSE IN ENGLISH

L769 Literature and Science (4 cr.)

CROSS-LISTED COURSE IN JOURNALISM

J554 Seminar: Science Writing (3 cr.)

CROSS-LISTED COURSE IN SOCIOLOGY

S660 Sociology of Science (3 cr.)

INDIVIDUALIZED STUDY

X600 Advanced Readings Course
(cr. arr.)**

X700 M.A. Thesis (cr. arr.)**

X800 Ph.D. Thesis (cr. arr.)* *

HISTORY OF MEDICINE (available from the Department of History)

A broad range of colloquia and seminars covering the history of medicine from antiquity to modern America are offered on a regular basis.

LOGIC (available from the Department of Philosophy)

P350 Logic of Sets (3 cr.)

P351 Formal Semantics (3 cr.)

P505-P506 Logical Theory I-II (3-3
cr.)

P550 Systems of Modal Logic (3
cr.)

**P551 Philosophy and Foundations
of Mathematics** (3 cr.)

P552 Philosophy of Logic (3 cr.)

P750 Seminar: Logical Theory
(4 cr.)

P751 Seminar: Logic (4 cr.)

**These courses are eligible for a
deferred grade.

Human- Computer Interaction

**School of Informatics
Bloomington**

Director

Martin Siegel (Education and
Informatics)

Steering Committee

Elizabeth Boling (Education), Javed
Mostafa (SLIS), Edward Robertson
(Computer Science)

Departmental Email

informat@indiana.edu

Departmental URL

informatics.indiana.edu

Core Faculty

(An asterisk [*] denotes associate
membership in University Graduate
School faculty.)

Professors

Jim Craig (Psychology), Tom Duffy
(Education), Dennis Gannon
(Computer Science), Andrew
Hanson (Computer Science), Diane
Kewley-Port (Speech and Hearing
Sciences), Rob Kling (Library and
Information Science), Annie Lang
(Telecommunications), Bob Port
(Linguistics), Edward Robertson
(Computer Science, Informatics),
Martin Siegel (Education), Iris
Vessey (Business), Charles Watson
(Emeritus, Speech and Hearing
Sciences)

Associate Professors

Elizabeth Boling (Education) Curt
Bonk (Education), David Leake
(Computer Science), Anne Massey
(Business), Javed Mostafa (Library
and Information Science), Gregory
Rawlins (Computer Science), Dirk
Van Gucht (Computer Science)

Assistant Professors

Eli Blevis (Informatics), Katy
Borner* (School of Library and
Information Science), Sue Brown*
(Business)

Ph.D. Minor in Human- Computer Interaction

Course Requirements for the Ph.D. Minor in HCI (12 credit hours)

The human-computer interaction
minor requires 12 credit hours.
Students must take a 3 credit hour
introductory graduate course in HCI
from the School of Informatics, SLIS
L542 Introduction to HCI, or EDUC
R685 Human-Computer Interaction
Design. In addition, students must
take 9 credit hours from at least two
departments other than the student's
home department. All topical
seminar classes must be approved by
the student's HCI advisor for
application to the minor.

Grades

A minimum of B (3.0) is required in
each course that is to count toward
the minor.

Courses

Note: Consult the School of
Informatics site:
[informatics.indiana.edu/academics/
graduate_ms_hci_requirements.asp](http://informatics.indiana.edu/academics/graduate_ms_hci_requirements.asp)
for HCI course listings.

BUSINESS

S601: MIS Research Topics in
Applications Systems Design (3 cr.)

S602: MIS Research Topics in
Administration and Technology (3
cr.)

COMPUTER SCIENCE

A546 User Interface Programming
(3 cr.)

**B581 Advanced Computer
Graphics** (3 cr.)

B582 Image Synthesis (3 cr.)

**B665-B666 Software Engineering
Management/Implementation** (3
cr.)

**B669 Topics in Database and
Information Systems** (1-6 cr.)

B689 Topics in Graphics and Human Computer Interaction (1-6 cr.)

P565-566 Software Engineering I-II (3 cr.)

EDUCATION

P544 Applied Cognition and Learning Strategies (3 cr.)

P600 Topical Seminar in Learning Cognition and Instruction (3 cr.)

R685 Human-Computer Interface Design (1-3 cr.)

LIBRARY AND INFORMATION SCIENCE

L542 Introduction to HCI (or equivalent) (3 cr.)

L576 Digital Libraries (3 cr.)

L578 User Interface Design for Information Systems (3 cr.)

L642 Information Usage and the Cognitive Artifact (3 cr.)

L697 Advanced Topics in Information Systems (1-4 cr.)

PSYCHOLOGY

P450 Human Factors (graduate credit awarded with extra assignments) (3 cr.)

PSYCHOLOGY

P450 Human Factors (graduate credit awarded with extra assignments) (3 cr.)

SPEECH AND HEARING SCIENCES

S522 Digital Signal Processing (3 cr.)

TELECOMMUNICATIONS

T541 Processes and Effects: Individual level theory and research. (3 cr.)

T571 Applied Cognitive Emotional And Psychology Theory (3 cr.)

T602 Seminar in Processes and Effects: The Information Processing of Media. (1-3 cr.)

The range of courses offered is designed to enable students to construct a program for the Ph.D. Minor in HCI that is relevant to their primary research interests. Students taking topics classes must establish, to the satisfaction of the Steering Committee, the relevance of the subject matter to HCI when proposing the inclusion of such courses. Further courses will be added to or removed from the list on an ongoing basis at the discretion of the steering committee.

Dissertation

The student's dissertation must address issues related to human-computer interaction.

Human Dimensions of Global Environmental Change

Bloomington

Co-Directors

Arthur F. Bentley Professor Elinor Ostrom and Rudy Professor Emilio Moran

Departmental E-mail
cipec@indiana.edu

Departmental URL
www.indiana.edu/~cipec

Core Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Arthur F. Bentley Professor
Elinor Ostrom (Political Science, Public and Environmental Affairs)

Rudy Professor
Emilio Moran (Anthropology, Geography, Public and Environmental Affairs)

Professors

George Alter (History), J. C. Randolph (Public and Environmental Affairs)

Assistant Professors

Eduardo Brondizio (Anthropology), Tom Evans (Geography), Clark Gibson (Political Science), Phil Keating (Geography), Leah Van Wey (Sociology)

Associated Graduate Faculty

Professors

Randall Baker (Public and Environmental Affairs, International Programs), Jerome Busemeyer (Psychology), Dennis Conway (Geography), Hendrik Haitjema (Public and Environmental Affairs), Jeffrey Hart (Political Science), Dan Knudsen (Geography), J. Scott Long (Sociology), John Odland (Geography), David Parkhurst (Public and Environmental Affairs), Rob Robinson (Sociology), Barry Rubin (Public and Environmental Affairs), Jeanne Sept (Anthropology), James Walker (Economics), Richard Wilk (Anthropology)

Associate Professors

Kerry Krutilla (Public and Environmental Affairs), Vicky Meretsky* (Public and Environmental Affairs), Scott Robeson (Geography)

Assistant Professors

Elizabeth Armstrong* (Sociology), Chris Craft* (Public and Environmental Affairs), Hugh Kelley* (Economics), Heather Reynolds* (Biology)

Academic Advisors

Arthur F. Bentley Professor Elinor Ostrom, (812) 855-9297 or (812) 855-0441; Rudy Professor Emilio Moran, (812) 855-6181; Associate Professor Jon Unruh (812) 855-5182 or (812) 855-5760

Ph.D. Minor in the Human Dimensions of Global Environmental Change

The graduate minor will instruct students in theories and methods that combine the physical and social sciences on human dimensions of global environmental change (HDGEC). The curriculum, as described below, will familiarize

students with (1) the major issues of the field through exploration of the available approaches to this kind of interdisciplinary work and creation of a research proposal; (2) institutional analysis and design; and (3) forest and institutions research methods. Students will be expected to become familiar with GIS and/or remote sensing as tools in the analysis of global environmental change through both formal courses and hands-on apprenticeship as part of team research projects.

Course Requirements

The Minor in Human Dimensions of Global Environmental Change requires 12 credit hours of approved courses. The core courses G515, Y673, and Y773 are required, unless explicitly approved otherwise by the directors of the Center for the Study of Institutions, Population, and Environmental Change and the University Graduate School. Students who have (1) completed the required credit hours in good standing and (2) presented a dissertation to their research committee, at least one member of which must be a core faculty member associated with the program, will complete the minor.

Core Courses

GRADUATE SCHOOL

GRAD G515 Human Dimensions of Global Environmental Change (3 cr.) Examines the research agenda on global environmental change. It aims to facilitate student participation in ongoing and future research through development of research proposed for dissertation work. Topics include deforestation, pollution, population, land use, and remote sensing. Offered spring semester every other year.

POLITICAL SCIENCE

Y673 Empirical Theory and Methodology (3 cr.) Will count toward Minor when topic is “Institutional Analysis and Development: Micro.” This research seminar addresses how and why fallible individuals achieve and sustain self-governing entities and

self-governing ways of life. It seeks to understand how individuals affect the rules that structure their lives. This seminar provides the theoretical foundations for Y773.

Y773 Empirical Theory and Methodology (3 cr.) Will count toward Minor when topic is “Research Seminar International Forestry Resources and Institutions.” This research seminar is designed for graduate students in diverse disciplines and visiting scholars interested in learning about multimethod data collection techniques that combine rigorous measures of social science concepts and those related to forest conditions.

Minor Elective Courses

These courses fulfill the fourth course for the minor, and they may in some rare circumstances replace one of the three core courses with the approval of the academic advisors and the University Graduate School.

GRADUATE SCHOOL

GRAD G513 Topics Seminar in Human Dimensions of Environmental Change (3 cr.) Topical courses related to the study of institutions, population, and environmental change will be arranged in light of recent scientific developments and student and faculty interests. Analysis of human roles in environmental change is contextualized by attention to biophysical and ecosystematic relationships.

GRAD G514 Fieldwork Practicum in Human Dimensions of Environmental Change (12 cr.) P: approval from directors of the Center for the Study of Institutions, Population, and Environmental Change. Gives students the opportunity to practice research methods in an individually designed project. The project must address a specific issue in the study of institutions, populations, and environmental change.

GRAD G517 Seminar in Cultural Ecology: The Amazon in Crisis: Ecology and Development (3 cr.) Provides an introduction to the

ecology of the Amazon Basin of South America, focusing on its habitats, the use and conservation of the environment by its native inhabitants, and examining the forces of development that threaten its very existence.

GRAD G590 Seminar/Colloquium in Population Analysis (3 cr.) P: graduate status or consent from instructor. Topic varies. Elective status depends on topic and approval by the academic advisors.

GRAD G591 Methods of Population Analysis and Applications (3 cr.) P: an undergraduate course in statistics. This is a course about methods of measuring and projecting population dynamics. We focus on describing the three basic demographic processes (mortality, fertility, and migration) and showing how each one affects population size and age structure. An understanding of these basic processes is fundamental for studying behavioral aspects of population change.

GRAD G593 International Perspectives on Population Problems (3 cr.) International trends in population growth, characteristics, and structure with attention to major social, environmental, economic, and political implications. Comparisons between industrially advanced economies and less developed countries in Latin America, Africa, and Asia. Special emphasis will be placed on local and national circumstances affecting fertility, mortality, migration, and emerging roles of population policies in development planning.

ANTHROPOLOGY

E427 Cultural Ecology (3 cr.) Surveys the major environmental studies in anthropology, the basic principles of ecological theory, and human adaptation as manifested in major ecosystems.

E600 Topic Seminar: Land-Use and Land-Cover Change (3 cr.) This course focuses on the relationship between land-use systems, human settlement patterns,

and their impact on land cover and landscape structure. It aims to link the theoretical and methodological approaches that human ecology and landscape ecology bring to land use and production system analysis. The link between production system, land use, land cover, and landscape structure will be discussed in the context of contemporary problems, such as deforestation, agriculture intensification, and human dimensions of global environmental change.

E600 Topic Seminar: Remote Sensing for Social Scientists (3 cr.)

This course combines a historical review on the use of remote sensing in the social sciences, conceptual discussions on applications of remote sensing to social science problems, and a formal introduction to remote sensing techniques based on hands-on laboratory sessions. The course will consist of a conceptual and a laboratory session each week.

E600 Topic Seminar: People and Forest: Contemporary Issues on Deforestation, Forest Management, and Agroforestry (3 cr.)

The main goal of this seminar is to provide a semester-long “environment” in which the student’s research interest (research paper, proposal related to “people and forest”) can be “nurtured” and discussed with an interdisciplinary group of graduate colleagues. The goal is to work on a single research paper or dissertation proposal or dissertation chapter during the whole semester while interacting with colleagues in class.

GEOGRAPHY

G425 Africa: Contemporary Geographic Problems (3 cr.) The course examines contemporary geographic problems confronting the countries of sub-Saharan Africa. The primary focus is on migration; agriculture; food security; the environment; and environmental change, wildlife, and health.

G520 Migration and Population Redistribution (3 cr.) P: G314 and G320, or consent of instructor. Study of international regional and intra-

urban migration using micro- and macro-level approaches, and the impacts of population redistribution on origin and destination. Topics include illegal immigration to the United States, rural-to-urban migration in LDCs, international migration and refugees, and gender differences in migration behavior.

G535 Introduction to Remote Sensing (3 cr.) Principles of remote sensing of the earth and its atmosphere, emphasizing satellite data in visible, infrared, and microwave portions of the electromagnetic spectrum. Emphasis on practical applications and digital image analysis. A satellite data analysis project is required.

G536 Advanced Remote Sensing: Digital Image Processing (3 cr.) P: G535. Advanced remote sensing theory and digital image processing techniques with an emphasis on environmental science applications. Hands-on computer exercises provide significant experience in digital image processing techniques for extraction of qualitative and quantitative information about Earth’s terrestrial and aquatic environments.

G538 Geographic Information Systems (3 cr.) Overview of the principles and practices of geographic information systems (GIS). Spatial data models, database design, introductory and intermediate GIS, operations and case studies of real-world GIS applications. Laboratory exercises will provide significant hands-on experience. Lecture and laboratory. Taught every semester.

G539 Advanced Geographic Information Systems (3 cr.) P: G538 or consent of instructor. Intermediate and advanced topics in geographic information science and spatial analysis techniques using GIS software. This advanced course is for students who seek a greater understanding of this rapidly developing field and to learn how to construct, manage, and analyze their own GIS data and models. Taught once per year.

G639 Seminar in Geographic Information Science (3 cr.)

Applications of geographic information science principles in the collection and analysis of spatial data. Integration of GIS, remote sensing, and/or GPS technologies. Review of current literature on techniques, theory, technology, and applications with an emphasis on environmental issues. Discussions, laboratory, and research project. Taught every third semester.

SCHOOL OF PUBLIC AND ENVIRONMENTAL AFFAIRS

E465 Environmental Management in the Tropics (3 cr.) Historical examination of land use in tropical, non-Western cultures. Resource use in physical and cultural settings is explored through an interface with ecology, economics, and policy analysis. Common principles of analysis are used to help the students understand the cultural and historical dimensions of how people relate to their environment.

E518 Vector-Based Geographic Information Systems (3 cr.)

Geographic information systems using vector data structure. Vector GIS capabilities and uses. Data structure and file management of spatial data. Laboratory exercises use ARC/INFO software.

E527 Applied Ecology (3 cr.) P: one introductory-level ecology course. Ecosystem concepts in natural resource management. Techniques of ecosystem analysis. Principles and practices of ecological natural resource management.

E528 Forest Ecology and Management (3 cr.) P or C: E538 or V506.

Field and laboratory exercises in quantitative analysis of forest ecosystems. Sampling and data collection methodologies. Data analysis and interpretation. Concepts in forest ecology and forest management.

E555 Field Techniques in Ecology (3 cr.) P: one course in statistics.

This is an introductory field science course for those without a current background in field work. The

course is designed to introduce field skills and to provide an understanding of how ecological data are collected and analyzed. In the field, we will cover mapping techniques including global positioning systems (GPS, often used to collect data for GIS databases), population estimation techniques, habitat measurement techniques, an introduction to soils, and a comparative ecosystems trip.

E555 Restoration Ecology (3 cr.)

The course will cover basic concepts of ecosystem restoration, including development of energy flow and nutrient cycles, soil formation, mechanisms of species dispersal, and colonization and mutualistic relationships. Restoration of specific terrestrial and aquatic ecosystems, including grasslands, forests, lakes, rivers and streams, and wetlands, will be covered.

E557/E457 Conservation Biology (3 cr.) P: one ecology course.

Ecological principles associated with rare species and with biodiversity, laws and statutes used to conserve biodiversity, and land species management practices. Our aim is to understand scientific and political complexities of conservation biology and to study different methods used to conserve living resources and resolve conflicts associated with conservation.

Human Evolutionary Studies

College of Arts and Sciences
Bloomington

Departmental E-mail
toth@indiana.edu

Departmental URL
www.indiana.edu/~rugs/ctrdir/craft.html

Core Faculty

Professors

Kathy Schick (Anthropology),
Nicholas Toth (Anthropology)

Associated Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors

Abhijit Basu (Geological Sciences),
Geoffrey Conrad (Anthropology),
Della Collins Cook (Anthropology),
Jesus Dapena (Kinesiology), Paul
Jamison (Anthropology), Robert
Meier (Emeritus, Anthropology),
Enrique Merino (Geological
Sciences), Emilio Moran
(Anthropology), Christopher Peebles
(Anthropology), Lisa Pratt
(Geological Sciences), Elizabeth
Raff (Biology), Rudolf Raff
(Biology), Jeanne Sept
(Anthropology), Karen D. Vitelli
(Anthropology), Richard Wilk
(Anthropology)

Associate Professors

Patrick Munson (Anthropology),
Anne Pyburn (Anthropology), Julie
Stout* (Psychology)

Admission Requirements

Students must be admitted to a Ph.D. program in the Department of Anthropology, the Department of Biology, the Department of Geological Sciences, the Department of Psychology, or other related department or program. They must also apply to the Program in Human Evolutionary Studies.

Program Information

Students should select an advisory committee made up of the two core faculty and at least one of the associate faculty and at least one of the associated faculty members. For students whose home department is anthropology, at least one member of the advisory committee is expected to be from a department outside anthropology.

Ph.D. Minor in Human Evolutionary Studies

Course Requirements

The minor in human evolutionary studies requires four courses. Three of the four required courses are S510 The Archaeology of Human Evolution (3 cr.); S511 Seminar on

Current Issues in Paleoanthropology (3 cr.) (Topics will vary; may be repeated for graduate credit); and ANTH B464 Human Paleontology (3 cr.).

The fourth required course will be chosen from the following: S512 Human Evolution and the Prehistory of Intelligence (3 cr.); S513 Modeling Human Evolution (3 cr.); or BIOL L505 Molecular Biology of Evolution (3 cr.).

Grades

A minimum of B (3.0) is required in each course that is to count toward the minor.

Courses

S510 The Archaeology of Human Evolution (3 cr.) Overview of the Paleolithic (Old Stone Age) from 2.6 million years to 10,000 years ago. Focuses on the theory and method of reconstructing hominid behavior in the Stone Age. Course will take an evolutionary perspective, considering both biological and technological evolution.

S511 Seminar on Current Issues in Paleoanthropology (3 cr.) Provides a forum for professional-level discussion of current reports on human evolution. Will often focus on one aspect or theme in human evolutionary studies.

S512 Human Evolution and the Prehistory of Intelligence (3 cr.) Explores the different avenues of inquiry pertaining to the evolution of human intelligence from an archaeological and human paleontological perspective. Topics include technology, subsistence strategies, symbolic behavior, human paleontology, and paleoneurology (especially study of endocasts and fossil skulls).

S513 Modeling Human Evolution (3 cr.) Explores the breadth of animal (mostly primate) models for human evolution. Areas for discussion include digestive physiology, bone density, language acquisition, locomotion, tool use, foraging, and social behavior. After a brief overview of theory and method

in animal analogy, we will review animal models for the evolution of humans.

Cross-Listed Courses

ANTHROPOLOGY

B464 Human Paleontology (3 cr.)

BIOLOGY

L505 Molecular Biology of Evolution (3 cr.)

L567 Evolution (3 cr.)

Human Sexuality

**The Kinsey Institute for Research in Sex, Gender, and Reproduction and the Interdepartmental Graduate Committee on Human Sexuality
Bloomington**

Departmental E-mail
kinsey@indiana.edu

Departmental URL
www.indiana.edu/~kinsey

Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Co-Chairpersons

Professor William Yarber (Applied Health Science) and Adjunct Assistant Professor Cynthia Graham* (Clinical Psychology, Indiana University–Purdue University Indianapolis)

Professors

John Bancroft (Kinsey Institute), Alan Bell (Emeritus, Education), Dyan Elliott (History), Paul Gebhard (Emeritus, Anthropology), Sumie Jones (East Asian Languages and Cultures), Noretta Koertge (Emerita, History and Philosophy of Science), David H. Smith (Emeritus, Religious Studies), Martin Weinberg (Sociology), Colin Williams (Sociology, Indiana University–Purdue University Indianapolis)

Associate Professors

Gracia Clark* (Anthropology),

Stephanie Kane (Criminal Justice), Jean Robinson (Political Science), Stephanie Sanders (Kinsey Institute Gender Studies), Beverly Stoeltje (Communication and Culture Folklore)

Adjunct Assistant Professor

Cynthia Graham*, Psychology Building 365, (812) 855-9782

Academic Advisor

Professor William Yarber, Health, Physical Education and Recreation Building 142, (812) 855-7974

Ph.D. Minor in Human Sexuality

This minor is co-directed by the Kinsey Institute for Research in Sex, Gender, and Reproduction and the Interdepartmental Graduate Committee on Human Sexuality. The Human Sexuality Program offers a doctoral minor of 15 credits from related interdisciplinary subject areas. It is intended for students currently enrolled in a doctoral program, such as counseling, education, health behavior, psychology, or sociology. Students should select an advisor for this minor from members of the Interdepartmental Graduate Committee, listed above, or from affiliated faculty. One core course is required, with the remaining hours being selected from other courses listed below, upon consent of the student's minor area faculty advisor.

The program provides a basic yet broad overview of human sexuality. The behavioral, biological, cultural, and social components of sexuality are examined, including the study of the role of sexuality in the arts and public policy. The program will be particularly useful for persons entering fields involving the social and behavioral sciences, education, health science and medicine, counseling and therapy, nursing, social work, humanities, criminal justice, and public policy.

Students interested in the Ph.D. Minor in Human Sexuality should check the Web site for current information about the minor, course offerings, and a list of affiliated faculty. All students intending to

complete the minor should contact Professor William Yarber, Health, Physical Education, and Recreation Building 142, (812) 855-7974 or Adjunct Assistant Professor Cynthia Graham, Department of Psychology, Room 365, (812) 855-9782.

Courses

Required Core Courses

(one of the following two courses is required)

HEALTH, PHYSICAL EDUCATION, AND RECREATION

H555 Issues in Human Sexuality and Health (3 cr.)

PSYCHOLOGY

P657 Human Sexuality (3 cr.) Electives
(12 credits required)

ANTHROPOLOGY

E600 Seminar in Cultural and Social Anthropology (3 cr.) May count toward minor when topic applies to human sexuality.

E617 African Women (3 cr.)

P600 Seminar in Prehistoric

Archaeology (3 cr.)

BIOLOGY

L500 Independent Study (cr. arr.) May count toward minor when topic applies to human sexuality.

COMPARATIVE LITERATURE

C546 Sexuality and the Arts (3 cr.)

C574 Japanese-Western Studies (4 cr.) May count toward minor when topic applies to human sexuality.

COMMUNICATION AND CULTURE

C626 Studies in Contemporary Communication (3 cr.) May count toward minor when topic applies to human sexuality.

C700 Research (cr. arr.) May count toward minor when topic applies to human sexuality.

CRIMINAL JUSTICE

P680 Seminar: Issues in Criminal Justice (3 cr.) May count toward minor when topic applies to human sexuality.

EAST ASIAN LANGUAGES AND CULTURES

E505 Topics in East Asian Studies (2-4 cr.) May count toward minor when topic applies to human sexuality.

EDUCATION

G567 Introduction to Marriage and Family Counseling (3 cr.)

G672 Human Sexuality: An Introduction to Therapy (3 cr.)

FOLKLORE

F750 Performance Studies (3 cr.) May count toward minor when topic applies to human sexuality.

GENDER STUDIES

G601 Survey of Contemporary Research in Gender Studies: The Social and Behavioral Sciences (3 cr.) May count toward minor when topic applies to human sexuality.

G602 Survey of Contemporary Research in Gender Studies: The Humanities (3 cr.) May count toward minor when topic applies to human sexuality.

G695 Graduate Readings and Research in Gender Studies (1-6 cr.) May count toward minor when topic applies to human sexuality.

G701 Graduate Topics in Gender Studies (3-4 cr.) May count toward minor when topic applies to human sexuality.

HEALTH, PHYSICAL EDUCATION, AND RECREATION

H515 Human Sexuality Education in Schools (3 cr.)

H540 Practicum in College Sex Education (3 cr.)

H641 Readings in Health Education (1-5 cr.) May count toward minor when topic applies to human sexuality.

H740 Research in Health Behavior (1-10 cr.) May count toward minor when topic applies to human sexuality.

HISTORY

H575 Graduate Readings in History (cr. arr.) May count toward minor when topic relates to human sexuality.

H610 Colloquium: Medieval European History (4 cr.) May count toward minor when topic applies to human sexuality.

HISTORY AND PHILOSOPHY OF SCIENCE

X600 Advanced Readings Course (cr. arr.) May count toward minor when topic relates to human sexuality.

X756 Special Topics in the Philosophy of Science (2-5 cr.) May count toward minor when topic relates to human sexuality.

KINSEY INSTITUTE

K690 Sexual Science Research Seminar (1-3 cr.)

K691 Practicum in Sex Therapy and Counseling (3 cr.)

LAW

B753 AIDS and the Law (3 cr.)

POLITICAL SCIENCE

Y657 Comparative Politics (3 cr.) May count toward minor when topic applies to human sexuality.

Y675 Political Philosophy (3 cr.) May count toward minor when topic applies to human sexuality.

Y681 Readings in Comparative Politics (1-4 cr.) May count toward minor when topic applies to human sexuality.

Y689 Readings in Political Theory and Methods (1-4 cr.) May count toward minor when topic applies to human sexuality.

PSYCHOLOGY

P657 Topical Seminar (cr. arr.) May count toward minor when topic applies to human sexuality.

RELIGIOUS STUDIES

R590 Directed Readings in Religious Studies (1-6 cr.) May count toward minor when topic applies to human sexuality.

SOCIOLOGY

S526 The Sociology of Human Sexuality (3 cr.) Offered at Indiana University-Purdue University Indianapolis.

S660 Advanced Topics (2-6 cr.) May count toward minor when topic applies to human sexuality.

S700 Topical Seminar (3 cr.) May count toward minor when topic applies to human sexuality.

S864 Readings in Sociology (cr. arr.) May count toward minor when topic applies to human sexuality.

S866 Research in Sociology (cr. arr.) May count toward minor when topic applies to human sexuality.

India Studies

College of Arts and Sciences
Bloomington

Departmental E-mail
india@indiana.edu

Departmental URL
www.indiana.edu/~isp

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Director

Gerald J. Larson, Rabindranath Tagore Professor of Indian Cultures and Civilizations (Religious Studies)

Professor

Lewis Rowell (Music)

Associate Professors

Purnima Bose* (English), David L. Haberman (Religious Studies), Jan Nattier (Religious Studies), Rakesh Solomon* (Theatre and Drama), Richard E. Stryker (Political Science)

Program Information

The India Studies Program seeks to provide for the interdisciplinary study and critical analysis of the cultures and civilizations that have developed on the Indian subcontinent from ancient times to the present. The primary focus of the program is on present-day, or modern, India, but in order to understand modern India it is important to have some basic knowledge about the great periods in its history that have shaped its modern social reality (including the Hindu or Brahmanical, Buddhist, Jain, Muslim, Sikh, and modern Indo-Anglian periods). Moreover, to understand modern India it is also important to have a sophisticated and critical understanding of the arts, music, literature, drama, philosophy, religion, and sociocultural reality (sociological and anthropological structures) of the subcontinent.

In addition to providing an overall, comprehensive grasp of India as a world-class civilization(s), the program allows for two areas of more specialized work, namely: (1) literary, performance (including theatre, drama, music, fine arts) and film studies; and (2) philosophical and religious studies.

The India Studies Program strongly encourages work in elementary, intermediate, and advanced Hindi and Sanskrit for Ph.D. minor students, and Ph.D. minor students are strongly urged to begin the study

of the languages at the earliest possible opportunity. Students in the program should also consider the possibility of studying abroad in India and should consult with the Director of India Studies about this possibility.

Ph.D. Minor in India Studies

The minor requires 12 credit hours, including advanced work in either of the two specialized areas of the program (excluding language courses in Hindi or Sanskrit). Three (3) of the 12 credits must be from I546 Philosophies of India, which is designed as an introductory core seminar that provides an overview of the intellectual history of India's civilization(s). The remaining 9 credits may be taken from either of the two areas of specialization; specific courses as well as language requirements (if any) should be chosen in consultation with the graduate advisor. Finally, it should be noted that ordinarily only 3 credits from the student's major program may be counted towards the Ph.D. minor.

Cooperative Programs

Students in the Ph.D. minor in India Studies are encouraged to take advantage of programs in India Studies and South Asian Studies at participating institutions in the Committee on Institutional Cooperation (CIC). Excellent work in the social sciences is available through the University of Chicago and the University of Wisconsin-Madison.

Courses

I501 Elementary Sanskrit I (4 cr.)

Introduction to Sanskrit, a classical language of ancient India. Basic grammatical structure and vocabulary in preparation for the reading of both secular and religious texts.

I502 Elementary Sanskrit II (4 cr.)

Continuing introduction to Sanskrit. Basic grammatical structure and vocabulary in preparation for the reading of both secular and religious

texts. Students will read a short epic Sanskrit piece.

I506 Beginning Hindi I (4 cr.)

Introduction to the Hindi language through its writing system and basic grammar. Graded exercises and readings leading to mastery of grammatical structures and essential vocabulary. Development of reading and writing competence and simple conversations in contemporary Hindi. Classroom use of story books, tapes, and films in Hindi.

I507 Beginning Hindi II (4 cr.)

Continuation of the first semester. Graded exercises and reading for mastery of grammatical structures and essential vocabulary. Composing short dialogues from the students' own environment. Reading, writing, and conversational skills are sharpened.

I508 Second-Year Hindi I (3 cr.)

Focuses on reading such literature as mythology, folklore, and modern short stories and poetry, including several examples from Urdu literature. Students compose and perform their own dialogues based on the material read.

I509 Second-Year Hindi II (3 cr.)

Promotes rapid reading skills and building vocabulary. Study of grammar is based on Hindi reading materials and includes regular grammar drills. Students sharpen composition skills by retelling stories from the reading material orally and in writing.

I546 Philosophies of India (3 cr.)

Historical and critical-analytic survey of the major intellectual traditions of the cultures and civilizations of India. Attention to early philosophizing and the emergence of the classical schools in Hindu, Buddhist, and Jain traditions. Attention also to contemporary thought in India, including critical theory and subaltern theorizing.

I561 Intermediate Sanskrit I (3 cr.)

I562 Intermediate Sanskrit II (3 cr.)

I570 Literature of India in Translation: Ancient and Classical (3 cr.) Survey of the ancient and classical Sanskrit literatures of India in translation, presented in cultural context.

I571 Medieval Devotional Literatures of India (in translation) (3 cr.) Survey of medieval Indian devotional literature with reference to the various cultural milieus in which it was produced and its impact on and importance to Indian cultures today.

I580 Women in South Asian Religious Traditions (3 cr.) A historical view of the officially sanctioned roles for women in several religious traditions in South Asia, and women's efforts to become agents and participants in the religious expressions of their own lives.

I597 Sanskrit Religious Literature (3 cr.) P: INST I501-I502 Elementary Sanskrit or consent of instructor. Arranged tutorial readings from selected Indian religious texts in the original Sanskrit representing a variety of styles, periods, and religious traditions; includes selections from Hindu scriptures, religious epics, commentaries, religious law, hymns, philosophical texts, and Buddhist literature. May be repeated once for credit when topics vary.

I605 Seminar on India Studies (3 cr.) Advanced research seminar on selected topics in India studies. Seminar may focus on specific texts, specific historical figures, basic themes, or issues in India studies.

I656 Graduate Readings in India Studies (1-6 cr.) R: reading knowledge of Sanskrit and Hindi. Selected and substantive topics investigated from ancient, medieval, and modern texts about the civilization of India. May be repeated when topic varies for a maximum of six credit hours.

Cross-Listed Courses

ENGLISH

L774 Topics in International English Literature (4 cr.)

FOLKLORE

F600 Asian Folklore and Folk Music (3 cr.)

HISTORY

H630 Colloquium in British and British Imperial History (4 cr.)

H730 Seminar in British and British Imperial History (4 cr.)

MUSIC

T560 Music Analysis (3 cr.) Topic: The Art Music of India

RELIGIOUS STUDIES

R547 Meditation Traditions of India (3 cr.)

R551 Religions of South Asia (3 cr.)

R597 Sanskrit Religious Literature (3 cr.)

R603 Seminar in Comparative Mysticism (3 cr.)

R604 Seminar in Cross-Cultural Philosophy of Religion (3 cr.)

R605 Seminar on India Studies (3 cr.)

R650 The Hindu Tradition (3 cr.)

R651 South Asian Buddhism (3 cr.)

R656 Buddhism in Central Asia (3 cr.)

R658 Materials and Methods in Buddhist Studies (3 cr.)

THEATRE

T468 Non-Western Theatre and Drama (3 cr.)

Informatics

School of Informatics
Bloomington

Dean

J. Michael Dunn

Departmental E-mail

graduate@informatics.indiana.edu

Departmental URL

informatics.indiana.edu

Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Associate Professor

Luis Rocha

Assistant Professors

Mehmet Dalkilic, Alessandro Flammini, Sun Kim, Santiago Schnell, Haixu Tang

Graduate Advisor

Director of Research and Graduate Studies

Marin A. Siegel, (812) 856-1103, msiegel@indiana.edu
Interim Director, Bioinformatics Program,
Gary Wiggins, (812) 856-1086, wiggins@indiana.edu

Ph.D. Minor in Bioinformatics

Bioinformatics draws on knowledge and information from various fields such as biology, computer science, medicine, chemistry, and physics. Students in relevant Ph.D. programs such as biochemistry and molecular biology, medical and molecular genetics, medicine, chemistry, or biology are the target audience for the Ph.D. minor in bioinformatics.

Requirements

A minor in bioinformatics requires 12 credit hours. The core curriculum consists of graduate level courses in informatics. Electives may be chosen based on personal interests from a broad list of courses in biology, chemistry, computer science, information science, and medical and molecular genetics.

The graduate bioinformatics courses in the School of Informatics assume a minimal knowledge of cell and molecular biology. That level of understanding could be gained with at least 6 undergraduate credit hours in molecular biology, genetics, or evolution.

Courses

CORE COURSES

INFO I500 Fundamental Computer Concepts for Informatics (3 cr.)

INFO I501 Introduction to Informatics (3 cr.)

INFO I502 Information Management (3 cr.)

REQUIRED GRADUATE COURSE

BIOL L519 Bioinformatics: Theory and Application (3 cr.)

Note: With approval of the instructor, advanced students could be allowed to substitute L529 Bioinformatics in Molecular Biology and Genetics: Practical Applications (4 cr.)

Informatics

**School of Informatics
Indianapolis**

Associate Director
Snehasis Mukhopadhyay

Graduate Faculty
(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors

Keith Dunker, Ariel Fernandez

Assistant Professors
Jeffrey Huang*, Jake Yue Chen,
Pedro Romero, Narayanan Perumal

Academic Advisor

Ph.D. Minor in Bioinformatics

Bioinformatics gathers knowledge and information from various fields such as informatics, chemistry, computer science, medicine, and biology. Students in relevant Ph.D. programs such as biochemistry and molecular biology, medical and molecular genetics, medicine, chemistry, or biology are the target audience for the Ph.D. minor in bioinformatics.

A minor in bioinformatics requires 12 credit hours. The core curriculum consists of graduate-level courses in informatics. Electives may be chosen based on personal interests from a broad list of courses in biology, chemistry, computer science, information science, and medical and molecular genetics.

Requirements

The graduate bioinformatics courses in the School of Informatics assume a minimal knowledge of cell and molecular biology. That level of understanding could be gained with at least 6 undergraduate credit hours in molecular biology, genetics, or evolution.

Courses

CORE COURSES

INFO I500 Fundamental Computer Concepts for Informatics (3 cr.)

INFO I501 Introduction to Informatics (3 cr.)

INFO I502 Information Management (3 cr.)

REQUIRED GRADUATE COURSES

CSCI 548 Introduction to Bioinformatics (3 cr.)

ELECTIVES

A student's committee, working in conjunction with an Informatics committee designated to oversee the minor, will decide what elective courses are appropriate for a given student.

Institute for Medieval Studies

College of Arts and Sciences
Bloomington

Director

Professor Dyan Elliott

Departmental URL

www.indiana.edu/~medieval

Departmental E-mail

mest@indiana.edu

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Distinguished Professors

Bruce Cole (Emeritus, History of Art), Edward Grant (Emeritus, History, History and Philosophy of Science), Thomas J. Mathiesen (Music), Mark Musa (Emeritus, French and Italian), Denis Sinor (Emeritus, Central Eurasian Studies)

Ruth N. Halls Professor Suzanne Pinckney Stetkevych (Near Eastern Languages and Cultures)

Ruth N. Halls Professor Suzanne Pinckney Stetkevych (Near Eastern Languages and Cultures)

Professors

Salih Altoma (Emeritus, Near Eastern Languages and Cultures), Judith Anderson (English), Theodore Andersson (Emeritus, Germanic Studies), Frank Banta (Emeritus, Germanic Studies), Christopher I. Beckwith (Central Eurasian Studies), Luis Beltrán (Emeritus, Comparative Literature, Spanish and Portuguese), Henry Cooper Jr., (Slavic Languages and Literatures), Lawrence Clopper (English), Alfred David (Emeritus, English), Devin DeWeese (Central Eurasian Studies), Dyan Elliott (History), Robert Fulk (English), Kari Gade (Germanic Studies), Kenneth R. R. Gros Louis (Emeritus, Comparative Literature, English), Olga Impey (Spanish and Portuguese), Sidney Johnson (Emeritus, Germanic Studies), Eugene Kintgen (English), W. Eugene Kleinbauer (History of Art),

Karma Lochrie (English), Consuelo López-Morillas (Spanish and Portuguese), Fedwa Malti-Douglas (Comparative Literature, Near Eastern Languages and Cultures), Emanuel Mickel Jr. (French and Italian), William Newman (History and Philosophy of Science), Samuel Rosenberg (Emeritus, French and Italian), William Shetter (Emeritus, Germanic Studies), Josep Sobrer (Spanish and Portuguese), Paul Spade (Philosophy), Paul Strohm (Emeritus, English), Ian Thomson (Emeritus, Classical Studies), Stephen Wailes (Germanic Studies), John Walbridge (Near Eastern Languages and Cultures), William Wiethoff (Communication and Culture)

Associate Professors

David Brakke (Religious Studies), Ann Carmichael (History, History and Philosophy of Science), Jamsheed Choksy (History, Near Eastern Languages and Cultures), Louise Hammer* (Slavic Languages and Literatures), Jeffrey Huntsman (English), Sheila Lindenbaum* (English), Paul Losensky* (Comparative Literature, Near Eastern Languages and Cultures), Rosemarie McGerr (Comparative Literature), Domenico Bertoloni Meli (History and Philosophy of Science), Jacques Merceron (French and Italian), Larry Moses (Emeritus, Central Eurasian Studies), Leah Shopkow* (History), Kemal Silay (Near Eastern Languages and Cultures), Hava Tirosh-Samuelson (Religious Studies), Barbara Vance (French and Italian), Martha Vinson* (Classical Studies)

Academic Advisor

Associate Professor Sheila Lindenbaum, Ballantine Hall 519, (812) 855-6536; E-mail mest@indiana.edu

Ph.D. Minor in Medieval Studies

Course Requirements

Four courses in medieval studies outside of the student's major department. These courses must be from at least two different departments and must include one of the courses listed below. The

selection of courses should be made in consultation with the director of the institute.

Grades

Courses in which a student receives less than a B (3.0) will not count toward the minor.

Examination

None.

Area Certificate in Medieval Studies

The Area Certificate in Medieval Studies is designed to allow doctoral students to investigate medieval civilization more extensively than in the Ph.D. minor program.

Course Requirements

Nine courses on the medieval period: four in the student's major department and five in other departments, two of which should be drawn from the group of courses listed below. The selection of courses not in the student's major department should be made in consultation with the director of the institute. Students in departments that do not provide the requisite four medieval courses in their disciplines may design an alternative program in consultation with the director of the institute.

Language Requirements

Students must demonstrate advanced proficiency in one of the following languages: Latin, Greek, Hebrew, Arabic, or Persian. Advanced proficiency can be established by taking more than the two advanced courses (e.g., Latin L300 and L400 or L409) or by appropriate advanced exam, or by other means in consultation with the director of the institute. Graduate courses in the medieval period are offered by twelve COAS departments in addition to the Medieval Studies Institute. Students should consult the *Schedule of Classes* or the Medieval Studies Web site (www.indiana.edu/~medieval/) for a complete list of courses offered in a given semester.

Grades

Courses in which a student receives less than a B (3.0) will not count toward the certificate.

Examination

None.

Courses

MEDIEVAL STUDIES

M500 Introduction to Medieval Studies (4 cr.) An introduction to issues and practices in the field with some attention to bibliographical tools.

M502 Colloquium in Medieval Studies (4 cr.) Investigation of an interdisciplinary problem in medieval civilization, topic and disciplines to vary, or readings of foundational texts from the period. May be repeated for credit.

M600 Medieval Manuscripts (4 cr.) Paleography, codicology, diplomatics; the study of manuscript production, history, and use. May be repeated for credit.

M700 Seminar in Medieval Studies (4 cr.) Advanced research in specialized topics and problems in the field. May be repeated for credit.

M815 Readings in Medieval Civilization (1-4 cr.)

CLASSICAL STUDIES

L300 Intensive Introduction to Classical and Medieval Latin (3 cr.)

L400 Intensive Study of Literary Latin (3 cr.)

L409 Readings in Medieval Latin (3 cr.)

Inner Asian and Uralic Studies

College of Arts and Sciences
Bloomington

Director

Associate Professor William Fierman (Central Eurasian Studies)

Center E-mail

iaunrc@indiana.edu

Center URL

www.indiana.edu/~iaunrc

Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Distinguished Professors

Robert Campbell (Emeritus, Economics), Denis Sinor (Emeritus, Central Eurasian Studies)

Professors

Michael Alexeev (Economics), Randall Baker (Public and Environmental Affairs), İlhan Başgöz (Emeritus, Central Eurasian Studies), Gustav Bayerle (Emeritus, Central Eurasian Studies), Christopher I. Beckwith (Central Eurasian Studies), Jack Bielasia (Political Science), Yuri Bregel (Emeritus, Central Eurasian Studies), Jamsheed Choksy (Central Eurasian Studies), Gyula Décsy (Central Eurasian Studies), Devin DeWeese (Central Eurasian Studies), Ben Eklof (History), William Fierman (Central Eurasian Studies), Henry Glassie (Folklore), Joseph Hoffmann (Law), György Kara (Central Eurasian Studies), Marjorie A. Lyles (Business), Paul Marer (Emeritus, Business), John L. Mikesell (Public and Environmental Affairs), Christine L. Ogan (Journalism), Toivo Raun (Central Eurasian Studies), Nazif Shahrani (Anthropology, Central Eurasian Studies), Martin Spechler (Economics), Mihály Szegedy-Maszák (Central Eurasian Studies)

Associate Professors

Christopher Atwood* (Central Eurasian Studies), Matthew Auer* (Public and Environmental Affairs), Maria Bucur-Deckard (History), Michael Hamburger (Geological Sciences), Owen V. Johnson (Journalism), Michael Kaganovich (Economics), Dodona Kiziria* (Slavic Languages and Literatures), Paul Losensky* (Central Eurasian Studies), Larry Moses (Emeritus, Central Eurasian Studies), Jan Nattier (Religious Studies), Martha Nyikos (Education), Kemal Silay (Central Eurasian Studies), Elliot Sperling (Central Eurasian Studies), Herbert Terry (Telecommunications)

Assistant Professors

Henry Hale* (Political Science), Bill Johnston* (Linguistics)

Academic Advisor

Associate Professor William Fierman (Central Eurasian Studies), Goodbody Hall 324, (812) 856-5263, wfierman@indiana.edu

Area Certificate in Inner Asian and Uralic Studies

The Inner Asian and Uralic Studies Program offers a strong interdisciplinary training program for students interested in the languages and societies of Central Eurasia, stretching from the Baltic, Hungary, and Turkey to Central Asia, Tibet, and Mongolia. IU's greatest concentration of expertise and instruction in the area is brought together by the Inner Asian and Uralic National Resource Center. Center faculty pursue both historical and contemporary analysis in a wide range of disciplines, including anthropology, business, comparative literature, economics, folklore, history, journalism, linguistics, music and drama, political science, public administration, and religious studies. Center faculty also offer three levels of instruction in all of the following living languages indigenous to the Center's area: Estonian, Finnish, Hungarian, Mongolian, Persian/Tajik, Tibetan, Turkish, and Uzbek. Other living and classical languages of Central Eurasia are offered less frequently, including Chagatai, Evenki, Kazakh, Kyrgyz, Mordvin, Turkmen, and Uygur.

Course Requirements

Eighteen (18) credit hours of graduate course work, including 9 credit hours from the Department of Central Eurasian Studies; or in the case of Turkish Studies, the Departments of Near Eastern Languages and Cultures and/or Central Eurasian Studies. All courses are to be selected in consultation with the Inner Asian and Uralic National Resource Center director.

Language Requirements

Students will be required to demonstrate intermediate

competence in a relevant language. No credit toward the certificate will be awarded for first-year language courses. No more than 6 hours of language courses may be counted toward the certificate.

Grades

Minimum of a B (3.0) in all courses that count toward the certificate.

Examination

None.

Courses

ANTHROPOLOGY

E455 Anthropology of Religion

E600 Seminar in Cultural and Social Anthropology

BUSINESS

D503 International Business Environment

D504 Operations of International Business

D545 East Europe and Russia Transition

D594 Competitive Strategic Global Industries

D595 Management of Transnational Corporations

CENTRAL EURASIAN STUDIES

U345 Finno-Uguric and Siberian Mythology and Religion

U368 The Mongol Conquest

U370 Uralic Peoples

U394 Islam in the Former Soviet Union

U423 Hungary between 1890 and 1945

U424 Hungarian Literature from Its Beginnings to 1900

U426 Modern Hungarian Literature

U427 Hungary from 1945 to the Present

U436 Finnish Civilization to 1800

U437 Finnish Civilization II

U450 Introduction to Turkish Folklore and Oral Literature

U459 Seminar: Education and Societal Change in Turkey

U469 Mongols of the Twentieth Century

U481 Survey of Tibetan Literature

U483 Introduction to the History of Tibet

U484 The Religions of Tibet

U489 Tibet and the West

U490 Sino-Tibetan Relations

U493 Central Asia: Sixteenth through Nineteenth Centuries

U496 Ethnic History of Central Asia

U498 Studies in Inner Asian Religious Traditions

U501 Introduction to Chuvash

U502 Introduction to Yakut

U504 Introduction to Mari (Cheremis)

U518 Empire and Ethnicity in Modern Russia

U519 Soviet and Post-Soviet Nationality Policies and Problems

U520 Topics in Central Eurasian Studies

U533 Finland in the Twentieth Century

U534 Classical Finnish Literature

U535 Modern Finnish Literature

U543 Estonian Culture and Civilization

U544 The Baltic States since 1918

U550 Turkish Folklore: Methodology and Analysis

U563 Mongolian Historical Writings

U564 Mongolian Literature and Folklore

U565 Mongolian Civilization and Folk Culture

U568 Mongolian Dialects

U571 The Uralic Languages

U581 The Languages of Eastern Inner Asia

U584 Introduction to Manchee

U590 Shamanism in Central Eurasia

U595 Introduction to Central Eurasian Studies

U596 Post-Soviet Transition in Central Asia

U597 Politics and Society of Central Asia

U598 Peoples and Cultures of Central Asia

U599 Seminar on Social Change in Central Asia

U600 Advanced Readings in Central Eurasian Studies

U601 Central Eurasian Studies M.A. Thesis Research

U623 History of the Hungarian Language

U690 Comparative Turkic Linguistics

U698 Islamic Hagiography-Central Asia

U720 Seminar: Topics in Central Eurasian Studies

U785 Seminar in Tibetan Literature

U797 Muslim Societies of Central Asia and Middle East	GEOGRAPHY	RELIGIOUS STUDIES
U798 Central Asia Nomadic Pastoralism	G427 Geography of Former Soviet Lands	R552 Studies in Buddhism
U800 Research in Central Eurasian Studies	HISTORY	R554 East Asian Religions
U901 Advanced Research	C393 Ottoman History	R635 Buddhism in North America
All language courses in the following languages:	D521 Hungarian History and Civilization to 1711	R655 Materials and Methods in Buddhist Studies
Azeri	G582 Imperial China I	R658 Methodologies and Methods in Buddhist Studies
Chaghatay	G583 Imperial China II	R670/770 Buddhist Ethics
Estonian	H645 Eastern Europe 1945-1989: Survival and Resistance	R750 Seminar on Indian Buddhist Texts
Finnish	H675 Colloquium in East Asian History	RUSSIAN AND EAST EUROPEAN INSTITUTE
Hungarian	INDIA STUDIES	R575 Graduate Readings in Russian and East European Study
Kazakh	I501/502 Elementary Sanskrit	R600 Proseminar Soviet/East European Area Studies
Mongolian	I561 Intermediate Sanskrit	SCHOOL OF LIBRARY AND INFORMATION SCIENCE
Classical Mongolian	JOURNALISM	L610 International Information Issues
Classical Tibetan	J660 Topics Colloquium Music	L620 Slavic Bibliography
Classical Old Tibetan	E571 Kodaly Concept I	SCHOOL OF PUBLIC AND ENVIRONMENTAL AFFAIRS
Turkish	E573 Kodaly Concept II	E535 International Environmental Policy
Ottoman Turkish	NEAR EASTERN LANGUAGES AND CULTURES	V550 Governmental Finance in Transitional Economies
Uzbek	N545 Introduction to Ancient Near East	V551 Trade and Global Competition
EAST ASIAN LANGUAGES AND CULTURES	N565 Introduction to Islamic Civilization	V557 International Economic Strategies and Trade Policies
E384 East Asian Nationalism and Cultural Identity	N695 Graduate Topics in Near Eastern Languages and Cultures	SLAVIC LANGUAGES AND LITERATURES
E505 Studies in East Asian Society (Topics course)	P500/550 Elementary Persian	R553 East European Cinema
ECONOMICS	P600/650 Intermediate Persian	
E698 Comparative Economics and Economics of Transition	POLITICAL SCIENCE	
EDUCATION	Y340 East European Politics	
H551 Comparative Education I	Y385 Russian Political Ideas	
H552 Comparative Education II	Y657 Comparative Politics	
H560 Education and Change in Societies		
FINE ARTS		
A421 Early Christian Art Folklore		
F440/540 Turkish Art		
F600 Asian Folklore and Folk Music		
F617 Middle East Folklore and Folk Music		

In addition to the above, students are encouraged to take the initiative to find other courses that the professor would be willing and able to adapt for IAUNRC certificate credit. (This might be, for example, by agreeing

that the student's papers and/or other projects would focus on the IAUNRC region or that the student may do additional reading and writing relevant to the region).

Jewish Studies

**College of Arts and Sciences
Bloomington**

Director

Steven Weitzman (Jewish Studies and Religious Studies)

Associate Director

Jeffrey Veidlinger (Jewish Studies and History)

Departmental E-mail

iujsp@indiana.edu

Departmental URL

www.indiana.edu/~jsp

Departmental Phone: (812) 855-0453

Departmental Fax: (812) 855-4314

Graduate Faculty

Irving M. Glazer Chair in Jewish Studies

Steven Weitzman

Rudy Professor of Political Science

Jeffrey Isaac (Political Science)

Director of the Institute for Jewish Culture and the Arts

Alvin H. Rosenfeld (Jewish Studies and English)

Dr. Alice Field Cohn Chair in Yiddish Studies

Dov-Ber Kerler (Germanic Studies and Jewish Studies)

Distinguished Professor

Susan Gubar

Professors

James S. Ackerman (Emeritus, Religious Studies), Jack Bielasiak (Political Science), Paul Eisenberg (Emeritus, Philosophy), Henry Fischel (Emeritus, Near Eastern Languages and Cultures), Susan Gubar (English), Jeffrey Isaac (Political Science), Irving Katz

(Emeritus, History), Dov-Ber Kerler (Jewish Studies and Germanic Studies), Michael Morgan (Jewish Studies and Philosophy), Alvin Rosenfeld (Jewish Studies and English)

Associate Professors

Joëlle Bahloul (Jewish Studies and Anthropology), Stephen Katz (Jewish Studies), Herbert J. Marks (Comparative Literature), Dina Spechler (Political Science), Jeffrey Veidlinger (Jewish Studies and History), Dror Wahrman (History), Steven Weitzman (Jewish Studies and Religious Studies)

Academic Advisor

Carolyn Lipson-Walker, Goodbody Hall 325, (812) 855-0453

Ph.D. Minor in Jewish Studies

The Jewish Studies Program has as its objective the study of Jewish civilization from antiquity to the present and its interaction with and impact on world civilization. The program draws on the many disciplines necessary to study the multifaceted Jewish experience, thus bringing a variety of approaches to the study of Jewish civilization. The contributing departments include Anthropology, Comparative Literature, English, Germanic Studies, History, Institute for Biblical and Literary Studies, Linguistics, Near Eastern Languages and Cultures, Philosophy, Political Science, and Religious Studies. Because of the interdisciplinary nature of the Jewish Studies Program, the structure of course work will vary according to each student's areas of interest and departmental requirements. Departmental concentrations, such as Jewish history, can be pursued in conjunction with the Jewish studies doctoral minor. Students may choose to concentrate on biblical studies, Jewish history, Jewish thought, Holocaust studies, Yiddish, or Israel studies.

Course Requirements

Fifteen (15) hours of graduate credit in courses on Jewish Studies. All students are required to take a core course, H520 Colloquium in Jewish

History. No more than two courses may be taken in the student's home department. No more than 6 credit hours of individualized readings can be applied to the minor. The selection of courses must be made in consultation with the academic advisor.

Minor in Yiddish

Students may complete a Ph.D. minor in Yiddish through the Department of Germanic Studies. Requirements include 12 credits, consisting of Y502, Y503, Y504, 3 remaining credits to be chosen from Y505, Y506, Y815, and other courses focusing on non-language Yiddish topics.

Grades

Courses in which a student receives less than a B (3.0) will not count toward the minor.

Courses

JEWISH STUDIES

H520 Colloquium in Jewish History (4 cr.) (Topics in the history of Judaism and the Jews in modern times.)

H595 Directed Readings in Jewish Studies (1-3 cr.) Directed readings in various topics in Jewish Studies; topics, credit hours, and readings to be determined in consultation with faculty member with whom the student wishes to work.

ANTHROPOLOGY

E332 Jewish Women: Anthropological Perspectives (3 cr.)

E334 Jews in Moslem Society (3 cr.)

E371 Modern Jewish Culture and Society (3 cr.)

E600 Seminar in Cultural and Social Anthropology (3 cr.) Topics: Ethnicities of Israel; The Jewish Family; Jewish Women; Migrations and Diasporas.

E682 Memory and Culture (3 cr.)

COMPARATIVE LITERATURE

C545 The Bible and Western Literature (4 cr.) (when topic focuses on Hebrew Bible) Topics: The Poetics of Biblical Narrative; Prophecy and Poetry.

ENGLISH

L780 Special Studies in English and American Literature (4 cr.)
Topic: Literature of the Holocaust

GERMANIC STUDIES

Y501 Beginning Yiddish I (3 cr.)

Y502 Beginning Yiddish II (3 cr.)

Y503 Intermediate Yiddish I (3 cr.)

Y504 Intermediate Yiddish II (3 cr.)

Y505 Topics in Yiddish Literature (3 cr.) Topic: Fantasy, Realism, and Fiction: The First Century of Modern Yiddish Literature, 1810-1913.

Y506 Topics in Yiddish Culture (3 cr.) Topics: Aspects of Modern Yiddish Culture, 1880-1980; Ghetto, Shtetl, and Beyond: 800 Years of the History and Sociology of Yiddish.

Y815 Individual Readings in Yiddish Studies: Language, Literature and Culture (1-4 cr.)

HISTORY

H523 The Holocaust (3 cr.)
The courses below are cross-listed in Jewish Studies when they pertain to Jewish history:

H620 Colloquium: Modern Western European History (4 cr.)
Topic: Jews and Cosmopolitanism in Modern European Intellectual History

H640 Colloquium in Russian History (4 cr.)

**These courses are eligible for a deferred grade.

H645 Colloquium in East European History (4 cr.)

H680 Colloquium in Cultural History (4 cr.)

H720 Seminar: Modern Western European History (4 cr.)

H740 Seminar in Russian History (4 cr.)

H745 Seminar in East European History (4 cr.)

H780 Seminar in Cultural History (4 cr.)

INSTITUTE FOR BIBLICAL AND LITERARY STUDIES

I600 Colloquium in Biblical and Literary Studies (4 cr.) (when topic focuses on Hebrew Bible)

NEAR EASTERN LANGUAGES AND CULTURES

H500 Elementary Hebrew I (2 cr.)

H550 Elementary Hebrew II (2 cr.)

H590 Intensive Elementary Hebrew (4 cr.)

H600 Intermediate Hebrew I (3 cr.)

H650 Intermediate Hebrew II (3 cr.)

H670 Advanced Hebrew I (3 cr.)

H680 Advanced Hebrew II (3 cr.)

N471 Biblical Hebrew I (3 cr.)

N472 Biblical Hebrew II (3 cr.)

N473 Biblical Hebrew III (3 cr.)

N511 Foreign Study in Near Eastern Languages and Cultures (2-8 cr.)

N517 Biblical Hebrew IV (3 cr.)

N587 Modern Hebrew Literature in English (3 cr.)

N588 Recent Hebrew Literature in English (3 cr.)

N591 Directed Readings in Hebrew (1-6 cr.)

N691 Research in Medieval Hebrew Texts (3 cr.)

N695 Graduate Topics in Near Eastern Languages and Cultures (1-4 cr.) Topics: Biblical Themes in Modern Hebrew Literature in English, Modern Hebrew Literature in English, Recent Hebrew Literature in English, S. Y. Agnon and the Jewish Experience.

N708 Seminar in Judaic Literature (4 cr.)

N720 M.A. Thesis (cr. arr.)**

PHILOSOPHY

P522 Topics in the History of Modern Philosophy (3 cr.) (when topics focus on Jewish philosophy).

P535 Phenomenology and Existentialism (3 cr.) Topic: Emmanuel Levinas: Ethics as a First Philosophy

P590 Intensive Readings (1-3 cr.)
Topics: Alienation and Redemption in Early 20th Century European Culture and Jewish Thought; Alienation and Community: Judaism, Philosophy, Religious Thought and Literature in Europe, 1900-1940; Franz Rosenzweig and Emmanuel Levinas; Philosophy and Religious Thought after the Holocaust; Judaism, Philosophy, and Religious Thought in Europe, 1900-1940; Responses to the Holocaust: Philosophy, Religion, Ethics, Film, Politics and Historiography.

RELIGIOUS STUDIES

R511 Religion of Ancient Israel (3 cr.) Topics: Studies in Religion (History of God; Issues in the Study of the Hebrew Bible); Narrative in the Hebrew Bible; Topics in Ancient Israelite Religion.

R541 Studies in the Jewish Tradition (3 cr.) Topics: Prophecy in Ancient Israel, Judaism in the

Making, Introduction to Jewish Mysticism, Religious Thought in Medieval Judaism, Religious Issues in Contemporary Judaism (Major Trends in Modern Judaism; Women in Judaism), Talmud, Topics in Ancient Israelite Religion (The Sabbath in Literature and Liturgy), Topics in the History of Judaism. (The courses below are cross-listed in Jewish Studies when they pertain to the Hebrew Bible):

R610 Studies in Biblical Literature and Religion (3 cr.)

R615 The Bible in Literature Courses (3 cr.)

R663 History of Biblical Interpretation (3 cr.)

R763 History of Biblical Interpretation (3 cr.)

R793 Advanced Biblical Study (1-3 cr.)

Journalism

School of Journalism
Bloomington

Dean

Associate Professor Trevor Brown

Departmental E-mail

gketcham@indiana.edu

Departmental URL

www.journalism.indiana.edu

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors

John Ahlhauser (Emeritus), Ulf Jonas Bjork*, James Brown, Dan Drew, Jack Dvorak*, Ralph Holsinger (Emeritus), Peter Jacobi (Emeritus), David Nord, Christine Ogan, David H. Weaver, G. Cleveland Wilhoit (Emeritus), Richard Yoakam (Emeritus)

Associate Professors

Randal Beam*, David Boeyink*, Trevor Brown, Bonnie Brownlee*, Claude Cookman*, John Dilts*,

Maria Grabe*, Owen V. Johnson, Carol Polsgrove, S. Holly Stocking

Assistant Professors

Michael Evans*, Radhika Parameswaran*, Amy Reynolds*

Associate Dean for Graduate Studies

Professor Dan Drew, Ernie Pyle Hall 215A, (812) 855-8111

Degrees Offered

Master of Arts, Master of Arts for Teachers, dual Master of Arts and Master of Library Science (jointly with the School of Library and Information Science), dual Master of Arts and Master of Public Affairs, dual Master of Arts and Master of Science in Environmental Science (jointly with the School of Public and Environmental Affairs), dual Master of Arts with Folklore and Ethnomusicology (jointly with the Department of Folklore and Ethnomusicology), dual Master of Arts and J.D. in Law (jointly with the School of Law), and Doctor of Philosophy

Special School

Requirements

See also general University Graduate School requirements.

Master of Arts Degree

Two programs (tracks) are available: a professional track and a research and teaching track. The following requirements apply equally to both tracks.

Admission Requirements

(1) A superior record in the undergraduate major from a recognized institution, (2) an appropriate level of achievement on the Graduate Record Examination General Test, (3) three letters of recommendation, and (4) a 500-word statement of purpose.

Superior students who have not majored in journalism or mass communications are encouraged to apply to either the professional or research/teaching track. The school accepts applications for admission to our M.A. program at any time; however, students without an undergraduate journalism degree or

professional experience must begin their study in the fall semester

Grades

B (3.0) average or above required.

Master of Arts Degree, Professional Track

Course Requirements

A total of 30 credit hours, including the core offerings of J505 Intensive Reporting, Writing, and Editing Workshop (6 cr.), J510 Media and Society Seminar, J572 The Press and the Constitution, one visual professional skills course, two other professional skills courses, and 9 additional credit hours. The additional credit hours may be all journalism electives or, upon approval of the student's advisor, may include up to 9 credit hours in a minor field. A special arrangement with the School of Library and Information Science allows a 12 credit minor in that school. The Intensive Reporting, Writing, and Editing Workshops may be waived for students who have had professional media experience.

Master of Arts Degree, Research and Teaching Track

Course Requirements

A total of 30 credit hours, including the core offerings of J500, J510, J800, and 21 additional credit hours. The additional credit hours may all be journalism electives or, upon approval of the student's advisor, may include up to 9 credit hours in a minor field. A special arrangement with the School of Library and Information Science allows a 12 credit minor in that school. Students without professional experience or a journalism degree who apply to the research/teaching track may be required to take J560 Intensive Reporting, Writing, and Editing Workshop I and II and/or J572 The Press and the Constitution. These courses count toward the 30 credit hours required for the degree.

Thesis

Thesis (J800) required, for 3 credit hours

Master of Arts for Teachers Degree

Major Field Course Requirements

A minimum of 20 credit hours in journalism, advertising (marketing), and telecommunications. Consult the associate dean for graduate studies for specific degree requirements.

Dual Master of Arts and Master of Library Science Degrees

Admission Requirements

Students must be admitted by both the School of Journalism and the School of Library and Information Science. Requirements for admission to the School of Journalism are the same as those for the M.A. degree.

Course Requirements

A total of 21 credit hours in journalism, including J500, J510, J651, a graduate-level reporting course or J800, and 6 additional credit hours of graduate journalism electives. Thirty (30) credit hours are required in the School of Library and Information Science, including the core of L503, L505, L507, L520, L524, L528, L570, L628, and one from L623, L624, or L625 and 3 credit hours of electives in SLIS.

Dual Master of Arts and Master of Public Affairs (M.P.A.)

The School of Journalism and the School of Public and Environmental Affairs collaborate in a combined master's degree program that addresses the demand for specialists who combine public management and public policy with public affairs reporting and writing or the study of media in society. The program prepares students for positions in the media, government, business, and nonprofit organizations. Candidates for the combined degree complete core requirements and elective courses from the School of Journalism. Candidates must be admitted to both schools.

Candidates also complete the core requirements for the M.P.A. and 15 additional credit hours selected from

an approved list of courses offered by the School of Public and Environmental Affairs.

Program Requirements (57 credit hours)

Master of Arts in Journalism

Requirements (21 credit hours)

Twenty-one (21) credit hours are required for the Master of Arts in Journalism. For specific requirements, see the School of Journalism Bulletin.

Master of Public Affairs Requirements (36 credit hours)

Required Courses (21 credit hours)

SPEA V501 Professional Development Practicum: Information Technology (1 cr.)

SPEA V502 Public Management (3 cr.)

SPEA V503 Professional Development Practicum: Writing and Presentation (1 cr.)

SPEA V505 Professional Development Practicum: Teamwork and Integrated Policy Project (1 cr.)

SPEA V506 Statistical Analysis for Effective Decision Making (3 cr.)

SPEA V517 Public Management Economics (3 cr.)

SPEA V540 Law and Public Affairs (3 cr.)

SPEA V560 Public Finance and Budgeting (3 cr.)

SPEA V600 Capstone in Public and Environmental Affairs (3 cr.)

Note: The SPEA V501/V503/V505 requirement is suspended for 2001-02.

Specialization Courses (15 credit hours)

Each student is required to develop a specialized concentration comprised of courses approved by a SPEA faculty advisor. Courses may include SPEA, journalism, and other courses.

Dual Master of Arts and Master of Science in Environmental Science (M.S.E.S.)

General Requirements

A total of 58 credit hours is required for the dual Master of Arts and

Master of Science in Environmental Science (M.S.E.S.)

Admission Requirements

Students must be admitted by both the School of Journalism and the School of Public and Environmental Affairs. Requirements for admission to the School of Journalism are the same as those for the M.A. degree.

Journalism Course Requirements

Requirements: A total of 21 credit hours in journalism, including J510, three of the following professional-skills classes: J401, J413, J455, J520, J551, J552, J553, J554, J556, J560, J563, J565, and 6 additional credit hours of graduate journalism electives.

Note: A student without an undergraduate journalism degree may be required to take J505 Reporting/Editing Workshop and J572 The Press and the Constitution as electives.

SPEA Course Requirements

Thirty-seven (37) credit hours are required for the M.S.E.S. (Master of Science in Environmental Science). The M.S.E.S. requirements include E526, E527, E536, E538, E552, E680, V517 plus two of the following: E560, V539, V520, V540, V625, V640, V643, V645, plus 12 credit hours in a specialized concentration.

Dual Master of Arts with Folklore and Ethnomusicology

Admission Requirements

Students must be admitted by both the School of Journalism and the Department of Folklore and Ethnomusicology, which is part of the College of Arts and Sciences. Requirements for admission to the School of Journalism are the same as those for the M.A. degree

Journalism Course Requirements

A total of 24 credit hours in journalism, including J505, J510, J572, one of the following visual professional-skills classes: J520, J560 (Informational Graphics), J563, J565, two of the following

professional-skills classes: J401, J413, J455, J501, J528, J529, J531, J551, J552, J553, J554, J556, J560 (Literary Journalism).

Folklore and Ethnomusicology Course Requirements

A total of 24 credit hours in folklore and ethnomusicology, including: F501; and any one of the following: F516, F517, F714; and either of the following: F523 or F525; plus one course from each of the following three groupings: F527-F545, F600s, F700s; and two additional approved courses, which allow the student to expand on any of the above domains or to arrange for a practicum or a course of independent readings.

A final project or presentation integrates the folklore/ethnomusicology and journalism facets of the course of study. This project or presentation must be done as an independent study for 2 credit hours and must be approved and supervised by a committee consisting of at least one folklore professor and at least one journalism professor.

Dual Master of Arts and J.D. in Law

Admission

Students may apply to the School of Journalism on the Bloomington campus at the same time they apply to the School of Law on the Bloomington campus. Students already enrolled in the School of Law may apply to the School of Journalism up to the completion of their second year of law study. Students enrolled in School of Journalism may apply to the School of Law up to the end of their first year of the master's program. Students would customarily spend the first year in the School of Law and thereafter divide the second, third, and fourth years between the two units.

Credit Hours

The joint program would require a minimum of 77 hours in law and 30 hours in Journalism.

Curriculum

Master of Arts degree, Research and Teaching Track

A total of 30 credit hours in journalism, including J500 Introduction to Mass Media Research; J510 Media and Society Seminar; J800 M.A. Thesis; and 21 additional credit hours in journalism.

Master of Arts degree, Professional Track

A total of 30 credit hours in journalism, including the core offerings of J560 Intensive Reporting, Writing, and Editing Workshop I; J560 Intensive Reporting, Writing, and Editing Workshop II; J510 Media and Society Seminar; J572 The Press and the Constitution; one visual professional skills course; two other professional skills courses; and nine additional credit hours of electives.

Doctor of Philosophy Degree

The School of Journalism offers the Doctor of Philosophy degree in mass communications, journalism track.

Admission Requirements

(1) Master's degree from a recognized institution, (2) superior record in the major subject, (3) appropriate level of achievement on the Graduate Record Examination General Test, (4) three letters of recommendation, and (5) a 500-word statement of purpose. Students who have not majored in mass communications at either the bachelor's or master's level are encouraged to apply. Consult the associate dean for graduate studies on whether graduate credit can be granted for course work done at the M.A. level.

The school accepts applications for admission to our Ph.D. program for fall semester only. The deadline for applications is December 1 for international students and January 15 for U.S. students.

Course Requirements

(1) Foundation core of J500, J600, J651, J570 or J571, J555 and one statistics course. (2) Either proficiency in depth in an appropriate language, usually

French, German, Russian, or Spanish; or completion of an approved set of three tool-skill courses. With the permission of the director of graduate studies, these courses may be counted in the concentration areas. (3) At least two other approved courses at the 600 level in the School of Journalism. These courses may be counted in the concentration areas. (4) Twenty-one (21) to 27 credit hours in each of two concentration areas; and up to 27 credit hours in electives and dissertation for a minimum of 90 credit hours.

Much of the concentration area course work will be taken in departments outside the School of Journalism. Students, in consultation with their faculty advisors, should construct concentration areas according to their own research interests. The concentration areas may be selected from the following: (1) international communication, (2) history and philosophy of communication, (3) communication law, (4) the media and public policy, (5) economics and media management, (6) media and social systems, (7) political communication, (8) communication and culture, (9) visual communication, and (10) communication ethics. With the approval of the advisory committee, students may choose other areas of concentration more closely related to their interests. Students should consult their faculty advisors in selecting courses in concentration areas.

Grades

B (3.0) average or above required overall and in School of Journalism course work.

Periodic Review

At the beginning of the second year, members of the graduate faculty together with the student's advisor will meet with the student's first-year instructors to examine the grade and research records of each graduate student to assess the student's strengths and areas in need of attention. Any student whose achievements and potential fall far

below standard will be discouraged from further work.

Advisory Committee Selection

During the first semester of the second year of course work, students will select four faculty members to serve on the advisory committee. Most students select one member for the core, one for each of the two concentration areas, and one for methodology. The chair of the advisory committee must be a member of the journalism faculty. One other member of the committee must come from journalism. A least two of the members must be on the graduate faculty, and one must be from outside the journalism and telecommunications faculty. The outside member usually represents one of the concentration areas.

Qualifying Examination

Each student is evaluated for Ph.D. candidacy in the following ways: at the completion of course work, the student will take (1) a four-hour written examination on the foundation core, (2) a problem-solving, take-home examination on methodology, (3) a two-hour written examination on educational methods, (4) a four-hour written examination on the first concentration area, (5) a four-hour written examination on the second concentration area; and following the written examinations, (6) a comprehensive oral examination administered by the student's advisory committee. (The written and oral examinations must be completed within a period of no more than four weeks.)

Research Committee Selection

The research committee will consist of four faculty members, one from outside the School of Journalism and the Department of Telecommunications. The chairperson and at least one other member of the committee must be journalism faculty. The members may be, but need not be, the same as those who served on the advisory committee, and the chairperson may be the same or different. The chairperson should be a full member of the graduate faculty. All members must be members of the graduate

faculty, and at least half the committee must be full members.

Final Examination

Oral, primarily a defense of the dissertation.

Ph.D. Minor in Journalism

Journalism Students must take 12 credit hours of graduate course work in the School of Journalism. Upon consultation with an advisor in journalism, students may organize a minor tailored to their interests, but they must submit the proposed program of study to the Graduate Committee of the School of Journalism for approval.

Courses

Courses in the 400s, listed here and described in the College of Arts and Sciences Bulletin, are open to graduate students, who will be expected to achieve an appropriately higher level of performance than the undergraduates taking such courses.

GENERAL

J401 Depth Reporting and Editing (3 cr.)

J409 Media Management (3 cr.)

J410 The Media as Social Institutions (3 cr.)

J413 Magazine Article Writing (3 cr.)

J414 International Newsgathering Systems (3 cr.) J423 Public Opinion (3 cr.)

J425 Supervision of School Publications (3 cr.)

J455 News Analysis and Opinion Writing (3 cr.)

J462/J562 History of Twentieth-Century Photography (3 cr.)

Surveys twentieth century photography as a medium of art and communication. Considers portraiture, landscape, still life, the nude, conceptual photography, the social documentary tradition, the magazine picture story, fashion, advertising and war photography. Examines the impact of postmodern

theories on photographic practice and the understanding of photography.

J470 Broadcast Media Analysis (3 cr.)

J500 Introduction to Mass Media Research (3 cr.) Seminar on content analysis, experiments, survey methods, qualitative research, historical and legal methodology. Development of media research proposals.

J501 Public Affairs Reporting (3 cr.) Lectures and roundtable discussion of problems in covering public affairs issues at the national, state, and local levels. Emphasis on reporting on government, social welfare agencies, elections, political parties, special interest groups, and other areas of general public interest.

J505 Intensive Reporting, Writing and Editing Workshop (6 cr.) This course introduces graduate students to the fundamental practices and principles of writing, reporting, editing and design for the print media. Students will develop skills in news judgment, document-based information gathering, interviewing, observation and description, news and feature writing, ethics, page layout, headline writing, copy editing, content editing and photo editing.

J510 Media and Society Seminar (3 cr.) Examination of structure, functions, ethics, and performance of communication and mass media, stressing a review of pertinent research literature. Analysis of media policies and performance in light of communication theory and current economic, political, and social thought.

J514 International Communication (3 cr.) Comparative analysis of international media systems. Course topics and geographical regions studied vary from semester to semester.

J520 Seminar in Visual Communication (3 cr.) Integration of advanced visual communication

skills, including photography, writing, and editing. Individual projects in packaging news and public affairs information. Emphasis on experimentation with message forms outside constraints of the traditional news media.

J525 Colloquium in Scholastic Journalism (1-3 cr.) Examination of problems in teaching journalism and supervising school publications. Topics may include impact on scholastic journalism of changes in educational philosophy, law, financial support, and technology. May be repeated for state certification to teach secondary school journalism, but no more than 6 credits may be counted toward graduate degree.

J528 Public Relations Management (3 cr.) Designed to enable students to manage a public relations department. Theories and principles relevant to public relations practiced in agency, corporate, and not-for-profit organizations will be covered. This will include developing goals and objectives, working with clients, developing budgets, and research methods.

J529 Public Relations Campaigns (3 cr.) Designed to provide students with the opportunity to develop and execute a Public relations campaign for a local not-for-profit organization. Students will be exposed to relevant Public relations theory and in-depth case study analysis.

J530 Issues in New Communication Technology (3 cr.) Study of the political, economic, social, legal, and historical issues involved in the introduction and diffusion of communication technologies. Research on the uses and potential effects of new technologies on the structure and practice of journalism and mass media.

J531 Public Relations for Nonprofits (3 cr.) This graduate seminar focuses on how a nonprofit organization creates images and how it shapes its programs and goals to gain public support. Assignments and readings are designed to foster a theoretical and practical

understanding of promotional techniques and campaigns using journalistic and other media.

J542 Arts, Media, and Society (3 cr.) Study of issues in arts journalism and the role of the arts in mass media and society. Lectures by guest experts and independent research on current trends and problems in the field, emphasizing the public affairs aspects of the arts.

J544 Science, Society, and Media (3 cr.) An examination of science in society, with a particular look at research and commentary on media coverage of science and technology. Reading, reflection, and discussion of both theoretical and practical issues, and independent reading and research on a topic of the student's own choosing.

J551 Seminar: Reporting the Law (3 cr.) Study of public affairs aspects of the law. Research and reporting on timely topics pertaining to the courts, the legal profession, and law enforcement agencies particularly as they relate to the social-political-economic order.

J552 Seminar: Reporting the Arts (3 cr.) Principles of literary, theater, art, dance, and music reporting and criticism. Emphasis on the preparation of articles for publication.

J553 Education and the Media (3 cr.) Study of problems and issues in such areas as school finance, curriculum development, teaching methodology, and the politics of education. Research and reporting on current trends in the field.

J554 Science Writing (3 cr.) Exploration of the challenges and opportunities associated with writing about science for nonscientists. Reading and discussion of articles and texts about communicating science to nonscientists, and practical exercises in reporting and writing.

J555 Teaching Mass Communications in College (3 cr.) Exploration of the theory and practice of college pedagogy.

Specific attention to skills required for teaching mass communications. Includes development of a new course syllabus and teaching portfolio.

J556 Seminar: Urban Affairs Reporting (3 cr.) Study of current urban problems, such as air pollution, transportation, inner-city redevelopment, ghetto life, and metropolitan government. Research and reporting on timely topics.

J560 Topics Colloquium (3 cr.) Topical seminar dealing with changing subjects and material from semester to semester. May be repeated twice for credit with a different topic.

J563 Computerized Publication Design I (3 cr.) This publishing design course incorporates typesetting, electronic photo editing, graphics, and page design. Students are instructed in design theory, computer publishing skills, and creative problem solving.

J565 Computerized Publication Design II (3 cr.) This advanced publishing design course builds on J563 Computerized Design I and incorporates advanced work in color, type design, computer illustration, creative problem solving, and an introduction to print production.

J570 Theory and Research: Individual Level (3 cr.) Introduction to the theory and research relevant to mass media studies at the individual level of analysis. Corresponds to R541 in the telecommunications department.

J571 Theory and Research: Macro-Social Level (3 cr.) Introduction to theoretical orientations and research findings at the macro-social level of analysis.

J572 The Press and the Constitution (3 cr.) Seminar on specialized topics concerning the rights and obligations of mass media under the Bill of Rights. Research and discussion on law of privacy,

access, and other constitutional problems.

J600 Quantitative Methods in Mass Communication Research (3 cr.) P: J500 or R500, and one statistics course. Advanced behavioral methods in the analysis of mass communication data. Practice in analyzing data with computerized statistical programs.

J614 Communication and National Development (3 cr.) Study of the structure and roles of the mass media in national development and the application of communication theory and technology to the problems of development and social change.

J624 Russian and East European Area Media Systems (3 cr.) Investigation of theory and practice of communications systems in the region, including history, news content, institutions, journalists, technology, economic and political pressures, as well as audience and international influences.

J650 History and Philosophy of the Media (3 cr.) Lectures and discussion on the origins, the historical growth, and the philosophical roots of the communication media, with particular emphasis on the relationship between the media and political, economic, social, and cultural trends in the United States.

J651 Qualitative Methods in Mass Communication Research (3 cr.) Seminar on qualitative, historical, and legal research methods for mass communication research.

J653 The Media in the Twentieth Century (3 cr.) Seminar on topics in the history and philosophy of the communication media in the twentieth century, stressing both continuity and change in an age of rapid technological growth for print and electronic media in the United States and in selected areas of the world.

J655 Ethics and Journalism (3 cr.) Exploration of the role of ethics in journalism. Using literature that examines ethics in the context of

journalism practice, the course will analyze ways journalists attempt to deny or limit the role of ethical values. Special attention to objectivity, freedom, and casuistry.

J660 Topics Colloquium (3 cr.) Topical seminar dealing with changing subjects and material from semester to semester. May be repeated twice for credit.

J672 Topics in Communication Law (3 cr.) Independent research and roundtable analysis of selected problems in communication law.

J673 Government and Mass Media (3 cr.) Independent research and roundtable analysis of political communication and government-media relations.

J800 M.A. Thesis or Creative Project (3 cr.)**

J804 Readings and Research in Journalism (cr. arr.)**

GRADUATE

G741 Ph.D. Research in Mass Communications (cr. arr.)**

G790 Readings and Research in Mass Communications (1-3 cr.)**

Latin American and Caribbean Studies

**College of Arts and Sciences
Bloomington**

Director
Professor Jeffrey Gould

Departmental E-mail
clacs@indiana.edu

Departmental URL
www.indiana.edu/~clacs

**These courses are eligible for a deferred grade.

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Distinguished Professors

Richard Bauman (Folklore and Ethnomusicology), Charles Heiser (Emeritus, Biology)

Rudy Professors

Emilio F. Moran (Anthropology, School of Public and Environmental Affairs), Albert Valdman (French and Italian, Linguistics), George Von Furstenburg (Economics)

Bernardo Mendel Professor

Daniel James (History)

A. F. Bentley Professor

Lynton Caldwell (Emeritus, Political Science, Public and Environmental Affairs)

Professors

Robert Arno (Education), Randall Baker (Public and Environmental Affairs), Jorge Chapa (Latino Studies), Keith Clay (Biology), Geoffrey Conrad (Anthropology), Dennis Conway (Geography), Della Cook (Anthropology), Blaise Cronin (Library and Information Science), Jeffrey Gould (History), Jeffrey Hart (Political Science), James Lee (Spanish and Portuguese), John McDowell (Folklore), Craig Nelson (Biology), Robert Quirk (Emeritus, History), J. C. Randolph (Public and Environmental Affairs), Anya Peterson Royce (Anthropology), Darlene Sadlier (Spanish and Portuguese), Gustavo Sainz (Spanish and Portuguese), Merle Simmons (Emeritus, Spanish and Portuguese), Albert Wertheim (English), Richard Wilk (Anthropology)

Associate Professors

Bonnie Brownlee (Journalism), Mary Clayton (Spanish and Portuguese), J. Clancy Clements (Spanish and Portuguese), Luis Dávila (Spanish and Portuguese, Chicano-Riqueño Studies), John Dyson (Spanish and Portuguese), Peter Guardino (History), Stephanie Kane (Criminal Justice), Catherine Larson (Spanish and Portuguese), Bradley Levinson* (Education), Kathleen Myers (Spanish and Portuguese), Philip

Parnell (Criminal Justice), Anne Pyburn (Anthropology), Milagros Rivera-Sanchez (Telecommunications), Richard Stryker (Political Science)

Academic Advisor

Professor Jeffrey Gould, 1125 E. Atwater Avenue (812) 855-8920

Degree Offered

Master of Arts

Program Information

Students working on the Ph.D. in other departments may also qualify for an area certificate or an outside minor in Latin American and Caribbean studies.

The Center for Latin American and Caribbean Studies fulfills a direct teaching function through its M.A. program and its doctoral-level certificate and minor, as well as a highly important liaison and coordinating function among departments and schools with teaching, research, and contract responsibilities related to Latin America and the Caribbean.

The teaching mission aims toward interdisciplinary training in the Latin American and Caribbean area in a two- to three-semester (30 credit hours) M.A. program, specifically tailored to those preparing for business, government, foreign service, or secondary school and junior college teaching opportunities. Advanced work in at least two disciplines and one interdisciplinary seminar give depth and breadth to such an education. Students select their own fields of emphasis from the Departments of Anthropology, Communication and Culture, Folklore and Ethnomusicology, Geography, History, Linguistics, Political Science, and Spanish and Portuguese, as well as from the Kelley School of Business and the Schools of Education, Journalism, Music, and Public and Environmental Affairs.

Special Program Requirements

See also general University Graduate School requirements.

Master of Arts Degree

Admission Requirement

Graduate Record Examination general test scores are required before candidates can be considered for admission.

Course Requirements

A total of 30 credit hours from graduate courses related to Latin America and the Caribbean. At least 12 credit hours in one discipline (major) and 9 credit hours in a second, related discipline either within the social sciences or the humanities block (minor); 3 credit hours of L501, an interdisciplinary seminar with variable topics and area focus; the remaining 6 credit hours from Latin American and Caribbean studies courses or related courses in other departments. Students may concentrate in discrete disciplinary fields, as well as the interdisciplinary fields of Latino studies, economic development, or environmental studies.

Grades

B (3.0) average or above must be maintained.

Foreign Language Requirement

Reading proficiency in Spanish or Portuguese or, in special cases, in an Amerindian language or Haitian Creole.

Final Examination

Written examination, which must be passed in the last semester of course work. At the discretion of the director, an oral examination may be required following the written examination.

Alternatively, a thesis may be written with prior approval of thesis proposal by the director. Following approval of the completed thesis, an oral exam on the thesis is to be taken at least two weeks before the end of the semester in which degree is to be granted.

Dual Degree: Master of Arts in Latin American and Caribbean Studies and Master of Business Administration

The Center for Latin American and Caribbean Studies and the Kelley School of Business jointly offer a three-year program that qualifies students for two master's degrees. Study for these two degrees in the dual degree (M.A./M.B.A.) can be completed in a total of 64.5 credit hours rather than the 84 credit hours that would otherwise be required to take the two degrees separately (since certain courses contribute to both degrees). The two degrees must be awarded simultaneously.

The LTAM (Latin American and Caribbean Studies) M.A. degree requires a total of 30 credit hours, 24 credits of which must be taken in Latin American and Caribbean Studies under the requirements established for the M.A. Of these, the interdisciplinary seminar L501 must be taken, together with 21 credit hours in other LTAM courses or those Latin American and Caribbean Studies courses that are cross-listed with other departments or schools, except the Kelley School of Business. All other requirements for completion of the Latin American Studies M.A., including language proficiency and thesis or oral examination, remain as listed in this bulletin.

Students must also take 40.5 credit hours in the Kelley School of Business under the requirements of the M.A./M.B.A. degree, including the Foundations and Functional Cores through the M.B.A. program, L506, L509, and the Strategy Component. Up to 6 credit hours taken in the Kelley School of Business may be counted as part of the 30 credit hours normally required for the M.A. degree in LTAM. Application for admission to the dual M.A./M.B.A. degree program must be made to the Center for Latin American and Caribbean Studies and the University Graduate School for study toward the M.A. and to the Kelley School of Business for study toward the M.B.A. Students must be

accepted by all three units in order to be admitted to the program.

Dual Degree: Master of Arts in Latin American and Caribbean Studies and Master of Library Science

The School of Library and Information Science (SLIS) and the Center for Latin American and Caribbean Studies jointly offer a three-year program that qualifies students for two master's degrees. Study for these two degrees in the dual degree (M.A./M.L.S.) can be completed in a total of 54 credit hours rather than the 66 credit hours that would otherwise be required to complete the two degrees separately. During the dual degree, specific courses contribute to both degrees. The two degrees must be awarded simultaneously.

Students must take 21 credit hours of advanced courses relating to Latin American and Caribbean Studies. The interdisciplinary seminar L501 (3 credits) must be taken, together with 18 credit hours in other LTAM courses or those Latin American and Caribbean Studies courses that are cross-listed with other departments. All other requirements for completion of the Latin American Studies M.A., including language proficiency and thesis or oral examination, remain as listed in this bulletin. A further 6 credit hours may be taken in SLIS and will count toward both degrees: L620 Topics in Information, Literature, and Bibliography (Topic: Latin American Bibliography) and L596 Internship in Library and Information Science (under the supervision of the Latin American Bibliography).

For the M.L.S. degree, admission requirements remain as listed in the School of Library and Information Science Bulletin, and the proposed dual program requires 30 credit hours of SLIS graduate courses. These must include three courses (9 credits) from the common core (which must include L507 and L509), and four courses (12 credits) from the specific core (L520, L524, L526, and L528). Three other

courses (9 credits) may be taken as library science electives and should include L570.

Application for admission to the dual M.A./M.L.S. degree program must be made to the Center for Latin American and Caribbean Studies for study toward the M.A. and to SLIS for study toward the M.L.S. Students must be accepted by both units in order to be admitted to the program.

Dual Degree: Master of Arts in Latin American and Caribbean Studies and Master of Public Affairs

The School of Public and Environmental Affairs (SPEA) and the Center for Latin American and Caribbean Studies jointly offer a three-year program that qualifies students for two master's degrees. Study for these two degrees in the dual degree (M.A./M.P.A.) can be completed in a total of 60 credit hours rather than the 78 credit hours that would otherwise be required to complete the two degrees separately. The two degrees must be awarded simultaneously.

Students must take 24 credit hours of advanced courses relating to Latin American and Caribbean studies. The interdisciplinary seminar L501 (3 credits) must be taken, together with 21 credit hours in other LTAM courses or those Latin American and Caribbean studies courses that are cross-listed with other departments. All other requirements for completion of the Latin American Studies M.A., including language proficiency and thesis or oral examination, remain as listed in this bulletin.

For the M.P.A. degree, admission requirements remain as listed in the School of Public and Environmental Affairs Bulletin, and the proposed dual program requires 36 credit hours of SPEA graduate courses. These must include the M.P.A. core requirements (18 credit hours): V502 Public Management (3 cr.), V506 Statistical Analysis for Policy and Management (3 cr.), V517 Public Management Economics (3 cr.), V540 Law and Public Affairs (3 cr.),

V560 Public Finance and Budgeting (3 cr.), V600 Capstone in Public and Environmental Affairs (3 cr.), and students are required to develop a Specialized Concentration comprised of 18 credit hours of coursework approved by SPEA faculty advisors.

Application for admission to the dual M.A./M.P.A. degree program must be made to the Center for Latin American and Caribbean Studies for study toward the M.A. and to the School of Public and Environmental Affairs for study toward the M.P.A. Students must be accepted by both units in order to be admitted to the program.

Ph.D. Area Certificate

Admission Requirement

Acceptance into a Ph.D. program. Area certificate awarded only upon completion of the Ph.D. degree.

Areas of Concentration

Latin America and the Caribbean.

Course Requirements

A total of 18 credit hours with Latin American and/or Caribbean emphases, including one graduate seminar in the L501 series and 9 credit hours outside the student's major discipline and a dissertation on a Latin American or Caribbean topic.

Grades

A minimum grade of B (3.0) is required in each course that is to count toward certificate requirements.

Foreign Language Requirements

Reading proficiency in Spanish or Portuguese.

Ph.D. Minor in Latin American and Caribbean Studies

The requirements for the Ph.D. minor are flexible. Each program is developed in consultations between the student, the academic advisor of the student's major department, and the director of Latin American and Caribbean studies, though certain basic requirements are common to all programs.

Course Requirements

Fifteen (15) credit hours of course work directly related to Latin American or Caribbean subject matter, including at least one graduate seminar or readings course (3 credit hours) and 12 credit hours in two disciplines outside the student's major. Courses in the student's major department and language courses below the 500 level may not be applied to the Ph.D. minor.

Examination

If a grade point average of at least 3.7 is maintained, no examination will be required. Otherwise, the director of Latin American and Caribbean studies may stipulate that the student take a written examination.

Program Certification

Certification that all requirements for the program have been met must come from the director of Latin American and Caribbean studies.

Courses

The following courses complement the offerings of Latin American and Caribbean studies within related departments. Each is an interdisciplinary survey of the people, politics, economics, society, and culture.

L400 Contemporary Mexico (3 cr.)

L402 Contemporary Brazil (3 cr.)

L403 Contemporary Central America (3 cr.)

L406 Contemporary Peru and Chile (3 cr.)

L425 Latin American and Caribbean Languages (1-4 cr.)

Languages of Latin America and the Caribbean, other than Spanish and Portuguese. The following languages are regularly offered: Nahuatl and Haitian Creole. May be repeated with different language or higher level for a maximum of six hours in any one language.

L501 Seminar: Contemporary Latin America (3 cr.) Two regions will be studied: one topic for each

region, or one topic for the two regions. Regions to be cycled: Mexico, Caribbean and Central America, Andean countries, Southern Cone, Brazil. May be repeated once for credit.

L502 Contemporary Brazil (3 cr.)

A survey of the culture of Brazil today: people, politics, religion, education, agriculture, industrial development, literature, music, and art. Lectures by members of various departments and visiting scholars. All reading in English.

L503 Contemporary Central America (3 cr.)

Analyzes the contemporary conflicts in Central America by placing them in historical perspective. Includes such topic as the relation between socioeconomic structures and politics, the impact of World War II and agro-export development, agrarian reform, revolution, democratization, and relations with the United States.

L520 New Latin American Cinema (3 cr.)

Survey of Latin American film from the 1950s to the present. Taught in English, the course is interdisciplinary and cross-cultural, emphasizing the socioeconomic and political issues that gave rise to a specific movement.

L524 Contemporary Peru and Chile (3 cr.)

Preconquest and colonial history of Peru. Multidisciplinary examination of twentieth-century culture. Colonial and nineteenth-century history of Chile. Contemporary culture with emphasis on development since World War II.

L525 Seminar in Latino and Latin American Research Issues (3 cr.)

P: graduate status or permission of instructor. A dialogue between Latin American and Latino studies specialists that will identify topics, areas, and techniques improved by explicit consideration of the other. Migration is one example of a topic that can be fully understood only by examining circumstances from both perspectives.

L526 Special Topics in Latin American and Caribbean Studies (1-3 cr.)

Intensive study and analysis of selected Latin American and Caribbean studies problems of limited scope within an interdisciplinary format. Topics will vary and will ordinarily cut across fields, regions, or periods. May be repeated for credit.

L803 Individual Readings in Latin American Studies (1-6 cr.)

Draws upon materials from anthropology, business, economics, education, folklore and ethnomusicology, geography, history, political science, sociology, and Spanish and Portuguese literature. May be repeated for a maximum of 8 credits (or 10 credits if 6 are used for the thesis option).

For courses in other departments acceptable for degree and certificate requirements, consult the director of Latin American and Caribbean Studies.

Law

School of Law—Bloomington

Dean

Professor Lauren K. Robel

Departmental E-mail

lawadmis@indiana.edu

Departmental URL

www.law.indiana.edu

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Val Nolan Chair

Lauren Kay Robel

James Louis Calamaras Professor

Craig Bradley

Willard and Margaret Carr Professor of Labor and Employment Law

Kenneth Dau-Schmidt

C. Ben Dutton Professor

J. William Hicks

Walter W. Foskett Professors

John S. Applegate, William Popkin (Emeritus), Susan H. Williams

Ralph F. Fuchs Professor of Law and Public Service

Patrick L. Baude

John S. Hastings Professor

David C. Williams

Robert A. Lucas Professor

Roger Dworkin

Robert H. McKinney Professors

Daniel O. Conkle, Douglass Boshkoff (Emeritus)

Richard S. Melvin Professor

Gene R. Shreve

Roscoe C. O’Byrne Professor

Alfred C. Aman Jr.

Professors

Terry Bethel, Douglas Boshkoff (Emeritus), Fred Cate, Stephen Conrad, Donald Gjerdingen, Edwin Greenebaum (Emeritus), Michael Grossberg, Julia Lamber, Fedwa Malti-Douglas, Val Nolan Jr. (Emeritus, Biology), Lauren Robel, John Scanlan, F. Thomas Schornhorst (Emeritus), Jeffrey Stake, J. Alexander Tanford

Degrees Offered

Doctor of Philosophy in Law and Social Science, combined M.A. in Journalism and J.D. in Law, combined M.A. in Telecommunications and J.D. in Law, and Master of Laws (L.L.M.). In addition, the School of Law—Bloomington offers the Master of Comparative Law (M.C.L.), The Doctor of Juridical Science (S.J.D.), and the Doctor of Jurisprudence degrees; for information regarding these degrees see the Bulletin of the School of Law—Bloomington.

Special School Requirements

See also general University Graduate School requirements.

Doctor of Philosophy Degree in Law and Social Science

This program is designed to allow qualified students to pursue

interdisciplinary research and problem solving in areas where law and social science overlap. Inquiries about this program may be addressed to the Admissions Office of the School of Law.

Joint Degree: Master of Arts in Journalism and Doctor of Jurisprudence in the School of Law

Admission

Students may apply to the School of Journalism on the Bloomington campus at the same time they apply to the School of Law on the Bloomington Campus. Students already enrolled in School of Law may apply to the School of Journalism up to the completion of their second year of law study. Students enrolled in School of Journalism may apply to the School of Law up to the end of their first year of the master’s program. Students would customarily spend the first year in the School of Law and thereafter divide the second, third and fourth years between the two units.

Credit Hours

The joint program would require a minimum of 77 hours in law and 30 hours in journalism.

Curriculum

Master of Arts degree, Research and Teaching Track

A total of 30 credit hours in journalism, including J500, Introduction to Mass Media Research; J510, Media and Society Seminar; J800, M.A. Thesis and 21 additional credit hours in journalism.

Master of Arts degree, Professional Track

A total of 30 credit hours in journalism, including the core offerings of J560, Intensive Reporting, Writing, and Editing Workshop I; J560, Intensive Reporting, Writing, and Editing Workshop II; J510, Media and Society Seminar; J572, The Press and the Constitution; one visual professional skills course, two other

professional skills courses, and nine additional hours of electives.

School of Law Requirements

Students must complete 77 credit hours in law, including all degree requirements for the J.D.

Joint Degree: Master of Arts in Telecommunications and Doctor of Jurisprudence in the School of Law

To be eligible to receive the degrees of Doctor of Jurisprudence and Master of Arts or Master of Science in Telecommunications, which must be received simultaneously, a student must:

1. complete 77 semester hours of credit in the School of Law including all of the required course work;
2. complete 27 hours of credit in the Telecommunications Department, including all of its required course work; and
3. earn a cumulative grade point average of at least 2.3 on all work taken in the School of Law and at least 3.0 on all work taken in the Telecommunications Department.

Ph.D. Minor in Law

The School of Law offers a Ph.D. minor for students from other fields, which requires completion of 13-16 credit hours of course work. There are two required courses: a basic methodological course, such as contracts, torts, property, constitutional law, criminal law, or civil procedure; and either a research seminar (2 credits) or independent research (2 credits). Other courses to be taken will depend on the student’s interests and needs and shall be recommended by the assigned faculty advisor from the School of Law and approved by the student’s Ph.D. advisory committee and the appropriate chairperson or the dean of the student’s school. Examinations are required for individual courses, but none is required for the minor itself.

The minor chairperson in the School of Law is Assistant Dean Leonard Fromm, Room 024, (812) 855-5361.

Courses

For a list of courses and their descriptions, see the bulletin of the School of Law—Bloomington.

Liberal Studies

**School of Arts and Sciences
Fort Wayne**

Program Director

Associate Professor Michael E. Kaufmann

Departmental E-mail

kaufmann@ipfw.edu

Departmental URL

www.ipfw.edu/libstudies

Degree Offered

Master of Liberal Studies, an interdisciplinary graduate degree in arts and sciences. The degree provides an opportunity for students to study the liberal arts and sciences beyond the bachelor's degree. It is intended primarily for those who regard the liberal arts as subjects for lifelong learning and for those who, because their undergraduate curriculum was primarily professional, wish to broaden their general education. The Master of Liberal Studies is not intended as preparation for doctoral study.

Admission Requirements

For regular admission, students must have completed an undergraduate degree from an accredited institution with a grade point average of B or higher overall. Applications are accepted at any time, but a deadline of August 1 is recommended for admission to the program for the fall semester, and December 1 for the spring semester. Request application materials from the program director, Associate Professor Michael E. Kaufmann, at (219) 481-6760 or (219) 481-6019.

Course Requirements

To earn the Master of Liberal Studies degree, students must complete at least 30 hours of courses approved for graduate credit, including D501 Humanities Seminar, D502 Social Sciences Seminar, D503 Science Seminar, either D500 Graduate Project or D700 Topics in Liberal Studies, and 18 credits in electives from at least two disciplines in arts and sciences.

In consultation with the program director, each student designs a course of study appropriate to his or her interests and experience.

Grades

No course with a grade lower than B will be counted toward the degree.

Courses

D500 Graduate Project (3-6 cr.)

Independent project to be undertaken in consultation with graduate advisor. This project requires students to demonstrate mastery of some specific topic or medium of expression.

D501 Humanities Seminar (3 cr.)

An interdisciplinary graduate seminar in the humanities. Topics vary from semester to semester.

D502 Social Science Seminar (3 cr.)

An interdisciplinary graduate seminar in the social sciences. Topics vary from semester to semester.

D503 Science Seminar (3 cr.)

An interdisciplinary graduate seminar in the sciences. Topics vary from semester to semester.

D700 Topics in Liberal Studies (3 cr.)

P: completion of two 500-level liberal studies seminars or consent of program director. Intensive study of major issues in the humanities, social sciences, or sciences.

Interdisciplinary approach, seminar format. Individual project required. Specific topic announced in the Schedule of Classes. May be repeated with different topic for a maximum of 9 credits.

Liberal Studies

**College of Liberal Arts and
Sciences
South Bend**

Graduate Director

Professor Mike F. Keen

Departmental E-mail

mkeen@iusb.edu

Departmental URL

www.iusb.edu/~mls

The Division of Liberal Arts and Sciences offers instruction leading to the degree Master of Liberal Studies. The interdisciplinary program provides an opportunity for students to study the liberal arts and sciences beyond the bachelor's degree. It is intended primarily for those who regard the liberal arts as subjects for lifelong learning and for those who, because their undergraduate curriculum was primarily professional, wish to broaden their general education. The Master of Liberal Studies is not intended as preparation for doctoral study. In addition to taking three required graduate seminars, students complete a project and a program of electives designed to meet their own interests and needs.

Special Program Requirements

Admission Requirements

Students are admitted to the Master of Liberal Studies program by the Graduate Studies Committee of the Division of Liberal Arts and Sciences. To be considered for admission, students must hold a bachelor's degree from an accredited institution and must have obtained an undergraduate grade point average of at least B (3.0), but the committee may make exceptions to this latter requirement. Application forms and further details may be obtained from the director of graduate studies in the Division of Liberal Arts and Sciences, Wiekamp Hall 2288, or by calling (219) 237-4256.

Application Deadlines

Students may be admitted to the M.L.S. Program to begin in either the fall or spring semester. All admission decisions are made by the faculty members of the Liberal Arts and Sciences Graduate Liberal Studies Committee. The committee meets to review applications three times each year. *Deadlines for submitting completed applications for review by the committee are March 31 for early admission to the following fall semester, August 1 for final admission to the fall semester, and October 31 for admission to the following spring semester.*

Students wishing to enter in the fall are strongly encouraged to submit their materials by the March 31 early admission deadline to assure there will be an opening in the program. Students are also advised to give reference letter writers at least two to four weeks' notice so that their letters will arrive prior to the deadline. Applications that are not completed by a given deadline will not be considered until the next deadline and may cause a delay in admission by one semester. Completed applications include the application form, a personal essay, three letters of reference, transcripts of all previous undergraduate study, and the application fee. All students wishing to enter the program should contact Mike Keen, director, at (574) 237-4185) before submitting an application.

Grades

An average grade of B (3.0) is required for graduation, and no course with a grade lower than B- (2.7) will be counted toward the degree. Students are required to remain in academic good standing, i.e., to maintain a grade point average of at least 2.7. Failure to maintain good standing may result in dismissal from the program.

Master of Liberal Studies Degree

Course Requirements

A total of 30 credit hours of graduate-level work, including D500, D501, D502, D503, and 15 credit hours of electives selected to

provide support and background for the graduate project or to enable students to understand new areas of knowledge from an interdisciplinary point of view. No more than 9 credit hours of electives may be taken in any one department. Programs of study must be approved by the graduate director.

Master of Liberal Studies Project

Required; 6 credits. The graduate project is a scholarly enterprise in which the student demonstrates mastery of a specific topic, by means of, for example, a thesis, a computer program, a translation of a work of literature, or an artistic composition or performance. Students plan and execute their projects after completion of the three core courses and their electives.

Required Courses

D500 Graduate Project (3-6 cr.)

D501 Humanities Seminar (3 cr.)

An interdisciplinary graduate seminar in the humanities. Topics vary from semester to semester. May be repeated once for credit.

D502 Social Science Seminar (3 cr.)

An interdisciplinary graduate seminar in the social sciences. Topics vary from semester to semester. May be repeated once for credit.

D503 Science Seminar (3 cr.)

An interdisciplinary graduate seminar in the natural sciences. Topics vary from semester to semester. May be repeated once for credit.

Liberal Studies

School of Arts and Letters Southeast

Program Director

Professor Sandra French (Sociology)

Departmental URL

www.ius.edu/mls

Degree Offered

The Master in Liberal Studies program is an interdisciplinary graduate program that offers study beyond the bachelor's level for those persons who are interested in continuing their education in a diversified, challenging manner. The program is not meant to prepare students for doctoral study.

Admission Requirements

For regular admission, students must have completed an undergraduate degree from an accredited institution with a grade point average of B or above. Applicants are accepted anytime, but to assure enrollment students should apply by July 15 for the fall semester and November 15 for the spring. Applications may be obtained through the Master in Liberal Studies office at Crestview Hall 018B or by calling (812) 941-2604 or (812) 941-2393 or on the Web site: www.ius.edu/mls.

Course Requirements

Students are required to complete 30 credit hours of courses that have been approved for graduate credit. These courses must represent all three of the arts and sciences divisions and must include 9 credits of graduate seminars D501, D502, D503, and 6 credits of graduate project (D500).

Grades

Only courses in which a grade of at least a B is earned will count toward the degree.

Courses

D500 Graduate Project (3-6 cr.)

Independent project to be undertaken in consultation with graduate committee. This project requires students to demonstrate mastery of some specific topic or medium of expression.

D501 Humanities Seminar (1-3 cr.)

An interdisciplinary graduate seminar in the humanities. Topics vary from semester to semester.

D502 Social Science Seminar (1-3 cr.) An interdisciplinary graduate seminar in the social sciences. Topics vary from semester to semester.

D503 Science Seminar (1-3 cr.) An interdisciplinary graduate seminar in the sciences. Topics vary from semester to semester.

Library and Information Science

School of Library and Information Science
Bloomington

Interim Dean
Professor Debora Shaw

Departmental E-mail
slis@indiana.edu

Departmental URL
www.slis.indiana.edu

Graduate Faculty
(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Distinguished Professors
David Kaser (Emeritus), Herbert White (Emeritus)

Professors
Daniel Callison, Blaise Cronin, Stephen Harter (Emeritus), Susan Herring, Marilyn Irwin*, Debora Shaw

Associate Professors
Josefa Abrera (Emerita), Howard Rosenbaum, Shirley Fitzgibbons (Emerita), Elin Jacob, Javed Mostafa, Marcy Murphy (Emerita), Thomas Nisonger, John C. Paolillo, Verna Pungitore, Alice Robbin, Judith Serebnick (Emerita), George Whitbeck (Emeritus)

Assistant Professors
Katy Borner*, Noriko Hara*, Kiduk Yang*

Adjunct Professor
Michael McRobbie

Senior Fellows
Charles H. Davis, Jean Umiker-Sebeok*

Visiting Scholar
Elisabeth Davenport*

Graduate Advisor
Director of Doctoral Program Javed Mostafa, LI 011, (812) 855-2018

Degrees Offered
Doctor of Philosophy, and, jointly with other academic programs, Master of Library Science and Doctor of Jurisprudence; Master of Information Science and master's degrees in folklore and ethnomusicology, public affairs, and Russian and East European studies; Master of Library Science and master's degree in African American and African Diaspora Studies, art history, comparative literature, folklore and ethnomusicology, history, history and philosophy of science, journalism, Latin American and Caribbean studies, music theory or musicology, public affairs, and Russian and East European studies. The School of Library and Information Science offers the Specialist in Library and Information Science, the Master of Library Science, the Master of Information Science, the Master of Library Science with specializations in African studies librarianship, library technology management, music librarianship, special collection, and the Master of Library Science or Master of Information Science with specialization in chemical information degrees. For further information, see the School of Library and Information Science Bulletin.

Special School Requirements
See also general University Graduate School requirements.

Dual M.A./M.L.S. in the School of Library and Information Science (Master of Library Science) and African American and African Diaspora Studies (Master of Arts)

The dual M.A./M.L.S. program requires completion of a minimum of 58 credit hours of graduate course work. (The degrees if completed separately would require 68 credit hours.) Students must apply for admission to the master's programs of both the School of Library and Information Science and African American and African Diaspora Studies and meet the admissions criteria established for each. The two degrees must be awarded at the same time.

Master of Library Science Requirements (30 credit hours)
Completion of the MLS Foundation courses (15 cr.)
Either SLIS L623 Information in the Humanities or
SLIS L625 Information in the Social Science (3 cr.)
SLIS elective courses (12 cr.)

M.A. in African American and African Diaspora Studies Requirements (28 credit hours minimum)

General Requirement (12 cr.):
A500 Introduction to Afro-American Studies (4 cr.)
A690 Core Readings in Afro-American Studies (4 cr.)
Proposed graduate internship

Specialization (12 cr. minimum):
Students would take a minimum of 9 graduate hours in one of the three concentration areas in African American and African Diaspora Studies. An additional 3 graduate hours should be taken in one of the other concentration areas.

M.A. Thesis A698 Field Study Seminar (4 cr.)

Dual Master of Library Science and Master of Arts in English Degrees

Admission Requirements

Undergraduate major or its equivalent. Graduate Record Examination, both General Test and Subject Test in English Literature. A superior student who has not majored in English may be admitted conditionally, but must remove deficiencies without graduate credit. Admission to each of the two master's programs is approved separately on the same basis as for other applicants not in the dual program.

Foreign Language Requirements

Reading proficiency in one of the following: French German, Greek, Italian, Latin, Russian, Spanish.

Prerequisites

None

Course Requirements

Study for these two degrees can be combined for a total of 54 credit hours rather than the 66 credit hours required for the two degrees taken separately. Students take 30 hours in library science, including L524; L505 or L520; L528; L509, L643 or L651; L527 or another management course; and L623. The remaining 12 hours are electives chosen in consultation with the library science graduate advisor. Students take 24 credit hours in English. All students must fulfill the core requirements as outlined in the English Department's Master of Arts with Concentration in Literature or Special Field Master of Arts degree requirements. No thesis or examination is required for the M.A. degree in English.

Dual Master of Library Science and Master of Arts in Latin American and Caribbean Studies

The School of Library and Information Science (SLIS) and the Center for Latin American and Caribbean Studies jointly offer a three-year program that qualifies students for two master's degrees. Study for these two degrees in the dual degree (M.A./M.L.S.) can be

completed in a total of 54 credit hours rather than the 66 credit hours that would otherwise be required to complete the two degrees separately. During the dual degree, specific courses contribute to both degrees. The two degrees must be awarded simultaneously.

Admission

Application for admission to the dual M.A./M.L.S. degree program must be made to the Center for Latin American and Caribbean Studies for study toward the M.A. and to SLIS for study toward the M.L.S. Students must be accepted by both units in order to be admitted to the program.

School of Library and Information Science Requirements

For the M.L.S. degree, admission requirements remain as listed in the School of Library and Information Science Bulletin, and the proposed dual program requires 30 credit hours of SLIS graduate courses. These must include three courses (9 credits) from the common core (which must include L507 and L509), and four courses (12 credits) from the specific core (L520, L524, L526, and L528). Three other courses (9 credits) may be taken as library science electives and should include L570.

Latin American and Caribbean Studies Requirements

Students must take 21 credit hours of advanced courses relating to Latin American and Caribbean Studies. The interdisciplinary seminar L501 (3 credits) must be taken, together with 18 credit hours in other LTAM courses or those Latin American and Caribbean Studies courses that are cross-listed with other departments. All other requirements for completion of the Latin American Studies M.A., including language proficiency and thesis or oral examination, remain as listed in this bulletin. A further 6 credit hours may be taken in SLIS and will count toward both degrees: L620 Topics in Information, Literature, and Bibliography (Topic: Latin American Bibliography) and L596 Internship in Library and Information Science (under the

supervision of the Latin American Bibliography).

Doctor of Philosophy Degree

Admission Requirements

Bachelor's degree, a combined GRE score of at least 1500 (with 600 or higher on one of the two tests), 4.5 or higher analytical writing, and a grade point average of at least 3.5. In addition to a personal statement of 800-1,000 words, we require a single authored writing sample. A published article, a technical white paper, a grant proposal, or a paper submitted to fulfill course requirements are examples of papers that are acceptable. Questions about the writing sample should be directed to the program director. We strongly encourage school visits.

Course Requirements

A total of 90 credit hours, including L701, L702, L710, L790, and L799 dissertation (15 credit hours).

Major

Any area of information science approved by the student's advisory committee.

Minor

A total of 12 to 15 credit hours.

Research Skills

Basic requirement: introductory statistics course and a second graduate course in statistics or a course in research design. The research-skill requirement may then be completed by passing, with a grade of B or higher, a third graduate course in statistics or a course in research design.

Qualifying Examination

Written paper and oral presentation, over the field of concentration, emphasizing theory and research methods. Examination over the minor field at the discretion of the minor-field department.

Final Examination

Confined to dissertation and related matters. Ph.D. Minor in Information Science The School of Library and Information Science offers an outside minor through the University Graduate School for Ph.D. students

in other fields. Ordinarily, students will take from 12 to 15 credit hours of graduate credit in fulfilling this option (minimum: 12 credit hours).

Ph.D. Minor in Information Science

The School of Library and Information Science offers an outside minor through the University Graduate School for Ph.D. students in other fields. Ordinarily, students will take from 12 to 15 credit hours of graduate credit in fulfilling this option (minimum: 12 credit hours).

Courses

For course descriptions, see the School of Library and Information Science Bulletin.

L501 Information and Society (3 cr.)

L503 User Needs and Behavior in Theory and Practice (3 cr.)

L505 Organization and Representation of Knowledge and Information (3 cr.)

L509 Introduction to Research and Statistics (3 cr.)

L514 Library Preservation: Principles and Practice (3 cr.)

L516 Introduction to Archives and Records Management (3 cr.)

L517 History of Libraries (3 cr.)

L520 Bibliographic Access and Control (3 cr.)

L522 Perspectives on Librarianship, Literacy, Communications, and Reading (3 cr.)

L524 Information Sources and Services (3 cr.)

L526 Library Automation (3 cr.)

L527 Management of Libraries and Information Centers (3 cr.)

L528 Collection Development and Management (3 cr.)

L530 Legal Bibliography and Law Library Administration (3 cr.)

L533 Library Materials for Children and Young Adults (3 cr.)

L534 Principles and Techniques of Storytelling (3 cr.)

L535 Library Services for Children and Young Adults (3 cr.)

L540 Foundations of Information Architecture (3 cr.)

L542 Introduction to Human-Computer Interaction (HCI) (3 cr.)

L543 Strategic Intelligence (3 cr.)

L544 Information Technology Standardization (3 cr.)

L545 Systems Analysis and Design (3 cr.)

L546 User-Centered Database Design (3 cr.)

L547 The Organizational Information Resource (3 cr.)

L548 Computer Programming for Information Management (3 cr.)

L550 Issues in the Management of Library Services and Programs (3 cr.)

L551 Information Inquiry for School Teachers (3 cr.)

L552 Audio and Video Information Sources and Delivery (3 cr.)

L553 The School Library Media Specialist (3 cr.)

L554 Bibliographic Instruction (3 cr.)

L559 Introduction to Health Sciences Librarianship (3 cr.)

L561 The Information Industry (1-3 cr.)

L562 Information Accounting (3 cr.)

L563 Information Policy, Economics, and Law (1-3 cr.)

L564 Computerization in Society (3 cr.)

L565 Computer-Mediated Communication (3 cr.)

L566 Digital Libraries (3 cr.)

L567 Gender and Computerization (3 cr.)

L570 Online Information Retrieval (3 cr.)

L571 Information Architecture for the Web (3 cr.)

L574 Communication in Electronic Information Environments (3 cr.)

L575 Information Design for Collaborative Information Spaces (3 cr.)

L577 Design of Information Systems (3 cr.)

L578 User Interface Design for Information Systems (3 cr.)

L579 Information Visualization (3 cr.)

L582 Subject Access Systems (3 cr.)

L583 Indexing Theory and Practice (3 cr.)

L584 Technical Services (3 cr.)

L585 Descriptive Bibliography (3 cr.)

L586 Administration of Manuscripts and Personal Papers Collections (3 cr.)

L587 Rare Book Libraries and Librarianship (3 cr.)

L592 Bibliometric Techniques and Problems (3 cr.)

L594 Research in Library and Information Science (1-3 cr.)

L595 Workshop for Librarians and Information Specialists (cr. arr.)

L596 Internship in Library and Information Science (2-6 cr.)

L597 Topics in Library and Information Science (1-4 cr.)

L600 Readings in Library and Information Science (1-4 cr.)

L605 Seminar in Education for Librarianship and Information Studies (3 cr.)

L608 Seminar in Intellectual Freedom (3 cr.)

L610 International Information Issues (3 cr.)

L620 Topics in Information, Literature, and Bibliography (3 cr.)

L622 Library Materials for Adults (3 cr.)

L623 Information in the Humanities (3 cr.)

L624 Information in Science and Technology (3 cr.)

L625 Information in the Social Sciences (3 cr.)

L628 Government Information: Collection, Organization, and Dissemination (3 cr.)

L629 Business Information Sources (3 cr.)

L630 Seminar in Art Librarianship (3 cr.)

L631 Seminar in Music Librarianship (3 cr.)

L633 Seminar on Issues and Trends in Children's or Young Adult Literature (3 cr.)

L641 Information Storage and Retrieval Theory (3 cr.)

L642 Information Usage and the Cognitive Artifact (3 cr.)

L643 Computer Applications in Information Systems (3 cr.)

L651 Evaluation of Resources and Services (3 cr.)

L658 Personnel Management in Libraries and Information Centers (3 cr.) **L665 Computer-Mediated Discourse Analysis** (3 cr.)

L681 Metadata (3 cr.)

L682 Electronic Records Management (3 cr.)

L697 Advanced Topics in Information Systems (1-4 cr.)

L701 Introduction to Doctoral Research in Library and Information Science (3 cr.)

L702 Research Practicum (2 cr.)

L709 Introduction to Research and Statistics (3 cr.)

L710 Research in Information Science (3 cr.)

L763 Research Problems and Methods in Information Science (3 cr.)

L764 Seminar in Information Science (3 cr.)

L765 Research in Information Systems (2-4 cr.)

L790 Seminar in Doctoral Research (3 cr.)

L799 Ph.D. Thesis (cr. arr.)**

**These courses are eligible for a deferred grade.

Cross-Listed Courses

COMPUTER SCIENCE

A547 Network Technologies and Administration (3 cr.)

GRADUATE

G732 Bibliography of Sub-Saharan Africa (3 cr.)

FINE ARTS

A575 Research Sources in Art History (2 cr.)

Linguistics

College of Arts and Sciences
Bloomington

Departmental E-mail
lingdept@indiana.edu

Departmental URL
www.indiana.edu/~lingdept

Chairperson

Professor Stuart Davis

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Chancellor's Professor

Daniel Dinnsen

Distinguished Professor

Paul Newman

Professors

Stuart Davis, Steven Franks (Slavic Languages and Literatures), Robert Port (Cognitive Science), Albert Valdman (Emeritus, French and Italian)

Associate Professors

Julie Auger (French and Italian), Robert Botne, J. Clancy Clements (Spanish and Portuguese), Kenneth de Jong, Yoshihisa Kitagawa, Samuel G. Obeng, Barbara Vance (French and Italian)

Assistant Professor

Damir Cavar

Adjunct Professors

Kathleen Bardovi-Harlig (TESOL/Applied Linguistics), Phil Connell (Speech and Hearing Sciences), Judith Gierut (Speech and Hearing Sciences), Harry L. Gradman (TESOL/Applied Linguistics), Beverly Hartford (TESOL/Applied Linguistics), Susan Herring (School of Library and Information Science), Lawrence Moss (Mathematics), David Pisoni (Psychology), Natsuko Tsujimura (East Asian Languages and Cultures)

Adjunct Associate Professors

Laurent Deydtspotter* (French and Italian), George Fowler* (Slavic Languages and Literatures), Roxana M. Newman* (Affiliate Member), John Paolillo (School of Library and Information Science, Informatics), Rex Sprouse* (Germanic Studies)

Academic Advising

For Master of Arts in Linguistics and Doctor of Philosophy in Linguistics: Professor Robert Botne, Memorial Hall 317, (812) 855-6456.

Degrees Offered

Master of Arts in Linguistics, Doctor of Philosophy in Linguistics

Special Departmental Requirements

See also general University Graduate School requirements.

Master of Arts in Linguistics

Admission Requirements

Admission to the M.A. program will be based on evaluations of (1) undergraduate grade record, (2) level of achievement in the Graduate Record Examination General Test, (3) three letters of recommendation, and (4) undergraduate exposure to linguistics and related course work. Students not satisfying requirement (4) may be admitted but may be required to do course work prerequisite to introductory graduate courses.

Thesis

Optional; maximum of 4 credit hours.

Final Examination

None.

Course Requirements

A total of 30 credit hours, including L520, L530, L541, L542, and L543. A grade point average of 3.0 (B) must be achieved in these four core courses. Additional electives as approved by the department. Specific course requirements may be met by taking a higher level course in the same area.

Foreign Language Requirements

Reading knowledge of one foreign language approved by the department and knowledge of the structure of a language or languages other than English and outside the student's general language family. (The L653-L654 sequence may satisfy the second part of this requirement.)

Master of Arts in Linguistics with a Concentration in Computational Linguistics

Computational linguistics is an interdisciplinary field which addresses the use of computers to process or produce human language. Linguistics contributes to this field an understanding of the special properties of language data, and also provides theories and descriptions of language structure and use. Computational linguistics is largely an applied discipline concerned with practical problems. Typical applications include: natural language processing, machine translation (translating from one language to another), speech synthesis, speech production, information retrieval (finding relevant documents or parts of documents in large collections of texts), cognitive modeling, and, in general, almost anything dealing with natural language interfaces.

Course Requirements

The master's track in computational linguistics consists of a minimum of 30 credit hours to include L541, L542, L543, L545, L645, and B651 (offered by the Department of Computer Science). A grade point average of 3.0 (B) must be achieved

in these seven core courses. Four additional electives must be taken. A minimum of 20 credit hours must be from linguistics department offerings. Outside electives must be approved by the student's academic advisor.

Foreign Language Requirement

Reading knowledge of one foreign language approved by the department.

Doctor of Philosophy Degree

Admission Requirements

Admission to the Ph.D. program will be based upon evaluation of (1) previous academic record, (2) level of achievement on the Graduate Record Examination General Test, (3) three letters of recommendation, (4) previous exposure to linguistics and related course work, and (5) compatibility of interests with those of the faculty.

Fields of Study

The doctorate is normally pursued in areas such as phonetics, phonology, morphology, syntax, semantics, historical linguistics, African linguistics, computational linguistics, applied linguistics (including second-language acquisition), and sociolinguistics. Other concentrations, including a combined degree with cognitive science, are also possible with the approval of the department.

Course Requirements

A minimum of 90 credit hours, including dissertation. Specific requirements include one graduate course each in phonetics, phonology, syntax, historical linguistics, and language acquisition, plus at least four courses in linguistics at the 600-700 levels, one of which must be L642 or L643 for students in general linguistics. Only one of these four courses may be taken outside the Department of Linguistics. L653, the first half of the field methods sequence, may not be counted if it is used in partial fulfillment of the language structure requirement. Additional course requirements may be set by the student's advisory committee.

Minor

The choice of a minor field should be agreed to by the student's advisory committee. The specific requirements for the minor are established by the department that grants the minor. The student is responsible for ascertaining what those requirements are and for meeting them.

Advisory Committee

All students in the Ph.D. program will select an advisory committee consisting of at least three faculty members, one of whom should normally represent the student's minor field. The committee must be selected no later than the end of the semester following the completion of the master's degree at Indiana University, or, in the case of students entering the program with master's degrees from other institutions, no later than two semesters after matriculation.

Students will plan their programs with the advisory committee, which will be responsible for counseling students with regard to the qualifying examination, setting the examination, and administering it.

Foreign Language Requirements

Three languages: (1) reading or speaking knowledge of two foreign languages relevant and applicable to doctoral study in a particular field of linguistics and (2) knowledge of the structure of a language or languages other than English and outside the student's general language family (choice to be determined in consultation with the student's advisory committee).

Qualifying Examination

Comprehensive; the examination is on two distinct areas of linguistics and typically requires the student to write two papers (of publishable quality). Specific focus and scheduling of the examination is determined by the student's advisory committee.

Research Proposal

After nomination to candidacy, the student will select a research committee composed of no fewer than three members of the

Department of Linguistics faculty and an outside representative. This committee must approve the proposed dissertation topic.

Final Examination

Oral defense of dissertation. This defense is open.

Ph.D. in Linguistics with a Concentration in African Languages and Linguistics

Course Requirements

A minimum of 90 credit hours, including dissertation. Specific requirements include A501, L653-L654, one graduate-level course each in phonetics, phonology, syntax, and historical linguistics, plus at least two additional courses in linguistics at the 600-700 levels. Where appropriate, additional courses may be assigned by the student's advisory committee.

Foreign Language Requirements

Three languages: (1) proficiency in two foreign languages, one of which must be an African language and the other normally French or German; and (2) knowledge of the structure of a foreign language or language group other than Romance or Germanic. (All other requirements are the same as the above for the Ph.D. in Linguistics.)

Ph.D. Minors

Ph.D. Minor in Linguistics

Doctoral students in other departments may choose linguistics as an outside minor. Twelve (12) credit hours of linguistics or related courses are required for the minor. A grade point average of 3.0 (B) or higher must be achieved in these courses. The specific program for satisfying this requirement should be developed in consultation with the linguistics outside minor advisor.

Ph.D. Minor in African Languages and Linguistics

The minor consists of a minimum of four courses (12 credits) including the following: (1) one course in an African language at the 200 level or higher, (2) A501, and (3) two additional courses in African

languages or linguistics approved by the student's minor advisor. A grade point average of 3.0 (B) or better must be achieved in these courses.

Ph.D. Minor in Applied Linguistics

The minor consists of a minimum of 12 credit hours of TESOL and applied linguistics or related courses. A grade point average of 3.0 (B) or higher must be achieved in these courses. The specific program for satisfying this requirement must be developed in consultation with the student's minor advisor.

Ph.D. Minor in Computational Linguistics

The minor consists of a minimum of 12 credit hours of course work, including the following: (1) L545 and L645, (2) Computer Science B651 Natural Language Processing or equivalent, and (3) one elective relevant to computational linguistics and approved by the minor advisor. A grade point average of 3.0 (B) or higher must be achieved in these courses. A grade point average of 3.0 (B) or higher must be achieved in these courses.

Courses

GENERAL

L503 Survey of Linguistics I (3 cr.)

An introduction to the field of linguistics. Credit not given towards the M.A. in general linguistics or the Ph.D. in linguistics.

L520 Sociolinguistics (3 cr.)

Examination of theoretical perspectives on language as a social phenomenon. Questions of linguistic variation, including social and contextual factors contributing to variation.

L530 Introduction to Historical Linguistics (3 cr.)

P: L542 or equivalent. Principles of language classification and subclassification. Processes of diachronic change. Methods of linguistic reconstruction, especially the comparative method and internal reconstruction.

L541 Introductory Phonetics (4 cr.)

Survey of speech sound types in

languages of the world with practice in discrimination, transcription, and production. Introduction to acoustic phonetics, physiology of speech production, and speech perception; with concurrent laboratory section.

L542 Phonological Analysis (3 cr.)

An introduction to the principles of contemporary phonological theory and tools of phonological analysis and description. The format of the course is oriented toward data-based problems from a wide variety of languages.

L543 Syntactic Analysis (3 cr.)

An examination of the methods and argumentation used in syntactic analysis conducted within the framework of generative grammar. Emphasis on constructing and evaluating grammatical analyses and promoting critical understanding of the generative framework.

L544 Morphological Analysis (3 cr.)

Introduction to the basic concepts and approaches to morphological analysis and description to different theories of word structure and to issues in the relation between morphology and phonology and between morphology and syntax. Data-based problem solving from a wide variety of languages.

L545 Computation and Linguistic Analysis (3 cr.)

This course explores how linguistic analyses can be stated as computer programs, emphasizing the design of data structures used in linguistic analyses, the computational issues underlying them, and their use in natural language processing.

L546 Semantics (3 cr.)

P: L543 or equivalent. Introduction to current semantic theory, its tools, concepts, and principles. Emphasis on constructing detailed fragments of natural language with syntactic and semantic components.

L590 Linguistic Structure (3 cr.)

Analysis of particular aspects of the structure of a language or of a group of closely related languages. Methods used may include text

analysis, informant work, study of secondary sources, lectures, reports.

L611 Models of Linguistic Structure (3 cr.)

Formulations of linguistic structures--finite--set, phrase-structure, transformational dependency, predictive-with emphasis on their mathematical properties. Mathematical concepts underlying these formulations, such as sets, relations, Markov processes, and automata.

L614 Alternative Syntactic Theories (3 cr.)

P: L543 or equivalent. An examination of a current syntactic framework other than the standard framework in terms of specific issues of syntactic analysis and general claims about the nature and organization of the syntax of natural languages. Emphasis on developing analyses within that framework. May be repeated for credit when topic varies.

L620 Advanced Sociolinguistics (3 cr.)

Sociolinguistic methodology and data analysis, language ideology, and language in social institutions. Course topics include: quantitative and qualitative methods (variationist, ethnographic, and discourse analytic methods); Anglo-American, Continental pragmatics; language and sociocultural identity (culture, politeness, power, solidarity, and gender); and institutional discourse (juridical, therapeutic, political, religious, etc.).

L625 Bilingualism and Language Contact (3 cr.)

Problems of multilingualism, including diglossia. Examination of selected cases illustrating the relationship between language contact and linguistic change.

L630 Lexicology (3 cr.)

Analysis of the lexical structure of languages. The word and its morphological and semantic properties. Application of lexicology to practical problems in dictionary making (lexicography).

L636 Pidgins and Creoles (3 cr.)

Survey of the field of pidgin and creole linguistics: presentation of the structure of selected prototypical pidgins and creoles; review of the

theories for the genesis of creoles and their relationship to current issues in language acquisition and historical linguistics; discussion of language planning issues specific to pidgins and creoles, as well as discussion of current issues.

L641 Advanced Phonetics (3 cr.)

P: L541 or equivalent. Experimental analysis of the speech signal; speech articulation and the structure of phonetic space. A survey of current theories of speech production and perception with experience designing and conducting experiments, and some consideration of phonetic factors that determine the choice of particular sound contrasts in languages.

L642 Advanced Phonological Description (3 cr.)

P: L542 or equivalent. Problems of phonological description and their theoretical implications. Practice in formulating and evaluating explanatory statements about various phonetic, phonotactic, and morphophonemic properties of languages.

L643 Advanced Syntax (3 cr.)

P: L543 or equivalent. Syntactic analysis and recent developments of principles and parameters/minimalist theory. Taking up from L543, reviews core modules of grammar from L543 and examines topics such as logical form, empty categories, barriers, functional categories, and relativized minimality. Introduces concepts of minimalist theory. Training in abstract and squib writing, paper presentation.

L645 Advanced Natural Language Processing (3 cr.)

This course explores the needs of working natural language processing systems with attention to statistical and corpus linguistic methods in natural language processing, and their uses in data mining, information retrieval, lexicography, and other practical domains.

L653-L654 Field Methods in Linguistics I-II (3-3 cr.)

Techniques of data collection and analysis based on work with a native speaker of a language unknown to the students.

L670 Language Typologies (3 cr.)

Historical review of typologies. Specific languages controlled by students will be typologized in different ways.

L690 Advanced Readings in Linguistics (1-4 cr.) S/F Grading.

L695 M.A. Thesis Research (1-4 cr.)**

L700 Seminar on Current Issues (1-4 cr.) This seminar will deal with major books and articles that have defined important areas of debate in the current development of linguistic theory. The specific title will be announced well in advance of each semester. Course may be retaken for up to 12 credit hours.

L710 Seminar in Phonetics (3 cr.)

Selected problems in the acoustic, motor, and auditory structure of the sounds of human language. May be repeated for credit when topic changes.

L712 Seminar in Phonology (3 cr.)

Research and reports on selected problems of generative phonology. May be repeated for credit when topic changes.

L714 Seminar in Syntax (3 cr.)

Advanced treatment of a topic, construction, or theoretical concept in syntax using a current theoretical model. May be repeated for credit when topic changes.

L720 Seminar in Sociolinguistics (3 cr.)

Selected problems concerning the relationship between language and society. May be repeated for credit when topic changes.

L760 Seminar in Historical Linguistics (3 cr.)

Selected problems concerning linguistic reconstruction, processes of diachronic change, and language classification. May be repeated for credit when topic changes.

**These courses are eligible for a deferred grade.

L780 Seminar in Semantics (3 cr.)

Selected problems in the area of meaning and the relationship between language and semantic interpretation. May be repeated for credit when topic changes.

L800 Research (cr. arr.)**

The Linguistic Study of African Languages

A501 Introduction to African Linguistics (3 cr.) Introduction to the linguistic study of African languages; questions of language distribution, typological and genetic classification, comparative reconstruction, and structural aspects of individual languages.

A502 Language in Africa (3 cr.)

Language in the lives and behavior of African people. Dynamics of language spread and multilingualism. Literacy, language, and education. Linguistic ritual: greetings, condolences, apologies, leavetakings. Joking and insulting relationships. Stories and storytellers. Proverbs and their use. Power of language in society.

A503 Bantu Linguistics (3 cr.)

Structural comparisons of Bantu languages at levels of phonology, morphology, and syntax, noting differences and similarities of various East African languages.

A504 Chadic Linguistics (3 cr.) R:

reading knowledge of French or German. An introduction to the Chadic language family. The relationship of Chadic to Afro-Asiatic and the membership and internal classification of the Chadic family. Common structural features of present-day Chadic languages and the reconstruction of Proto-Chadic.

A747 Seminar in African Linguistics (4 cr.)

Research on specific problems of African linguistics. Course may be repeated for credit.

African and Other Languages

A400 Advanced Individual Study of an African Language (1-4 cr.; 12 cr. max.) May be repeated for credit.

L506 Tutorial Instruction in Foreign Languages (cr. arr.) May be repeated for credit.

HAITIAN CREOLE

C501-C502 Haitian Creole I-II (3-3 cr.)

HAUSA

H101-H102 Elementary Hausa I-II (3-3 cr.)¹

H201-H202 Intermediate Hausa I-II (3-3 cr.)

H301-H302 Advanced Hausa I-II (3-3 cr.)

SWAHILI

S101-S102 Elementary Swahili I-II (3-3 cr.)¹

S201-S202 Intermediate Swahili I-II (3-3 cr.)

S301-S302 Advanced Swahili I-II (3-3 cr.)

OTHER AFRICAN LANGUAGES

F101-F102 Elementary African Languages I-II: [variable language] (3-3 cr.)¹

F201-F202 Intermediate African Languages I-II: [variable language] (3-3 cr.)

F301-F302 Advanced African Languages I-II: [variable language] (3-3 cr.)
Consult the department for courses in other areas acceptable for degree requirements.

¹ Three (3) hours credit for graduate students; 4 hours credit for undergraduates.

Mass Communications

College of Arts and Sciences
Bloomington

Co-Directors

Professor Walter Gantz and
Associate Professor Trevor Brown

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors

John Ahlhauser (Emeritus, Journalism), James Brown (Journalism), Richard Burke (Emeritus, Telecommunications), Dan Drew (Journalism), Jack Dvorak* (Journalism), Susan Eastman (Telecommunications), Walter Gantz (Telecommunications), Ralph Holsinger (Emeritus, Journalism), Peter Jacobi (Emeritus, Journalism), Annie Lang (Telecommunications), David Nord (Journalism), Christine Ogan (Journalism), David H. Weaver (Journalism), G. Cleveland Wilhoit (Journalism), Richard Yoakam (Emeritus, Journalism, Telecommunications)

Associate Professors

Donald Agostino (Telecommunications), Randall Beam* (Journalism), David Boeyink* (Journalism), Trevor Brown (Journalism), Bonnie Brownlee* (Journalism), Jon Dilts* (Journalism), Maria Grabe* (Journalism), Owen V. Johnson (Journalism), Michael McGregor (Telecommunications), Carol Polsgrove (Journalism), Harmeet Sawhney (Telecommunications), S. Holly Stocking (Journalism), Herbert Terry (Telecommunications), David Waterman (Telecommunications)

Assistant Professors

Christopher E. Beaudoin* (Telecommunications), Erik Bucy* (Telecommunications), Julia Fox* (Telecommunications)

Graduate Advisors

Associate Professor Linda Lawson, Ernie Pyle Hall 200, (812) 855-1699 (Journalism); Associate Professor Annie Lang, R-TV Center, (812) 855-2017 (Telecommunications)

Degree Offered

Doctor of Philosophy

Program Information

The Mass Communications Program is the doctoral program for the School of Journalism and the Department of Telecommunications. The program in mass communications prepares students (1) for teaching and research in mass communications, (2) for careers that demand advanced scholarship within professional media organizations, and (3) for careers in government that relate to mass media.

Special Program Requirements

See also general University Graduate School requirements.

Doctor of Philosophy Degree

See “Doctor of Philosophy Degree in Mass Communications” in the School of Journalism and the Department of Telecommunications entries for admission and degree requirements, course descriptions, and recommended courses in other departments.

Courses

Graduate

G741 Ph.D. Research in Mass Communications (cr. arr.)**

G790 Readings and Research in Mass Communications (1-3 cr.)**

**These courses are eligible for a deferred grade.

Mathematical Physics

College of Arts and Sciences
Bloomington

Interdepartmental Graduate Committee on Mathematical Physics

Professor John Challifour (Mathematics, Physics), Chairperson; Distinguished Professors Roger Newton (Emeritus, Physics), Ciprian Foias (Emeritus, Mathematics); Professors Jiri Dadok (Mathematics), Robert Glassey (Mathematics), David Hoff (Mathematics), Andrew Lenard (Emeritus, Mathematics, Physics), Professor Peter Sternberg (Mathematics), Kevin Zumbrun (Mathematics)

Academic Advisor

Professor John Challifour, Swain Hall West 235, (812) 855-3257

Degree Offered

Doctor of Philosophy

This program offers advanced graduate training for superior students in the overlapping areas of mathematics, theoretical physics, and their applications from a unified point of view and promotes research in this field.

General supervision of the program is controlled by the Interdepartmental Graduate Committee on Mathematical Physics. While no master’s degree is offered, a student may qualify for a master’s degree in mathematics or physics during the course of study. A student usually enters the program at the beginning of the second year of graduate study in mathematics or physics.

Special Program Requirements

See also general University Graduate School requirements.

Doctor of Philosophy Degree

Admission Requirements

Students in the Mathematical Physics Program must be enrolled in either the Department of Mathematics or the Department of Physics. Basic preparation should include courses in advanced calculus, linear algebra, modern algebra, complex variables, classical mechanics, electromagnetism, quantum mechanics, modern physics, thermodynamics, and statistical mechanics. Knowledge of the following fields is desirable: real analysis, differential equations, probability, topology, differential geometry, and functional analysis.

Course Requirements

A total of 90 credit hours, including dissertation. Required courses are determined by the advisory committee on the basis of the student's previous training and main fields of interest.

Advisory Committee

Composed of members of both the Department of Mathematics and the Department Physics.

Minors

Mathematics and physics.

Foreign Language/Research-Skill Requirement

Same as in the department of residence.

Qualifying Examination

Consists of parts of the Departments of Mathematics and Physics qualifying examinations, as determined by the student's advisory committee.

Final Examination

Oral and public defense of dissertation.

Courses

See listings of the Departments of Mathematics and Physics.

Mathematics

College of Arts and Sciences
Bloomington

Chairperson

Professor David Hoff

Departmental E-mail

mathdept@indiana.edu

Departmental URL

www.math.indiana.edu/programs

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

College Professor

Roger Temam

Distinguished Professor

Ciprian Foias (Emeritus)

Professors

Steen Andersson, Goro Azumaya (Emeritus), S. Thomas Bagby, Eric Bedford, Grahame Bennett, Hari Bercovici, Rabi Bhattacharya (Emeritus), Richard Bradley, John Brothers, Arlen Brown (Emeritus), John Challifour (Physics), Jiri Dadok, James Davis, Vinay Deodhar, Allan Edmonds, Robert Glassey, Victor Goodman, Darrell Haile, David Hoff, Jan Jaworowski (Emeritus), Michael Jolly, Paul Kirk, Michael Larsen, Andrew Lenard (Emeritus, Physics), Charles Livingston, Morton Lowengrub (Emeritus), Russell Lyons, Daniel Maki, Lawrence Moss, Kent Orr, Sergey Pinchuk, Madan Puri (Emeritus), Billy Rhoades (Emeritus), George Springer (Emeritus, Computer Science), Joseph Stampfli (Emeritus), Peter Sternberg, Maynard Thompson, Alberto Torchinsky, Lanh Tran, William Ziemer (Emeritus), Kevin Zumbrun

Associate Professors

Scott Brown, Marlies Gerber, William Gustin (Emeritus), Jee Heub Koh, Valery Lunts, Robert MacKenzie (Emeritus), Ji-Ping Sha, Bruce Solomon, Shouhong Wang*, William Wheeler

Assistant Professor

Zhenghan Wang*

Director of Graduate Studies

Professor Paul Kirk, Rawles Hall 130, (812) 855-2645

Degrees Offered

Master of Arts, Master of Arts for Teachers, Master of Arts in Financial Mathematics, and Doctor of Philosophy

Special Departmental Requirements

(See also general University Graduate School requirements.)

Admission Requirements

Undergraduate mathematics major or its equivalent.

Area Options

In order to describe the various concentration requirements, the Department of Mathematics has classified its courses into three areas: pure mathematics, applied mathematics-numerical analysis, and probability-statistics. Each of these areas is further subdivided into fields. Pure mathematics is subdivided into analysis (real and complex), algebra, topology and geometry, and logic and foundations. Applied mathematics-numerical analysis is subdivided into applied mathematics, mechanics, and numerical analysis. Probability-statistics is subdivided into probability and statistics.

Master of Arts Degree

Course Requirements

A total of 30 credit hours, of which 18 credit hours must be mathematics courses at the 500 to 700 level, excluding M553, M555, M556, M595, M596, and M599. The total course work submitted must include courses satisfying one of the following options and must be approved by the director of graduate studies.

1. Applied Mathematics Option. Courses including M511, M513, and at least two of the following: M540, M541, M544,

M545, M571, M572. In addition, the student must take at least one 3 credit hour graduate course outside the Department of Mathematics.

2. Pure Mathematics Option. At least 6 credit hours in each of three of the following groups: algebra, analysis, applied mathematics and numerical analysis, logic and foundations, probability and statistics, topology and geometry, outside area (biology, psychology, computer science, economics, chemistry, physics, and others).
3. Statistics Option. M511, M563, M566, and at least two of the following: M561, M562, M564, M567, M568, M569, Economics E671, or any other approved course outside the Department of Mathematics.
4. Financial Mathematics Option. M471, M472, M551, M560, M568, M590, Business F600, Economics E501, and two of the following: M544, M563, M566, M571, M545, M564, M567, M572.

Master of Arts for Teachers Degree

Course Requirements

A total of 36 credit hours, with at least one 3 credit hour course in each of the following groups: algebra, analysis, probability and statistics, topology and geometry, applied mathematics and numerical analysis.

Restrictions

Only Department of Mathematics graduate courses numbered 400 or higher count toward the 20 credit hours required in the major; up to 6 credit hours of courses below 400 accepted, with consent of the director of graduate studies, in partial fulfillment of the remaining 16 credit hours.

Doctor of Philosophy Degree

Course Requirements

The following course requirements are designed to provide the broad background needed for the successful pursuit of research leading to the dissertation. Students must complete 36 credit hours in mathematics at the 500, 600, or 700 level, excluding M553, M555, M556, M595-M596 and M599, and, in addition, must complete 2 credit hours in M599. Their program of study will depend upon their background and interests. Students should formulate a program in consultation with their faculty advisor. The total course work submitted for the degree must satisfy one of the options below. Reading courses may not be used to satisfy the requirements of these options unless they are specifically approved by the graduate director. A dissertation is required.

1. Applied Mathematics Option. Students must complete M511-M512, M513, and M540-M541. Students must also complete either 6 credit hours of graduate credit outside the Department of Mathematics in an area conducive to mathematical treatment and approved by the student's advisor, or 12 credit hours of graduate credit that is cross-listed with the Department of Physics. In addition, students must complete 6 credit hours of graduate credit in each of two of the following groups:
 - a. Algebra, and logic and foundations
 - b. Topology and geometry
 - c. Numerical analysis, probability, and statistics
2. Pure Mathematics Option. Students must complete 6 credit hours of graduate credit in five of the following groups, including 6 credit hours of 500-level courses in two of groups 1-4, and 6 credit hours of 500-level courses in another of groups 1-6.

- a. Analysis
 - b. Algebra
 - c. Topology and geometry
 - d. Logic and foundations
 - e. Probability and statistics
 - f. Applied mathematics and numerical analysis
 - g. Outside courses (biology, computer science, economics, chemistry, physics, and others) with the approval of the student's advisor.
3. Statistics Option. Each student's program should be arranged to include work in mathematics, mathematical statistics, probability, and the application of statistics to some particular field. Students must complete M511-M512, M563-M564, M566-M567, and 6 hours of graduate credit in each of two of the following groups:
 - a. Applied mathematics and numerical analysis
 - b. Algebra
 - c. Complex analysis
 - d. Topology and geometry
 - e. Computer science

Students must also complete 6 hours of graduate credit in other departments in courses approved by their advisor.

Minor

Students in mathematics must complete a minor in mathematics or in some other discipline. In order to complete a minor in mathematics, the student must satisfy one of the following options: (1) 9 credit hours of course work at the 500 level or above in an area other than that of

the dissertation; or (2) 6 credit hours of course work at the 500 level or above in each of two fields distinct from that of the dissertation, 6 credit hours of which must be in an area other than that of the dissertation. Exception: A student whose dissertation is in applied mathematics or numerical analysis may not present a 9 credit hour minor in analysis.

Foreign Language Requirement

Reading proficiency in one foreign language in which major research articles in mathematics are published. Acceptable languages are German, French, and Russian or another language deemed to be more relevant by the dissertation advisor. The Graduate Policy Committee of the Department of Mathematics will consider petitions for substituting other languages.

Qualifying Examinations

The Department of Mathematics qualifying exam comprises a three-tier system designed to help determine as quickly and efficiently as possible whether students have mastered basic graduate-level mathematics, exhibit the necessary abilities and self-discipline, and have prepared themselves to pursue the independent research necessary for the Ph.D. within a two- to three-year time frame.

Tier 1 (Comprehensive 400-Level Written Exams)

Ph.D. students will take a two-part written exam on 400-level algebra and analysis. The exams will be given on consecutive days during the week before classes begin in the fall and in the spring. New students may take either or both of the Tier 1 exams in August when they first arrive. A student is allowed to try each exam each time it is offered, but he/she must pass both exams prior to the end of the second year of study.

Syllabi, references, and sample problems for these exams are available in the Department of Mathematics graduate office.

Tier 2 (Committee Review)

Each May, a departmental committee will review the record of every student who has either:

- a. completed two years in the program without previous review, or
- b. passed the Tier 1 exams on entrance to the program and elects the review at the end of the first year.

The review committee will decide which students may continue toward Ph.D. candidacy. The committee's considerations will include:

- a. Performance on the Tier 1 exams.
- b. Performance in 500-level course work.
- c. A report from the student's academic advisor (see below).
- d. Written personal statement by student.
- e. Student's performance of assistantship duties.

As indicated above, students can accelerate their progress in the program by passing the Tier 1 exams on entrance into the program and electing the Tier 2 review at the end of their first year. The review committee will treat this as favorable for a student's case. Students who do not get a recommendation to continue will be encouraged to complete the M.A. degree. If they have financial support at the time of review, they will be entitled to at least one additional semester of support in order to do so.

Tier 3 (Oral Exam)

After the Tier 2 review, students must arrange and pass a Qualifying Oral Exam before October of their fourth year. The student will seek the direction of a faculty member as a scientific advisor a "tentative Ph.D. advisor" for this exam. The faculty member will assign a reading list consisting of texts and research-level papers; this material will comprise the major topic of the exam. The student will also propose a minor area, to be approved by the director

of graduate studies. If and when the scientific advisor feels the student is ready for the exam, the advisor will arrange for a three-member faculty committee to administer the exam. These exams are projected to last approximately two hours, and one of the committee members must be qualified to examine the student in the minor area, where the student must demonstrate 500-level mastery. In order to pass the exam, the student must:

- a. demonstrate a level of mathematical ability and maturity sufficient for successfully undertaking a Ph.D. dissertation (normally in the major area of the exam), and
- b. identify a faculty member willing to serve as Ph.D. advisor. This will typically, but not necessarily, be the faculty member who organized the exam.

Two aspects of the graduate program that directly support this three-tiered system bear mention:

1. A faculty advisor will be assigned to every entering student. The advisor will be expected to follow the student's progress in both course work and instructional duties, and to write a short **report** for the Tier 2 review committee at the appropriate time.
2. Grades in 500-level courses will be given and evaluated according to the following guidelines:
 - a. A grade of A means that, based on the student's work in that course, the instructor believes the student will succeed in being admitted to Ph.D. candidacy.
 - b. A grade of B means that the student's work in that course is satisfactory, but the instructor has reservations (based on that work) about the student's ability to be admitted to candidacy.

All students must maintain at least a B average in their 500-level course work, in accordance with currently published departmental and university guidelines. Tier 1 exams are administered at the end of the week before classes begin in August and January, and will be allotted at least three hours (the intention is that time should not be a serious constraint).

Ph.D. Minor in Mathematics

Doctoral students in other departments may complete a minor in mathematics by satisfying one of the following options: (1) 9 credit hours of mathematics courses at the 400 level or above, or (2) M343-M344 and 6 credit hours of mathematics courses at the 400 level or above.

Courses

Students are advised to begin their study of a field with 400-level courses, unless their preparation in that field has been very good.

M.A.T. students in mathematics, or M.A., M.S., or Ph.D. students in other departments, may receive graduate credit for any 400-level course. Candidates for the M.A. or Ph.D. in mathematics should note that some 400-level courses do not satisfy certain degree requirements (see footnotes).

In the following list, the middle digit of the course number indicates the field of mathematics: x0y, algebra; x1y, analysis; x2y, topology; x3y, geometry; x4y, applied mathematics; x5y, mechanics; x6y, probability and statistics; x7y, numerical analysis; x8y, history and foundations.

M403-M404 Introduction to Modern Algebra I-II (3-3 cr.)

S403-S404 Honors Course in Modern Algebra I-II (3-3 cr.)

T403 Modern Algebra for Secondary Teachers (3 cr.)¹

M405 Number Theory (3 cr.) P: M212 (Bloomington Campus only)¹

M409 Linear Transformations (3 cr.)²

M413-M414 Introduction to Analysis I-II (3-3 cr.)

M415 Elementary Complex Variables with Applications (3 cr.)

M420 Metric Space Topology (3 cr.)¹

M425 Graph Network Theory and Combinatorial Analysis (3 cr.)

M435 Introduction to Differential Geometry (3 cr.)

M436 Introduction to Geometries (3 cr.)

M441-M442 Introduction to Partial Differential Equations with Applications I-II (3-3 cr.)

M447-M448 Mathematical Models and Applications I-II (3-3 cr.)¹

M463-M464 Introduction to Probability Theory I-II (3-3 cr.)

M465 Sampling Techniques (3 cr.)

M466 Introduction to Mathematical Statistics (3 cr.)

M467 Advanced Statistical Techniques I (3 cr.)

M468 Advanced Statistical Techniques II (3 cr.)

M471-M472 Numerical Analysis I-II (3-3 cr.) P: M301 or M303, M311, M343, and knowledge of a computer language such as Fortran, C, or C++.
(Students with other programming backgrounds should consult the instructor.)

M482 Mathematical Logic (3 cr.)

M490 Problem Seminar (3 cr.)

T490 Topics for Elementary Teachers (3 cr.) P: T103 or equivalent. Development and study of a body of mathematics specifically designed for experienced elementary teachers. Examples include probability, statistics, geometry, and algebra. Open only to graduate elementary teachers with consent of the instructor. (Does not

count toward the area requirements for the M.A. and Ph.D. degrees in mathematics.)

M501 Survey of Algebra (3 cr.) P: M403-M404. Groups with operators: Jordan-Holder theorem. Sylow theorems. Rings: localization of rings; Chinese remainder theorem. Modules over principal ideal domains: invariants. Fields: algebraic closure; separable and inseparable algebraic extensions; Galois theory; finite fields.

M502 Commutative Algebra (3 cr.) P: M501. Field theory: transcendental extensions; separable extensions; derivations. Modules: Noetherian and Artinian modules. Primary modules; primary decomposition; Krull intersection theorem. Commutative rings: height and depth of prime ideals. Integral extensions. Notions of algebraic geometry: algebraic sets; Hilbert Nullstellensatz; local rings.

M503 Noncommutative Algebra (3 cr.) P: M501. Simple and semisimple modules; density theorem; Wedderburn-Artin theorem. Simple algebras: automorphisms; splitting fields; Brauer groups. Representations of finite groups: characters; induced characters; applications.

¹ These courses do not ordinarily carry credit toward the M.A. or Ph.D. degree in mathematics. They may, however, be taken by M.A.T. students and graduate students in other departments for graduate credit.

² Does not count toward the area requirements for the M.A. and Ph.D. degrees in mathematics.

M505-M506 Basic Number Theory I-II (3-3 cr.) P: M403-M404.

Congruence, units modulo n , lattices and abelian groups, quadratic residues, arithmetic functions, diophantine equations, Farey fractions, continued fractions, partition function, the Sieve method, density of subsets of integers, zeta function, the prime number theorem.

M507-M508 Introduction to Lie Algebras and Lie Groups (3 cr.) P: M403-M404, and M409 or M501.

Nilpotent, solvable, and semisimple Lie algebras, PBW theorem, Killing form, Cartan subalgebras, root systems, Weyl group, classification and representations of complex semisimple Lie algebras, maximal weight modules; correspondence between real Lie algebras and Lie groups, compact Lie groups, complex and real semisimple Lie groups, symmetrical spaces.

M509 Representations of Finite Groups (3 cr.) P: M409 or equivalent.

Groups, subgroups. Homomorphisms, isomorphisms. Transformation groups. The orthogonal and Euclidean groups $O(3)$ and $E(3)$. Symmetry and discrete subgroups of $E(3)$. Crystallographic groups. Group representations. Reducible and irreducible representations. Group characters and character tables. Representations of the symmetric groups. Young tableaux. Symmetry classes of tensors.

M511-M512 Real Variables I-II (3-3 cr.)

Sets and functions; cardinal and ordinal numbers; metric spaces; limits and continuity; function spaces and linear functionals; set functions; kinds of measures, integration; absolute continuity; convergence theorems; differentiation and integration.

M513-M514 Complex Variables I-II (3-3 cr.)

Algebra, topology, and geometry of the complex plane; analytic functions; conformal mapping; Riemann surfaces; Cauchy's theorem and formula; convergence theorems; infinite series and products; Riemann mapping theorem.

M521-M522 Topology I-II (3-3 cr.)

Point-set topology, including connectedness, compactness, separation properties, products, quotients, metrization, function spaces. Elementary homotopy theory including fundamental group and covering spaces. Introduction to homology theory with applications such as the Brouwer Fixed Point Theorem.

M529 Introduction to Differential Topology (3 cr.) P: M303, M413, or equivalent.

Derivatives and tangents; Inverse Function Theorem; immersions and submersions; Sard's Theorem. Manifolds; imbedding manifolds. Applications: intersections and degrees (mod 2); Brouwer Fixed Point Theorem. Orientation of manifolds; Euler characteristic; Hopf Degree Theorem.

M533-M534 Differential Geometry I-II (3-3 cr.)

Differentiable manifolds, multilinear algebra, and tensor bundles. Vector fields, connections, and general integrability theorems. Riemannian manifolds, curvatures, and topics from the calculus of variations.

M540-M541 Partial Differential Equations I-II (3-3 cr.) P: M441-M442 or equivalent.

Introduction to distributions, Sobolev spaces, and Fourier transforms; elliptic equations, Hilbert space theory, potential theory, maximum principle; parabolic equations and systems, characteristics, representations of solutions, energy methods; applications and examples.

M542 Nonlinear Partial Differential Equations (3 cr.)

Introduction to an array of topics in linear and nonlinear PDE including elements of calculus of variations and applications to nonlinear elliptic PDE, systems of conservation laws, semi-group theory, reaction-diffusion equations, Schauder theory, Navier-Stokes equations, bifurcation theory.

M544-M545 Ordinary Differential Equations I-II (3-3 cr.) P: M413-M414 or consent of instructor.

Existence, uniqueness, continuous

dependence; linear systems, stability theory, Floquet theory; periodic solutions of nonlinear equations; Poincaré-Bendixson theory, direct stability methods; almost periodic motions; spectral theory of nonsingular and singular self-adjoint boundary-value problems; two-dimensional autonomous systems; the saddle-point property; linear systems with isolated singularities.

M546 Control Theory (3 cr.)

Examples of control problems; optimal control of deterministic systems: linear and nonlinear. The maximal principle: stochastic control problems.

M548 Mathematical Methods for Biology (3 cr.) P: M414, M463.

Deterministic growth models. Birth-death processes and stochastic models for growth. Mathematical theories for the spread of epidemics. Quantitative population genetics.

M551 Markets and Multi-Period Asset Pricing (3 cr.) P: M463, M345, or equivalent.

The concepts of arbitrage and risk-neutral pricing are introduced within the context of dynamic models of stock prices, bond prices, and currency exchange rates. Specific models include multi-period binomial models, Markov processes, Brownian motion, and martingales.

M553 Cryptography (3 cr.)*** P:

M301 or M303. Covers encryption and decryption in secure codes. Topics include: cryptosystems and their cryptanalysis, Data Encryption Standard, differential cryptanalysis, Euclidean algorithm, Chinese remainder theorem, RSA cryptosystem, primality testing, factoring algorithms, ElGamal cryptosystem, discrete log problem, other public key cryptosystems, signature schemes, hash functions, key distribution, and key agreement. Credit not given for both M553 and M453.

***Does not count toward the 500-level requirements.

M555-M556 Quantum Computing I-II (3-3 cr.)*** Covers the interdisciplinary field of quantum information science for graduate students in computer science, physics, mathematics, philosophy, and chemistry. Quantum information science is the study of storing, processing, and communicating information using quantum systems.

M560 Applied Stochastic Processes (3 cr.) P: M343, M463, or consent of instructor. Simple random walk as approximation of Brownian motion. Discrete-time Markov chains. Continuous-time Markov chains; Poisson, compound Poisson, and birth-and-death chains; Kolmogorov's backward and forward equations; steady state. Diffusions as limits of birth-and-death processes. Examples drawn from diverse fields of application.

M561 Nonparametric Statistics I (3 cr.) P: M466. Problems of estimating and testing hypotheses when the functional form of the underlying distribution is unknown. Robust methods. Sign test, rank tests, and confidence procedures based on these tests. Tests based on the permutations of observations. Nonparametric tolerance limits. Large sample properties of the tests.

M562 Statistical Design of Experiments (3 cr.) P: M565 or consent of instructor. Latin square, incomplete blocks, and nested designs. Design and analysis of factorial experiments with crossing and nesting of factors, under fixed, random, and mixed effects models, in the balanced case. Blocking and fractionation of experiments with many factors at two levels. Exploration of response surfaces.

M563-M564 Theory of Probability I-II (3-3 cr.) P: M463, M512; or consent of instructor. Basic concepts of measure theory and integration, axiomatic foundations of probability theory, distribution functions and characteristic functions, infinitely divisible laws and the central limit problem, modes of convergence of sequences of random variables, ergodic theorems, Markov chains, and stochastic processes.

M565 Analysis of Variance (3 cr.) P: M466 and some of matrix algebra. General linear hypothesis. Least squares estimation. Confidence regions. Multiple comparisons. Analysis of complete layouts. Effects of departures from underlying assumptions. Analysis of covariance.

M566-M567 Mathematical Statistics I-II (3-3 cr.) P: M466, M512; or consent of instructor. Modern statistical inference, including such topics as sufficient statistics with applications to similar tests and point estimates, unbiased and invariant tests, lower bounds for mean square errors of point estimates, interval estimation, linear hypothesis, analysis of variance, sequential analysis, decision functions, and nonparametric inference.

M568 Time Series Analysis (3 cr.) P: M466 or consent of instructor. Autocovariance, power spectra, windows, prewhitening, aliasing, variability and covariability, rejection filtering and separation, pilot estimation, cross-spectra, R-th order spectra, prediction, numerical spectrum analysis.

M569 Statistical Decision Theory (3 cr.) P: M466 or consent of instructor. Decision-theoretic approach to statistical problems, randomized and nonrandomized decision rules, comparison of decision rules, Bayes decision rules, construction of Bayes decision rules when the number of possible decisions is finite and infinite, and linear programming as a computational rule.

M571-M572 Analysis of Numerical Methods I-II (3-3 cr.) P: M441-M442 and M413-M414. Solution of systems of linear equations, elimination and iterative methods, error analyses, eigenvalue problems; numerical methods for integral equations and ordinary differential equations; finite difference, finite element, and Galerkin methods for partial differential equations; stability of methods.

M583 Set Theory (3 cr.) P: M482 or M511 or M521. Zermelo-Fraenkel

axioms for set theory, well-foundedness and well-orderings, induction and recursion, ordinals and cardinals, axiom of choice, cardinal exponentiation, generalized continuum hypothesis, infinite combinatorics and large cardinals. Martin's axiom, applications to analysis and topology.

M584 Recursion Theory (3 cr.) P: one of M482, M511, M521 or CSCI C452; or consent of instructor. Classes of recursive functions, models of computation, Church's thesis, normal forms, recursion theorem, recursively enumerable sets, reducibilities, lattice of r.e. sets, jump operator, priority arguments, degrees of unsolvability, and hierarchies.

M590 Seminar (3 cr.)

M595-M596 Seminar in the Teaching of College Mathematics I-II (1-1 cr.) Methods of teaching undergraduate college mathematics. Does not count toward meeting any of the 500-level requirements toward an M.A. or Ph.D.

M599 Colloquium (1 cr.) Attendance at Department of Mathematics colloquia required. May be repeated. May not be used in fulfillment of the 36 credit hours of 500-, 600-, or 700-level course work required for the Ph.D. Also not applicable to 30 credit hours for master's degree.

M601-M602 Algebraic Number Theory I-II (3-3 cr.) P: M501-M502. Valuations, fields of algebraic functions, cohomology of groups, local and global class field theory.

***Does not count toward the 500-level requirements.

M607-M608 Group

Representations I-II (3-3 cr.)

P: consent of instructor. Review of abstract group theory. Representation theory of finite and infinite compact groups. Detailed study of selected classical groups. Lie groups, covering groups, Lie algebras, invariant measure and induced representations. May be taught in alternate years by members of the Departments of Mathematics and Physics; see PHYS P607.

M611-M612 Functional Analysis I-II (3-3 cr.)

Fundamentals of the theory of vector spaces; Banach spaces; Hilbert space. Linear functionals and operators in such spaces, spectral resolution of operators. Functional equations: applications to fields of analysis, such as integration and measure, integral equations, ordinary and partial differential equations, ergodic theory. Nonlinear problems. Schauder-Leray fixed-point theorem and its applications to fundamental existence theorems of analysis.

M621-M622 Algebraic Topology I-II (3-3 cr.)

Basic concepts of homological algebra, universal coefficient theorems for homology and cohomology, Künneth formula, duality in manifolds. Homotopy theory including Hurewicz and Whitehead theorems, classifying spaces, Postnikov systems, spectral sequences, homotopy groups of spheres. Offered every other year, alternating with M623-M624.

M623-M624 Geometric Topology I-II (3-3 cr.)

P: M522. Topics in geometric topology chosen from K-theory, simple homotopy theory, topology of manifolds, fiber bundles, knot theory, and related areas. May be taken more than once. Offered every other year, alternating with M621-M622.

M630 Algebraic Geometry (3 cr.)

A study in the plane, based on homogeneous point and line coordinates; a study of algebraic curves and envelopes, including such topics as invariants, singularities, reducibility, genus, polar properties, Pascal and Branchon theorems, and

Jacobian, Hessian, and Plücker formulas.

M633-M634 Algebraic Varieties I-II (3-3 cr.)

Topological and algebraic properties of algebraic varieties.

M635-M636 Relativity I-II (3-3 cr.)

Mathematical foundations of the theory of relativity. Lorentz groups, Michelson-Morley experiment, aberration of stars, Fizeau experiment, kinematic effects, relativistic second law of Newton, relativistic kinetic energy, Maxwell equations, ponderomotive equations. Curvature tensor and its algebraic identities, Bianchi's identity, gravitation and geodesics. Schwarzschild solution, relativistic orbits, deflection of light.

M637 Theory of Gravitation I (3 cr.)

Introduction to the general theory of relativity, stress-energy tensor, parallel transport, geodesics, Einstein's equation, differential geometry, manifolds, general covariance, bending of light, perihelion advance. Modern cosmology: Robertson-Walker metric, equations of state, Friedmann equations, Hubble's law, redshift, cosmological constant, inflation, quintessence, cosmic microwave background, Big Bang nucleosynthesis, structure formation. May be taught in alternate years by members of the Department of Physics; see PHYS P637.

M638 Theory of Gravitation II (3 cr.)

Gravitation waves, Schwarzschild geometry and black holes, Kerr metric, Reissner-Nordstrom metric, extremal black holes, Penrose diagrams, Hawking radiation, Lie derivatives, isometries and Killing vectors, variational principle and the Palatini formalism, spinors in general relativity, vierbeins, gravitation as a gauge theory, quantum gravity. May be taught in alternate years by members of the Department of Physics; see PHYS P638.

A641 Elliptic Differential

Equations (3 cr.) P: M511, M513, M540, or consent of instructor. Green's identity, fundamental

solutions, function theoretic methods, partition of unity, weak and strong derivatives, Sobolev inequalities, embedding theorems, Garding's inequality, Dirichlet problem, existence theory, regularity in the interior, regularity on the boundary, and selected topics.

A642 Evolution Equations (3 cr.)

P: M511, M513, M540, or consent of instructor. Hyperbolic equations and systems, parabolic equations, Cauchy problems in higher dimension, method of descent, fundamental solutions and their construction, strongly continuous semigroups, analytic semigroups, uniqueness theorems in Hilbert space, fractional powers of operators, analyticity of solutions, and selected topics.

A643 Integral Equations (3 cr.)

Covers the Volterra-Fredholm theory of integral equations and the abstract Riesz theory of compact operators. Other topics include ideals of compact operators, Fredholm operators, convolution equations and their relationship to Toeplitz operators, Wiener-Hopf factorization.

M647 Mathematical Physics (3 cr.)

P: M541 or consent of instructor. Applications of the theory of normed linear spaces, distributions, unbounded operators in Hilbert space, and related topics to problems in mathematical physics. May be taught in alternate years by members of the Department of Physics; see PHYS P647.

M655 Mathematical Foundations of Quantum Mechanics (3 cr.)

P: consent of instructor. Philosophical and mathematical analysis of the concepts: quantum observable, compatibility, quantum state, superposition principle, symmetry. Axiomatic construction of conventional quantum mechanics. May be taught in alternate years by members of the Department of Physics; see PHYS P655.

M656-M657 Kinetic Theory and Statistical Mechanics I-II (3-3 cr.)

Introduction to the classical theory and modern developments. Historical

development of kinetic-statistical theories; rigorous equilibrium statistics; kinetic gas dynamics according to Boltzmann equation; kinetic theories of transport processes in liquids. May be taught in alternate years by members of the Departments of Mathematics and Physics; see PHYS P656-P657.

M658-M659 Continuum Mechanics I-II (3-3 cr.) P: consent of instructor. Two-semester course dealing with mathematical foundations of continuum mechanics; content varies yearly; topics selected from elasticity, plasticity, or fluid mechanics and related areas.

M662 Nonparametric Statistics II (3 cr.) P: M565, M566, M561, or consent of instructor. Multisample problems. Ranking methods in analysis of variance. Bivariate and multivariate procedures. Efficiency comparisons. Recent developments.

M663 Weak Convergence of Probability Measures and Applications (3 cr.) P: M512, M564. Weak convergence of probability measures on metric spaces. Prohorov's theorem and tightness. Brownian motion. Donsker's invariance principle. Weak convergence on $D[0,1]$. Convergence of empirical distributions. Functional central limit theorems under dependence.

M664 Large Sample Theory of Statistics (3 cr.) P: M563, M566. Asymptotic distributions of sample moments, sample quantiles, and U-statistics; methods of estimation: maximum likelihood estimates, method of moments, L-estimators, Bayes estimators; asymptotic efficiency; likelihood ratio tests, chi-square tests, asymptotic relative efficiencies of tests; weak convergence of the empirical distribution function to a Brownian bridge and application; selection of topics from the following: large deviations, second-order asymptotic efficiency, bootstrap rank tests.

M671-M672 Numerical Treatment of Differential and Integral Equations I-II (3-3 cr.) P: M540 or consent of instructor. Finite difference methods of ordinary and partial differential equations; relaxation methods; discrete kernel functions; methods of Ritz, Galerkin, and Trefftz approximate methods for integral equations.

M680 Logic and Decidability (3 cr.) P: M584 and M404; or consent of instructor. Effective syntax and semantics of propositional and first-order logics, theory of decidability and some decidable theories, theory of undecidability and implicit definability, Gödel's theorems on incompleteness and the unprovability of consistency.

M682 Model Theory (3 cr.) P: M583, M680, and M502; or consent of instructor. Elementary equivalence, completeness and model-completeness, interpolation, preservation and characterization theorems, elementary classes, types, saturated structures, introduction to categoricity and stability.

M701-M702 Selected Topics in Algebra I-II (3-3 cr.)

M711-M712 Selected Topics in Analysis I-II (3-3 cr.)

M721-M722 Selected Topics in Topology I-II (3-3 cr.)

M731-M732 Selected Topics in Differential Geometry I-II (3-3 cr.)

M733-M734 Selected Topics in Algebraic Geometry I-II (3-3 cr.)

M741-M742 Selected Topics in Applied Mathematics I-II (3-3 cr.)

M743-M744 Selected Topics in Mathematical Physics I-II (3-3 cr.) Content varies from year to year. May be taught in alternate years by members of the Department of Physics; see PHYS P743.

***This course is eligible for a deferred grade.

M751-M752 Selected Topics in Mechanics I-II (3-3 cr.)

M761-M762 Selected Topics in Statistics and Probability I-II (3-3 cr.)

M771-M772 Selected Topics in Numerical Analysis I-II (3-3 cr.)
M781-M782 Selected Topics in Mathematical Logic (3-3 cr.)

M800 Mathematical Reading and Research (cr. arr.)** Intended primarily for graduate students who have passed the qualifying examination.

Medical and Molecular Genetics

School of Medicine
Indianapolis

Chairperson
Professor Kenneth Cornetta

Departmental E-mail
medgen.iupui.edu

Departmental URL
www.iupui.edu/~medgen

Graduate Faculty
(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Distinguished Professors
P. Michael Conneally (Neurology), Bernardino Ghetti (Pathology and Laboratory Medicine, Psychiatry, Neurology)

Professors
David Bixler (Emeritus, Oral Facial Genetics), Ira Brandt (Emeritus, Pediatrics), Joe Christian (Emeritus), Kenneth Cornetta (Medicine), Mary Dinauer (Pediatrics), Howard Edenberg (Biochemistry and Molecular Biology), Alan Golichowski* (Medicine), James Hartsfield Jr. (Oral Facial Genetics), Thomas Kaufman (Biology), John Nurnberger Jr. (Psychiatry), Catherine Palmer (Emeritus), Terry Reed, Richard Rose (Emeritus),

Psychology), William Schneider (Liberal Arts), David D. Weaver (Medicine)

Associate Professors

Michael Econs* (Medicine), Tatiana Foroud, Bryan Hainline* (Pediatrics), Debomoy Lahiri (Neurobiology), Gail Vance (Pathology and Laboratory Medicine)

Assistant Professors

Gary Bellus*, Yan Chen, David Gilley, Brenda Grimes*, Sean Mooney*, Nuria Morral*, Brittney Shea-Herbert, Kenneth White, Xin Zhan

Associate Scientist

Stephen Dlouhy

Assistant Scientist

Daniel Koller*

Clinical Associate Professors

Kimberly Quaid (Psychiatry), Frederick Unverzagt* (Psychiatry)

Clinical Assistant Professors

Virginia Thurston*, Wilfredo Torres-Martinez*

Joe C. Christian Professor of Medical and Molecular Genetics

Kenneth G. Cornetta

Graduate Advisor

Professor Terry Reed, Medical Research and Library Building 130, (317) 274-2241

Degrees Offered

Master of Science in Medical Genetics and Doctor of Philosophy

Special Program

Requirements

(See also general University Graduate School requirements.)

Admission Requirements

Bachelor's degree or its equivalent, including two years of chemistry, mathematics through calculus, two years of biology, and one course in principles of genetics. Promising students deficient in one or more areas may be accepted if it appears to the admissions committee that deficiencies can be removed during

graduate study. Results of the Graduate Record Examination General Test must be available before applicants can be considered for admission.

Master of Science Degree

Course Requirements

A minimum of 30 credit hours of approved courses, including no more than 7 credit hours of research. At least 20 credit hours must be taken in medical genetics or approved equivalents, including at least four of the following five areas with grades of B or higher: basic human genetics, clinical genetics, cytogenetics, molecular and biochemical genetics, and population genetics. Students in the genetic counseling study track, to meet requirements to take the certification examination of the American Board of Genetic Counseling, are required to have courses in all five areas plus additional required course work totaling 36 credit hours. Genetic counseling students must obtain a B (3.0) or higher in all courses.

Thesis

Optional. With approval of the department, a refereed publication or an additional 6 credit hours of nonresearch course work beyond the required 30 credit hours may be substituted for the thesis. Genetic counseling students must choose either a thesis, case report with literature review, or educational project, in addition to the required 36 credit hours of study.

Final Examination

The student must pass a comprehensive oral or written examination as determined by the student's committee. Under exceptional circumstances, the student may petition the committee to be permitted to take the final examination one additional time.

Program Termination

Academic or research deficiency will result in termination of the student's enrollment in the program.

Doctor of Philosophy Degree

Course Requirements

A total of 90 credit hours plus dissertation with 37 credit hours of nonresearch courses in medical genetics, including G504 or equivalent. Appropriate courses in the Departments of Anatomy, Anthropology, Biochemistry, Mathematics, Microbiology, Pharmacology, and Biology on the Bloomington and Indianapolis campuses may be accepted for credit toward the major with prior approval of the student's advisory committee. Up to 30 credit hours of nonclinical medical or dental courses may apply toward the Ph.D. degree.

Minor

Must be taken in a field related to the major, e.g., anthropology, applied statistics, biochemistry, biology, cancer biology, cellular and molecular biology, diabetes and obesity, immunology, life science, microbiology, neurobiology, or pharmacology.

Qualifying Examination

Comprehensive written and oral examination. Examination over the minor field at the discretion of the minor field department.

Research Proposal

Written research proposal, presented and defended orally, required for admission to candidacy.

Final Examination

Oral defense of dissertation.

Program Termination

Research or academic deficiency, including two failures of the qualifying examination, will result in termination of the student's enrollment in the program.

Courses

The graduate courses listed below are not all offered in any given academic year. Inquiries on the availability and suitability of any particular course should be directed to the graduate advisor. In addition to those areas indicated by specific course offerings, extensive opportunities for interdepartmental research are also available.

GENERAL

Q580 Basic Human Genetics (3 cr.)

P: general genetics and consent of the instructor. An introduction to the genetics of human traits and heritable diseases. Emphasis will be on general aspects of eukaryote genetics as it applies to humans, but some prokaryote genetics will be included for comparison.

Q606 Foundations in Genetic Counseling (3 cr.) Introduction to the principles and practice of genetic counseling. Topics include genetic counseling techniques, prenatal diagnosis counseling, pediatric/adult counseling, and support services.

Q610 Clinical Genetics Practicum (3 cr.) P: consent of the instructor. Methods for obtaining medical and family histories, approaches to evaluation of individuals and families with genetic disorders, and techniques for providing genetic counseling. May be repeated once for credit.

Q611 Genetics Analysis Laboratory (1-2 cr.) P: consent of the instructor. Computer storage and retrieval of family data. Use of programs for genetic analysis. Includes analysis of twins, families of twins, and genetic linkage and segregation.

Q612 Molecular and Biochemical Genetics (3 cr.) Molecular and biochemical aspects of gene function in various genetic disorders. Emphasis on the DNA lesion when known, on aberrations in the metabolic pathways, and on structural defects. Discussion of hemoglobinopathies, phenylketonuria, storage diseases, and other conditions.

Q613 Molecular and Biochemical Genetics Laboratory (2 cr.) The student will learn to perform many of the molecular and biochemical techniques for the determination of genetic markers that can be used for diagnosis, genotyping, and forensic applications.

Q614 Psychological Aspects of Genetic Counseling (3 cr.) P: one

course in introductory or abnormal psychology. Introduction to theory and research in the field of genetic counseling. Topics include risk assessment, attitude assessment, and decision-making. The social, ethical, and legal aspects of the delivery of genetic services are also covered.

Q615 Prenatal Diagnosis Practicum (3 cr.) Training in prenatal genetic counseling. Counseling referrals may include advanced maternal age, abnormal prenatal screening, abnormal ultrasound, or other pregnancy complications.

Q616 Specialty Clinics Practicum (2 cr.) P: consent of the instructor. An overview of the long-term management of patients living with a variety of genetic conditions. Students may provide genetic counseling while in these clinics.

Q617 Genetic Counseling Practicum (1-2 cr.) P: Q606, Q610, consent of instructor. Practice advanced genetic counseling skills in a weekly clinic. Develop proficiency in pedigree construction, patient education, and psychosocial assessment/counseling.

Q620 Human Cytogenetics (3 cr.) P: consent of the instructor, basic genetics. Study of chromosome structure and replication, X-inactivation, meiosis, numerical and structural rearrangements in humans, and cytogenetics of malignancies.

Q621 Human Cytogenetics Laboratory (3 cr.) P: basic genetics, Q620, and consent of instructor. Current techniques in human cytogenetics. May be taken concurrently with Q620.

Q622 Cytogenetics of Malignancies (2-3 cr.) PP: consent of instructor. This course will examine the biologic implications of cytogenetic abnormalities found in malignancies. Aberrant gene function as a result of cytogenetic abnormalities will be stressed.

Q630 Population Genetics (3 cr.) PP: basic genetics. Basic probability and Bayes theorem, as applied to

genetic counseling. Effects of mutation and selection on the survival of alleles in a population; consequences of consanguinity and inbreeding; methods of analysis including segregation and linkage including nonparametric methods; quantitative genetics such as twin studies, and heritability.

Q631 Quantitative Genetics (2 cr.) P: G651 and G652 or equivalent. Inheritance of human quantitative traits, partitioning of phenotypic variation, estimation of genetic variance and heritability, methods of analyzing resemblance among relatives including nuclear families, twins, and half-siblings (currently inactive).

Q640 Special Topics in Human Genetics (1-3 cr.; 9 cr. max.) A continuing nonrepeating series of lectures on newer advances in human genetics; discussions in specific areas of human genetics not currently available to all students. Additional credits may be obtained by study of a specific area under individual tutelage.

Q642 Dermatoglyphics (2 cr.) PP: consent of instructor. Formation, development, classification and variation of finger, palm, and footprint patterns (dermatoglyphics) in humans; interpretation of results of quantitative and statistical techniques utilized in the study of the inheritance of dermatoglyphic traits, variation in twins, and applications in clinical genetics.

Q660 Medical Genetics Seminar (2 cr.) P: basic genetics. Topics chosen from aspects of medical genetics not extensively treated elsewhere. Various phases of research in medicine from a genetic and clinical point of view. Students may receive credit during each semester of residence on the Medical Center campus.

Q730 Methods in Human Genetics (3 cr.) P: basic genetics, differential calculus, and Q630 or equivalent. Sampling methods employed in study of human genetics; methods for analysis of segregation, linkage, mutation, and selection with family

data collected under various forms of ascertainment.

Q800 Medical Genetics Research (cr. arr.)**

GRADUATE

G504 Introduction to Research Ethics (2 cr.) Introduction to the basic concepts of research ethics. The course will cover historical development of concern with ethics in science as well as practical information needed by students working in the science today. Format will be lecture and discussion.

G651-G652 Introduction to Biostatistics I-II (3-3 cr.) Data description, sampling variation and distributions, interval estimation, and tests of hypotheses involving binomial, normal, t, F, and X² distribution; one-way analysis of variance, bivariate regression and correlation, higher order experimental designs, and associated analysis of variance; use of statistical analysis programs on computer.

G901 Advanced Research (6 cr.) For Ph.D. students who have at least 90 credit hours. May be taken for maximum of six semesters (not available in summer semesters).

**This course is eligible for a deferred grade.

Medical Biophysics

School of Medicine
Indianapolis

Interdepartmental Program

Director
Professor Thomas Hurley

Departmental E-mail
thurley@iupui.edu

Departmental URL
www.medicine.iu.edu/home.html

Graduate Faculty

Professors
William Bosron, Thomas Hurley, Marvin Kemple, Marshall Montrose, Grant Nicol, Peter Roach, William Stillwell

Associate Professors
Eric Long, Alonso Moreno, Barry Muhoberac, Stephen Wassall

Assistant Professors
Randall Duncan, Christoph Naumann, John Schild

Graduate Advisor
Professor Thomas Hurley, Medical Science Building 4019, (317) 278-2008

Degrees Offered
Master of Science in Medical Biophysics and Doctor of Philosophy

Program Information
An interdepartmental committee is responsible for the administration of the medical biophysics degree programs. The committee is composed of representatives from the Departments of Biochemistry and Molecular Biology, Pharmacology and Toxicology, and Physiology and Biophysics from the Indiana University School of Medicine and from the Departments of Biology and Chemistry from the Purdue University School of Science at Indianapolis. Graduate training in the program is oriented primarily toward research at the molecular and cellular

level, with focus points at the boundaries of the traditional disciplines of physics, chemistry, and biology. Research programs include membrane biophysics and structure-function relations in cells and macromolecules. Detailed descriptions of faculty research interests are available.

Special Program Requirements
(See also general University Graduate School requirements.)

Admission Requirements
Bachelor's degree in biochemistry, biology, biophysics, chemistry, mathematics, physics, or an equivalent major. Graduate Record Examination scores on both the General Test and a Subject Test are required as a part of the application.

Master of Science Degree Course Requirements
At least 30 credit hours, of which 20 credit hours must be in biophysics, including 7 credit hours in research; remaining credit hours in related courses.

Thesis
Optional.

Final Examination
Written or oral or both.

Doctor of Philosophy Degree Course Requirements
A total of 90 credit hours, with a minimum of 36 credit hours in course work (including those for the minor). Required core courses include J611 and J612, B807 Biochemistry or equivalent, one course in quantum mechanics (chosen from Purdue School of Science's P550 Introduction to Quantum Mechanics, P660 Quantum Mechanics I, and C672 Quantum Chemistry), one course in cell infrastructure (chosen from F650, G865, F705, and B807). Additional elective courses totaling at least 9 credit hours are determined by the advisory committee in discussion with the student and selected from a

list compiled by the faculty. (See list of courses below.)

Minor

A minimum of 12 credit hours in course work in a departmental minor or an interdepartmental minor in physical science or in cellular and molecular biology.

Qualifying Examination

Written and oral.

Research Proposal

A dissertation research proposal is required.

Final Examination

Oral defense of the dissertation.

Other Provisions

Three research rotations, each a brief project in a preceptor's laboratory, before an advisor is chosen. Presentation of three seminars during graduate study.

General Courses

A610 Research in Biophysics (cr. arr.)

A611 Seminar in Biophysics (1 cr.)

A612 Special Topics in Biophysics (cr. arr.)

A620 X-Ray Crystallography (3 cr.)

B807 Enzyme Chemistry (3 cr.)

B808 Physical Biochemistry (3 cr.)

B841 Methods of Protein Chemistry (3 cr.)

F616 Molecular Pharmacology (3 cr.)

F650 Membrane Biophysics (3 cr.)

F705 Molecular and Cellular Physiology (3 cr.)

F710 Physiology of Membranes (2 cr.)

F724 Physiology of the Nervous System (3 cr.)

F725 Physiology of Muscle (2 cr.)

F835 Molecular Mechanism of Drug Action (3 cr.)

G651 Introduction to Biostatistics I (3 cr.)

G652 Introduction to Biostatistics II (3 cr.)

G865 Fundamental Molecular Biology (3 cr.)

G890 Methods in Molecular Biology and Pathology (3 cr.)

J611 Introduction to Biophysics I (3 cr.)

J612 Introduction to Biophysics II (3 cr.)

J805 Immunology (3 cr.)

Q612 Molecular and Biochemical Genetics (3 cr.)

Relevant Courses in the Purdue School of Science at Indianapolis

BIOL 569 Cellular Neurobiology (2 cr.)

BIOL 570 Biological Membranes (3 cr.)

BIOL 641 Microbial Genetics (2 cr.)

CHEM 575 Intermediate Physical Chemistry (3 cr.)

CHEM 636 Biochemical Mechanisms (3 cr.)

CHEM 657 Reaction Mechanisms (3 cr.)

CHEM 672 Quantum Chemistry (3 cr.)

CHEM 675 Chemical Kinetics (3 cr.)

CHEM 682 Statistical Thermodynamics (3 cr.)

CHEM 696 Special Topics in Chemistry (1-3 cr.)

MATH 526 Principles of Mathematical Modeling (3 cr.)

MATH 532 Elements of Stochastic Processes (3 cr.)

PHYS 550 Introduction to Quantum Mechanics (3 cr.)

PHYS 556 Introductory Nuclear Physics (3 cr.)

PHYS 600 Methods of Theoretical Physics (3 cr.)

PHYS 630 Advanced Theory of Electricity and Magnetism (3 cr.)

PHYS 660 Quantum Mechanics I (3 cr.)

Medical Neurobiology

School of Medicine
Indianapolis

Program Director
Professor J. R. Simon

Departmental E-mail
jsimon@iupui.edu

Departmental URL
www.iupui.edu/~medneuro

Graduate Faculty
(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Distinguished Professors
M. H. Aprison (Emeritus, Biochemistry and Molecular Biology), P. Michael Conneally (Medical Genetics, Neurology), Bernardino Ghetti (Medical and Molecular Genetics, Neurobiology, Pathology, Psychiatry)

Albert Eugene Sterne Professors
Hugh C. Hendrie (Emeritus, Psychiatry), Christopher McDougale (Psychiatry)

Raymond E. Houk Professor of Psychiatry
Anantha Shekhar (Neurobiology, Pharmacology and Toxicology)

Joyce and Iver Small Professor of Psychiatry, Neurobiology, and Medical Genetics

John Nurnberger Jr. (Neurobiology, Psychiatry)

Paul Stark Professor of Pharmacology

Michael Vasko

Professors

Joseph DiMicco (Pharmacology and Toxicology), Janice Froehlich (Medicine, Cellular and Integrative Physiology), Charles Goodlett (Psychology), Joseph Hingtgen (Emeritus, Clinical Psychology, Neurobiology in Psychiatry), James Klaunig (Pharmacology and Toxicology), Debomoy Lahiri (Neurobiology), William McBride (Biochemistry and Molecular Biology, Neurobiology in Psychiatry), James Murphy (Neurobiology, Psychology), Grant Nicol (Pharmacology and Toxicology), Sean O'Connor (Neurobiology), Gerry Oxford (Executive Director, Stark Neuroscience Research Institute, Pharmacology and Toxicology), Richard Peterson (Anatomy and Cell Biology), Simon Rhodes (Biology), Judith Richter (Neurobiology in Psychiatry, Pharmacology and Toxicology), Jay Simon (Biochemistry and Molecular Biology, Neurobiology in Psychiatry), Feng Zhou (Anatomy and Cell Biology)

Associate Professors

Tatiana Foroud (Medical and Molecular Genetics), Eri Hashino (Otolaryngology, Anatomy and Cell Biology), Michael Kubek (Anatomy and Cell Biology, Neurobiology), Aimee Mayeda (Psychiatry), David Suzuki (Ophthalmology, Anatomy, Neurobiology), Frederick Unverzagt* (Psychology), Donald Wong (Anatomy and Cell Biology), Zao C. Xu (Anatomy and Cell Biology)

Assistant Professors

Edward Daly* (Neurology), Dena Davidson* (Psychiatry), Yansheng Du* (Neurology), Nicholas J. Grahme* (Neurobiology, Psychology), Kathleen Hall*

(Psychiatry), David Kareken* (Neurology, Neuropsychology)

Associate Scientists

Sandra Morzorati* (Neurobiology), Richard J. Thielen* (Neurobiology, Biochemistry and Molecular Biology)

Clinical Professor

John Bancroft (Psychiatry)

Clinical Associate Professor

Kimberly Quaid (Medical and Molecular Genetics, Psychiatry)

Affiliate Faculty

Donald Gehlert (Neurobiology), David McKinzie* (Neurobiology), Lee Phebus (Neurobiology), David Wong (Biochemistry and Molecular Biology, Neurobiology)

Graduate Advisor

Professor J. R. Simon, Institute of Psychiatric Research 112, (317) 274-4730

Degrees Offered

Master of Science and Doctor of Philosophy

Special Program Requirements

(See also general University Graduate School requirements.)

Admission Requirements

Bachelor's degree in chemistry, biological sciences, physics, mathematics, engineering, or psychology, which includes courses in general chemistry (8 credit hours), organic chemistry (8 credit hours), physics (4 credit hours), biological sciences (8 credit hours), and mathematics through calculus. Promising students may be accepted even though certain undergraduate prerequisites may be lacking, but they must remove deficiencies during the first year of graduate study. The Graduate Record Examination General Test results must be available before applicants will be considered for admission.

Master of Science Degree

Course Requirements

A total of 30 credit hours, including at least 17 credit hours of approved courses and 3 credit hours of research.

Thesis

Required.

Final Examination

Comprehensive oral examination.

Doctor of Philosophy Degree

Course Requirements

A total of 90 credit hours, including dissertation. A minimum of 36 credit hours must be in course work, the remainder in research.

Minor

Twelve (12) credit hours must be taken in one of the basic sciences associated with the Medical Neurobiology Program: anatomy, biochemistry, biology, medical genetics, microbiology and immunology, pathology, pharmacology, physiology and biophysics, and psychology.

Qualifying Examination

Written and oral, followed by presentation of a research proposal.

Final Examination

Oral defense of dissertation.

Core courses include N800, N801, D527, PHYS P615, B835, G532, PSY I545. Additional appropriate courses in the Departments of Anatomy, Biochemistry, Biology, Medical Genetics, Microbiology and Immunology, Pathology, Pharmacology and Toxicology, Physiology and Biophysics, and Psychology will be accepted for credit toward the major with prior approval of the student's advisor.

Courses

N800 Research in Medical Neurobiology (cr. arr.)

P: consent of instructor with whom research is being done. Supervised literature and laboratory research in selected area(s) of medical neurobiology.

N801 Seminar: Topics in Medical Neurobiology (1 cr.) Required of all graduate students in program. Recent topics in medical neurobiology covered by literature and research reports and discussions by faculty, graduate students, and invited guest lecturers.

N802 Techniques of Effective Grant Writing (3 cr.) The grantsmanship course is designed to teach graduate students how to write an NIH application and to provide information on the review process. Students will complete an NIH R03 application by the end of the semester. All students will participate in a mock IRG-style review of each application at the end of the course.

ANATOMY

D527 Neuroanatomy (3 cr.)

D863 Peripheral Nervous System (2-3 cr.)

D875 Topics in Advanced Neuroanatomy (2-5 cr.)

D876 Neurotransmitter and Neuroendocrine Cytology and Anatomy (3 cr.)

BIOCHEMISTRY

B500 Introductory Biochemistry (3 cr.)

B835 Neurochemistry (3 cr.)

B836 Advanced Topics in Neurochemistry (2 cr.)

GRADUATE

G532 Neural Substrates for Sensori-Motor Control (3 cr.) This is an advanced graduate course that will build upon the neuroanatomic foundation established in ANAT D527. The goal is to give functional meaning to the neural systems involved with acquiring behaviorally relevant information and transforming this information into signals that guide behavior. The emphasis will be on neuronal signal processing.

G865 Fundamental Molecular Biology (3 cr.) P: B800 or equivalent. Principles of molecular structure, function, and biosynthesis; core information regarding prokaryotic and eukaryotic gene continuity and metabolic coordination; introduction to multicellular systems and problems.

PHARMACOLOGY AND TOXICOLOGY

F602 Pharmacology: Lecture (5 cr.)

F804 Introduction to Pharmacology I (3 cr.)

F810 Pharmacology of Autonomic Cardiovascular Control: Central and Peripheral Mechanisms (3 cr.)

PHYSIOLOGY AND BIOPHYSICS

F613 Mammalian Physiology Lecture (5 cr.)

Medical Sciences

Bloomington

Assistant Dean
Professor Talmage Bosin

Departmental E-mail
msggrad@indiana.edu

Departmental URL
www.indiana.edu/~medsci

Graduate Faculty
(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors
Talmage Bosin (Pharmacology), Mark Braun* (Pathology), Bruce Martin (Physiology), Anthony Mescher (Anatomy and Cell Biology), Anton Neff (Anatomy and Cell Biology), Roderick Suthers (Physiology), John Watkins III (Pharmacology)

Adjunct Professors
Robert De Voe (Emeritus), Gary Hafner (Optometry)

Associate Professors

David Daleke (Biochemistry and Molecular Biology), John Foley* (Anatomy and Cell Biology), Edward Goh (Pharmacology), Joseph Near (Pharmacology), Kenneth Nephew (Physiology), Henry Prange (Physiology), Claire Walczak* (Biochemistry and Molecular Biology)

Adjunct Associate Professors
Ann Carmichael (History, History and Philosophy of Science)

Assistant Professors

Christine Campion Quirk* (Pharmacology), Whitney M. Schlegel* (Physiology and Biophysics), Valerie O'Loughlin* (Anatomy and Cell Biology)

Adjunct Assistant Professor

Dennis Daniels* (Applied Health Science)

Program Information

Each of the four basic medical sciences disciplines—anatomy, pathology, pharmacology, and physiology—administered by the Medical Sciences program of the School of Medicine on the Bloomington campus offers work leading to the M.S. and Ph.D. degrees.

The program also accepts medical students who wish to take advantage of small classes. The first two years of basic medical instruction include gross anatomy, microscopic anatomy, neuroanatomy, biochemistry, microbiology, physiology, emergency medicine, immunology, pharmacology, pathology, physical diagnosis, and introduction to medicine (the latter two taught at Bloomington Hospital). The curriculum is drawn from the many courses offered jointly through the School of Medicine and the University Graduate School. At a time when many medical schools are reducing their basic science offerings to medical students, the program at Bloomington should be of significant interest to those who seek a more rigorous training in the physical and biological sciences.

Complete information for the Doctor of Medicine program is provided in the School of Medicine Bulletin.

Anatomy and Cell Biology¹

Graduate Advisor

Professor Anthony Mescher, E-mail mescher@indiana.edu, (812) 855-4693

Degrees Offered

Master of Science and Doctor of Philosophy

Special Program Requirements

See also general University Graduate School requirements.

Admission Requirements

Applicants should have a bachelor's degree in the sciences or a substantial knowledge base in these disciplines. The Graduate Record Examination General Test is required. The Test of English as a Foreign Language (TOEFL) is required of international applicants.

Master of Science Degree

Course Requirements

A total of 30 credit hours, of which 20 credit hours must be in anatomy and cell biology or related courses other than research. A850 seminar must be taken each semester.

Thesis

Required.

Final Examination

Oral defense of thesis.

Doctor of Philosophy Degree

Course Requirements

A total of 90 credit hours, including courses in anatomy and cell biology, a basic course in both physiology and biochemistry, and dissertation. A minimum of 40 credit hours must be in courses other than research. A850 must be taken each semester.

¹ See also the Department of Anatomy, Indianapolis.

Minors

Minors may be in a variety of disciplines subject to approval of the student's advisory committee.

Qualifying Examination

Written and oral, designed to test student's knowledge in anatomical sciences. Examination in the minor area may be required.

Final Examination

Oral defense of dissertation.

Other Provision

One year of supervised teaching experience is encouraged.

Courses

A460 Anatomy of the Ear and Vocal Organs (3 cr.)

A464 Human Tissue Biology (4 cr.)

A505 Human Development (2 cr.)

P: Z315 or equivalent and consent of instructor. Normal and abnormal human development. General considerations of development from embryonic through early neonatal period. Emphasis on understanding basis for morphological conditions found in the adult.

A512 Introduction to Research in Anatomy (1 cr.)

Lectures and demonstrations in current research interests of faculty. Required of all new graduate students.

A513 Introduction to Research Techniques (1 cr.)

P: A512. Individual work on a research problem. Required of all new graduate students.

A530 Special Topics (cr. arr.) P:**

consent of instructor. Work in advanced areas in anatomy.

**These courses are eligible for a deferred grade.

A550-A551 Gross Human

Anatomy I-II (4-4 cr.) P: consent of instructor.² Detailed study of the gross anatomy of the human, including a complete dissection. Systemic anatomy, anatomy of the thorax, abdomen, pelvis, and perineum (Sem. I). Anatomy of the head and neck, extremities (Sem. II).

A560 Cell Biology and Histology (4 cr.)

P: consent of instructor.² Detailed study of the microscopic anatomy of the human. Emphasis on structure-function relationships and laboratory identification of tissues and organs. Material presented at optical and electron microscopic level. Sem. I.

A566 Human Neuroanatomy (3 cr.)

P: consent of instructor.² Basic human central nervous system will be covered. Interrelationships between structure and function in the nervous system. Thorough foundation for further study in neurophysiology, neuroanatomy, or neurology. Sem. II.

A601-A602-A603 Advanced Gross Anatomy I-II-III (4-4-4 cr.)

P: A550-A551, consent of instructor. I. Structure of the upper and lower extremity. II. Thorax, abdomen, and pelvis. III. Head, neck, and gross brain. All include detailed dissection, lectures, and discussion on current literature to determine relation of structure to function.

A610 Comparative Neuroanatomy

(2 cr.) P: consent of instructor; graduate standing; one neuroscience course or equivalent. A comparison of the central nervous system of mammalian and nonmammalian vertebrates, including a laboratory study of representative specimens.

² Consent of the director of the Medical Sciences Program also required.

A664 Selected Topics in Advanced Microscopic Anatomy (3 cr.) P:

A560 or consent of instructor; graduate standing. Advanced instruction in the microscopic structure of selected animal cell systems, involving discussion and review of current literature and research dealing with these systems. Topics will change with each offering.

A800 Research in Anatomy (cr. arr.)**

A850 Topical Seminar in Anatomy (1 cr.) Topics of current interest discussed in seminar format.
BIOL L500 Independent Study (cr. arr.) P: must have written consent of faculty member supervising research.

M555 Medical Neuroscience (5 cr.) An interdisciplinary study of the morphological, functional, and clinical aspects of the human nervous system.

Pathology¹

Academic Advisor

Associate Professor Mark Braun, braunm@indiana.edu, (812) 855-3131

Degrees Offered

Master of Science and Doctor of Philosophy

Courses are offered on the Bloomington campus as part of the combined degree program in medicine and on the Indianapolis campus as part of the medical graduate curriculum. A student admitted to one program is also eligible for instruction in the other.

Special Program Requirements

See also general University Graduate School requirements.

Admission Requirements

The degree Doctor of Medicine or good standing as a medical student. Nonmajors in pathology admitted by special arrangement with the faculty.

Master of Science Degree Course Requirements

A total of 30 credit hours, including 20 credit hours in pathology.

Thesis

Required.

Foreign Language

Reading knowledge of one foreign language desirable.

Final Examination

Oral defense of thesis.

Doctor of Philosophy Degree

Course Requirements

A total of 90 credit hours, including dissertation and 30 credit hours in pathology or research in pathology.

Foreign Language/Research-Skill Requirement

One of three requirements: (1) reading proficiency in two languages, normally selected from French, German, and Russian; (2) proficiency in depth in one language, normally selected from the above languages; or (3) reading proficiency in one of the languages cited in (1), plus proficiency in biostatistics, biomedical instrumentation, or computer science.

Qualifying Examination

Written and oral.

Final Examination

Oral defense of dissertation.

**These courses are eligible for a deferred grade.

Courses

C601 General Pathology (6 cr.)²

Principles of pathology, including a comprehensive introduction to mechanisms of reaction to injury and pathogenesis of disease processes.

C602 Systemic Pathology (6 cr.)²

Principles of pathology, including a comprehensive introduction to mechanisms of reaction to injury and pathogenesis of disease processes.

C800 Advanced Pathology (cr. arr.) P: C603. Subject material and hours arranged to conform to needs of student.

C858 Experimental Pathology (5 cr.)

Review and performance of selected experiments in pathology illustrating the types of pathologic processes.

C859 Research in Pathology (cr. arr.)**

Supervised initiation of a research project in pathology, and counseling in the completion of a thesis.

C862 Basic Pathologic Techniques (5 cr.)

Methods of the histologic and chemical laboratories of pathology; principles of examination used in the usual procedures of surgical and autopsy pathology.

C875 Biochemical Pathology (3 cr.) P: C603 or B800.

A survey of biochemical pathology as demonstrated by recent advances in research in pathology. Selected topics for lecture and discussion will include aspects of tissue, cellular, subcellular, and molecular pathology.

¹ See also the Department of Anatomy, Indianapolis.

² Consent of the director of the Medical Sciences Program also required.

Pharmacology¹

Graduate Advisor

Associate Professor Joseph Near,
nearj@indiana.edu, (812) 855-2270

Degrees Offered

Master of Science and Doctor of
Philosophy

Special Program

Requirements

(See also general University
Graduate School requirements.)

Admission Requirements

Applicants should have a bachelor's
degree in the sciences or a
substantial knowledge base in these
disciplines. The Graduate Record
Examination General Test is
required. The Test of English as a
Foreign Language (TOEFL) is
required of international applicants.

Master of Science Degree

Course Requirements

A total of 30 credit hours, all of
which must be taken in the program.

Thesis

Required.

Final Examination

Oral defense of thesis.

Other Provision

One year of supervised teaching
experience is encouraged.

Doctor of Philosophy Degree

Course Requirements

A total of 90 credit hours, including
40 credit hours in the program and
dissertation.

Minor

Required.

¹ See also the Department of
Pharmacology and Toxicology,
Indianapolis.

² Consent of the director of the Medical
Sciences Program required in order to
enroll.

Advisory Committee

To be composed of research advisor,
the pharmacology faculty, and an
individual from the minor discipline.

Grades

B (3.0) average required.

Qualifying Examination

Consists of two parts: (1)
comprehensive written examination,
and (2) written research proposal
with oral presentation to the advisory
committee.

Final Examination

Oral defense of dissertation,
followed by seminar.

Other Provision

One year of supervised teaching
experience is encouraged.

Courses

C580 Medical Biochemistry (3 cr.)

Biochemistry for medical students,
emphasizing structure-function
relationships of cellular components
and biosynthesis and degradation of
simple and complex cell constituents
as well as regulation of metabolic
pathways. Includes biochemical
basis for genetic continuity and
expression of hereditary
characteristics.

C583 Physiological Biochemistry

(3 cr.) P: C483. To develop a sound
and rigorous biochemical
background for students in medicine
and allied health sciences.
Biochemistry of physiological and
pathological processes; role of
heredity and environmental factors;
effect on macromolecules,
macromolecular aggregates, and
cells.

F605 Principles of Pharmacology I

(4 cr.) P: Chemistry C483, Medical
Sciences P531-P532, or consent of
instructor.² Basic principles and
clinical aspects of modern
pharmacology presented in lectures.
Physicochemical properties of drugs.
Drugs that affect the autonomic
nervous system. Drugs that act on
cardiovascular and renal systems.
Chemotherapy of cancer, infections,
and parasites.

F606 Principles of Pharmacology

II (4 cr.) P: F605. Drugs that
influence the central nervous system.
Drugs that influence gastrointestinal
and endocrine systems.
Immunopharmacology and the
pharmacology of allergy and
inflammation. Toxicology.

F611 Methods of Pharmacology I

(3 cr.) P: consent of instructor.
Chemical and biological procedures
used in pharmacological research.
Lectures and demonstrations of
techniques used for the
determination of specific substances
in biological material.

F612 Methods of Pharmacology II

(3 cr.) P: F611. Laboratory
application of principles and
techniques presented in F611 to
practical problems in
pharmacological research.
Introduction to data handling.

F613 Graduate Pharmacology I (3

cr.) P: F605-F606 or consent of
instructor. Molecular mechanisms of
drug action, drug-receptor
interactions, drug metabolism, and
pharmacokinetics.

F614 Graduate Pharmacology II (3

cr.) P: F613 or consent of instructor.
Continuation of F613. Molecular
mechanisms of drug action, drug-
receptor interactions, drug
metabolism and pharmacokinetics.

F615 Chemotherapeutic

Pharmacology (3 cr.) P: F605-F606
or consent of instructor. Basic
principles of use of drugs as
selectively toxic agents and of
chemotherapy of bacterial, parasitic,
or viral diseases and malignancies.

F616 Molecular Pharmacology (3

cr.) P: F605-F606 or consent of
instructor. Molecular mechanisms as
they relate to drug action. Biological
transducers, receptor mechanisms,
subcellular phenomena in the actions
of drugs on mammalian systems.

F617 Pharmacology of Drug

Metabolism (3 cr.) P: F605-F606
or consent of instructor.
Physicochemical principles involved
in the absorption, distribution,
metabolism, and excretion of drugs

and other foreign compounds in the mammalian organism.

F618 Pharmacokinetics (3 cr.) P: F617. Kinetic aspects of the absorption, distribution, and excretion of drugs in the mammalian organism. Compartmentalization, multiphasic decay curves, and computerized treatments.

F619 Endocrine Pharmacology (3 cr.) P: F605-F606 or consent of instructor. The pharmacology of hormones. Biosyntheses, structures, actions, and degradations of hormones endogenous to mammalian species. Structure and pharmacological activity of synthetic analogs and antagonists of naturally occurring hormones.

F620 Special Topics in Pharmacology (3 cr.) P: F605-F606 or consent of instructor. Special topics of current interest in pharmacology. May be repeated.

F621 Readings in Pharmacology (1-3 cr.) Supplementary readings and tutorial discussions in aspects of pharmacology to fit the needs of individual students or for specialized areas.

F625 Research in Pharmacology (cr. arr.) Original research as approved.

F630 Seminar in Pharmacology (1 cr.) Research reports by students, faculty, and invited guests.

Physiology¹

Graduate Advisor

Associate Professor Henry Prange, prange@indiana.edu, (812) 855-2911

Degrees Offered

Master of Science and Doctor of Philosophy

Special Program Requirements

(See also general University Graduate School requirements.)

Admission Requirements

Applicants should have a bachelor's degree in the sciences or a substantial knowledge base in these disciplines. The Graduate Record Examination General Test is required. The Test of English as a Foreign Language (TOEFL) is required of international applicants.

Master of Science Degree Course Requirements

A total of 30 credit hours, including 12 credit hours in physiology. At least 20 credit hours must be in courses other than research.

Thesis

Required.

Final Examination

Oral defense of thesis.

Doctor of Philosophy Degree

Course Requirements

A total of 90 credit hours, including dissertation, and the following courses: P513, P531, P532, M555, C580, and C583. P550 is to be taken each semester prior to admission to candidacy. Other course requirements will be determined by the student's advisory or research committee.

Foreign Language/Research Skill Requirement

Students must demonstrate proficiency in one of the following areas, as determined by the student's advisory committee: a foreign language, statistics, or computer skills.

Qualifying Examination

Written and oral.

Final Examination

Oral defense of dissertation.

Other Provision

One year of supervised teaching required.

Ph.D. Minor in Physiology

Students outside the department desiring to obtain a minor in physiology are required to complete a minimum of 6 credit hours in physiology courses other than research.

Courses

P416 Comparative Animal Physiology (3 cr.)

P417 Neurobiology (3 cr.)

P418 Laboratory in Comparative Animal Physiology (2 cr.)

P421 Biophysical Principles in Physiology (3 or 5 cr.)

P431 Human Physiology (4 cr.)

P509 Physiological Adaptations (3 cr.) Mechanisms of adaptation and acclimatization of invertebrate and vertebrate animals to environmental conditions. Seminar-type course.

P510 Control Systems Theory in Biology (4 cr.) P: introduction to calculus; P531 or equivalent. Predicting the properties of physiological systems from the dynamic properties of their component parts. Laboratory emphasizes analog and digital simulation techniques.

P512 Introduction to Research in Physiology (1 cr.) Introduction to areas and methods of current faculty research. Required of all new graduate students.

P513 Introduction to Research Techniques (1 cr.) P: P512. Individual work on a research problem.

P530 Special Topics (cr. arr.) P: consent of instructor. Work in advanced areas in physiology.

P531 Human Physiology I (3 cr.)² Basic principles of homeostasis; muscle, cardiovascular, and renal physiology and metabolism relevant to humans.

¹ See also the Department of Physiology and Biophysics, Indianapolis.

² Consent of the director of the Medical Sciences Program required in order to enroll.

P532 Human Physiology II (5 cr.)

Basic physiological principles of temperature regulation, respiration, digestion, and endocrinology relevant to humans.

P541 Advanced Physiology I: Neurophysiology (3 cr.)

P: P531, P532 or P417, or consent of instructor. From molecular to behavioral level, with special emphasis on electrophysiology and reflexes.

P543 Neurophysiology Seminar (2 cr.) P: P541. May be taken more than once with consent of the department for a maximum of 6 credits.

P547 Topical Seminar in Physiology (1-5 cr.) P: graduate standing and consent of instructor. Discussion and review of current research and literature in physiology.

P548 Neuroethology (2 cr.) P: consent of instructor. The function of nerve cells in controlling the natural behavior of animals. Sensory, integrative, and motor processes underlying selected behavior patterns of invertebrate and vertebrate animals.

P550 Seminar in Physiology (1 cr.) P: graduate standing in physiology. Biomedical colloquium/seminar series on current topics of interest in medical sciences.

P551 Advanced Physiology II: Circulation (3 cr.) P: P531, P532, or P416 or equivalent or consent of instructor. Lecture and seminar discussions of current literature, with emphasis on physical models.

P561 Advanced Comparative Animal Physiology (3 cr.) P: P531, P416 or equivalent, or consent of instructor. Lectures and discussions of current literature on mechanisms and adaptations of respiration, temperature regulation, locomotion, and osmoregulation from a comparative approach. Topics will be covered in succeeding years on a rotating basis. May be taken more than once for different topics.

P575 Advanced Physiology: Exercise (3 cr.)

Study of the regulation and integration of metabolic, cardiovascular, respiratory, endocrinological, and biochemical functions of the human body in response to exercise of all types and durations.

P576 Advanced Physiology: Work and Environmental (3 cr.)

Mechanisms of contraction and neuromuscular control. Metabolic energy cost, efficiency and the fuels of work. Circulatory and respiratory adjustments and their regulation in exercise. The adjustments and regulation of chemical and thermal homeostasis. Effects of environmental factors, training, age, health, and disease on metabolic, cardiovascular, and respiratory adjustment to exercise. (Offered in School of Health, Physical Education, and Recreation.)

P620 Renal Physiology (3 cr.)

P: P531, A464, P551, C483. Designed for graduate students in physiology. Covers recent advances in acid-base balance, blood pressure regulation, and salt balance in relation to endocrinology. Offered alternate years in second semester.

P800 Research in Physiology (cr. arr.)**

BIOL L500 Independent Study (cr. arr.)

P: must have written consent of faculty member supervising research.

M555 Medical Neuroscience (5 cr.)

An interdisciplinary study of the morphological, functional, and clinical aspects of the human nervous system.

GRAD G800 Biophysics Seminar (1 cr.)

Topics of current interest in biophysics.

**These courses are eligible for a deferred grade.

Microbiology and Immunology

School of Medicine
Indianapolis

Chairperson

Professor Hal E. Broxmeyer

Departmental URL

www.iupui.edu/~micro

Departmental E-mail

hbroxmey@iupui.edu

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors

Richard Bockrath, Janice Blum, Hal E. Broxmeyer, David Donner, Richard Haak, Ann Roman, Raoul Rosenthal, Robert Schloemer, Arun Srivastava

Associate Professors

Ghalib Alkhatib, Cheong-Hee Chang, Johnny He, Michael Klemsz, Steven Larsen, Louis M. Pelus, Warner Wegener (Emeritus), Charles Wilde III

Assistant Professors

Randy Brutkiewicz, Tie Chen*, Alexander Dent*, Laura Haneline*, Johnny He, Soon Cheol Hong*, Mark Kaplan, Martin L. Smith*, Gotz Von Bulow*

Associate Faculty

Professors

Byron Batteiger (Medicine), Zacharie Brahma (Medicine), Darron Brown (Medicine), Kenneth Cornetta* (Medicine), Kenneth Fife (Medicine), Robert Jones (Medicine), Chris Miller (Dentistry), Mark Pescovitz, Stanley Spinola (Medicine)

Associate Professors

D. Wade Clapp (Pediatrics), Meei-Huey Jeng* (Medicine), Chinghai Kao* (Urology), Edward Srour (Medicine), David Wilkes (Medicine)

Assistant Professor

Thomas Gardner* (Urology)

Graduate Advisor

Dr. Robert Schloemer
Medical Science Building 420D,
(317) 274-2770; fax: (317) 274-4398;
rschloe@iupui.edu

Degrees Offered

Master of Science and Doctor of
Philosophy

**Special Departmental
Requirements**

(See also general University
Graduate School requirements.)

Admission Requirements

The Graduate Record Examination
General Test is required, and the
Subject Test in cellular and
molecular biology is recommended.
Undergraduate courses in basic
biology, including cell biology and
genetics; general and organic
chemistry; physics; mathematics,
including calculus; and biochemistry.
Deficiencies should be removed
during the first year of enrollment.
Overall grade point average of at
least 3.0 (B).

Master of Science Degree

Course Requirements

At least 30 credit hours, including
thesis, G865 Fundamental Molecular
Biology, G817 Eukaryotic Cell
Biology, G504 Introduction to
Research Ethics, J802 Introduction
to Research, at least three courses
within a Department of
Microbiology and Immunology
focus area (excluding J822 General
and Medical Microbiology), and 2
credit hours of J830 Seminar in
Microbiology. At least 20 of the
required 30 credit hours must be in
courses other than research.

Grades

Overall average of at least a B (3.0).

Comprehensive Examination

Required at completion of second
semester of study.

Thesis

Required (a minimum of 8 credit
hours of J810).

Final Examination

Oral defense of thesis.

Doctor of Philosophy Degree

Focus Areas

The major focus areas are
immunology, pathogenesis, and
cancer. Students entering the
program may design a course of
study from one of these areas
through a combination of selected
course work and research activities.

Course Requirements

A total of 90 credit hours, of which a
minimum of 26 credit hours must be
in courses other than research.
Required courses include G817 and
G865 or their equivalent, one credit
of G504 or equivalent and three
semesters of J830 Seminar in
Microbiology. Students take 2
credits of J802 Introduction to
Research in Microbiology and
Immunology. A minimum of four
courses (three courses for combined
M.D./Ph.D. students) selected from
an area of emphasis: immunology,
pathogenesis, or cancer. A maximum
of 4 credits of J800 can be applied
toward the required 26 credit hours
of course work. G817 and G865 can
be applied toward the minor
requirements with approval of the
minor representative. A minimum of
40 credit hours of dissertation
research (J810) is required.

Grades

Overall average of at least a B (3.0).

Minor

A minimum of 12 credit hours in a
related field or in life science. These
credits must be in lecture or
laboratory courses other than
research and must meet the
requirements of the department in
which the minor is taken. For the life
sciences minor, a minimum of 6
credit hours must be obtained in one
department.

**Ph.D. Minor in Cellular and
Molecular Biology of
Biomedical Systems**

A minimum of 12 credit hours of
course work outside the student's
major department, including G865
Fundamental Molecular Biology and
either G817 Eukaryotic Cell Biology
or F705 Molecular and Cellular
Physiology (unless these are required
by the major department). Since the
minor is intended to expose the
student to both cellular and molecular
biology, at least one course (and
preferably two) from each area
should be taken. Courses for the
minor must be selected from the
following list and approved by the
advisory committee, the minor
representative of which will be
selected from outside the student's
major department. Courses: Anatomy
D863, D866; Biochemistry B807,
B810, G817, B841; Medical and
Molecular Genetics Q612, Q620,
Q622; Microbiology and
Immunology J805, J821, J826, J828,
J837, J838; Pharmacology and
Toxicology F808, F832, F834, F835,
F842, F843; Physiology and
Biophysics F705, F710, F724, F765;
Graduate G595, G865, G890.

**Ph.D. Minor in Cancer
Biology**

A minimum of 12 credit hours
outside of the student's major
department, including two courses
from the following list of four: Q622
Cytogenetics of Malignancies, F819
Chemical Carcinogenesis, J842
Neoplastic Determinants, BIOL 516
Molecular Biology of Cancer. At least
one credit of G504 Introduction to
Research Ethics or equivalent must
also be taken. The remainder of the
minor will be selected from the
following courses: Graduate G865,
G817, G706, Biochemistry and
Molecular Biology B807, B810;
Medical and Molecular Genetics
Q620, Q622; Microbiology and
Immunology J805, J807, J828, J829,
J837, J840, J842, J854; Pharmacology
and Toxicology F819, F820. The
minor program must be approved by
the student's advisory committee,
which will take into consideration
the student's total didactic experience.
In the case of combined M.D./Ph.D.
students, the committee may approve

substitution of appropriate medical school courses. The minor representative on this committee will be selected from outside the student's major department and must be a member of the Cancer Biology Training Program.

Qualifying Examination

Within the first 25 months of studies (18 months for combined M.D./Ph.D.), the student submits a written research proposal in the form of a grant application to the advisory committee. At this time, the student has both a written examination based on course work and an oral examination based primarily on the written research proposal. The student can request an extension of four months from the faculty to take the qualifying examination. Doctoral studies are continued if the qualifying examination and other work, including research, are deemed satisfactory by the majority of the advisory and research committees.

Final Examination

Oral defense of the dissertation.

Other Provision

Submission of a manuscript based on the dissertation research for publication in a primary journal in the field required. Students will develop teaching skills as instructors in J210 during the first two years of graduate training, and additional teaching experiences can be arranged.

Courses

J510 Infectious Microbes and Host Interactions (3 cr.) P: graduate-level biochemistry. Emphasis on the molecular and cellular events which permit pathogenic bacteria and viruses to enter human cells and disrupt cell function while evading the host's immune system.

J601 Medical Immunology (2 cr.) Introduction to natural and acquired immune mechanisms, with consideration of their significance to medicine. Topics will include both normal and abnormal immune processes, including recovery from and prevention of disease, immune-

mediated pathological processes, tumor immunology, immunodeficiency, and auto-immunity. Designed to precede and complement J602 Medical Microbiology.

J800 Advanced Microbiology (cr. arr.)** P: consent of instructor. The approach to problems in microbiology, including the application of techniques of bacteriology, genetics, immunology, mycology, parasitology, virology, and zoology.

J802 Introduction to Research (2 cr.) P: consent of instructor. Laboratory research instruction in microbiology and immunology. Purpose is to introduce students to three different research programs in microbiology and/or immunology.

J805 Molecular Immunology (3 cr.) P: B500 or equivalent; consent of instructor. Characterization of immunologically relevant molecules in terms of molecular genetics, synthesis and assembly, structure-function and evolutionary relationships, and functional roles in immune responses. Entities to be considered include members of the immunoglobulin superfamily and functionally associated molecules.

J806 Immunochemistry: Laboratory (cr. arr.) P: J805 C. Antigen preparation; separation and purification of antibodies; modern methods of antibody determination and analysis.

J807 Current Topics in Immunology (2 cr.) PP: graduate standing, J805 or J840 or equivalent or consent of instructor. Discussion and review of current literature in selected topics in immunology. Emphasis on molecular and cellular events in lymphocyte activation and regulation. Topic varies from year to year. May be repeated for credit.

**These courses are eligible for a deferred grade.

J810 Research in Microbiology (cr. arr.)** P: consent of instructor. Data obtained in this course may be used to meet the thesis requirements for graduate degrees.

J821 Microbial Pathogenicity (3 cr.) P: consent of instructor. This course will consider in detail the determinants of microbial virulence and the mechanisms of host responses to infection and how these two factors interact in the pathogenesis of infectious diseases.

J822 General and Medical Microbiology (3 cr.) Lectures covering the biology of various pathogenic organisms such as bacteria, viruses, fungi, and parasites, their role in human disease with emphasis on determinants of microbial virulence, the mechanisms of host responses to infection, and the role of these factors in the pathogenesis of disease.

J826 Bacteriology (3 cr.) P: J601 or J822 or their equivalent and consent of instructor. General concepts of bacteriology.

J828 Virology: Lecture (3 cr.) P: BIOC B500 or equivalent and consent of instructor. Basic biological principles of viruses; agents causing diseases in animals, including humans; interactions of animal viruses with their host cells in tissue culture.

J829 Current Topics in Molecular Genetics of Microorganisms (2 cr.) P: graduate standing, J821, J828 or G865, consent of instructor. In-depth study of a specific topic in contemporary molecular genetics of microorganisms. Topic varies; may be taken for credit more than once.

J830 Seminar in Microbiology (1 cr.) P: consent of instructor. Provides students with background and practical experience in communication of their research.

J840 Mechanisms of Immune Regulation (2 cr.) P: consent of instructor. A current overview of the cellular mechanisms which regulate immune responses. Topics include cells and cytokines involved in

antigen presentation, lymphocyte activation and function, development, and tolerance.

J842 Neoplastic Determinants (2 cr.) G865, G817 or equivalent and consent of instructor. Focus on the genetic basis of the cancer phenotype. Consider effects of DNA sequence mutations; chromosomal rearrangements, and/or introduction of new genetic information on DNA repair, oncogene products and tumor suppressors. Intra- and intercellular consequences of these discrete alterations will be included.

J854 Hematopoiesis (2 cr.) P: G817, G865, and consent of the instructor. Principles of blood cell formation, including the regulation of production, biologic function, and cell culture and recombinant DNA technologies that contribute to our understanding. Stem cells, growth factors, cytokine involvement, gene transfer/gene therapy, and clinical applications.

GRAD G504 Introduction to Research Ethics (2 cr.) Introduction to the basic concepts of research ethics. The course will cover historical development of concern with ethics in science as well as practical information needed by students working in the science today. Format will be lecture and discussion.

GRAD G817 Eukaryotic Cell Biology (2 cr.) P: one semester of biochemistry. Organization and function of subcellular structures. Intracellular coordination of cell activity: protein and RNA trafficking, chromatin dynamics, and intracellular processing of receptor mediated signals.

GRAD G837 Mammalian DNA Repair and Disease (3 cr.) P: consent of instructor. The molecular biology of genetic repair and mutation; emphasis on human systems and human disease states related to DNA repair; mechanisms of DNA repair and regulation of DNA repair in mammalian cells.

GRAD G865 Fundamental Molecular Biology (3 cr.) P: B800

or equivalent. Principles of molecular structure, function, and biosynthesis; core information regarding prokaryotic and eukaryotic gene continuity and metabolic coordination; introduction to multicellular systems and problems.

Museum Studies

School of Liberal Arts Indianapolis

Director

Associate Professor Elizabeth Kryder-Reid (Anthropology, Museum Studies)

Departmental E-mail

museum@iupui.edu

Departmental URL

www.iupui.edu/~museum

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors

Michael Cohen (Education), Barbara Jackson* (Anthropology), Susan Sutton (Anthropology)

Associate Professors

Jeanette Dickerson-Putman (Anthropology), Elizabeth Brand Monroe* (History), Paul Mullins* (Anthropology), Kevin Robbins* (History), Jean Robertson* (Art History), Philip Scarpino* (History), Robert Sutton* (Classical Studies)

Curriculum Advisors

Nikki Anderson (The Children's Museum of Indianapolis), David Cassady (The Children's Museum of Indianapolis), Herminia Din (The Children's Museum of Indianapolis), Sheila Reilly (The Children's Museum of Indianapolis), Judi Ryan (The Children's Museum of Indianapolis), David Vanderstel (The Polis Center, National Council on Public History), Bret Waller (Indianapolis Museum of Art)

Academic Advisor

Associate Professor Elizabeth Kryder-Reid, Cavanaugh Hall 419, (317) 274-1406

Museum Studies Program

The Museum Studies Program provides an integration of museum history and theory with hands-on instruction in a variety of museum techniques and practices. It encompasses the scholarly exploration of museums, their history, operations, and role in society from an interdisciplinary perspective while also training students in the technical aspects of museum work such as collections care and management, administration, education, exhibit planning and design, and technology.

As an urban university, IUPUI is part of a community with a rich heritage of museums and cultural arts. The Museum Studies Program has developed collaborative relationships with area museums and has an extensive network of adjunct faculty and guest lecturers who bring state-of-the-art museum practice to the curriculum. The program also offers extensive opportunities for student learning through the resources of the museum community with experiences such as internships; collaboration on exhibit development and design; exhibition- and collections-focused courses; access to collections; collaboration with faculty on museum research projects; and participation in museum-sponsored seminars, lectures, and professional meetings. The integral role of Indianapolis museums in the museum studies curriculum fosters a critical, reflective, and scholarly discourse on museums that is applied to current practices and issues in the field.

Students considering application to the certificate program are welcome in the classes (with prerequisites or instructor's consent). Up to 9 credit hours earned as a graduate nondegree student may be applied toward the certificate upon admission to the certificate program.

Course Requirements

The Museum Studies Graduate Certificate consists of 18 credit hours of course work, including a required museum studies core course (3 cr.), and a choice of five additional courses (15 cr.) from a list of

museum studies courses. All these courses must be passed with a grade of B- or above in order to count for the certificate. Electives and internships must be approved by the director of the Museum Studies Program prior to registration.

GRADUATE CORE CURRICULUM (3 CR.)

A503 Introduction to Museum Studies (3 cr.) This survey of museology introduces students to the history of museums and to debates on the philosophical nature of museums and their roles in society. The course covers the types and definitions of museums, traces the history of museums, discusses contemporary museum practice and examines current issues in the museum profession.

MUSEUM STUDIES GRADUATE COURSES (15 CR.)

Choose five courses from the following, or from a list of approved electives. See program director for a current list of approved electives.

A508 Museum Internship (1-6 cr.) P: A503 and two other museum studies graduate courses or consent of the instructor. An arranged learning experience in museum work appropriate to individual career goals, focusing on an aspect of museum practice and working with a museum mentor. May be repeated for credit.

A510 Museum Education (3 cr.) P: A503 or consent of instructor. This survey of museum education introduces students to a variety of professional skills through exercises, projects, museum visitor observation, and in-museum classes. It covers education theory most central to museum practice, the duties of museum educators, and current issues in museum education.

A512 Exhibit Planning and Design (3 cr.) P: A503 or consent of instructor. This course offers a survey of museum exhibit planning and design through an integration of theory and practice. The class introduces students to exhibit development, including exhibit

administration, design, and evaluation, and to a variety of professional skills through hands-on exercises, exhibit critiques, museum observations, and in-museum classes.

A514 Museums and Technology (3 cr.) P: A503 or consent of instructor. This course surveys the growing use of technology in museums. It examines applications for information management in collections, conservation science, and archives. It examines critically the use of technology in the service of education both in exhibit contexts and in the variety of educational programs and Web-based dissemination of knowledge.

A516 Collections Care and Management (3 cr.) P: A503 or consent of instructor. A survey of techniques for the management and care of collections in museums. It covers documentation, management of collections, processes, administrative functions, risk management, and ethical and legal issues. The course also covers the physical care and conservation of collections.

A518 Museums and Audiences (3 cr.) P: A503 or consent of instructor. This course examines the ways museums seek to better understand their audiences, serve them more effectively, and strive to reach new audiences. The course looks at a broad range of visitor studies and the ways in which museums and audiences interact.

ARTS ADMINISTRATION

Y525 Museum Management (3 cr.) P: consent of instructor. Management of art and historical museums; the museum: its legal status, the building, management and staff, goals and objectives, fundraising and budgeting, collections and exhibition, education, and community outreach (Bloomington campus only).

ADDITIONAL MUSEUM STUDIES COURSE

A505 Museum Methods (3 cr.) This survey of museum practice introduces students to methods, skills, and resources in three areas of museum work: artifacts, interpretation, and organizational administration, as well as to the ethical ramifications of these methods (course does not count toward graduate certificate).

Music

School of Music Bloomington

Dean
Gwyn Richards

Departmental E-mail
musgrad@indiana.edu

Departmental URL
www.music.indiana.edu/som/grad

Graduate Faculty
(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Executive Associate Dean
Eugene O'Brien

Associate Dean of Instruction
Mary Wennerstrom

Distinguished Professors
David Baker Jr., Thomas Mathiesen,
Menahem Pressler, Janos Starker

Professors
Eve Legene Anderson, J. Peter Burkholder, Paul M. Elliott, Jane Fulcher, Mary Goetze, Robert S. Hatten, Lawrence Hurst*, Estelle Jorgensen, Jeffrey Magee*, Nigel North, Eugene O'Brien, Stanley Ritchie, Lewis Rowell, Anya Peterson Royce (Anthropology), Charles Schmidt, Ruth Stone (Ethnomusicology), Mary Wennerstrom

Associate Professors
Wendy Gillespie, Gretchen Horlacher*, Eric Isaacson, Marianne Kielian-Gilbert, Lissa Fleming May*, Daniel R. Melamed, Massimo Ossi, Gary Potter*

Assistant Professors

Halina Goldberg*, Frank Samarotto*

Director of Graduate Studies

Associate Professor Daniel R. Melamed, Merrill Hall 011, (812) 855-1738

Degrees Offered

Master of Arts, Master of Arts for Teachers, dual Master of Arts and Master of Library Science (jointly with the School of Library and Information Science), and Doctor of Philosophy. In addition, the School of Music offers the Master of Music, the Master of Science in Music, the Master of Music Education, the combined Master of Music and Master of Library Science (jointly with the School of Library and Information Science), Specialist in Music Education, the Doctor of Music, and the Doctor of Music Education degrees. For information regarding degrees offered exclusively or jointly by the School of Music and the School of Library and Information Science, see their respective bulletins.

Special School Requirements

(See also general University Graduate School requirements.)

Admission

To work toward a degree in music through the University Graduate School, a student must first be admitted to the School of Music; after satisfactorily completing one semester of course work, the student may apply for admission to the University Graduate School. The Graduate Record Examination General Test is required for admission. Entrance proficiency examinations are also required; for details see the “Graduate Division” section of the School of Music Bulletin.

Students must meet the general requirements of the University Graduate School and the specific requirements of the School of Music outlined in its bulletin.

Grades

Current and cumulative grade point average of at least 3.0 (B).

Master of Arts Degree

Master of Arts in Musicology.

Admission

Bachelor’s degree with a major in music, or its equivalent. The applicant’s scores on the GRE General Test must be received from the Educational Testing Service in Princeton, New Jersey, by shortly after January 15, the application deadline. For musicology majors, the applicant must submit a formal research paper on a historical or theoretical subject in music.

Major

Eighteen (18) credit hours. 9 hours selected from M525 Survey of Operatic Literature (3 cr.), M527 Symphonic Literature (3 cr.), M528 Chamber Music Literature (3 cr.), M650 Music in the United States (3 cr.), M651 Medieval Music (3 cr.), M652 Renaissance Music (3 cr.), M653 Baroque Music (3 cr.), M654 Classic Music (3 cr.), M655 Romantic Music (3 cr.), M656 Music since 1900 (3 cr.), M502 Composers: Variable Title (3 cr.) or M510 Topics in Music Literature (3 cr.); 6 hours selected from T551 Analytical Techniques for Tonal Music (3 cr.), T545 Introductory Analysis of Music Literature (3 cr.), T555 Schenkerian Analysis (3 cr.), or T556 Analysis of Music since 1900 (3 cr.); 3 hours selected from graduate courses in music history and literature, musicology, music theory, or ethnomusicology.

Music History and Literature Requirement

6 credit hours selected from M525 Survey of Operatic Literature (3 cr.), M527 Symphonic Literature (3 cr.), M528 Chamber Music Literature (3 cr.), M650 Music in the United States (3 cr.), M651 Medieval Music (3 cr.), M652 Renaissance Music (3 cr.), M653 Music of the Baroque Period (3 cr.), M654 Classic Music (3 cr.), M655 Romantic Music (3 cr.), M656 Twentieth-Century Music (3 cr.), M502 Composers: Variable Title (3 cr.), or M510 Topics in Music Literature (3 cr.). Course topics may not be repeated.

Cognate Field

Six (6) credit hours in a field inside or outside music in which the student

has the background to do graduate-level course work.

Tool-Subject Requirement

M539 Introduction to Music Bibliography (2 cr.).

Foreign Language Requirement

For musicology majors, reading knowledge of German as demonstrated by musicology department examination. Incoming M.A. students are required to complete their language requirements within one calendar year of matriculation. If a student fails to fulfill the language requirement by the appropriate deadline, the student is placed on departmental probation for one semester. If the student then fails to fulfill the requirement by the beginning of the following semester, the student is dismissed from the musicology program.

Ensemble

Required each semester of enrollment.

Master of Arts Examination

Musicology majors take the Master of Arts examination in musicology during the term in which they complete their course work for the degree. Students may be denied the M.A. degree or admission to the Ph.D. curriculum in musicology at Indiana University on the basis of performance on the Master of Arts examination.

Master of Arts for Teachers

Admission

Bachelor’s degree with a major in music. Students must submit the results of the Praxis I (PPST) examination.

Major

33 credit hours selected from “Music Education” and “Professional Education” as indicated below.

Music Education

10 credit hours including E518 Foundations of Music Education (3 cr.), E545 Guided Professional Experiences (5 cr.; students participate in E231 General Music Methods K-12, Education M201

Laboratory/Field Experience, and in Education M342 Methods and Materials for Teaching Elementary Music and Education M301 Laboratory/Field Experience; or in Education M344 Methods and Materials for Teaching Instrumental Music and Education M301 Laboratory/Field Experience), and one course selected from Education M343 Methods and Materials for Teaching Choral Music (2 cr.), Education M434 Administration of School Bands (2 cr.), or Education M436 Administration of School Orchestras (2 cr.).

Professional Education

23 credit hours including Education M471 Undergraduate Seminar in Music Education (1 cr.), Education M580 Internship in Music (10 cr.), one course selected from Education M300 Teaching in a Pluralistic Society (3 cr.) or Education H540 Sociology of Education (3 cr.), one course selected from Education P510 Psychology in Teaching (3 cr.), Education P515 Child Development (3 cr.), or Education P516 Adolescent Development (3 cr.), one course selected from Education M464 Methods of Teaching Reading (3 cr.) or Education L517 Advanced Study of Content Reading and Literacy (3 cr.), and one course selected from Education H520 Education and Social Issues (3 cr.), Education H530 Philosophy of Education (3 cr.) or Education H504 History of Education (3 cr.)

Music History and Literature Requirement

6 credit hours; see above under “Master of Arts Degree.”

Music Techniques

Credit hours needed to meet the requirements of the area in which the student expects to be certified (choral, general, or instrumental).

General Education Courses

Credit hours needed to meet the certification requirements of the state in which the student expects to teach. Credit hours vary widely depending upon the number of courses of this kind in the student’s undergraduate program. These are normally undergraduate courses and do not

count toward the M.A.T. degree total of 39 credit hours.

Ensemble

Each semester, including one semester of marching band for all wind and percussion players who have not had previous undergraduate college marching band experience.

Dual Master of Arts and Master of Library Science Degrees

This program permits the student to coordinate a Master of Library Science degree with either a Master of Arts degree in musicology or music theory or a Master of Music in music theory.

Admission Requirement

In addition to the general requirements, the student must apply for admission to the School of Music (and, after one semester, to the University Graduate School) as well as to the School of Library and Information Science and must meet admission criteria established by each.

Requirements

The student must satisfy the requirements for a Master of Arts degree in music theory or in musicology or a Master of Music degree in music theory, and for a Master of Library Science degree.

Doctor of Philosophy Degree

Majors are available in:

MUSIC EDUCATION

Admission

Master’s degree, or its equivalent, normally with a major in music education. Candidates must have a scholarly or teaching background that indicates potential for outstanding scholarship in the field of music education. Also required: (1) interview; (2) music education entrance essay; (3) GRE General Examination.

Major-Field Requirements

22 credit hours including E519 Psychology of Music (3 cr.), E530 Learning Processes in Music (3 cr.), E616 Curriculum in Music Education (3 cr.), E618 History and Philosophy of Music (3 cr.), E635

College Music Teaching (3 cr.), E660 Philosophical Research in Music Education (2 cr.) or E661 Historical Research in Music Education (2 cr.), E662 Public Lecture in Music Education (1 cr.), E658-E659 Music Education Doctoral Seminar I-II (2-2 cr.).

Minors

12 credit hours within or outside the field of music in any subject for which the candidate has the necessary background for advanced course work. Students may choose to complete a second formal minor or, with approval of their advisory committee and the director of graduate studies, use the remaining 12 credit hours as free, graduate-level electives inside or outside the field of music.

Dissertation

E700 Dissertation in Music Education (12 cr.).

Proficiency Examinations

Examinations in music theory, music history, keyboard skills, music performance, and musical styles.

Qualifying Examination

Written and oral examination.

Tool-Subject Requirement

E531-E532 Research Methods in Music I-II (3-3 cr.) with a grade of C or better or evidence of proficiency as demonstrated by examination.

Foreign Language Requirement

Reading knowledge of two non-English languages as demonstrated by examination; or reading knowledge of one language and demonstration of proficiency in one research skill such as statistics or computer science, approved by the department and the director of graduate studies in the School of Music.

MUSIC THEORY

Admission

Master’s degree in music theory or musicology or the demonstrated equivalent. Students with outstanding credentials may apply directly from a bachelor’s degree. Students are required to demonstrate

competency in all areas required of the M.M. music theory major at Indiana University, and may be exempted from certain courses on the recommendation of the department. Applicants must apply to both the Graduate Division of the School of Music and the University Graduate School. In addition to three letters of recommendation, applicants must submit two extensive, formal research papers or a master's thesis in music theory or musicology. An individual interview is also required; applicants are expected to be proficient in sight singing, aural skills, and keyboard harmony. The applicant's scores on the GRE General Test must be received from Educational Testing Service in Princeton, New Jersey, by the application deadline.

Major-Field Requirements

Foundation courses (18 credit hours): T550 Readings in Music Theory (3 cr.), T551 Analytical Techniques for Tonal Music (3 cr.), T555 Schenkerian Analysis (3 cr.), T556 Analysis of Music Since 1900 (3 cr.), T564 Stylistic Counterpoint: Variable Topics (3 cr.), T591 Teaching of Music Theory (3 cr.).

Advanced courses (24 credit hours); T623-T624 History of Music Theory I-II (3-3 cr.), T658 Seminar in Music Theory: Variable Topics (3-3-3-3-3-3 cr.); students may substitute up to 6 credits of T561 Music Theory: Variable Topics, T619 Projects and Problems in Music Theory, or courses outside music theory with the approval of the advisory committee).

Minors

24 credit hours. Student must elect two minor fields, usually for 12 credit hours each. The first minor must be either music history and literature or musicology. The second minor may be inside or outside the School of Music. For the second minor, the student may also select guided electives not in the major field, approved by the student's advisory committee and the director of graduate studies.

Public Lecture

T659 Public Lecture (0 cr.). The

public lecture must be completed before taking the oral qualifying examination.

Dissertation

T700 Dissertation in Music Theory (9-24 cr.).

Qualifying Examination

Written and oral examination.

Proficiency Examinations

Examinations in music theory, music history, keyboard skills, music performance, and musical styles.

Tool-Subject Requirement

M539 Introduction to Music Bibliography (2 cr.).

Foreign Language Requirement

Reading knowledge of two non-English languages as demonstrated by examination or by grades of B or higher in two semesters of reading courses at the graduate level in each; or reading knowledge of one language and demonstration of proficiency in one research skill, approved by the department and the director of graduate studies of the School of Music.

MUSICOLOGY

Admission

Applicants for the Ph.D. in musicology must demonstrate strong preparation in music history. Students with outstanding credentials may apply directly from a bachelor's degree; students holding an M.A. or M.M. in musicology may be exempted from certain courses on the recommendation of the department. A formal research paper must be submitted with the application. The applicant's scores on the GRE General Test must be received from the Educational Testing Service in Princeton, New Jersey, by the application deadline.

Major

45 credits including M551 Introduction to Historical Musicology (3 cr.), M602 Seminar in Musicology (3-3-3-3-3-3-3 cr.), M603 Methods of Musical Scholarship (3-3 cr.); 12 credit hours of courses in musicology, music theory, ethnomusicology, or other

musical subjects approved by the student's Doctoral Advisory Committee.

Minor

One minor, which may be inside or outside of music.

Dissertation

M700 Dissertation in Musicology (3-33 cr.)

Tool-Subject Requirement

M539 Introduction to Music Bibliography (2 cr.)

Foreign Language Requirement

Reading knowledge of two non-English languages as demonstrated by musicology department examination. The first must be German, French, Italian, Latin, Spanish, or Russian; the second should be relevant to the student's research area.

Proficiency Examinations

Examinations in music theory, music history, keyboard skills, music performance, and musical styles.

Qualifying Examination

Written and oral examination focusing on areas chosen by the candidate in consultation with his or her advisory committee.

Progress toward Degree

Deficiencies in music history or music theory, as determined by the graduate entrance examinations, must be met by the end of the first year. One language examination must be passed by the end of the first year, a second before the qualifying examination. The qualifying examination should ordinarily be taken in the fall of the fourth year. A dissertation proposal should ordinarily be submitted during the fourth year. Exceptions to this general schedule require the permission of the department.

Ph.D. Minors for Students Outside the School of Music

Minors in music for doctoral students outside the School of Music may be taken within one of the established departments of the School of Music. No general

entrance examinations are required, but the director of graduate studies may require entering proficiency examinations. Acceptance as a minor, prerequisites, and minimum requirements are established by the director of graduate studies. No transfer credits will be accepted toward a music minor.

Courses

For a list of courses and their descriptions, see the School of Music Bulletin.

Mythology Studies

College of Arts and Sciences
Bloomington

Departmental URL
www.indiana.edu/~myth

Departmental E-mail
myth@indiana.edu

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Directors

Professor William Hansen, Associate
Professor Gregory Schrempf*

Interdepartmental Graduate Committee on Mythology Studies

Professors Raymond DeMallie (Anthropology), Robert Fulk (English), Kari Gade (Germanic Studies), William Hansen (Classical Studies, Folklore and Ethnomusicology), Robert Ivie (Communication and Culture), Eleanor Winsor Leach (Classical Studies), John McDowell (Folklore and Ethnomusicology); Associate Professors David Haberman (Religious Studies, India Studies), Jeffrey Huntsman (English), Gregory Schrempf* (Folklore and Ethnomusicology)

Associate Faculty

Associate Professors Cynthia Bannon* (Classical Studies), Stephanie Kane (Criminal Justice), Helen Sword (English)

Ph.D. Minor in Mythology Studies

Course Requirements

Students must complete 12 or more graduate credit hours of appropriate courses. All courses must be approved in advance by the mythology studies advisor.

At least one of the courses must be a core course, either Folklore F545 Survey of Folk Narrative (Topic: Analysis of Myth) or Folklore F545 Survey of Folk Narrative (Topic: Cosmology and Worldview) or Classical Studies C405 Comparative Mythology. Other courses taught by participating faculty may be designated by the mythology studies advisor as fulfilling the core requirement when they provide a theoretical and methodological overview of the study of mythology.

No more than two courses may be taken in a single department. No more than 3 credit hours of directed readings can be applied to the minor.

Grades

A minimum of B (3.0) in all courses that count toward the minor.

Examination

None.

Courses

CLASSICAL STUDIES

C405 Comparative Mythology (4 cr.) P: C205, graduate standing, or consent of instructor. Advanced theoretical study of the forms and functions of classical Greek and Roman myths, including reading and evaluation of comparable myths in ancient Near Eastern cultures (Egypt, Mesopotamia, Anatolia, Canaan). Comparative reading and evaluation of selected myths from outside the Mediterranean cultural area.

FOLKLORE

F545 Folk Narrative (3 cr.) (Topic: Analysis of Myth) Examination of myths, folktales, legends, jokes, fables, anecdotes, personal narratives, or other forms of folk narrative. Attention given to the

content, form, and functions of the narratives as well as the variety of theories and methodologies employed in their study. May be repeated for credit when topic changes.

F545 Folk Narrative (3 cr.) (Topic: Cosmology and Worldview) Examination of myths, folktales, legends, jokes, fables, anecdotes, personal narratives, or other forms of folk narrative. Attention given to the content, form, and functions of the narratives as well as the variety of theories and methodologies employed in their study. May be repeated for credit when topic changes.

Near Eastern Languages and Cultures

College of Arts and Sciences
Bloomington

Chairperson

John Walbridge

Departmental URL

www.indiana.edu/~nelcmesp/graduate.shtml

Departmental E-mail

nelcmesp@indiana.edu

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Core Faculty

Ruth N. Halls Professor

Suzanne Pinckney Stetkevych

Professors

Salman Al-Ani, Salih Altoma (Emeritus), John Walbridge

Adjunct Faculty

College Professor

Henry Glassie (Folklore and Ethnomusicology)

Professors

Gustave Bayerle (Emeritus, Central Eurasian Studies), Christopher Beckwith (Central Eurasian Studies),

Devin DeWeese, Hasan El-Shamy (Folklore and Ethnomusicology), Iliya Harik (Emeritus, Political Science), W. Eugene Kleinbauer (Fine Arts), Consuelo Lopez-Morillas (Spanish and Portuguese), Christine Ogan (Journalism), Ruth Stone (Folklore and Ethnomusicology)

Associate Professors

John Hanson (History), Steven Katz (Jewish Studies), Paul Losensky (Central Eurasian Studies, Comparative Literature), Herbert Marks (Comparative Literature), Martha P. Vinson*, Steven Weitzman* (Religious Studies)

Assistant Professor

Jane Goodman* (Communication and Cultures)

Director of Graduate Studies

John Walbridge, Goodbody Hall 222, (812) 855-5993

Special Departmental Requirements

(See also general University Graduate School requirements.)

Admission Requirements

The Graduate Record Examination General Test is required for all applicants. Students with a B.A. should apply for admission to the M.A. program.

Master of Arts in Near Eastern Languages and Cultures

Language Requirements

The department specializes in Arabic and Hebrew. All master's students must gain third-year proficiency in one of these languages, and either second-year proficiency in another of them or reading proficiency in an appropriate European language, as stipulated in the General Requirements section of the bulletin. In consultation with the director of graduate studies, other Middle Eastern languages may be used to satisfy the major or minor language requirement.

In departmental language tracks that have a two-year sequence, graduate-

level courses using the appropriate language may, with the approval of the director of graduate studies, count toward the third-year requirement. Biblical and modern Hebrew may be combined to make up the three years, with the approval of the director of graduate studies.

Course Requirements

A minimum of 36 credit hours of graduate work. Of these 36 credit hours, a minimum of 18 credit hours must be in courses involving use of the major language (Arabic or Hebrew).

Degree Requirements

Thirty-six (36) credit hours plus written M.A. examinations. The exams will consist of three 2-hour exams: one in the student's major language and two in fields chosen with the M.A. advisor. Students must notify the director of graduate studies and M.A. advisor no later than July 31 for the following fall examinations, and November 30 for the following spring examinations. The examining committee will be composed of a minimum of two faculty members. The student may retake a failed exam once. On the basis of the student's performance, the student's M.A. examination committee will prepare a recommendation for possible admission to the Ph.D. program that will be submitted along with the student's dossier, if the student requests admission to the Ph.D. program.

Doctor of Philosophy Degree in Near Eastern Languages and Cultures

Admission Requirements

The Graduate Record Examination General Test is required. Students should hold an M.A. for admission to the Ph.D. program. Students holding an M.A. from another institution should include a writing sample as part of their application for admission. Students with an M.A. from the Indiana University Department of Near Eastern Languages and Cultures will be asked to submit a statement of their Ph.D. plans as part of their admission dossier to the Ph.D. program.

Course Requirements

A minimum of 75 credit hours of graduate work (including credits earned for the M.A.), plus dissertation. For details regarding courses, consult the director of graduate studies.

Language Requirements

All candidates will be required to demonstrate proficiency in three languages: (1) fifth-year standing in the major language (Arabic or Hebrew); (2) third-year standing in the minor language (Arabic or Hebrew); and (3) a European research language (normally, French, German, or Spanish), chosen in conjunction with the director of graduate studies and tested according to the graduate school's rules. In consultation with the director of graduate studies, other Middle Eastern languages may be used to satisfy the major or minor language requirement. Biblical and Modern Hebrew may also be combined to satisfy it with the approval of the director of graduate studies.

Outside Minor

Students are required to minor in an outside department or program. This minor should be selected so that it enriches and logically supports the student's major field. Students must fulfill the relevant department's rules for outside minors.

Qualifying Examination

Students will be examined on one major and two minor fields. A complete list of major and minor fields is available from the director of graduate studies. These fields are organized within the three general departmental areas of (1) civilizations and religions, (2) linguistics, and (3) literature. A student's three fields must be taken from within at least two of the three general areas listed above.

Written examinations will be given by at least two professors, the major field lasting for three hours, and the minor field exams for two hours each. Upon successful completion of the written examinations, a student will take the oral examination within four weeks of the written examination. These examinations

may be retaken once in whole or in part at the discretion of the examination committee.

Final Examination

Oral defense of the dissertation.

Ph.D. Minor in Near Eastern Languages and Cultures

Students from other departments are welcome to minor in Near Eastern Languages and Cultures as part of their doctoral program. To do so, they are required to take at least 12 credit hours of graduate-level course work, to be approved by the director of graduate studies so as to form a coherent program. Students must maintain a 3.0 grade point average for the minor as a whole.

Termination of Enrollment in the Doctoral Program

If a doctoral student fails the written qualifying examinations twice, fails the oral qualifying exam twice, falls below a 3.5 average, or fails to complete the written and oral examinations by the end of the approved length of time, the director of graduate studies, in consultation with the research committee, can initiate steps to terminate the student's enrollment in the program.

Courses

ARABIC LANGUAGE AND LITERATURE

A500-A550 Elementary Arabic I-II (2-2 cr.) This course is an introduction to Modern Standard Arabic as it is used in contemporary literature, newspapers, and radio. The course will focus on grammar, reading, dictation, composition, penmanship, conversation, and translation.

A600-A650 Intermediate Arabic I-II (3-3 cr.) P: A500-A550. This course emphasizes grammar, reading, composition, conversation, and translation using materials from medieval classical and modern literary Arabic.

A660-A670 Advanced Arabic I-II (3-3 cr.) P: A600-A650. This course

focuses on the continued development of speaking, listening, reading, and writing skills in modern standard Arabic. Materials drawn from classical prose will be introduced for study.

N502/N552 Qur'anic Arabic I-II (3-3 cr.) Introduces the specialized language of the Qur'an, its vocabulary and grammar. Covers related materials such as Qur'anic commentary, history, and Hadith. Teaches students to read classical and Qur'anic Arabic through a foundation in syntax and morphology.

N510 Arabic Composition I (3 cr.) P: consent of instructor. This course is designed to focus on instruction and practice in writing and reading Arabic. It is intended to develop skills in writing correct Arabic sentences, paragraphs, and themes related to a variety of subjects.

N512 Classical Arabic Grammar (3 cr.) P: consent of instructor. This course provides a systematic treatment (in Arabic) of the principal features of classical Arabic grammar. The technical Arabic terms and the concepts associated with them will be introduced, analyzed, and illustrated.

N523 Conversational Arabic I (3 cr.) Formal spoken or "polite" Arabic, with attention to divergences in Arabic dialects.

N524 Introduction to Arabic Linguistics (3 cr.) Concise history and description of the structure of Arabic. Special emphasis on the written and selected spoken varieties of modern Arabic, phonology, grammar, and basic vocabulary.

N529 Arabic Phonetics and Phonology (3 cr.) This course presents a systematic study of Arabic phonetics and phonology utilizing scientific phonetics, both practical and theoretical, and the phonological processes of generative phonological theory.

N555 Multimedia Arabic (3 cr.) Modern literary Arabic as found in printed and non-printed

contemporary media. Materials selected from leading newspapers and magazines from the Arab world covering a variety of current political and cultural topics. Documentaries and live and taped television newscasts will also be utilized.

N570 Qur'anic Studies (3 cr.) The Qur'an in its historical role as the Islamic revelation. Particular attention will be paid to its formation and compilation, the structural and stylistic characteristics of the text, and its role and function in Islam as well as the different schools of interpretation throughout history, and comparative studies between the Qur'an and the Judeo-Christian scriptures.

N590 Directed Readings in Arabic (1-6 cr.) In this course students will read and analyze Arabic or translated texts that are selected in accordance with the student's level and interests.

N598 Individual Readings in Arabic Language and Linguistics (1-6 cr.) Analysis of materials in the fields of Arabic language and linguistics. Students may register to research certain aspects of these fields that are not covered by the regular sequence of Near Eastern Languages and Cultures courses.

N690 Research in Classical Arabic Texts (3 cr.) This course provides intensive training in classical Arabic. Emphasis is placed on the accurate reading and translation of classical texts, their grammatical and stylistic features, and the use of modern and classical lexical. The course also includes a survey of relevant bibliographic and secondary sources. Variable topic; may be repeated for credit.

N701 Topics in Arabic Literature (2-3 cr.) Examination of translated Arabic literature of the Middle East and North Africa, as well as relevant modern Western works. All works read in English. May be repeated for credit when topic varies.

N707 Seminar in Classical Arabic Literature (4 cr.) P: ability to read classical Arabic texts. Intensive study of selected literary movements,

periods, or genres. Individual research papers required.

N709 Seminar in Modern Arabic Literature (4 cr.) P: ability to read classical Arabic, study classic Arabic literature during nineteenth and twentieth centuries, with special emphasis on Western influence.

N710 M.A. Thesis (cr. arr.)**

N810 Ph.D. Thesis (cr. arr.)**

Hebrew Language and Literature

H500-H550 Elementary Hebrew I-II (2-2 cr.) Introduction to Hebrew as it is used in conversation, radio, press, and popular literature. Emphasis is given to phonetic and structural drills, grammar, reading, writing, and composition.

H590 Intensive Elementary Hebrew (4 cr.) An intensive course in elementary modern Hebrew, combining ulpan with standard language instruction techniques. The course covers an equivalent of one full year of elementary Hebrew in one term, and is open to those desiring to acquire all facets of language communication, morphology, phonology, and syntax.

H600-H650 Intermediate Hebrew I-II (3-3 cr.) P: H500-H550 or equivalent. Continuation of H500-H550. The course is designed to enable students to add classical and medieval Hebrew at a later stage.

H670-H680 Advanced Hebrew I-II (3-3 cr.) P: H600-H650 or other sufficient preparation. The course focuses on the completion of grammar and introduction to literature of all ages (biblical, midrashic, medieval, and modern), including grammar, style, vocabulary, technical terms, and literary forms.

**These courses are eligible for a deferred grade.

N471-N472 Biblical Hebrew I-II (3-3 cr.) This course is an accelerated introduction to Biblical Hebrew. Emphasis is placed on grammar, morphology and syntax.

N473-N517 Biblical Hebrew III-IV (3 cr.) In this course students will study various genres of biblical writings through a careful examination of such passages in the original language.

N587 Modern Hebrew Literature in English (3 cr.) This course examines nineteenth- and twentieth-century fiction, poetry, and essays, under such headings as assimilation (ideal or aberration); ghetto and world, secularism vs. tradition; ethnicity, land and universalism; nation, religion, state; utopias and revolution; nostalgia, self-hate, rejuvenation; and portrayal of anti-Semitism in literature.

N588 Recent Hebrew Literature in English (3 cr.) In this course students will analyze contemporary Hebrew fiction, poetry and essays with relevance to contemporary issues, such as the past (burden or asset?); the meaning of Europe and Near East; the kibbutz; ideal and reality; Jews, Arabs, Canaanites; diaspora and center; the personal and collective; inwardness or realism; wars, holocaust, and peace.

N590 Directed Readings in Arabic (1-6 cr.) Reading and analysis of Arabic or translated texts selected in accordance with the student's level and interests.

N591 Directed Readings in Hebrew (1-6 cr.) In this course students will read and analyze Hebrew or translated texts that are selected in accordance with the student's level and interests.

N691 Research in Medieval Hebrew Texts (3 cr.) This course provides intensive training in the use of medieval Hebrew as a research tool. Emphasis will be placed on the accurate reading and translating of medieval texts, on grammatical and stylistic characteristics of the texts, and on the use of appropriate lexical.

Variable topic; may be repeated for credit.

N708 Seminar in Judaic Literature (4 cr.) P: consent of instructor. This course emphasizes the study of selected representative literary works of classical, medieval, and modern periods; original texts or translation.

PERSIAN LANGUAGE AND LITERATURE

P500-P550 Elementary Persian I-II (2-2 cr.) Covers the basic grammar of modern Persian, along with conversation, composition, reading, and translating from selected materials dealing with Iranian civilization.

P600-P650 Intermediate Persian I-II (3-3 cr.) Continuation of the elementary Persian level. Review of grammatical structures and vocabulary, reading, and translating short literary and expository texts.

P565 Introduction to Persian Literature in English (3 cr.) Covers development of Persian literature from its earliest stages in the tenth century A.D. to the present. Although the course covers a period of some 1,000 years, it does so in a way that seeks to provide background information for graduate students who may have an interest in Persian literature.

N592 Directed Readings in Persian (1-6 cr.) Readings in Persian or translated texts selected in accordance with the student's level and interests.

N685 Persian Mystical Literature in Translation (3 cr.) Examines the Persian literature of Islamic mysticism in English translation. Following an introduction to the history and doctrines of Sufism, the class will turn to detailed readings and discussions of works in several prose and poetic genres: hagiography, biography, allegorical epic, mystical lyric, and gnostic meditation.

N692 Research in Classical Persian Texts (3 cr.) P: P550 or reading knowledge of Persian. Intensive

training in classical Persian. Emphasis on the accurate reading and translation of classical texts, their grammatical and stylistic features, and the use of modern and classical lexica. Survey of relevant bibliographic and secondary sources. Variable topic; may be repeated for credit.

OTHER IRANIAN LANGUAGES

P660 Middle Iranian Languages (3 cr.) This course provides an introduction to the alphabets, grammar, vocabulary, and texts of various Iranian languages. It emphasizes reading, transcription, and translation. Religious, commercial, and political documents are examined. Variable topic; may be repeated for credit.

GENERAL COURSES

N511 Foreign Study in Near Eastern Languages and Cultures (2-8 cr.)**

N545 Introduction to the Ancient Near East (3 cr.) Introduces ancient Near Eastern cultures from early farmers around 8000 B.C. to the Iron-Age kingdom of the Babylonians, Assyrians, and Iranians. Places emphasis on agriculture, literacy, state formation, sociopolitical and religious institutions; legal and economic developments. Archaeological and textual information will be utilized in conjunction with visual aids.

N565 Introduction to Islamic Civilization (3 cr.) Covers basics of Islamic religion and literature in historical context. Topics include the life of Mohammad, Koranic and other teachings of Islam, conquests and caliphates, early successor states, law, sects, theology, philosophy, and the relationship between the state and religion.

N597 Peoples and Cultures of the Middle East (3 cr.) General anthropological introduction to social institutions and cultural forms of the Arab countries of North Africa and the Near East, Israel, Turkey, Iran, and Afghanistan. Topics include ecology, development of

Islam and Muslim empires, traditional adaptive strategies, consequences of colonialism, independence and rise of nation-states, impact of modernization, changing conceptions of kinship, ethnicity, and gender. Credit given for only one of ANTH E600, CEUS U520, or NELC N597. (S&H, CSA)

N640 Prophets, Poets, and Kings: Iranian Civilization (3 cr.) Traces the culture, society, and beliefs within Iran from ancient times through the Muslim conquest until 1800. Focuses on politics, religions, administrative/social institutions, secular/ecclesiastic relations, status of minorities, devotional/communal changes, and Iranian influence on Islamic culture. Dynasties covered include Achaemenian through Safavid. Analysis of primary texts in translation.

N650 Modern Iran (3 cr.) Examines the history and culture of Iran from 1500 to the present, with an emphasis on developments in the last century, in particular the role of Shi'ism in shaping the history of modern Iran. Readings will cover the historical, religious, and cultural background; the two great revolutions of the twentieth century; and the role of Iran in recent events in the Middle East.

N680 Islamic Philosophy (3 cr.) Islamic philosophy, a link between classical and medieval European philosophy, has influenced the development of the western philosophical tradition. Its contributions to the philosophy of religion reflect its contemporary value today as a living tradition in Iran. The course will introduce the major philosophers, schools, and issues of Islamic philosophy.

**These courses are eligible for a deferred grade.

N695 Graduate Topics in Near Eastern Languages and Cultures (1-4 cr.) Special readings in Near Eastern issues and problems within an interdisciplinary format. Variable topics; may be repeated under different topics for credit. Previous topics include, "Modern Middle East," "Texts and Authors," "Cultural History of Turkey," "Classical Arabic Rhetoric," and "Modern Persian Literature in Translation."

N710 M.A. Thesis (cr. arr.)**

N720 M.A. Thesis (cr. arr.)**

N810 Ph.D. Thesis (cr. arr.)**

Neural Science

**College of Arts and Sciences
Bloomington**

Director
Professor George V. Rebec

Departmental E-mail
iuneuron@indiana.edu

Departmental URL
www.indiana.edu/~neurosci

Graduate Faculty
(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Chancellor's Professor of Psychology
George V. Rebec (Psychology)

Elinor Cox Riggs Professor of Social Sciences and Ethics
Joseph E. Steinmetz (Psychology)

Gill Professor of Physics
John M. Beggs* (Physics)

Professors
Joseph Farley (Psychology), Gabriel Frommer (Emeritus, Psychology), David Kocejka (Kinesiology), Dale Sengelaub (Psychology), Alfred Strickholm (Emeritus, Physiology), Roderick Suthers (Physiology), William Timberlake (Psychology)

Associate Professors

Preston Garraghty (Psychology), Jonathan Mills (Computer Science), Laura L. Murray* (Speech and Hearing Sciences), Joseph Near (Pharmacology), Dolores Schroeder (Anatomy), Julie Stout* (Psychology)

Assistant Professors

Gregory E. Demas (Biology), Matthew Heath* (Kinesiology), William Hetrick* (Psychology), Brian F. O'Donnell* (Psychology), G. Troy Smith* (Biology), Olaf Sporns* (Psychology), Cara L. Wellman* (Psychology), Robert H. Withnell* (Speech and Hearing Sciences)

Academic Advisor

Professor George V. Rebec, Psychology Building 361, (812) 855-7756

Degree Offered

Doctor of Philosophy

Special Program Requirements

See also general University Graduate School requirements.

Doctor of Philosophy Degree

The program leading to the Ph.D. degree is designed to give students the opportunity to develop the technical skills and conceptual framework necessary for a successful research career in neuroscience. Research should be viewed as the student's greatest challenge and the major focus of the student's energy. Training in behavioral or systems neuroscience is emphasized through research participation with core faculty in the Departments of Computer Science, Medical Sciences, Psychology, and Speech and Hearing Sciences. Students can also draw upon course offerings through the Center for the Integrative Study of Animal Behavior as well as the Departments of Biology, Chemistry, and Visual Sciences.

Admission Requirements

Undergraduate education that includes an adequate background in chemistry, mathematics, and the

biological and behavioral sciences. Students with undergraduate concentrations in other areas of the natural sciences, computer science, or engineering also are encouraged to apply. Preference will be given to applicants with a background in laboratory research and with strong letters of recommendation. Applications must include a complete entrance form, letters of recommendation, undergraduate transcript, and scores on the Graduate Record Examination General Test. Students are admitted to the program only with the approval of the program graduate admissions committee.

Course Requirements

A total of 90 credit hours, including dissertation. An individual program of study is planned for each student in consultation with the student's advisory committee. The aim is to provide each student with a solid background in neuroscience as well as the training necessary to supplement the student's particular research area. Course work consists of N500 or M555 and N501 (a one-year core sequence in neuroscience), which must be completed by the fifth semester of residence, and selections totaling at least 14 credit hours from offerings listed by the Program in Neural Science or cross-listed with other departments, divisions, or special programs. In addition, all doctoral students are required to complete annually N650, a research seminar, beginning in their second year. Course work must be completed with an average of B+ (3.3) or above. No grades below B- (2.7) may be counted toward degree requirements.

Advisory Committee

Chosen in consultation with the student, the student's research advisor, and the program director. The committee consists of at least three members of the Graduate Faculty who review the student's performance on a regular basis and provide feedback and guidance.

Qualifying Examination

To remain in good standing and be admitted to doctoral candidacy,

students must pass a written and oral examination before the end of their fifth semester in residence. Students failing the qualifying examination twice will be dismissed from the program.

Final Examination

In addition to the oral defense of the dissertation before the research committee, a public research seminar is required.

Ph.D. Minor in Neural Science

Students in other departments and programs who elect to minor in neural science must complete the N500-N501 core sequence and at least 6 credit hours of graduate course work selected from the offerings listed by the program or cross-listed with other departments. A grade of B (3.0) or higher in each course is required.

Courses

N500 Neural Science I (4 cr.) Basic introduction and current trends in cellular neurophysiology, neurocytology, synaptic processes, and neuroanatomy.

N501 Neural Science II (4 cr.) P: N500. Continuation of Neural Science I emphasizing higher integrative processes such as perception, cognition, and memory. Special emphasis will be placed on timely topics and topics of particular relevance to members of the class.

N510 Cellular and Molecular Neuroscience (3 cr.) Examines the properties and behavior of neurons and glia, the principal cells of the nervous system. The function of neural cells, the molecules involved in these functions, and the organization of molecular components required to generate cellular activity will be considered.

N550 Seminar on Sensorimotor Neuroplasticity (2-3 cr.) P: graduate status and consent of instructor. This course is intended to introduce students to the research methodologies and experimental findings of studies addressing

sensorimotor brain plasticity. While the specific content of the course may vary across semesters, the overarching goal is to provide students with a firm grounding in the primary literature representing this area of research so that they become familiar with the mechanisms of neural plasticity from systemwide to molecular levels.

N611 Neural Bases of Visual Sensation, Perception, and Cognition (3 cr.) Basic neuroanatomy and neurophysiology of the visual system. Correlations will be made with current, biologically-based cognitive models of vision. The goal of this course is to integrate neural and cognitive approaches to the problems of vision.

N612 Ion Channels and Receptors (3 cr.) P: graduate status and consent of instructor. Molecular, biophysical, and biochemical analysis of the major molecules responsible for neural excitability and synaptic transmission: receptor-coupled ion channels, voltage-dependent ion channels, G-protein coupled receptors, transporters, signal transduction pathways, synaptic vesicle-associated proteins, cytoskeletal proteins, classical and novel neurotransmitters and modulators.

N613 Neural Mechanisms of Hearing (3 cr.) P: graduate status and consent of instructor. Review of anatomy and physiology of inner ear and central auditory pathways. Special attention to current research on the neural basis of auditory discrimination.

N650 Topical Seminar (3 cr.) P: graduate status and consent of instructor. The topical seminar will vary each semester and will deal with a current problem in neurosciences.

N700 Readings-Nervous System (cr. arr.) Reading in special topics with guidance from a member of the faculty.

N800 Research (cr. arr.)

CROSS-LISTED COURSES

Animal Behavior

A502 Research and Professional Ethics in Bio-Behavioral Sciences (1 cr.)

Cognitive Science

Q551 Brain and Cognition (3 cr.)

Computer Science

C622 Very Large Scale Integration Design

C690 Analog Very Large Scale Integration Design

School of Health, Physical Education, and Recreation

K542 Neuromuscular Control of Movement (3 cr.)

K641 Topics in Motor Integration (3 cr.)

K690 Seminar in Human Performance (1 cr.) (Topic: Motor Control)

Medical Sciences

A464 Human Tissue Biology (4 cr.)

A530 Special Topics (depending on topic)

A610 Comparative Neuroanatomy (2 cr.)

F605 Principles of Pharmacology I (4 cr.)

F606 Principles of Pharmacology II (4 cr.)

M555 Medical Neuroscience (5 cr.)

P417 Neurobiology (3 cr.)

P418 Laboratory in Comparative Animal Physiology (2 cr.)

P421 Biophysical Principles in Physiology (3 or 5 cr.)

P510 Control Systems Theory in Biology (4 cr.)

P531 Human Physiology I (3 cr.)

P532 Human Physiology II (5 cr.)

P541 Advanced Physiology I: Neurophysiology (3 cr.)

P543 Neurophysiology Seminar (2 cr.)

P547 Topical Seminar in Physiology (1-5 cr.) (Biophysics of Membrane Transport)

P548 Neuroethology (2 cr.)

Psychology

P417 Animal Behavior (3 cr.)

P423 Human Neuropsychology (3 cr.)

P428 Laboratory in Comparative Psychology (3 cr.)

P436 Laboratory in Animal Learning and Motivation (3 cr.)

P514 Methods in Biopsychology (2 cr.)

P526 Neurobiology of Learning and Memory (3 cr.)

P527 Developmental Psychobiology (3 cr.)

P566 Psychophysiology of Vision (3 cr.)

P628 Psychophysiology of Somatic Functions (3 cr.)

P657 Topical Seminar (1-4 cr.) (Check program brochure.)

P667 Neuropsychopharmacology (3 cr.)

P669 Neurobiology of Behavioral Disorders (3 cr.)

P717 Evolutionary Bases of Learning (3 cr.)

Speech and Hearing Sciences

S501 Neural Bases of Speech and Language (3 cr.)

S515 Topical Seminar (2 cr.) (Conditional)

S531 Traumatic Brain Injury
(2 cr.)

S537 Diagnosis and Management of Adult Aphasia (3 cr.)

S545 Adult Cognitive-Communication Disorders (2 cr.)

Visual Sciences

V514 Neuroanatomy (2.5 cr.)

V648 Neurophysiology of Vision (1 cr.)

V767 Electrophysiology of Vision (3 cr.)

V785 The Vertebrate Eye (3 cr.)

Nonprofit Management

**School of Public and Environmental Affairs
Bloomington and Indianapolis**

Graduate Faculty

Professors

Wolfgang Bielefeld, Kirsten Grønberg, Robert G. Lehnen, Les Lenkowsky, Astrid Merget, Roger B. Parks, James L. Perry

Associate Professors

Jon Gant, Craig Johnson, Robert Kravchuk, Debra Mesch, David Reingold

Assistant Professors

Sheila Kennedy, Mary Kirlin

Program Information

Ph.D. Minor in Nonprofit Management

Students in a Ph.D. program at Indiana University may select nonprofit management as an outside minor.

The nonprofit management minor enables students to broaden their field of study by enhancing their knowledge of management and governance issues in the nonprofit sector. Students pursuing the minor

in nonprofit management are able to develop and address research agendas incorporating questions related to nonprofit organization and their management.

Course Requirements

The doctoral student must secure an advisor from the faculty of the School of Public and Environmental Affairs (SPEA). The faculty advisor will serve as the representative of SPEA in all examinations and other requirements of the student's Ph.D. program that pertain to the minor. The minor in nonprofit management requires 12 credit hours of courses approved by the advisor. Three of the four courses must be SPEA courses. The additional course may come from SPEA or from any of a variety of disciplines relevant to nonprofit management. Some examples of courses appropriate for the SPEA minor in nonprofit management are listed below.

Special Requirement for 500-level Courses

Students taking a 500-level course (and V602) are required to show that they have completed doctoral-level work in conjunction with the course in order to count the course for the minor. Students must alert the instructor to their doctoral status and request additional/alternative assignments. If the instructor is unwilling to do this, the student should select a different course in conjunction with his or her advisor. A minimum grade point average of 3.0 (B) must be attained in the courses used for the minor.

Courses

V671/V672 Public Organization and Management I-II (3 cr.)

V685 Research Seminar in Management (3 cr.)

V521 The Nonprofit and Voluntary Sector (3 cr.)

V524 Civil Society and Public Policy (3 cr.)

V525 Civil Society in Comparative Perspective (3 cr.)

V526 Financial Management for Nonprofit Organizations (3 cr.)

V558 Fund Development for Nonprofits (3 cr.)

V562 Public Program Evaluation (1-3)

V602 Strategic Management of Public and Nonprofit Organizations (3 cr.)

Nursing Science

**School of Nursing
Indianapolis**

Interim University Dean
Professor Marion E. Broome

Executive Associate Dean for Academic Affairs
TBA

Acting Associate Dean for Graduate Programs
Professor Joanne R. Warner

Departmental URL
www.nursing.iupui.edu

Departmental E-mail
nursing@iupui.edu

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Distinguished Professors

Joan Austin, Victoria D. Champion, Angela Barron McBride

Chancellor's Professor

Diane Billings

Emily Holmquist Professor

Joan E. Haase

Professors

Susan Bennett, Penny S. Cass (KO), Sharon Farley, Juanita Keck, James Lemons*, Brenda Lyon, Donald Orr*, Daniel Pesut, Linda A. Rooda (NW), Sharon Sims, Phyllis Stern, Melinda Swenson

Associate Professors

Jane Backer*, Tamilyn Bakas, Mary Basolo-Kunzer* (SB), Cheryl Bean*, Janis Beckstrand, Anne Belcher*, Donna Boland*, Janie Canty-Mitchell, Janet S. Carpenter, Linda Delunas* (NW), Eleanor Donnelly, Marsha Ellett, Mary Fisher, Janet Fulton*, Linda S. Gilman*, Kathleen M. Hanna, Susan Hendricks (KO), Sara Horton-Deutsch*, Marchusa Huff*, Joyce Krothe, Ann Lowenkron*, Deborah May (E), Rose Mays, Anna McDaniel, Marion McKay, Virginia Richardson, Kathleen Russell, Nancy Schlapman* (KO), Lee Schwecke*, Rebecca Sloan, Lillian Stokes*, Linda Wallace (KO), Joanne Warner, Janet Welch, Enid Zwirn*

Assistant Professors

Carol Beausang*, Jo Ann Brooks-Brunn, Janice Buelow*, Teresa Dobrzykowski* (SB), Patricia Ebright*, Janis Gerkenmeyer, Josette Jones*, Joanne Martin*, Angela M. McNelis*, Patricia Pierce (SB), Susan Rawl, Deanna Reising, Mary Beth Riner*, Roberta Schweitzer* (KO), Wenn-Huey (Carol) Shieh* (KO)

Clinical Associate Professors

Beverly Linde, Mary K. Rogge*, Connie Rowles*, Cynthia Stone C after a faculty member's name indicates that the person teaches at the Columbus campus; E, at East; KO, at Kokomo; NW, at Northwest; SB, at South Bend; and SE, at Southeast.

Program Information

The Doctor of Philosophy (Ph.D. degree) is offered through the University Graduate School. In addition, the School of Nursing offers a Master of Nursing Science (M.S.N. degree). The Indiana University School of Nursing also offers dual degree programs with the School of Public and Environmental Affairs (SPEA) Public Health Program and the Center on Philanthropy. See the School of Nursing Graduate Program Bulletin.

Special Departmental Requirements

See also general University Graduate School requirements.

Doctor of Philosophy Degree

Ph.D. in Nursing Science—Preparing Scholars in Nursing

We believe that professional nursing is a distinct scientific discipline with a specific body of knowledge obtained through research. The Doctor of Philosophy program builds upon baccalaureate nursing education and emphasizes the use of creativity in the development and formulation of ideas that contribute to nursing science. Through research, analysis, and evaluation, students are empowered to transform knowledge and critical data into viable propositions through effective communication, and pedagogies, and clinical application. As students progress through the Ph.D. program, they are socialized to the value of research and interdisciplinary inquiry.

We also believe today's Ph.D. in nursing scholar is entrusted with shaping and preserving the quality and vitality of professional nursing.

On-Campus and Distance-Accessible Ph.D. Options

Indiana University School of Nursing (IUSON) offers both an on-campus and a distance-accessible option. The distance-accessible option offers master's-prepared nurses access to our Ph.D. program through a variety of distance technologies. Faculty and students use Web-based courses, video conferencing, listserv dialogues, telephone conferencing, and other emerging technologies to communicate effectively via long distance. Online courses and faculty mentoring are coupled with required two-week on-campus summer sessions. Admission criteria and curriculum are the same for both options.

Focus Areas of Study with Wide Applications

We prepare scholars in Clinical Nursing Science and Health

Systems. Doctoral students work closely with faculty mentors utilizing the resources available at the Indiana University School of Nursing and will participate in intensive research studies. Focus areas reflect faculty research strengths.

Clinical Nursing Science

Clinical Nursing Science concentrates on the interrelationships of health promotion, health behavior and quality of life in acute and chronic illness throughout the lifespan. This focus area includes the prevention and early detection of disabilities across the continuum of care and the enhancement of the health and well-being for individuals, families and communities.

Examples of scholarship and faculty research within the focus area of Clinical Nursing Science include:

- Family adaptation to chronic illness
- Improving quality of life in persons with chronic illness, including epilepsy and renal disease
- Behavioral oncology across the cancer continuum (including cancer prevention, detection, and symptom management)
- Improving quality of life in patients with cardiovascular disease, particularly heart failure
- Tailored intervention studies to improve quality of life
- Patient care safety
- Childhood adaptation to chronic illness

Health Systems

Health Systems operate to create structures and resources that enable individuals and communities to achieve optimal health. This focus area includes the science of nursing education, informatics, health policy, and administration.

Examples of scholarship and faculty research within the focus area of Health Systems include:

- Teaching and learning in web-based courses
- Clinical reasoning
- Assessment of learning and program evaluation
- Health policy and public policy analysis
- Computer systems to enhance care delivery
- Nursing informatics
- Narrative pedagogies
- Patient care simulations
- Community-based care coordination

Admission

Successful applicants must meet the following criteria:

- Completion of a baccalaureate in nursing or Master of Science in Nursing from a program within a regionally accredited institution of higher education. (Indiana University School of Nursing faculty retain the right to determine acceptable accreditation status of nursing programs from which applicants have graduated.)
- A baccalaureate cumulative grade point average of 3.0 on a 4.0 scale. For applicants holding a master’s degree, a graduate GPA of 3.5 or higher is required. (The master’s degree GPA will supersede the baccalaureate GPA.)
- Completion of a 3 credit statistics course with a grade of B (3.0) or higher within seven years before the date of proposed enrollment.
- Ability to secure current registered nurse licensure in Indiana, including licensure in home state for distance-accessible students. Applicants whose program of study will not require contact with patients

may be exempted from licensure requirements by IUSON’s director of doctoral studies.

- Competitive scores (600 recommended) on the verbal and quantitative sections and a score of 3.5 or higher on the analytical writing section of the Graduate Record Examination (taken within the last five years).
- Competitive scores (550 or higher) on the Test of English as a Foreign Language (TOEFL) for students whose first language is not English. A test of written English is also required.
- A two- to three-page essay summarizing immediate and long-term professional goals and a proposed area of research.
- Example of original scholarship or research in nursing a demonstrated by a report, published or unpublished paper, or a thesis.
- Three references, including one from a nurse faculty member who has knowledge of the applicant’s academic ability from undergraduate or master’s work.
- An interview with a member(s) of the graduate faculty (arranged by school).
- A letter of support from a nursing faculty member with full graduate faculty status who has agreed to be a research mentor.

Opportunities for Financial Aid

Information about financial resources for doctoral nursing students concerning traineeships, fellowships, and research teaching assistantships, as well as scholarships providing monetary compensation for tuition, fees, and health insurance may be obtained from the Indiana University School of Nursing’s Office of Educational

Services, or by visiting our Web site at www.nursing.iupui.edu

Curriculum Concentrations

The Ph.D. curriculum consists of six core areas of 90 credit hours. Up to 300 of these credit hours may be met by Master of Science course work.

1. Professional Development Core (8 cr.)
2. Nursing Theory Core (6 cr.)
3. Research and Methods Core (25 cr.)
4. Nursing Major Core in a Focus Area (21 cr.)
5. Minor (external or internal) (12 cr.)
6. Dissertation (including 3 cr. Dissertation Seminar) (18 cr.)

Total: 90 credits

Professional Development Core: (8 credits)

D700 Nursing Research Seminar (including Grantsmanship) (3 cr.)
G504 Introduction to Research Ethics (3 cr.)
J692 Preparing Future Faculty

Nursing Theory Core: (6 credits)

D607 Nursing: Theory II (3 cr.)
J692 Mid-Range Theory Development for Nursing (3 cr.)

Research and Methods Core: (25 credits)

R500 Nursing Research Methods I (3 cr.)
R600A Nursing Research Methods II (3 cr.)
R600B Nursing Research Methods III (3 cr.)
P601 (or equivalent) Experimental design (3 cr.)
P608 (or equivalent) Multivariate statistics (3 cr.)
R601 Instrument Development for Health Behaviors I (2 cr.)
R602 Instrument Development for Health Behaviors II (2 cr.)
R610 Qualitative Methods for Nursing Research (3 cr.)
Select ONE of the following:
R611 Advanced Qualitative Methods (3 cr.)

J692 Advanced Quantitative Methods (3 cr.)

Nursing Major Focus Area: (21 credits)

These credits are devised by mentor and student to match learning needs, research questions and professional goals. May include transfer courses from M.S.N., independent study courses, research practicum, etc.

Internal or External Minor: (12 credits)

Cognate or supporting course work from inside or outside nursing. May include a minor in an alternate focus area, other approved minors, or individualized plans in areas such as:

- Women's studies
- Educational psychology
- Sociology
- Anthropology
- Informatics
- Nursing Education Science
- Nursing Administration

Qualifying Exam

All students are required to take and pass a qualifying examination, usually after the student has completed all course work for the Ph.D. The student's Advisory Committee will determine the manner in which the examination is given. It will be composed of a written and an oral component. The qualifying examination must be passed within one year after completion of course work and at least eight months before the date the degree is awarded.

Oral Defense of the Dissertation (Final Examination)

Students provide an unbound copy of the completed dissertation to each member of the Research Committee in sufficient time to read it in its entirety. After reading it, the committee members should have direct communication with the committee chairperson regarding perceived readiness for the defense.

Upon agreement to proceed with the defense and 30 days prior to the defense, the candidate submits to the University Graduate School a one-page announcement of the final examination. Any member of the graduate faculty may attend the final examination; upon approval of the committee and the candidate, graduate students may attend as observers, not participants. At the end of the oral examination, the Research Committee must vote the outcome of the examination from the four options:

1. pass
2. conditional pass
3. deferred decision, and
4. failure.

Students should refer to the Student Handbook for more specific details about the dissertation defense.

Dissertation: (18 credits)

R800 Dissertation Seminar (3 cr.)
R899 Dissertation in Nursing (15 cr.)

Total: 90 credits

Courses

See the School of Nursing Graduate Bulletin for a complete list of offerings.

Nutrition and Dietetics

Indianapolis

Director

Clinical Professor Jacquelynn M. O'Palka*

Departmental URL

www.sahs.iupui.edu/nd/

Departmental E-mail

askahl@iupui.edu

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors

Mary Sue Brady*, Louise Irwin (Emerita), Karyl Rickard, Arlene Wilson (Emerita)

Adjunct Professors

James Lemons*, Donald Orr*

Associate Professors

Sara A. Blackburn*, Judith Ernst*

Assistant Professor

Ada Van Ness (Emeritus)

Graduate Advisor

Jacquelynn O'Palka, 114 Ball Residence, 1226 W. Michigan Street, Indianapolis, IN 46202-5180, (317) 278-0933, jopalka@iupui.edu.

Master of Science in Medical Sciences

The program is located at the Indiana University Medical Center in Indianapolis and utilizes facilities throughout central Indiana. The purpose of the program is to provide an opportunity for health care professionals to deepen their knowledge base and practice skills, particularly in the area of clinical nutrition. The curriculum is designed for the student who has a special interest in health promotion, the nutritional requirements and provision of nutrition therapy in acute and chronic conditions, or the care of special populations, such as pre-term infants. Program affiliations throughout central Indiana provide the opportunity for the student to work with patient populations in both outpatient and inpatient settings, as well as with the general public. Students may specialize in either adult or pediatric nutrition. This curriculum will not prepare the student to sit for the Registration Examination for Dietitians.

Course Requirements

Students will be required to take graduate-level courses in biochemistry, statistics or biostatistics, and physiology. Other courses and clinical study (open only to students who are registered

dietitians) may be selected from the graduate-level offerings of the Nutrition and Dietetics Program and from other schools and departments on the Indiana University—Purdue University Indianapolis campus.

Degree Requirements

To earn the M.S. degree, a minimum of 37 credit hours (43 if the Pediatric Nutrition Fellowship is included) at the graduate level are required. Candidates for this degree may petition to apply up to 8 credit hours of graduate work from other institutions or programs to this degree. A thesis is required.

Admission Requirements

Applicants should have a bachelor's degree from an accredited college or university, a minimum grade point average of B (3.0 on a 4.0 scale) overall, an appropriate level of achievement on the Graduate Record Examination, a current health care practice credential or proof of completion of an undergraduate major in nutrition and dietetics, and three letters of recommendation addressed to the Nutrition and Dietetics Program.

The applicant must submit a completed application form to the Office of Research and Graduate Studies, along with two copies of transcripts from all universities attended. Indiana University graduates should request that the Registrar's Office send unofficial copies of their transcript. Non-Indiana University graduates must submit at least one official transcript from each university attended. A current health care practice credential or proof of completion of an undergraduate major in nutrition and dietetics is required. A nonrefundable application fee is required. Applications and further information may be obtained by writing to the following address:

Office of Research and Graduate Studies
School of Allied Health Sciences
Indiana University-Purdue
University Indianapolis
1140 W. Michigan Street
Indianapolis, IN 46202-5119

Grade Requirement

A minimum of a 3.0 (B) grade point average in graduate work is required for continuance in graduate study. When the grade point average of a student falls below 3.00 or the student is not making sufficient progress toward the degree, the Graduate Studies Committee will review the student's record and recommend to the dean that the student be placed on probation. Unless the student achieves a 3.0 grade point average or begins making satisfactory progress, in the next semester of enrollment, the student will not ordinarily be allowed to continue in the graduate program. For more information about academic regulations, contact the program director.

Thesis

Students may elect to complete a thesis or to take additional course work and complete a problem. Contact the graduate advisor for details.

Curriculum

Health and Rehabilitation Sciences (3 cr.)

W510 Trends and Issues in Allied Health Basic Sciences (7 cr.)

BIOC B500 Biochemistry

PHSL F503 Human Physiology Professional (12 cr.)

N550 Human Nutritional Pathophysiology I (required for all students)

Adult Emphasis

N552 Human Nutritional Pathophysiology II

Electives

Pediatric Emphasis

N570 Pediatric Nutrition I

N572 Advanced Pediatric Nutrition

Elective

Research (15 cr.)

Biostatistics

W520 Research Methodology in Allied Health

W570 Research Communications in Allied Health

N598 Research in Nutrition and Dietetics Program

Total Minimum Credits: 37

Courses in Nutrition and Dietetics

"P" refers to a course prerequisite and "C" to a course that must be taken concurrently.

N546 Medical Lectures (cr. arr.) Lectures by professional staff and invited guests in the health care field.

N550 Human Nutritional Pathophysiology I (3 cr.) P: B500, F503 or BIOL 557, or consent of instructor. An integrated study of the biochemical and physiological aspects of human macronutrient metabolism with special reference to fundamental nutrition issues, including determination of nutrient quality, nutrient interrelationships, and energy balance in the normal human adult and in common clinical problems.

N552 Human Nutritional Pathophysiology II (3 cr.) P: N550 or consent of instructor. A continuation of N550. An integrated study of the biochemical and physiological aspects of human fluid and micronutrient metabolism with special reference to nutritional pathophysiology involving fluid and micronutrient metabolism.

N560 Review of Nutrition Standards (3 cr.) Review of various nutrition standards including those of the United States, the United Kingdom, Canada, and the World Health Organization. Course includes a review of all cited literature for one of the nutrients listed in the Recommended Dietary Allowances.

N570 Pediatric Nutrition I (3 cr.)
P: B500, BIOL 557, undergraduate metabolic nutrition course, or consent of instructor. An application of principles of physiology, biochemistry, and nutrition to the specialized nutrient needs and nutritional care of healthy infants, children, and adolescents and those with the most common pediatric conditions/illnesses or disorders of broad nutritional significance.

N572 Advanced Pediatric Nutrition (3 cr.) P: N550, N570, or consent of instructor. An application of principles of physiology, biochemistry, and nutrition to the specialized nutrient needs and nutritional care of infants, both pre-term and term, and patients with complex pediatric conditions/illnesses that have a significant nutritional component.

N591 Seminar in Nutrition and Dietetics (1 cr.) Exploration of various topics and issues in nutrition. May be repeated for a maximum of 4 credits.

N593 Topics in Nutrition (1-3 cr.)
P: consent of instructor. Exploration of a selected topic in nutrition at an advanced level. May be repeated once for credit if topics differ.

N595 Readings in Nutrition (1-3 cr.) P: consent of instructor. Individualized readings on topics not covered in regular course offerings.

N596 Clinical Dietetics (cr. arr.)
Clinical study in specialized areas of dietetics. May be taken more than once with the consent of the department for a maximum of 15 credit hours.

N598 Research in Dietetics (cr. arr.) Original research as approved by the department.

Pathology and Laboratory Medicine

School of Medicine
Indianapolis

Chairperson
John Eble

Departmental E-mail
pathdept@iupui.edu

Departmental URL
www.pathology.iupui.edu

Graduate Faculty
(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Distinguished Professor
Bernardino Ghetti (Medical and Molecular Genetics, Neurobiology, Psychiatry)

Nordschow Professor of Laboratory Medicine
John Eble

Professors
Stephen Allen, Biagio Azzarelli, Nils Bang, Stephen Bonsib, Thomas E. Davis Jr., John Eble, Kenneth Fife (Microbiology and Immunology, Medicine), Roy Geib, Richard Gregory (Oral Microbiology), Dean Hawley, Meredith Hull*, Richard Kohler* (Medicine), Chao-Hung Lee, Diane Leland, Helen Michael, Richard Neiman (Emeritus), Lawrence Roth (Emeritus), Kenneth Ryder, Aristotle Siakotos, James Smith (Emeritus), Thomas Ulbright*, Moo Nahm Yum

Associate Professors
John Baenziger*, Harvey Cramer, Oscar Cummings*, Constance Danielson*, Randall Duncan (Medicine), Taihung Duong, Vimalkumar Patel*

Assistant Professors
Sunil Badve*, Steven Billings*, Liang Cheng*, Magdalena Czader*, Eyas Hattab*, John Henley*, Raymond Konger*, Mark Lasbury*, Jill Murrell, Carrie Phillips*, Dennis

O'Malley*, Romil Saxena*, William Sullivan*, Ruben G. Vidal*

Volunteer Clinical Professor
George Sandusky

Graduate Advisor
Professor Diane Leland, Riley Hospital 0969, (317) 274-0148

Degrees Offered

Master of Science in Pathology and Doctor of Philosophy

Areas of Specialization
Specialization is available in various areas of anatomical, clinical, and experimental pathology. Areas of emphasis are neuropathology, experimental pathology, clinical chemistry, clinical microbiology, hematopathology, immunohematology, molecular pathology, and others. All Ph.D. degree students and M.S. degree students in the Experimental Pathology and Laboratory Science tracks choose one of these subspecialties for concentrated course work and thesis/dissertation research. M.S. students in the Pathologists' Assistant track complete courses and practical experiences involving anatomic pathology techniques.

Special Departmental Requirements
(See also general University Graduate School requirements.)

Admission Requirements
Applicants for the M.S. degree must have a bachelor's degree in clinical laboratory science (formerly medical technology), cytotechnology, microbiology, chemistry, or another biological science. Applicants for the Ph.D. degree must be medical students, have a doctoral degree in medicine, dentistry, or veterinary medicine, or have earned an M.S. or M.A. degree (with research thesis) in experimental pathology or a related basic science. A completed application form, transcripts from all colleges attended, letters of recommendation, and scores on the Graduate Record Examination General Test must all be received before an application will be

considered. A minimum grade point average of 3.0 (B) in undergraduate science courses and an interview with the graduate program committee are required.

Master of Science in Pathology Degree

Course Requirements

Requirements vary, according to the area of emphasis.

M.S. Degree in Pathology with Emphasis in an Area of Experimental Pathology

This course of study is recommended for students who plan to continue on to the Ph.D. after completing the M.S. degree. A minimum of 30 credit hours, including completion of a graduate-level general biochemistry course with a grade of C or higher and C808 Graduate Seminar; a maximum of 2 credits of C808 can be applied toward the required 21 credit hours of course work. Most students will also take C603 General Pathology. A grade of B or higher is required in C603 if the student plans to continue on to the Ph.D. At least 21 credit hours must be in courses other than research. At least 3 but not more than 9 credits must be in research.

M.S. Degree in Pathology with Special Concentration in Pathology Laboratory Sciences

This course of study is recommended for students who do not plan to continue on to the Ph.D. after completing the M.S. degree. The M.S. with special concentration in one of the subspecialty areas of clinical pathology requires at least 30 credit hours but may require up to 40 credit hours or more, depending on the area of concentration, the background of the student, and the prerequisites needed for certain advanced courses. At least 3 but not more than 9 credit hours in research, a graduate-level biochemistry course, and C808 Graduate Seminar are required; a maximum of 2 credits of C808 can be applied toward the required 21 credit hours of course work. Development of each student's curriculum of lecture and laboratory courses and of research and teaching requirements will be a joint effort of

the student and the graduate advisory committee. Course work differs, depending on whether the M.S. degree is to be focused in the areas of clinical chemistry, clinical microbiology, hematopathology, immunohematology, or another clinical laboratory specialty area.

Thesis

Required for M.S. Experimental Pathology and Laboratory Science tracks. In special cases, published research may be substituted for the thesis. Consult the graduate advisor.

Final Examination

Oral, on the thesis.

M.S. Degree in Pathology: Pathologists' Assistant Track

This education prepares individuals to serve as pathologists' assistants. The pathologists' assistant is a health professional, qualified by academic and practical training, who assists in providing service in anatomic pathology under the direction and supervision of a qualified anatomic pathologist. The pathologists' assistant assists in the examination, dissection, and processing of tissue samples and participates in gross autopsy dissection. Pathologists' assistants also assist with education and research in the area of anatomic pathology. This M.S. track is a 22-month program. The first year includes basic science courses in biochemistry, gross anatomy, histology, microbiology, and physiology. Didactic pathology techniques courses and practical experience make up the second year. Requires 43 credits: 34 course credits and 9 credits from practicum experiences.

Thesis

Not required for M.S. Pathologists' Assistant track. A thesis option is available. Consult the graduate advisor.

Final Examination

Oral, on the thesis.

Doctor of Philosophy Degree in Experimental Pathology

Only those students who are medical students; have a doctoral degree in medicine, dentistry, or veterinary medicine; or have already earned the

M.S. or M.A. degree (research thesis) in experimental pathology or a related basic science are eligible to apply for the Ph.D.; all others will be enrolled in a program leading to the M.S. degree.

Course Requirements

A total of 90 credit hours, of which a minimum of 40 credit hours must be in courses other than research. Required courses include a graduate-level general biochemistry course, one additional graduate biochemistry or molecular biology course, C603 Pathology or equivalent, and C808; a maximum of 4 credits of C808 can be applied toward the required 40 credit hours of course work.

Additional appropriate courses will be identified by the student's advisory committee and may be selected from core courses in the Department of Pathology and Laboratory Medicine or other graduate basic medical science departments. A minimum of 45 credit hours in dissertation research (C859) is required.

Grades

Overall average of at least a B (3.0). A grade of C or higher in a graduate-level general biochemistry course and a grade of B or higher in C603 Pathology are required.

Minor

At least 12 credit hours in a related discipline or in life science involving lecture/laboratory courses other than research. If a life sciences minor is approved, a minimum of 6 credit hours must be obtained in a single department.

Foreign Language

Not required.

Qualifying Examination

Written and oral, covering course work and research proposal (in form of a National Institutes of Health grant proposal).

Research Proposal

Required (in form of a National Institutes of Health grant proposal); must be approved by student's advisory committee before completion of dissertation research.

Dissertation
Required.

Courses

C603 General Pathology (6 cr.)
Basic concepts and principles of disease processes.

C690 Techniques for Specimen Processing (2 cr.) P: Graduate physiology, histology, and biochemistry. Designed for M.S. Pathologists' Assistant students. Didactic and laboratory experiences in specimen management and tissue processing methods: histotechnology techniques including specimen procurement, processing, fixation and staining, cytologic methods, and electron microscopy sample processing.

C691 Gross Surgical and Pediatric Pathology Techniques (3 cr.) P: graduate physiology, histology, biochemistry, microbiology, gross anatomy, and C690. Designed for Pathologists' Assistant students. Didactic and laboratory experiences emphasize proper handling and evaluation of tissues removed during surgery and examined in the surgical or pediatric pathology laboratory. Human embryology and medical photography and terminology are also included.

C692 Autopsy and Forensic Pathology Techniques (3 cr.) P: graduate physiology, histology, biochemistry, microbiology, gross anatomy, C690, and C691. Designed for Pathologists' Assistant students. Didactic and laboratory experiences in autopsy and forensic pathology introduce students to all phases of the human post-mortem examination, including evisceration, dissection, description of findings, and preparation of post-mortem reports.

C693 General and Clinical Pathology (4 cr.) P: graduate physiology, histology, biochemistry, microbiology, gross anatomy, C690, C691, and C692. Designed for Pathologists' Assistant students. Didactic and laboratory experiences introduce students to the basic concepts of pathologic processes and provide them with a working

knowledge of clinical pathology testing, including chemistry, hematopathology, transfusion medicine, and microbiology.

C694 Systemic Pathology (3 cr.) P: graduate physiology, histology, biochemistry, microbiology, gross anatomy, C690, C691, C692, and C693. Designed for Pathologists' Assistant students. Didactic and laboratory experiences in systemic pathology provide students with a broad base of knowledge of pathologic processes in various organ systems including the nervous, pulmonary, cardiovascular, genitourinary, digestive, and musculoskeletal systems.

C695 Practicum for Pathologists' Assistants (1-4 cr.) P: graduate physiology, histology, biochemistry, microbiology, gross anatomy, C690, C691, and C692. Designed for Pathologists' Assistant students. Students complete seven to nine month-long modules involving surgical, pediatric, autopsy, and forensic pathology at various facilities. Students also study medical ethics, laboratory operations, management, and information systems, and educational techniques.

C700 Clinical Chemistry I (3 cr.)
P: B500 or B800 or equivalent. Methodology, instrumentation, and interpretation with clinical correlation of procedures in the clinical chemistry laboratory.

C701 Clinical Chemistry II (2-3 cr.) P: B500 or B800 or equivalent. Special clinical chemistry therapeutic drug monitoring and radioassay, radioimmunoassay, and enzyme immunoassay.

C800 Advanced Pathology (cr. arr.) Subject material and credit hours arranged to conform to needs of student.

C802 Advanced Morphologic Hematology (2 cr.) P: consent of instructor. A graduate-level course with emphasis on diagnostic morphologic hematology. This course covers several aspects of morphologic hematology, including

erythrokinetics, myeloid and erythroid morphology, leukemia classification, myelodysplastic syndromes, myeloproliferative disorders, and newer concepts in diagnostic hematology.

C803 Diagnostic Immunopathology (2 cr.) P: basic undergraduate immunology and permission of instructor. Emphasis on immunobiology and diagnostic immunopathology. This course covers several aspects of immunopathology including autoimmune disease, transplantation biology, immunodeficiency disorders, and use of molecular diagnostics.

C808 Graduate Seminar in Pathology (1 cr.) P: consent of instructor. One-hour, graduate-level seminar series with emphasis on experimental pathology. First-year graduate students present critical literature reviews of contemporary research topics. More advanced students present proposals and reports of their research.

C820 Advances in Diagnostic Microbiology (3 cr.) Discussions of infectious diseases and agents of infectious diseases including source, clinical manifestations, pathogenesis, epidemiology, treatment, and prevention and control, and the correlation of these subjects with laboratory diagnostic methods. Contemporary subjects will be emphasized.

C850 Cellular Structure of the Nervous System (3 cr.) Cellular structure and ultrastructure of the C.N.S. in normal and experimental situations, including cell biology of neurons, astrocytes, oligodendroglia, brain macrophages, mast cells, brain vessels, and barriers. Organization of neural systems into global and point-to-point circuits; generative and regressive phenomena; and cerebral transplantation in neurodegenerative conditions.

C858 Experimental Pathology (5 cr.) Review and performance of selected experiments in pathology illustrating the types of pathologic processes.

C859 Research in Pathology (cr. arr.)** Supervised initiation of a research project in pathology, and counseling in the completion of a thesis.

C862 Basic Pathologic Techniques (5 cr.) Methods of the histologic and chemical laboratories of pathology; principles of examination used in the usual procedures of surgical and autopsy pathology.

C875 Biochemical Pathology (3 cr.) P: C603 or B800. A survey of biochemical pathology as demonstrated by recent advances in research in pathology. Selected topics for lecture and discussion will include aspects of tissue, cellular, subcellular, and molecular pathology.

G556 Methods of Humane Animal Experimentation (1 cr.) The purpose of this course is to provide graduate students entering careers in life science disciplines with the opportunity to obtain training in the proper care and humane use of laboratory animals. Federal regulations and considerations in the selection of animal models will also be discussed.

G655 Research Communications Seminar (2 cr.) Study of the methodological and systematic treatments of scientific data required for effective communication through written primary and secondary research publications, oral presentations, abstracts, poster presentations, and grant proposals.

G890 Methods in Molecular Biology and Pathology (3 cr.) P: G865 or J838, and consent of instructor. Basic principles and techniques in molecular biology and pathology. Particular emphasis will be on molecular techniques that can be used to study problems related to biochemistry and pathology.

**These courses are eligible for a deferred grade.

Performance Studies

College of Arts and Sciences
Bloomington

Departmental URL
www.indiana.edu/~folklore

Departmental E-mail
folkethn@indiana.edu

Steering Committee

Distinguished Professor Richard Bauman (Anthropology, Folklore and Ethnomusicology); Professors Roger Herzel (Theatre and Drama), Anya Peterson Royce (Anthropology), Ruth Stone (Folklore and Ethnomusicology); Associate Professors Beverly Stoeltje (Folklore and Ethnomusicology), Timothy Wiles (English)

Academic Advisor
Professor Timothy Wiles, Ballantine 474, (812) 855-4888

Ph.D. Minor in Performance Studies

Interdisciplinary study of the theory and practice of performance, including aesthetic activity that is explicitly framed as performance (such as dance, theatre, or music), as well as the performative dimensions of social life more generally.

Course Requirements

One core course in theories of performance studies (P601) and three other courses representing at least two disciplines, one of which emphasizes the direct experience of performance. Students will choose these courses in consultation with an advisor from outside the student's discipline who has been approved by the Performance Studies Steering Committee.

Grades

Minimum of a B (3.0) in all courses to count toward the minor.

Examination

None.

Courses

P600 Readings and Research in Performance Studies (1-3 cr.)

Guided reading and research in Performance Studies.

P601 Proseminar in Performance Studies (3 cr.)

Interdisciplinary study of the theory and practice of performance, including aesthetic activity that is explicitly framed as performance (such as theater, music, dance), cultural performances and display events, and performance as a distinctive mode of communicative action.

Folklore and Ethnomusicology

F750 Performance Studies (3 cr.)

Examination of performance-centered theory and analysis.

Pharmacology and Toxicology

School of Medicine
Indianapolis

Chairperson

Michael R. Vasko

Acting Director, State Department of Toxicology

Peter Method

Departmental E-mail

pharmtox@iupui.edu

Departmental URL

pharmtox.iusm.iu.edu

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Distinguished Professors

George Weber (Experimental Oncology), Douglas Zipes (Medicine)

Dean and Walter J. Daly Professor

D. Craig Brater (Medicine)

Charles Fisch Professor

Larry Jones (Medicine)

Paul Stark Professor

Michael R. Vasko

H. H. Gregg Professor of Oncology

Ahmed R. Safa

Robert Wallace Miller Professor of Oncology

Leonard Erickson

Showalter Professor

Henry R. Besch Jr. (Medicine)

Professors

Joseph DiMicco, James Klaunig, Grant Nicol, Gerry Oxford, Sherry Queener, Judith Richter, Lynn Willis, Jian-Ting Zhang

Associate Professor

Victor Elharrar

Assistant Professor

William Sullivan*

Assistant Scientists

Lisa Kamendulis*, Emiko Kreklau*

Adjunct Professors

Marlene Cohen (Eli Lilly Research Laboratories), David Flockhart, Phil Skolnick (Affiliate Member, Eli Lilly Research Laboratories)

Adjunct Graduate Faculty

Adjunct Professors

David Flockhart (Medicine), Stephen Hall (Medicine), Mark Kelley (Pediatrics), Steven Paul (Eli Lilly Research)

Adjunct Associate Professors

Lucinda Carr (Medicine), Pam Crowell (Biology), Anantha Shekhar (Psychiatry), John Callaghan (Medicine), Jeffrey Travers (Dermatology), David Goldstein (Eli Lilly), Patrick Eacho (Eli Lilly)

Adjunct Assistant Professors

Richard Bergstrom (Eli Lilly Research), Thomas Burris (Eli Lilly), Daniel Rusyniak (Emergency Medicine)

Director of Graduate Program

H. H. Gregg Professor of Oncology
Dr. Ahmad R. Safa, Cancer Center,
R4 119 (317) 278-4952;
asafa@iupui.edu

Special Departmental Requirements

(See also general University Graduate School requirements.)

Admission Requirements

Undergraduate grade point average should be well above 3.0 (B). Graduate Record Examination General Test is required for the Ph.D. and for the M.S.

Pharmacology Program¹

Master of Science Degree

Course Requirements

A total of 36 credit hours, including courses in biochemistry, physiology, and pharmacology, plus research.

Thesis

Required. In special cases, published research may be substituted for the thesis. Consult the director of graduate studies.

Final Examination

Oral or written or both.

Doctor of Philosophy Degree

Course Requirements

A total of 90 credit hours, including dissertation. At least 40 credit hours must be taken in the department, exclusive of research.

Minor

Students generally minor in biochemistry or physiology. Students working toward an approved minor in life science should consult the department in planning their program.

Advisory Committee

An advisory committee is appointed when the student first registers for classes.

Qualifying Examination

Written and oral, over concepts and research in pharmacology.

Final Examination

Oral defense of dissertation.

Toxicology Program

Director of Toxicology Division

Professor James E. Klaunig, Medical Science Building A507, (317) 274-7844 jklauni@iupui.edu

Master of Science Degree

Course Requirements

A total of 36 credit hours, of which 15 credit hours must be taken in the department.

Thesis

Required. In special cases, published research may be submitted for the thesis. Consult the director of graduate studies.

Final Examination

Oral or written or both.

Doctor of Philosophy Degree

Course Requirements

A total of 90 credit hours, including dissertation. At least 40 credit hours must be taken in the department, exclusive of research.

Minor

Students generally minor in pharmacology or pathology. Students working toward an approved minor in life sciences should consult the department in planning their program.

Advisory Committee

An advisory committee is appointed when the student first registers for classes.

Qualifying Examination

Written and oral, over concepts and research in toxicology.

Final Examination

Oral defense of dissertation.

¹ See also "Pharmacology" in the entry for the Medical Sciences Program, Bloomington, in this bulletin.

Courses¹

F598 Drugs, Diseases and Poisons (3 cr.) P: a course in basic biology or physiology equivalent to BIOL K324 or BIOL 501. Introductory course in pharmacology and toxicology primarily for senior undergraduate students. The course provides an overview of the molecular basis of drug action and pharmacological properties of several of the major drug groups used in medical science.

F602 Pharmacology: Lecture (5 cr.) P: BIOC B800, PHSL F613, F614. Mode of action of drugs as a basis for therapy.

F603 Pharmacology: Laboratory (2 cr.) Taught in conjunction with F602.

F801 Introduction to Research in Pharmacology and Toxicology (1-3 cr.) Application of basic laboratory methods to pharmacological problems. Consideration of theoretical principles, instrumentation, and applications.

F803 Renal Pharmacology (3 cr.) P: F602. Physiological and metabolic responses of the kidneys to various classifications of drugs.

F804 Introduction to Pharmacology and Toxicology I (3 cr.) This course will teach the fundamental principles of pharmacology and toxicology for the beginning graduate student, as an introduction to the discipline.

F806 Cellular Pharmacodynamics (3 cr.) P: BIOC B810, PHSL F765. The effects of drugs and hormones on intracellular systems and cellular metabolism will be examined to define mechanisms of drug action.

F808 Myocardial Biology (3 cr.) The cellular biology of muscle, with emphasis on the regulation of the internal ionic milieu and its effect on function of cardiac cells. The contractile proteins and the ion transport systems, Na⁺, K⁺ -ATPase, sarcoplasmic reticulum, and mitochondria will be considered in detail.

F809 Neuropharmacology (3 cr.) P: F602 and BIOC B835, or permission of instructor. Drugs which affect the nervous system, with particular emphasis on their central action. Although neurochemical effects will be stressed, evidence from neurophysiology and behavior will also be considered.

F810 Pharmacology of Autonomic Cardiovascular Control: Central and Peripheral Mechanisms (3 cr.) The physiology and pharmacology of sympathetic and parasympathetic nervous control of the cardiovascular system; pharmacology of synaptic mechanisms in peripheral and central pathways controlling autonomic outflow.

F811 Concepts in Pharmacology (2 cr.) The course will survey classic and recent literature that establishes current ideas and approaches to research topics in pharmacology. Basic concepts of various disciplines will be applied to pharmacology research.

F812 Research in Toxicology (1-12 cr.) Independent laboratory research to fulfill dissertation requirements for either a master's or a doctorate degree in toxicology. Students must be enrolled in graduate studies in the Department of Pharmacology and Toxicology to register for this course.

F813 Clinical Pharmacokinetics (3 cr.) Design and complete mathematical analysis of pharmacokinetic studies in humans. The clinical utility of pharmacokinetics will be stressed, but the course will also have definite value for those involved with drug studies in animals.

F814 Introduction to Pharmacology and Toxicology II (3 cr.) P: F804. This course will expand on fundamental principles of pharmacology and toxicology, surveying recent advances in the field.

F816 Clinical Toxicology (3-5 cr.) P: F602. Signs and symptoms resulting from common poisons and drugs. Chemical analyses as aids in diagnosis.

F817 Principles in Toxicology (3 cr.) This course will teach basic concepts in toxicology such as mechanisms of cell injury, carcinogenesis, and effects of xenobiotics.

F819 Chemical Carcinogenesis (3 cr.) This course examines the biochemical and molecular mechanisms by which chemicals cause cancer. Emphasis will be on the uptake, metabolism, cellular targets and specific stage(s) of the cancer process that are affected by chemical carcinogens. Discussions will expand on the basic principles of carcinogenesis as they apply to the latest advances in the field.

F820 Cancer Chemoprevention (3 cr.) This course will examine the biochemical and molecular mechanisms of natural and synthetic cancer chemopreventive agents.

F825 Research in Pharmacology (cr. arr.)** Independent laboratory research for fulfilling dissertation requirements.

F826 Seminar in Toxicology (1 cr.) Literature and research reports by students and staff.

F830 Seminar in Pharmacology and Toxicology (1 cr.) Literature and research reports by students and staff.

F832 Drug-Protein Interactions (3 cr.) Drug-protein interactions such as drugs modifying enzyme action, drugs acting at cell membrane receptors; drug binding to extracellular proteins. Emphasis is placed on measuring drug-protein interaction. Analysis of experimental

¹ See also "Pharmacology" in the entry for the Medical Sciences Program, Bloomington, in this bulletin.

**These courses are eligible for a deferred grade.

design, calculation of sample data, and applications such as radioimmunoassays will be considered.

F835 Molecular Mechanisms of Drug Action (3 cr.) Biochemical mechanisms underlying drug actions and reactions including toxicologic effects of drugs will be covered, with emphasis on molecular mechanisms involving drug receptor interaction, the actions of drugs and hormones on regulatory mechanisms in various disease states.

F836 Physiological Disposition of Drugs (3 cr.) Factors affecting the absorption, distribution, metabolism, and excretion of drugs will be discussed in terms of environmental, biochemical, and physiochemical parameters. Pertinent literature will be reviewed and special problems discussed.

F838 Cellular and Molecular Toxicology (3 cr.) This course examines the cellular mechanisms that mediate xenobiotic toxicity at the cellular, biochemical and molecular level. The course emphasizes mechanisms through which toxic chemicals act to evoke cell injury and cell death.

F840 Advanced Pharmacology and Toxicology (2-5 cr.) P: F602. Advanced studies of pharmacodynamic mechanisms in cardiovascular, central nervous system, and renal pharmacology and toxicology. Experimental design related to recent advances and current hypotheses concerning drug action and toxicity.

F841 Advanced Topics in Toxicology (1-3 cr.) This course will involve a series of lectures and discussions on new advances in toxicology. The course will focus on metabolic, cellular, and molecular mechanism by which toxic agents produce injury.

***These courses are eligible for a deferred grade.

F842 Tumor Metabolism and Chemotherapy (3 cr.) P: F602, BIOC B800. Biochemical alterations in neoplasia and mechanisms of chemical, hormonal, and viral carcinogenesis.

F843 Pharmacology of Cellular Transduction (3 cr.) This course focuses on mechanisms involved in cellular signal transduction ranging from the molecular biology of receptors to the role of transduction cascades in drug action. Students will participate extensively in discussion of issues.

F850 Experimental Design Analysis in Pharmacology and Toxicology (3 cr.) P: F602. This course presents experimental methods and data analysis used in pharmacological and toxicological experimentation. Emphasis will be on experimental design.

CROSS-LISTED COURSES

Biochemistry

B800 Medical Biochemistry (5 cr.)

B868 Advanced Molecular Biology (1-3 cr.)

Pathology

C603 General Pathology (6 cr.)

C859 Research in Pathology (cr. arr.)**

Philanthropic Studies

School of Liberal Arts Indianapolis

Chair of Philanthropic Studies Faculty

Professor Richard Turner

Director of Center on Philanthropy

Professor Eugene R. Tempel

Departmental E-mail
maphil@iupui.edu

Departmental URL

www.philanthropy.iupui.edu

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors

John D. Barlow (Emeritus, English, German), Wolfgang Bielefeld (Public and Environmental Affairs), Robert Bringle (Psychology), Dwight Burlingame, Edmund F. Byrne (Emeritus, Philosophy), William Cohen (History), Ulla Connor (English), Anne Donchin (Philosophy), Lawrence J. Friedman (History), Roberta Greene (Social Work), Kirsten Grønbjerg (Public and Environmental Affairs), Roger Hamburg (Emeritus, Public and Environmental Affairs, Political Science), Robert Lehnen (Public and Environmental Affairs), Leslie Lenkowsky*, Angela McBride (Nursing), Paul Nagy (Emeritus, Philosophy), Janet Near (Business), Robert L. Payton*, (Emeritus), James Perry (Public and Environmental Affairs), William Plater (English), James Riley (History), Herman Saatkamp (Philosophy, Medical and Molecular Genetics), William Schneider (History), Jan Shipp (Emerita, Religious Studies, History), David H. Smith (Religious Studies), Richard Steinberg (Economics), Eugene R. Tempel* (Education), Richard C. Turner* (English), Brian Vargus (Political Science), James Wood (Emeritus, Sociology)

Associate Professors

Marc Bilodeau (Economics), James H. Capshaw (History and Philosophy of Science), Judith A. Chafel (Education), Karen Harlow* (Public and Environmental Affairs), Elizabeth Kryder-Reid* (Anthropology), Debra Mesch (Public and Environmental Affairs), David Reingold* (Public and Environmental Affairs), Kevin Robbins* (History), Patrick Rooney* (Economics), Mary Tschirhart (Public and Environmental Affairs), Mark Wilhelm (Economics), Patricia Wittberg (Sociology)

Assistant Professors

Richard Gunderman* (Philosophy),
Laura Huntoon (Public and
Environmental Affairs), Nancy
Robertson* (History), Andrea
Walton* (Education)

Director of Graduate Studies

Constance M. Baker, School of
Nursing, NU 481, (317) 274-4251

Philanthropic studies at Indiana University is interdisciplinary, interprofessional, and systemwide. The field addresses voluntary contributions of service and funds, voluntary associations, and what has been called “the social history of the moral imagination.” Areas of inquiry range from the history of philanthropy and philanthropy in literature to nonprofit management and legal issues. Undergraduate and graduate programs in various areas of philanthropic studies are available in the University Graduate School, the School of Liberal Arts at IUPUI, the School of Public and Environmental Affairs, and other schools at IUPUI and IU Bloomington.

New courses and degree programs are developing rapidly. For up-to-date information, please contact the Philanthropic Studies Program.

Degree Offered

Master of Arts (IUPUI). The Master of Arts in philanthropic studies focuses on the history, culture, and values of philanthropy. Its objectives are to enable students to gain the knowledge and skills either to pursue further graduate study in relevant fields or to pursue careers in the independent sector or in related fields; to enable students to investigate the broader theoretical issues of philanthropy and of their chosen areas of specialization from a variety of disciplinary and interdisciplinary perspectives; and to utilize the interdisciplinary base to maintain a thoroughgoing critical inquiry into the historical and cultural implications of philanthropy.

Special Departmental Requirements

See also general University Graduate School requirements.

Master of Arts Degree Admission Requirements

Requirements include a bachelor’s degree from an accredited college or university, a minimum 3.0 grade point average on a scale of 4.0, and a minimum 3.0 average in the student’s major field. In addition, students seeking admission to the program should demonstrate an appropriate level of achievement on the Graduate Record Examination (or comparable proficiency test) and must arrange for three letters of recommendation to be addressed to the M.A. program Admissions Committee.

Applicants who do not meet all of the requirements listed above may be admitted to the program on a provisional basis, in which case their status will be reviewed after a fixed period of time to determine whether they may continue in the program.

Financial Aid

Several scholarships and research assistantships are available. Please contact the Philanthropic Studies Program for more information.

Course Requirements

The M.A. in philanthropic studies requires a total of 36 credit hours: 18 credits of core courses and 12 credits of elective courses. A minimum of 18 credit hours in core and elective courses combined must be in the School of Liberal Arts at IUPUI, and not more than 9 credit hours may be taken in courses numbered below 500. These 9 credits may come only from courses approved for University Graduate School credit. In addition, the student will earn 6 hours of credit either for a thesis in a topic approved by the M.A. program advisory committee or for doctoral-level courses (normally 700-level) in a discipline in which future study is planned; for the nonthesis option, at least one of the courses must be an approved research methods course. The approval process for the thesis or its alternative will normally take

place after a student has successfully completed 15 credits of course work.

In order to earn the M.A. in philanthropic studies, students must maintain a 3.0 grade average on a scale of 4.0. Grades in courses counting for credit toward this degree may be no lower than C (2.0 on a scale of 4.0).

The 18 credits of core courses normally include History H509 Special Topics in European History (Topic: History of Philanthropy in the West) or History H511 Special Topics in American History (Topic: History of American Philanthropy); Philosophy P542 The Ethics and Values of Philanthropy, Philanthropic Studies P512 Human and Financial Resources for Philanthropy, Philanthropic Studies P521 The Nonprofit and Voluntary Sector, Philanthropic Studies P523 Civil Society and Philanthropy, and Philanthropic Studies P590 Internship in Philanthropic Studies. In addition, students will take either Economics E514 The Nonprofit Economy and Public Policy or Education C595 Legal Aspects of Philanthropy, and one of the following courses: American Studies P520 Philanthropy in American Culture, Anthropology A509 Cross-Cultural Dimensions of Philanthropy, Public and Environmental Affairs V524 Civil Society in Comparative Perspective, or Religious Studies R590 Directed Readings in Religious Studies.

Master of Arts Degree in Philanthropic Studies: Executive Format

Many students interested in the M.A. program are unable to attend on a traditional residential basis because of their distance from Indianapolis and ongoing job responsibilities. To provide access to the M.A. in philanthropic studies for this growing constituency, the Executive Format Master’s Program admitted its inaugural cohort of students in 1996.

A participant in the executive format master’s program can finish the

requirements for the degree in either two or three years by completing:

- an orientation before the first day of classes;
- six intense one-week sessions of residential study at IUPUI (three per summer for those selecting the two-year option or two per summer for those selecting the three-year option);
- distance education and directed off-site course work; and
- elective study at a qualified institution near the student's home.

Each summer course requires one week of intense on-campus study and is preceded by a pre-residential period of approximately six weeks in length which includes preparatory reading and assignments. Each session is followed by a post-residential period which includes evaluative experiences to be completed at home. During both the pre-residential and post-residential periods, faculty work with students by using telephone, E-mail, fax, and postal service.

Degree requirements for the executive M.A. program are the same as the requirements for the residential M.A. in philanthropic studies.

Applicants for the executive program must meet the same admission criteria as those applying for the residential program, with the addition of three to five years of work experience in the nonprofit sector being recommended. Deadline dates for admission are January 1 for non-U.S. citizens and March 1 for U.S. citizens.

For more information, contact the Center on Philanthropy, (317) 274-4200.

Dual Degree Master of Arts in Philanthropic Studies and Master of Arts in Economics

The dual master's degree in philanthropic studies and economics substantially benefits students

intending to pursue a career in independent research, academia, or practice. Normally, those pursuing a career in research or academia continue in a Ph.D. program in economics, finance, accounting, management, marketing, or public policy. Very few doctoral programs include substantial content on philanthropy or nonprofit organizations. As such, the M.A. in philanthropic studies provides a broad interdisciplinary background that makes the future researcher sensitive to the institutional details, values, and history of the sector, thus leading to better research. For the future nonprofit manager or leader, economics provides the principles and methodologies to make informed decisions on the appreciative level, the policy level, and the managerial level.

Admission requirements for the dual degree program are identical to those for each program separately. Separate application must be made to each of the two programs. Students are expected to take responsibility for learning about and meeting the admission requirements of each school individually, which may differ from each other in application documents required, minimal standards of criteria for admission, and deadline dates. Students must make plans early with advisors in both programs to identify (1) common courses and (2) thesis credit.

Study for the two degrees can be combined for a total of 51 credit hours rather than the 66 credit hours that would be required if the two degrees were taken separately. Two of the required core courses for the M.A. in economics may be selected as electives to meet the philanthropic studies requirement for two applied electives. One of the required philanthropic studies courses, Economics E514 The Nonprofit Economy and Public Policy, may be taken to meet 3 of the 12 credit hours of electives required in the economics program. A common thesis meets the requirements of both departments.

Further information regarding regulations governing advanced degree programs may be obtained from the respective departments.

Dual Degree Master of Arts in Philanthropic Studies and Master of Arts in History

The M.A. in philanthropic studies and history, an interdisciplinary dual-degree program, creates a unique opportunity to pursue critical inquiry into the historical, cultural, philosophical, and economic implications of voluntary action for the public good. Historians routinely study the role of nonprofit organizations, self-help groups, and philanthropic institutions. This degree will be attractive to students wishing to pursue (1) careers that demand the skills and talents developed by cross-training in history and philanthropy or (2) doctoral programs that encourage new and creative approaches to the historical study of philanthropy, broadly defined.

Admission requirements for the dual degree program are identical to those for each program separately. A separate application must be made to each of the programs. Prospective students are expected to take responsibility for learning about meeting the differing admission requirements and deadlines of each department. Students must make plans early with advisors in both programs to identify (1) common courses and (2) thesis topic.

Study for these two degrees can be combined for a total of 51 credit hours (U.S. or European history concentrations) or 54 credit hours (public history) rather than the 66 or 72 credit hours that would be required if the two degrees were taken separately. For all concentrations, the required 700-level seminar for the M.A. in history may be selected as an elective to meet the philanthropic studies requirement for one of two theoretical electives. The required philanthropic studies course History H509 Special Topics in European History (Topic: History of Philanthropy in the West) may be

taken to meet the history requirement for a history elective. Required courses Philosophy P542 The Ethics and Values of Philanthropy or Philanthropic Studies P512 Human and Financial Resources for Philanthropy may be taken to meet 3 of the 6 credits of outside electives that may be taken in the history program. For public history students, History H543 Practicum in Public History meets the requirement for Philanthropic Studies P590 Internship in Philanthropic Studies, for the Philanthropic Studies Program. A common thesis meets the requirements of both departments.

Further information regarding regulations governing advanced degree programs may be obtained from the respective departments.

Dual Degree Master of Arts in Philanthropic Studies and Master of Public Affairs in Nonprofit Management

The continual blurring of sectors and the call for government devolution demand that advanced education for public managers must address critical issues associated with the relationship between and the functions of nonprofit and government agencies. The combined degree in public affairs in the School of Public and Environmental Affairs (SPEA) and in the Philanthropic Studies Program provides an education with breadth and depth. Students in this combined degree program have the opportunity to pursue critical inquiry into the “how” and the “why” of nonprofit management and philanthropy. As a result they are better prepared to be reflective practitioners.

Admission requirements for the combined degree program are identical to those for each program separately. Separate application must be made to each of the two programs, and students should take responsibility to learn about and meet the admission requirements of each school individually, which may differ from each other in application documents required, minimal standards of criteria for admission, and deadline dates. Applicants

should apply for the combined degree option before completing the core requirements or 33 credit hours of the M.P.A. with a nonprofit management concentration and before completing the core requirements or 18 credit hours of the M.A. in philanthropic studies. Students must make plans early with advisors in both programs to identify (1) common courses and (2) thesis credit.

Study for the two degrees can be combined for a total of 60 or 63 credit hours rather than the 87 or 90 credit hours that would be required if the two degrees were taken separately. The dual degree curriculum requires 21 credits of core courses in nonprofit management, 15 credit hours of philanthropic studies core courses, Philanthropic Studies P521 (or SPEA V521), SPEA V525 Management in the Nonprofit Sector, two nonprofit application courses, one general management course, and one theoretical elective in philanthropic studies. Philanthropic Studies P590 Internship in Philanthropic Studies meets the experiential requirement for the M.P.A. Finally, students are required to complete a thesis on an approved topic by their thesis committee or 6 credits of doctoral-level work approved by their graduate advisor.

Further information regarding regulations governing advanced degree programs may be obtained from the respective departments.

Dual Degree Master of Arts in Philanthropic Studies and Master of Science in Nursing

While the M.S.N. with a major in nursing administration provides an essential background for the nurse executive, the addition of the M.A. in philanthropic studies adds an appreciation of the philanthropic tradition and the skills to become accomplished developmental officers.

Admission requirements for the combined degree program are identical to those for each program

separately. Separate application must be made to each of the two programs. Students are expected to take responsibility for learning about and meeting the admission requirements of each school individually, which may differ from each other in application documents required, minimal standards of criteria for admission, and deadline dates. Applicants should apply for the combined degree option before completing 21 credit hours in the M.S.N. in Nursing Administration Program and before completing the core requirements or 18 credit hours of the M.A. in philanthropic studies. Students must make plans early with advisors in both programs to identify (1) common courses and (2) thesis credit.

Study for the two degrees can be combined for a total of 60 credit hours rather than the 78 credit hours that would be required if the two degrees were taken separately. Two of the required courses for the M.S.N. are used as electives to meet the Philanthropic Studies Program requirement of two electives. The P590 Internship required for the M.A. will meet the administrative practicum requirement for the M.S.N. The M.A. thesis or approved doctoral-level courses, plus one additional approved course, fulfill the required M.S.N. focus concentration. Students can choose between Nursing L671 or Philanthropic Studies P512, and Economics E514 in the M.A. program may be taken to meet the SPEA H514 requirement in the M.S.N. program.

Further information regarding regulations governing advanced degree programs may be obtained from the respective departments. For more information, contact the Center on Philanthropy, (317) 274-4200.

Ph.D. in Philanthropic Studies

Designed to prepare future researchers and leaders in the world of philanthropy, higher education, and nonprofit organizations. The major goal of the program is to prepare future leaders who assist in

the solving of social problems from the perspective of understanding the social relationships of philanthropy. The Ph.D. will prepare students for academic positions as well as research and leadership positions in nonprofit organizations.

Before admission to the Ph.D. program, students must complete a master's degree in philanthropic studies or at least 30 credits of equivalent graduate course work. Equivalent work will be determined by the Admissions Committee. Examples include courses in nonprofit management, civil society, philanthropic history, ethics, religion, and philanthropy.

The minimum requirements for the Ph.D. in philanthropic studies are 90 credit hours of advanced study, of which 30 semester hours may be transferred from a master's degree or equivalent program that has covered the concepts of philanthropic studies as described in Indiana University's M.A. in Philanthropic Studies Program. The credit hours for the Ph.D. are distributed in the following categories: 12 credit hours of required courses, 12 credit hours for the minor, 9 credit hours of research methods, 6 credit hours of electives, 21 credit hours of dissertation credit.

Ph.D. Minor in Philanthropic Studies

Ph.D. students in other departments may, with the consent of their committee, minor in philanthropic studies. The minor will enable the student to take an organized body of courses focusing on the history, culture, and values of philanthropy, defined broadly as "voluntary action for the public good."

The director of graduate studies in philanthropic studies will recommend a member of the faculty to serve as an advisor. Four courses are required to be taken from an approved list and in consultation with the advisor. With written approval from the director of graduate studies in philanthropic studies, courses other than those listed may also be accepted to fulfill degree requirements. Because the subject of philanthropy is inherently

interdisciplinary, no more than two courses may be taken in any one department.

The minor requires that the 12 credit hours of approved course work, including P521, be completed with a grade of B (3.0) or higher in each course. No more than 6 credit hours of course work may be transferred from another university and applied toward this requirement, and such credit must be approved by the director of graduate studies in philanthropic studies. To arrange for a philanthropic studies minor, students should contact the director of graduate studies in philanthropic studies.

Courses

P501-P502 The Philanthropic Tradition I-II (3-3 cr.)

These interdisciplinary courses will examine the core values of philanthropy and the principal patterns of philanthropic behavior and organization with particular emphasis on the Western tradition and the American adaptation of it. Permission of the instructor required.

P512 Human and Financial Resources for Philanthropy (3 cr.)

This course is designed to familiarize beginning graduate students with the three major areas subsumed under resources of the independent sector: volunteers, grantmaking, and financial resources obtained through a fundraising program. The course will be divided into four parts to include the theoretical framework for the sector; government, corporate, and foundation resources; charitable donations by individuals; and volunteer management.

P521 The Nonprofit and Voluntary Sector (3 cr.)

The theory, size, scope and functions of the nonprofit and voluntary sector are covered from multiple disciplinary perspectives including historical, political, economic and social. Same as SPEA V521.

P523 Civil Society and Philanthropy (3 cr.)

The course explores the relationship of civil society to the state, how the

nonprofit sector affects the state and how the state regulates the sector. A continuing theme will be how and whether the state and philanthropic institutions make investments in strengthening civil society.

P530 Topics in Philanthropic Studies (3 cr.) In-depth study of selected topics and issues in philanthropic studies. Specific topics vary from semester to semester. Course may be repeated once for credit, provided that the topic is different. Variable title approval requested.

P555 Readings in Philanthropic Studies (1-4 cr.) A tutorial course involving in-depth study and analysis of a specific topic in philanthropic studies, by arrangement with instructor. Permission of director required.

P590 Internship in Philanthropic Studies (3 cr.) A course for the advanced student of philanthropy. Students work 10 hours per week for a voluntary association, applying knowledge gained in earlier courses to practical situations. Requirements include a journal and a substantial term paper.

P600 M.A. Thesis in Philanthropic Studies (3-6 cr.)

P690 Research in Philanthropic Studies (3 cr.) P: one semester of M.A. course work. Students will research specialized topics related to philanthropic studies agreed upon with the instructor from and in their chosen disciplinary perspective. In some instances, team research may be carried out. The course may be repeated once with approval by the chair of philanthropic studies.

P696 Topics in Biomedical Ethics (3 cr.) Topics in biomedical ethics focusing on variable issues, such as the healthcare needs of medically underserved people, responsibilities toward such groups, and evaluation of proposals to restructure the bioethical framework to rectify institutionalized injustices in research proprieties and medical practice. The course may be repeated for credit when topics vary.

CROSS-LISTED COURSES

The seminars and colloquia listed below often treat topics relevant to the Philanthropic Studies Program. In addition, new courses are being developed. Please see the graduate advisor for information about current offerings.

American Studies

G751 Seminar in American Studies (3-4 cr.)

**P520 Philanthropy in American Culture (3 cr.)
Anthropology**

A509 Cross-Cultural Dimensions of Philanthropy (3 cr.)

Economics

E514 The Nonprofit Economy and Public Policy (3 cr.)

Education

C585 Principles of Fundraising Management (3 cr.)

C595 Legal Aspects of Philanthropy (3 cr.)

C654 Higher Education in the U.S. (3 cr.)

C750 Topical Seminar (1-6 cr.)

H637 Topical Seminar (3 cr.)

English

L680 Topics: Philanthropy and Literature (4 cr.)

History

H509 Special Topics in European History: History of Philanthropy in the West (3 cr.)

H511 Special Topics in American History: History of American Philanthropy (3 cr.)

H650 Colloquium in United States History (4 cr.)

Journalism

J528 Public Relations Management (3 cr.)

J529 Public Relations Campaigns (3 cr.)

Nursing

J595 Action Research and Community Health Policy (3 cr.)

Philosophy

P542 The Ethics and Values of Philanthropy (3 cr.)

Religious Studies

R590 Directed Readings in Religious Studies (1-6 cr.)

R770 Social Ethics (3 cr.)

School of Public and Environmental Affairs (SPEA)

V521 The Nonprofit and Voluntary Sector (3 cr.)

V522 Human Resource Management in Nonprofit Organizations (3 cr.)

V523 Civil Society and Public Policy in the United States (3 cr.)

V524 Civil Society in Comparative Perspective (3 cr.)

V525 Nonprofit Management (3 cr.)

V526 Financial Management for Nonprofit Organizations (3 cr.)

V550 Topics in Public Affairs (1-3 cr.)

Sociology

S613 Complex Organizations (3 cr.)

Philosophy

**College of Arts and Sciences
Bloomington**

Chairperson

Professor Karen Hanson

Departmental URL

www.indiana.edu/~phil

Departmental E-mail

iuphil@indiana.edu

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Oscar R. Ewing Professor

J. Michael Dunn

Rudy Professor

Karen Hanson

Professors

Marcia Baron, Myles Brand, Andy Clark, Nino Cocchiarella (Emeritus), Paul D. Eisenberg (Emeritus), Milton Fisk (Emeritus), Mark Kaplan, David McCarty, Michael McRobbie, Michael Morgan, Frederick Schmitt, Paul Vincent Spade, Joan Weiner

Associate Professors

Timothy O'Connor*, Dennis Senchuk, Josefa Toribio

Assistant Professors

Peg Zeglin Brand*, Adam Leite*, Jonathan M. Weinberg*

Adjunct Professors

Barry Bull (Education), James Hart (Emeritus, Religious Studies), Douglas Hofstadter (Computer Science), Jeffrey Isaac (Political Science), Oscar Kenshur (Comparative Literature), Noretta Koertge (Emerita, History and Philosophy of Science), Gerry Larson (Religious Studies), Daniel Leivant (Computer Science), Elisabeth Lloyd (History and Philosophy of Science), Larry Moss (Mathematics), John Walbridge (Near Eastern Languages and Cultures)

Adjunct Associate Professors

Michael Dickson (History and Philosophy of Science), Robert Eno* (East Asian Languages and Cultures), Luise Prior McCarty (Education), William Rasch (Germanic Studies), Cornelis de Waal*

Director of Graduate Studies

Professor Fred Schmitt, Sycamore Hall 121, (812) 855-9503

Degrees Offered

Master of Arts and Doctor of Philosophy

Special Departmental Requirements

(See also general University Graduate School requirements.)

Admission

Applicants must take the Graduate Record Examination General Test. Those who have an inadequate background in philosophy may, with the approval of their faculty advisor, enroll in P590 for supplemental work, provided that the number of graduate credits so acquired does not exceed 9 credit hours. Upon admission, a graduate major in philosophy will be assigned a departmental faculty advisor who, in conjunction with the director of graduate studies, will help plan the student's program of study.

Master of Arts Degree

Course Requirements

A total of 30 credit hours, at least 20 credit hours of which must be in philosophy. These must include at least one course in each of four subject areas: history of philosophy, metaphysics and epistemology, logic, and value theory.

Grades

A minimum grade of B (3.0) is required in each course that counts toward the degree.

Language/Thesis Requirements

The student must either demonstrate reading proficiency in classical Greek, French, German, or Latin, or write an acceptable thesis. Up to 6 hours of thesis credit may be applied

to the course requirements and may be counted in the 20 credit hours of philosophy.

Doctor of Philosophy Degree

Course Requirements

A total of 90 credit hours, including dissertation (minimum of 30 credit hours).

Grades

A minimum grade point average of 3.0 (B) is required of work that counts toward the degree.

Foreign Language Requirement

Proficiency in at least one approved foreign language. Some specializations will require additional foreign languages.

First-Year Course

Each fall semester, one graduate course is designated as a required course for all incoming graduate students. An aim of this course is to convey a sense of the depth of research and the level of writing needed for success in the graduate program. Satisfactory completion of this course is required. This course can be counted toward the student's nine units of distribution requirements (see below).

Distribution and Specialization Requirements

Specific requirements vary across subject areas, but generally the distribution requirements can be satisfied by taking two courses each in metaphysics and epistemology, logic, and value theory, and three courses in the history of philosophy. Generally, specialization requirements can be satisfied by taking a total of four courses in one of these areas. Distribution requirements are normally satisfied by the end of the student's second year, and specialization requirements by the end of the third year. Students who are taking extensive course work (18 credit hours or more) in another department outside of philosophy can apply for exemption from two of the nine distribution units. For more details on the distribution and specialization requirements, see the document IU Department of Philosophy-Ph.D.

Requirements, obtainable from the department office and on the department's Web site.

Qualifying Exam

An essay, together with an oral exam, on a topic that the student plans to pursue further in the dissertation. The qualifying exam will test whether the student is ready to write a dissertation on the chosen topic. Students who have passed the qualifying exam and have satisfied the course and language requirements are ready to be nominated for candidacy. The qualifying exam should normally be taken by the end of three-and-one-half years of graduate study. Students who have not been admitted to candidacy by the beginning of their sixth year will be dropped from the program.

Dissertation Prospectus

A one- or two-page plan of the proposed dissertation that is submitted to the graduate school after it has been approved by the dissertation committee.

Dissertation Chapter Exam

A long essay (about 25 pages long) on the dissertation topic, with an optional oral component. The dissertation chapter exam should be taken within one year of passing the qualifying exam.

Ph.D. Minor in Philosophy

Doctoral students outside the department may minor in philosophy by completing 12 credit hours of graduate-level philosophy courses with a B (3.0) average or higher. No more than 9 credit hours may be taken as P590. The program must be approved by the director of graduate studies of the Department of Philosophy. Students planning to take P590 as part of their program must, in addition, obtain consent to do so from the instructor of that course.

Ph.D. Minor and Certificate in Logic

The Department of Philosophy participates in the Program in Pure and Applied Logic, along with the Departments of Computer Science,

Linguistics, and Mathematics. For details of the requirements for the Logic Minor and the Logic Certificate, see the booklet *IU Program in Pure and Applied Logic*, available in the departmental office, Sycamore 026.

Philosophy Ph.D. students may minor in logic, provided that (1) no courses are double-counted for major and minor, (2) at least three of the minor courses are taken outside the Department of Philosophy, and (3) the courses constituting the minor are approved by the Philosophy Logic Area Committee.

Courses

HISTORY OF PHILOSOPHY

P511 Plato (3 cr.)

P512 Aristotle (3 cr.)

P522 Topics in the History of Modern Philosophy (3 cr.) Selected topics from the philosophies of one or more of the following: Continental rationalists (Descartes, Spinoza, Leibniz), British empiricists (Locke, Berkeley, Hume), and Kant. May be repeated twice with consent of instructor(s).

P526 Nineteenth-Century Philosophy (3 cr.) Selected topics as announced.

P530 Twentieth-Century Analytic Philosophy I (3 cr.) Nineteenth-century British idealism, early Russell, and Moore.

P531 Twentieth-Century Analytic Philosophy II (3 cr.) Logical atomism and logical positivism.

P532 Twentieth-Century Analytic Philosophy III (3 cr.) Trends in recent analytic philosophy.

P535 Phenomenology and Existentialism (3 cr.) Selected topics as announced

P595 Intensive Reading: Ancient Philosophy from the Greek or Latin Texts (cr. arr.) Substantive philosophical topics investigated directly from Greek or Latin texts. Reading knowledge of ancient Latin

or Greek required. May be repeated for credit.

P596 Intensive Reading: Medieval Philosophy from the Sources (cr. arr.) Substantive philosophical topics investigated directly from Latin or Hebrew texts. Reading knowledge of medieval Latin or Hebrew required. May be repeated for credit.

P597 Intensive Reading: Modern Philosophy from the Sources (cr. arr.) Substantive philosophical topics investigated directly from modern foreign-language texts. Reading knowledge of language or languages involved is required. May be repeated for credit.

P710 Seminar: Topics in History of Philosophy (4 cr.) Selected topics from ancient, medieval, or modern philosophy. May be repeated.

P748 Seminar in American Philosophy (3 cr.) Advanced study of a principal philosopher or a set of selected topics in classical American philosophy.

SPECIAL TOPICS

P520 Philosophy of Language (3 cr.) Advanced study of selected topics.

P546 Philosophy of Art (3 cr.) In-depth discussion of contemporary aesthetic theories.

P561 Philosophy of Mind (3 cr.) In-depth discussion of representative contemporary theories.

P570 Philosophical Psychology (3 cr.) P720 Seminar: Philosophy of Language (4 cr.) Advanced topics in the philosophy of language, e.g., reference, meaning of truth, nature of language.

ETHICS

P540 Contemporary Ethical Theories (3 cr.) Fundamental problems of ethics in contemporary analytic philosophy, from G. E. Moore's *Principia Ethica* to present.

P541 Selected Topics in the History of Ethics (3 cr.) Selected topics in the history of ethics, ancient, medieval, or modern.

P542 The Ethics and Values of Philanthropy (3 cr.) An inquiry into the ethics and values of philanthropy, rooted in a general understanding of philanthropy as voluntary action of the public good, and as an ethical ideal. A consideration of philanthropic activity in light of the ideal.

P694 Biomedical Ethics (3 cr.) A rigorous examination of bioethical theory and practice. Emphasis is placed on moral and conceptual issues embedded in biomedical research, clinical practice, and social policy relating to the organization and delivery of health care.

P740 Seminar: Ethical Theory (4 cr.) Selected topics in ethical theory.

SOCIAL AND POLITICAL PHILOSOPHY

P543 Contemporary Social and Political Philosophy (3 cr.)

P544 Selected Topics in History of Social and Political Philosophy (3 cr.) Selected topics in the history of social and political philosophy, ancient, medieval, or modern.

P743 Seminar: Social and Political Theory (4 cr.) Selected topics in social and political theory.

PHILOSOPHY OF LAW

P545 Legal Philosophy (3 cr.) An introduction to major legal philosophers and fundamental legal philosophical questions. Logic
P350 Logic of Sets (3 cr.)

P505 Logical Theory I (3 cr.) P: P250 or equivalent. A survey of modern logic consisting of syntactic and semantic (proof-theoretic and model-theoretic) treatments of the propositional and predicate calculi.

P506 Logical Theory II (3 cr.) P: P505 or equivalent. A survey of central metatheoretic topics in modern logic with special emphasis

on (a) model theory and first-order completeness, (b) incompleteness and undecidability results of Gödel and Church, and (c) recursive function theory.

P550 Systems of Modal Logic (3 cr.) P: P251 or consent of instructor. Formal semantical and syntactical analysis of modal concepts, including temporal, dontic, epistemic, and general pragmatic modalities.

P551 Philosophy and Foundations of Mathematics (3 cr.) P: P251 or consent of instructor. R: P350. Philosophical and formal investigations on the foundations of mathematics. Examination of logicism, on the nature of mathematics, mathematical entities, and mathematical truth. Gödel's incompleteness theorem and its philosophical significance.

P552 Philosophy of Logic (3 cr.) P: P251 or consent of instructor. Philosophical issues on the nature of logic, alternative logics, the ontological commitments of logic, the analytic-synthetic dichotomy, the analysis of logical truth, etc. History of logic.

P750 Seminar: Logical Theory (4 cr.) Selected problems in the interpretation and application of logical systems. Such topics as model theory, nonstandard logics, and theory of meaning will be discussed.

P751 Seminar: Logic (4 cr.) Selected topics in advanced logic, e.g., set theory, recursive function theory, foundations of mathematics.

METAPHYSICS

P560 Metaphysics (3 cr.) In-depth discussion of representative contemporary theories.

P571 Philosophy of Nature (3 cr.) In-depth study of representative contemporary theories of space, time, causality, action, dispositions, and particulars.

P760 Seminar: Metaphysics and Epistemology (4 cr.) Advanced

topics in metaphysics or epistemology or both.

THEORY OF KNOWLEDGE

P562 Theory of Knowledge (3 cr.) Twentieth-century developments

P730 Seminar: Contemporary Philosophy (4 cr.) Selected topics on the works of twentieth-century philosophers.

Philosophy of Science (Available from the Department of History and Philosophy of Science)

X456 Historical Development of Philosophy of Science (3 cr.)

X551-X552 Survey of the Philosophy of Science I-II (3-3 cr.)

X571 Research Topics in the Philosophy of Science (1-3 cr.)
X600 Advanced Readings Course (cr. arr.)**

X654 Seminar: Philosophy of the Social Sciences (4 cr.)

X683 Philosophical Problems of Quantum Mechanics (4 cr.)

X691 Seminar: Philosophical Problems of Space and Time (4 cr.)

X692 Seminar: Foundations of Scientific Inference (4 cr.)

X755 Special Topics in the Philosophy of Science (2-5 cr.)

X756 Special Topics in the Philosophy of Science (2-5 cr.)

SPECIAL RESEARCH

P590 Intensive Reading (1-3 cr.) A tutorial course involving in-depth consideration of a specific philosophical area of problem or author. May be repeated for credit.

**These courses are eligible for a deferred grade.

P803 Master's Thesis in Philosophy (cr. arr.)**

805 Doctor's Thesis in Philosophy (cr. arr.)**

Philosophy

**School of Liberal Arts
Indianapolis**

Chairperson
Professor Michael Burke

Departmental URL
www.iupui.edu/~philosophy

Program URL
www.iupui.edu/~philosophy/graduate.htm

Departmental E-mail
cdwaal@iupui.edu (American Philosophy)
jeberl@iupui.edu (Bioethics)

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors
Michael Burke, Edmund Byrne (Emeritus), Anne Donchin (Emerita), Nathan Houser, Laurence Lampert, Eric Meslin (Philosophy and Medicine), Paul Nagy (Emeritus, American Studies)

Associate Professors
André De Tienne*, Richard Gunderman (Philosophy and Medicine), Ursula Niklas, John Tilley

Assistant Professors
Cornelis de Waal*, Jason T. Eberl*, Timothy D. Lyons*

Degree Offered
Master of Arts in Philosophy

Master of Arts in Philosophy

The Department of Philosophy M.A. program offers two concentrations: Bioethics and American Philosophy

Special Departmental Requirements

Admission Requirements

Applicants are expected to have a bachelor's degree from an accredited university or its equivalent, with a grade point average of at least 3.0 overall (on a 4.0 scale) and at least 3.0 in the student's major. There is no specific major requirement, but applicants must show a record of course work (or equivalent experience) demonstrating that they are sufficiently prepared to do graduate work in philosophy. For applicants interested in the bioethics track, professional training or experience that involved health care ethics could be accepted in lieu of coursework. Applicants must also show an appropriate level of achievement on the Graduate Record Examination (GRE) General Test.

Program Requirements

Students are required to take a minimum of 30 credit hours, including a 6 credit hour thesis written under the guidance of an appropriate faculty committee (Students who elect the bioethics concentration may substitute for the thesis a 6 credit hour research project, completed under the guidance of an appropriate faculty committee. Examples of admissible research projects: research that leads to a paper of sufficient length and quality to be considered for publication in a peer-reviewed journal; a comprehensive briefing paper for a legislative hearing; an analysis of a hospital, institutional, or research policy.)

The program is divided into three modules. Students must complete 6 credit hours in core areas of philosophy (module 1), 18 credit hours in concentration-specific courses (module 2), and 6 credit hours toward a thesis or research project (module 3). Students must attend and complete these courses at IUPUI, excepting those courses accepted for transfer. At least 15 credit hours must be taken at IUPUI. No course with a grade lower than a B will count toward the degree.

Module 1: Philosophy Core (6 cr. required)

PHIL P525 Topics in the History of Philosophy (3 cr.)
 PHIL P540 Contemporary Ethical Theories (3 cr.)
 PHIL P543 Contemporary Social and Political Philosophy (3 cr.)
 PHIL P553 Philosophy of Science (3 cr.)
 PHIL P560 Metaphysics (3 cr.)
 PHIL P562 Theory of Knowledge (3 cr.)

Module 2:

Concentration-specific courses (18 cr. required)

Bioethics

1. Required foundational course (3 cr.)
 PHIL P547 Foundations of Bioethics (3 cr.)
2. Concentration-specific electives (15 cr. required)

a. Areas of central importance (6 cr. required)

PHIL P548 Clinical Ethics Practicum (3 cr.)
 LAW D838 Bioethics and Law (3 cr.)
 MHHS M504 Introduction to Research Ethics (3 cr.)

b. Specialized electives (9 cr. required)

ANTH E445 Medical Anthropology (3 cr.)
 COMM G510 Health Provider-Consumer Communication (3 cr.)
 HIST H546 History of Medicine (3 cr.)
 NURS N534 Ethical and Legal Perspectives in Advanced Nursing Practice (2 cr.)
 PHIL P549 Bioethics and Pragmatism (3 cr.)
 PHIL P555 Ethical and Policy Issues in International Research (3 cr.)
 PHIL P590 Intensive Reading (1-4 cr.) [Only with track-specific content]
 PHIL P600 Topics in Philosophy (3 cr.) [When content is track specific]
 PHIL P696 Topics in Biomedical Ethics (3 cr.)
 PHIL P730 Seminar in

Contemporary Philosophy (4 cr.) [When content is track specific]
 SOC R515 Sociology of Health and Illness (3 cr.)
 SOC S560 Topics: Death and Dying (3 cr.)

American Philosophy

1. **Required foundational course (3 cr.)** PHIL P558 American Philosophy (3 cr.)
2. **Concentration specific electives (9 cr. required)**
 P503 The Semiotics of C. S. Peirce (3 cr.)
 P507 American Philosophy and the Analytic Tradition (3 cr.)
 P514 Pragmatism (3 cr.)
 P549 Bioethics and Pragmatism (3 cr.)
 P590 Intensive Reading (1-4 cr.) [Only with track-specific content]
 P600 Topics in Philosophy (3 cr.) [When content is track specific]
 P650 Topics in Semiotic Philosophy (3 cr.)
 P701 Peirce Seminar (3 cr.)
 P730 Seminar in Contemporary Philosophy (4 cr.) [When content is track specific]
 P748 Seminar in American Philosophy (3 cr.)
3. **Open electives (6 cr. required)**
 These include all of the courses above, as well as all other graduate courses offered in the IUPUI Department of Philosophy. The latter include:
 PHIL P520 Philosophy of Language (3 cr.)
 PHIL P542 The Ethics and Values of Philanthropy (3 cr.)

Module 3: Thesis or Research Project (6 cr. required)

PHIL P803 Master's Thesis in Philosophy (3-6 cr.)

Ph.D. Minor

Although IUPUI does not offer a doctoral degree program in philosophy, a doctoral minor in philosophy is available to graduate students outside the philosophy department. See the department chair for details.

Course Requirements

To earn a doctoral minor in philosophy at IUPUI, a student outside the department must earn a minimum grade point average 3.0 (B) in 13 credit hours of graduate-level courses including 3 credits in the core course (P500), 6 in philosophical area and/or applied philosophy courses, and 4 in the culminating seminar (P730).

Courses

PHILOSOPHY COURSES

P500 Philosophy Proseminar (3 cr.)

P503 The Semiotics of C. S. Peirce (3 cr.) A general introduction into the semiotics of C. S. Peirce.

P507 American Philosophy and the Analytic Tradition (3 cr.) An overview of the development of American philosophy with a special focus on its contribution to and influence on the American analytic tradition. This course discusses the views of such philosophers as C. I. Lewis, Rudolph Carnap, W. V. O. Quine, Donald Davidson, Hillary Putnam, and Susan Haack.

P514 Pragmatism (3 cr.) This course examines what pragmatism stood for in its formative years and what it has become; then, after studying some conflicting views of well-known pragmatists, it considers what pragmatism might become. Part of the course is devoted to the contributions of pragmatism to different areas within philosophy.

P520 Philosophy of Language (3 cr.) Advanced study of selected topics.

P525 Topics in the History of Philosophy (3 cr.) An advanced study of important themes or major figures in the history of philosophy. May be repeated for credit if topics vary.

P540 Contemporary Ethical Theories (3 cr.) Fundamental problems of ethics in contemporary analytic philosophy from G. E.

Moore's *Principia Ethica* to the present.

P542 The Ethics and Values of Philanthropy (3 cr.) An inquiry into the ethics and values of philanthropy rooted in a general understanding of philanthropy, as voluntary action for the public good, as an ethical ideal. A consideration of philanthropic activity in light of this ideal.

P543 Contemporary Social and Political Philosophy (3 cr.)

P547 Foundations of Bioethics (3 cr.) A rigorous examination of bioethical theory and practice. Stress is placed on moral and conceptual issues embedded in biomedical research, clinical practice, and social policy relating to the organization and delivery of health care.

P548 Clinical Ethics Practicum (3 cr.) Application of the methods of philosophical analysis to current ethical issues arising in IU-affiliated hospitals and clinics. The practicum gives students firsthand experience of clinical ethics problems in "real time," showing them both the need for conceptual frameworks and the difficulties associated with them.

P549 Bioethics and Pragmatism (3 cr.) A survey of recent contributions of American philosophy to bioethics. The course strongly focuses on a growing group of philosophers and ethicists who seek their inspiration in Dewey, James, Peirce, Royce, and Mead, while dealing with contemporary issues in medical ethics.

P553 Philosophy of Science (3 cr.) A study of theories with regard to the nature, purpose, and limitations of science. Attention is given to the cognitive significance of theories, the scientific method (hypothesis formation, theory construction, and testing), research paradigms, reductionism, and social epistemology.

P555 Ethical and Policy Issues in International Research (3 cr.) Examines ethical and policy issues in the design and conduct of transnational research involving

human participants. Topics discussed include: economic and political factors; study design; the role of ethics review committees; individual and group recruitment/ informed consent; end of study responsibilities; national and international guidelines.

P558 American Philosophy (3 cr.) General introduction to American philosophy.

P560 Metaphysics (3 cr.) In-depth discussion of representative contemporary theories.

P562 Theory of Knowledge (3 cr.) Advanced study of selected topics.

P590 Intensive Reading (1-4 cr.) A tutorial course involving in-depth consideration of a specific philosophical area or problem or author. May be repeated for credit.

P600 Topics in Philosophy (3 cr.) This course addresses some particular topic within philosophy. May be repeated for credit.

P650 Topics in Semiotic Philosophy (3 cr.) An examination of various historical and theoretical issues arising from the philosophical study of semiosis—the general phenomenon of representation, objectification, signification, and interpretation—through the work of mostly American philosophers from the late nineteenth century to the present, with an emphasis on the impact of Peirce's semiotic philosophy.

P696 Topics in Biomedical Ethics (3 cr.) Selected topics in bioethics, such as international research ethics; ethical issues in pediatrics; ethical issues in genetics.

P701 Peirce Seminar (3 cr.) This course is designed to give students a firm and broad understanding of the philosophy of Charles S. Peirce.

P730 Seminar in Contemporary Philosophy (4 cr.) Selected topics on the works of twentieth-century philosophers. May be repeated for credit.

P748 Seminar in American Philosophy (3 cr.) Different topics course which students can take repeatedly for credit. Sample topics include American Phenomenology (De Tienne), American Realism (De Waal), Emerson (Hanson), James (Nagy), Royce (De Tienne), Dewey (Nagy), and Mead (De Waal).

P803 Master's Thesis in Philosophy (cr. arr.)

COURSES OFFERED IN OTHER DEPARTMENTS

Anthropology

E445 Medical Anthropology (3 cr.) A cross-cultural examination of a biocultural systems model of human adaptation in health and disease, including: the interaction of biology, ecology, and culture in health; ethnomedical systems in the cross-cultural conception, presentation, diagnosis, and treatment of disease; and sociocultural change and health. This course has been approved for graduate credit.

Communication and Culture

C510 Health Provider-Consumer Communication (3 cr.)

History

H546 History of Medicine (3 cr.) History of medicine and public health in Europe and America, including ancient and medieval background, with focus on the development of modern health sciences since 1800.

Law

D838 Bioethics and Law (3 cr.) Biological, ethical, and legal aspects of medical genetics, euthanasia, procreational technologies, abortion, organ transplants, "Baby Doe" cases, or other topics of current interest.

Medical Humanities/Health Studies

M504 Introduction to Research Ethics (3 cr.) Ethical issues in designing, conducting, analyzing and presenting research; includes

historical and theoretical background as well as case studies of such issues as scientific misconduct, data management and reporting, publication practices, intellectual property, funding of research and conflict of interest, human subject research and institutional review boards, and public perceptions of science.

Nursing

N534 Ethical and Legal Perspectives in Advanced Nursing Practice (2 cr.) This course discusses and analyzes major ethical and legal terms and the principles underlying legal and ethical health care practices. Students analyze selected theories/concepts/ principles of ethics and law within a framework of ethical decision making in advanced nursing practice.

Sociology

R515 Sociology of Health and Illness (3 cr.) Surveys important areas of medical sociology, focussing on social factors influencing the distribution of disease, help-seeking and health care. Topics covered include social epidemiology, the health care professions, socialization of providers and issues of cost and cost containment.

R527 Sociology of Death and Dying (3 cr.) This course explores the human confrontation with mortality from a social, historical, and moral perspective. Topics to be discussed include Western attitudes towards death, medicalization of dying, human implications of high-tech dying, the right-to-die movement, funeral rituals, the death of children, and the violent death of suicide and genocide.

S560 Topics in Sociology (Death and Dying) (3 cr.)

Physics

**College of Arts and Sciences
Bloomington**

Chairperson
Professor James Musser

Departmental E-mail
gradphys@indiana.edu

Departmental URL
physics.indiana.edu

Graduate Faculty
(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Distinguished Professors
Roger Newton (Emeritus), Robert Pollock (Emeritus)

Professors
E. D. Alyea Jr. (Emeritus), Andrew Bacher, David Baxter, Robert Bent (Emeritus), Leslie Bland, Bennet Brabson, John Cameron, John Challifour (Mathematics), Ray Crittenden (Emeritus), Robert de Ruttyer, Alex Dzierba, James Glazier, Charles Goodman (Emeritus), Steven Gottlieb, Richard Hake (Emeritus), Richard Heinz, Archibald Hendry, Charles Horowitz, Larry Kesmodel, Alan Kostelecky, S. Y. Lee, Andrew Lenard (Emeritus), Don Lichtenberg (Emeritus), Timothy Londergan, Malcolm Macfarlane (Emeritus), Hugh Martin (Emeritus), Hans Meyer, Daniel Miller (Emeritus), James Musser, Hermann Nann, Harold Ogren, Catherine Olmer, William Schaich, Peter Schwandt (Emeritus), Brian Serot, James Swihart (Emeritus), Richard Van Kooten, Steven Vigdor, George Walker, John Wills (Emeritus), Scott Wissink, Andrzej Zieminski

Senior Scientists
Charles Bower (Astronomy), Pauline Gagnon, William Jacobs, James Sowinski, Edward Stephenson, Scott Teige, Daria Zieminska

Associate Professors
Michael Berger, John Carini, Fred Lurie (Emeritus), William Snow, Adam Szczepaniak

Associate Scientist

Fred Luehring*

Assistant Professors

John Beggs*, Mark Messier*, Sima Setayeshgar*, Rex Tayloe*, Jon Urheim*

Graduate Advisor

Professor Brian Serot, Swain Hall
West 234, (812) 855-0780

Degrees Offered

Master of Science, Master of Arts for Teachers, and Doctor of Philosophy. The department also participates in the Ph.D. programs in astrophysics, chemical physics, and mathematical physics (described elsewhere in this bulletin).

Special Departmental Requirements

(See also general University Graduate School requirements.)

Grades

B average (3.0) required. See special requirement under Master of Science Degree for courses numbered below 501 that are to be counted toward that degree.

Master of Science Degree

Admission Requirements

Physics P201, P202, P301, P309, P331, P332, and P340 (or equivalents); Mathematics M211-M212, M311 (or equivalents).

Deficiencies must be removed without graduate credit.

Course Requirements

A total of 30 credit hours, of which at least 14 credit hours must be in physics courses numbered 501 or above. Seminars, research, and reading courses may not be counted toward this 14 credit hour requirement. Physics courses numbered below 501 that are listed in this bulletin may count toward the 30 credit hour requirement only if passed with a grade of B (3.0) or above.

Thesis

Not required.

Final Examination

Written or oral. May be taken only twice.

Master of Science in Beam Physics and Technology Degree

Admission Requirements

Same as for Master of Science degree.

Course Requirements

A total of 30 credit hours, including the following: proof of proficiency in undergraduate senior-level classical mechanics and electromagnetism, or passing the Classical Mechanics and Electromagnetism in Beams examination offered by the U.S. Particle Accelerator School (USPAS) with grade B or higher, P570, one course at the 500 level or above in laboratory techniques or computational methods, and a master's thesis course (P802). Four advanced courses in beam physics should be chosen from among the special topics courses P571, P671, and P672, with topics to be listed in a syllabus prepared jointly by the Department of Physics and USPAS. A grade point average of 3.0 or better must be maintained in the courses satisfying the 30 credit hour requirement. In particular, both senior-level classical mechanics and electromagnetism (or equivalents) must be passed with a grade of B (3.0) or above.

Thesis

Required.

Final Examination

Either a defense of the thesis or a written final examination is required, and should take place at Indiana University. The written examination may be substituted for the defense only with the permission of the thesis committee. The defense of the thesis will follow the same guidelines as the Master of Science thesis of the Indiana University Graduate School.

Master of Arts for Teachers Degree

Admission Requirements

8 credit hours of undergraduate physics courses.

Course Requirements

20 credit hours in physics courses

numbered P300 or higher, selected from the course listings below (recommended: P301, P309, P331, P332, P360, P451, P453, P454), the remaining 16 credit hours in graduate education and in mathematics, astronomy, or chemistry.

Doctor of Philosophy Degree

Admission Requirements

Same as those for Master of Science degree.

Course Requirements

A total of 90 credit hours, including two courses at the 600 level or higher in one of the following six areas: accelerator physics (P671 plus one of P633, P634, P640, P641, P672), biological physics (P575 plus one of P548, P609, P657, P676), condensed-matter physics (P557, P615, P616, P627, P657), high-energy physics (P535, P635, P636, P640, P641, P707, P708), mathematical physics (P522, P607, P609, P622, P637, P638, P647, P665, P743), nuclear physics (P535, P626, P633, P634). Courses offered for the (optional) inside minor cannot be used to satisfy this requirement. A minimum of 9 credit hours per semester at the P501 level or above with a minimum 3.0 (B) grade point average is required. Mathematics courses suited to the student's fields will be specified by advisors in the Department of Physics.

Minor

The minor may be taken either inside or outside of the department. The inside minor for all majors except biological physics consists of P551, either P621 or P625, and at least two different courses, falling within nonmajor areas of concentration, among the six areas listed above. For biological physics the inside minor consists of at least two different courses falling within non-major areas of concentration, among the six areas listed above. Programs of study for outside minors are determined by the individual departments and typically require 9 to 12 credit hours of course work. Recommended outside fields: astronomy, chemistry, and mathematics. All minors must be approved by the graduate advisor of

the Department of Physics. Note that P535 Introduction to Nuclear and Particle Physics cannot be counted toward the inside minor for students specializing in either nuclear physics or high-energy physics. For students specializing in other fields, P535 can be counted once toward the inside minor and can be considered as a course in either nuclear physics or high-energy physics for that purpose.

Outside Minor in Physics

For students in other departments who wish an outside minor in physics, the requirement is a minimum of 9 credit hours at the 501 level or above. The grade point average for the 9 credit hours must be at least 3.0. Students who wish to complete the physics minor should bring the Nomination to Candidacy form to the Physics Academic Services Office for a signature upon completion of this requirement.

Qualifying Examination

Written. May be taken only twice. Must be taken at the end of the first year and must be passed by the end of the second year. The written examination covers the subjects of mechanics, electricity and magnetism, quantum mechanics, and thermodynamics/statistical physics at the level of first-year graduate work. Relevant courses are P506, P507, P511, P512, P521, and P556. Not attempting the qualifying examination at the required time constitutes an automatic failure.

Candidacy Seminar

Must be presented after the first attempt at the qualifying examination but before the end of the fifth semester. Usually pertains to a proposed dissertation topic.

Dissertation

Result of a significant piece of original research.

Final Examination

Oral defense of dissertation.

Courses

Courses at the 300 level listed below may be taken for graduate credit only by M.A.T. students in physics; those at the 400 level or above are

available for graduate credit to all graduate students.

PHYSICS

P301 Physics III (3 cr.)

P309 Modern Physics Laboratory (2 cr.)

P331-P332 Theory of Electricity and Magnetism I-II (3-3 cr.)

P340 Thermodynamics and Statistical Mechanics (3 cr.)

P360 Physical Optics (3 cr.)

P410 Computing Applications in Physics (3 cr.)

P441-P442 Analytical Mechanics I-II (3-3 cr.)

P451 Atomic and Nuclear Physics Laboratory I (2 cr.)

P453 Introduction to Quantum Physics (3 cr.)

P454 Modern Physics (4 cr.)

P500 Seminar (1 cr.) Reports on current literature. Graduate students and staff participate.

P504 Practicum in Physics Laboratory Instruction (1 cr.) Practical aspects of teaching physics labs. Meets the week before classes and one hour per week during the semester to discuss goals, effective teaching techniques, grading standards, AI-student relations, and administrative procedures as applied to P201. Students enrolling in this course teach a section of P201 laboratory.

P506 Electricity and Magnetism I (4 cr.) Three hours of lectures and one hour of recitation. Development of Maxwell's equations. Conservation laws. Problems in electrostatics and magnetostatics. Introduction to the special functions of mathematical physics. Time-dependent solutions of Maxwell's equations. Motion of particles in given electromagnetic fields. Elementary theory of radiation. Plane waves in dielectric and

conducting media. Dipole and quadrupole radiation from nonrelativistic systems.

P507 Electricity and Magnetism II (4 cr.) Three hours of lectures and one hour of recitation. Further development of radiation theory. Fourier analysis of radiation field and photons. Scattering and diffraction of electromagnetic waves. Special relativity. Covariant formulation of electromagnetic field theory.

P508 Current Research in Physics (1 cr.) Presentations by faculty members designed to give incoming graduate students an overview of research opportunities in the department.

P511 Quantum Mechanics I (4 cr.) Three hours of lectures and one hour of recitation. Basic principles, the Schrödinger equation, wave functions, and physical interpretation. Bound and continuum states in one-dimensional systems. Bound states in central potential; hydrogen atom. Variational method. Time-independent perturbation theory.

P512 Quantum Mechanics II (4 cr.) P: P511. Three hours of lectures and one hour of recitation. Time-dependent perturbation theory. Schrödinger, Heisenberg and interaction pictures. Elementary theory of scattering. Rotations and angular momentum. Other symmetries. Nonrelativistic, many-particle quantum mechanics, symmetry and antisymmetry of wave functions, and Hartree-Fock theory of atoms and nuclei.

P521 Classical Mechanics (3 cr.) Vector and tensor analysis. Lagrangian and Hamiltonian dynamics. Conservation laws and variational principles. Two-body motion, many-particle systems, and rigid-body motion. Canonical transformations and Hamilton-Jacobi theory. Continuum mechanics with introduction to complex variables.

P522 Advanced Classical Mechanics (3 cr.) Mathematical methods of classical mechanics;

exterior differential forms, with applications to Hamiltonian dynamics. Dynamical systems and nonlinear phenomena; chaotic motion, period doubling, and approach to chaos.

P535 Introduction to Nuclear and Particle Physics (3 cr.) P: P453 or equivalent. Survey of the properties and interactions of nuclei and elementary particles. Experimental probes of subatomic structure. Basic features and symmetries of electromagnetic, strong and weak forces. Models of hadron and nuclear structure. The role of nuclear and particle interactions in stars and the evolution of the universe.

P540 Digital Electronics (3 cr.) Digital logic, storage elements, timing elements, arithmetic devices, digital-to-analog and analog-to-digital conversion. Course has lectures and labs emphasizing design, construction, and analysis of circuits using discrete gates and programmable devices.

P541 Analog Electronics (3 cr.) Amplifier and oscillator characteristics feedback systems, bipolar transistors, field-effect transistors, optoelectronic devices, amplifier design, power supplies, and the analysis of circuits using computer-aided techniques.

P548 Mathematical Methods for Biology (3 cr.) P: consent of instructor. See MATH M548.

P551 Modern Physics Laboratory (3 cr.) Graduate-level laboratory; experiments on selected aspects of atomic, condensed-matter, and nuclear physics.

P556 Statistical Physics (3 cr.) The laws of thermodynamics; thermal equilibrium, entropy, and thermodynamic potentials. Principles of classical and quantum statistical mechanics. Partition functions and statistical ensembles. Statistical basis of the laws of thermodynamics. Elementary kinetic theory.

P557 Solid State Physics (3 cr.) P: P453 or equivalent. Atomic theory of solids. Crystal and band theory.

Thermal and electromagnetic properties of periodic structures.

P570 Introduction to Accelerator Physics (3 cr.) P: approval of instructor. Overview of accelerator development and accelerator technologies. Transverse phase space motion and longitudinal synchrotron motion of a particle in an accelerator. Practical accelerator lattice design. Design issues relevant to synchrotron light sources. Basics of free electron lasers. Spin dynamics in cyclic accelerators and storage rings.

P571 Special Topics in Physics of Beams (3 cr.) P: approval of instructor.

P575 Introductory Biophysics (3 cr.) Overview of cellular components; basic structures of proteins, nucleotides, and biological membranes; solution physics of biological molecules; mechanics and motions of biopolymers; physical chemistry of binding affinity and kinetics; physics of transport and signal transduction; biophysical techniques such as microscopy and spectroscopy; mathematical modeling of biological systems; biophysics in the post-genome era.

P581 Modeling and Computation in Biophysics (3 cr.) Introduction to modeling and computational methods applied to phenomena in Biophysics. Topics: Population Dynamics. Reaction Kinetics. Biological Oscillators. Coupled Reaction Networks. Network Theory. Molecular Motors. Limit Cycles. Reaction Diffusion Models. The Heart. Turning Instability. Bacterial Patterns. Angiogenesis.

P582 Biological and Artificial Neural Networks (3 cr.) Biological details of neurons relevant to computation. Artificial neural network theories and models, and relation to statistical physics. Living neural networks and critical evaluation of neural network theories. Students' final projects will consist of programming networks and applying them to current research topics.

P583 Signal Processing and Information Theory in Biology (3 cr.) Probability and statistics. Filtering. Correlation functions and power spectra. Time invariant and time-varying systems. Shannon Information. Coding and decoding. Processing of sensory signals and other applications to Neurobiology and Psychophysics.

P607 Group Representations (3 cr.) P: consent of instructor. Elements of group theory. Representation theory of finite and infinite compact groups. Study of the point crystal, symmetric, rotation, Lorentz, and other classical groups as time permits. Normally offered in alternate years; see also MATH M607-M608.

P609 Computational Physics (3 cr.) Designed to introduce students (1) to numerical methods for quadrature, solution of integral and differential equations, and linear algebra; and (2) to the use of computation and computer graphics to simulate the behavior of complex physical systems. Topics will vary.

P610 Computational Physics II (3 cr.) Second semester of computational physics focusing on more advanced topics, e.g., fractals, kinetic growth models, models in statistical mechanics, quantum systems and fast fourier transforms, parallel computing.

P615-P616 Physics of the Solid State I-II (3-3 cr.) P: P512. Mechanical, thermal, electric, and magnetic properties of solids; crystal structure; band theory; semiconductors; phonons; transport phenomena; superconductivity; superfluidity; and imperfections. Usually given in alternate years.

P621 Relativistic Quantum Field Theory I (4 cr.) P: P512. Introduction to quantum field theory, symmetries, Feynman diagrams, quantum electrodynamics, and renormalization.

P622 Relativistic Quantum Field Theory II (4 cr.) P: P621. Non-Abelian gauge field theory, classical properties, quantization and

renormalization, symmetries and their roles, and nonperturbative methods.

P625 Quantum Many-Body Theory I (3 cr.) P: P512. Elements of nonrelativistic quantum field theory: second quantization, fields, Green's functions, the linked-cluster expansion, and Dyson's equations. Development of diagrammatic techniques and application to the degenerate electron gas and imperfect Fermi gas. Canonical transformations and BCS theory. Finite-temperature (Matsubara), Green's functions, and applications.

P626 Quantum Many-Body Theory II-Nuclear (3 cr.) P: P625. Continued development of nonrelativistic, many-body techniques, with an emphasis on nuclear physics: real-time, finite-temperature Green's functions, path-integral methods, Grassmann algebra, generating functionals, and relativistic many-body theory. Applications to nuclear matter and nuclei.

P627 Quantum Many-Body Theory II-Condensed Matter (3 cr.) P: P625. Continued development of nonrelativistic many-body techniques with an emphasis on condensed-matter physics: properties of real metals, superconductors, superfluids, Ginzburg-Landau theory, critical phenomena, order parameters and broken symmetry, ordered systems, and systems with reduced dimensionality.

G630 Nuclear Astrophysics (3 cr.) P: A451-A452, P453-P454, or consent of instructor. R: A550, P611. Fundamental properties of nuclei and nuclear reactions and the applications of nuclear physics to astronomy. The static and dynamic properties of nuclei; nuclear reaction rates at low and high energies. Energy generation and element synthesis in stars; the origin and evolution of the element abundances in cosmic rays.

P633-P634 Theory of the Nucleus I-II (3-3 cr.) P: P512. Nuclear forces, the two-nucleon problem, systematics and electromagnetic

properties of nuclei, nuclear models, nuclear scattering and reactions, theory of beta-decay, and theory of nuclear matter.

P635-P636 Frontier Particle Physics I-II (3-3 cr.) This course focuses on the frontier of particle physics. Topics include Standard-Model physics, neutrino masses, tests of fundamental symmetries, anomalies, grand unified theories, higher-dimensional theories, supersymmetry, composite models, supergravities, string and superstring theory.

P637 Theory of Gravitation I (3 cr.) Introduction to the general theory of relativity, stress-energy tensor, parallel transport, geodesics, Einstein's equation, differential geometry, manifolds, general covariance, bending of light, perihelion advance. Modern cosmology: Robertson-Walker metric, equations of state, Friedmann equations, Hubble's law, redshift, cosmological constant, inflation, quintessence, cosmic microwave background, Big Bang nucleosynthesis, structure formation. See MATH M637.

P638 Theory of Gravitation II (3 cr.) Gravitation waves, Schwarzschild geometry and black holes, Kerr metric, Reissner-Nordstrom metric, extremal black holes, Penrose diagrams, Hawking radiation, Lie derivatives, isometries and Killing vectors, variational principle and the Palatini formalism, spinors in general relativity, vierbeins, gravitation as a gauge theory, quantum gravity. See MATH M638.

P640 Subatomic Physics I (3 cr.) P: P512, C: P621. Experimental methods and theoretic description of particle and nuclear physics: applied relativistic quantum mechanics, symmetries of fundamental interactions, experimental techniques, structure of the nucleon, electromagnetic and weak interactions, elementary particles, and the Standard Model. PHYS P640 may be substituted for P633 in degree requirements.

P641 Subatomic Physics II (3 cr.) P: P640. Quarks and gluons in QCD, the parton model, strong interactions at low energies, nuclear environment and models, nuclear thermodynamics and subatomic physics in cosmology and astrophysics. PHYS P641 may be substituted for P634 in degree requirements.

P647 Mathematical Physics (3 cr.) P: P501 or P502, P521, or MATH M442. Topics vary from year to year. Integral equations, including Green's function techniques, linear vector spaces, and elements of quantum mechanical angular momentum theory. For students of experimental and theoretical physics. May be taught in alternate years by members of Departments of Physics or Mathematics, with corresponding shift in emphasis; see MATH M647.

P657 Statistical Physics II (3 cr.) Continuation of P556. Topics include advanced kinetic and transport theory, phase transitions, and nonequilibrium statistical mechanics.

P665 Scattering Theory (3 cr.) P: P506, P511. Theoretical tools for analysis of scattering experiments. Electromagnetic theory, classical and quantum particle dynamics.

P671 Special Topics in Accelerator Physics (3 cr.) P: P570, P521. Nonlinear dynamics: betatron phase space distortion due to the nonlinear forces. Methods of dealing with nonlinear perturbations. Multi-particle dynamics: microwave and coupled bunch instabilities. Physics of electron cooling and stochastic cooling. Advanced acceleration techniques: inverse free electron laser acceleration, wakefield and two-beam acceleration.

P672 Special Topics in Accelerator Technology and Instrumentation (3 cr.) P: consent of instructor.

P676 Selected Topics in Biophysics (3 cr.) This course presents papers on current topics in biophysics, together with key classical papers related to those topics. Student participation in discussions is essential. Each student is expected to

write two essays on two of the topics presented.

P700 Topics in Theoretical Physics (cr. arr.)

P702 Seminar in Nuclear Spectroscopy (cr. arr.)

P703 Seminar in Theoretical Physics (cr. arr.)

P704 Seminar in Nuclear Reactions (cr. arr.)

P705 Seminar in High-Energy Physics and Elementary Particles (cr. arr.)

P706 Seminar in Solid State Physics (cr. arr.)

P707-P708 Topics in Quantum Field Theory and Elementary Particle Theory (3-3 cr.)

G711 Graduate Seminar in Chemical Physics (cr. arr.)

P743 Topics in Mathematical Physics (3 cr.) P: consent of instructor. For advanced students. Several topics in mathematical physics studied in depth; lectures and student reports on assigned literature. Content varies from year to year. May be taught in alternate years by members of Departments of Physics or Mathematics, with corresponding shift in emphasis; see MATH M743.

P782 Topics in Experimental Physics (1-4 cr.)

P790 Seminar in Mathematical Physics (cr. arr.)

P800 Research (cr. arr.) Experimental and theoretical investigations of current problems; individual staff guidance. S/F grading.

P801 Readings (cr. arr.) Readings in physics literature; individual staff guidance. S/F grading.

P802 Research (cr. arr.) Experimental and theoretical investigations of current problems; individual staff guidance. Graded by letter grade.

P803 Readings (cr. arr.) Readings in physics literature; individual staff guidance. Graded by letter grade.

ASTROPHYSICS

G750 Topics in Astrophysical Sciences (1-3 cr.)

Planning Information Systems

School of Public and Environmental Affairs
Indianapolis

Graduate Program Director
Associate Professor Debra Mesch,
phone: (317) 274-8635

Departmental E-mail
infospea@iupui.edu

Departmental URL
www.spea.iupui.edu

Certificate in Planning Information Systems

Course Requirements
The requirements for the Area Certificate in Planning Information Systems include:

- P525 Geographic Information Systems for Planning (2 cr.)
- P527 Planning Applications of Geographic Information Systems (2 cr.)
- P520 Methods for Planning and Policy Analysis (2 cr.)
- V516, Public Management Information Systems (3 cr.)

Two additional courses (5-6 credits) in planning or a related field, approved by the student's academic advisor.

Examination
As required by home department or program.

Statistics Requirement
As required by home department or program.

Political Science

College of Arts and Sciences
Bloomington

Chairperson
Professor Jeffrey C. Isaac

Departmental URL
www.indiana.edu/~iupolsci

Departmental E-mail
iupolsci@indiana.edu

Apply electronically for admission
www.indiana.edu/~grdschl/
infoadm.html

Graduate Faculty
(An asterisk [*] denotes associate membership in University Graduate School faculty.)

University Professor
York Willbern (Emeritus, Public and Environmental Affairs)

Rudy Professors
Edward G. Carmines, Jeffrey Isaac

Arthur F. Bentley Professors
Lynton Caldwell (Emeritus, Public and Environmental Affairs), Elinor Ostrom (Public and Environmental Affairs), Vincent Ostrom (Emeritus)

Warner O. Chapman Professor
Edward G. Carmines

Professors
Jack Bielasiak, Alfred Diamant (Emeritus), William Fierman (Central Eurasian Studies), Norman Furniss, Russell Hanson, Iliya Harik (Emeritus), Jeffrey Hart, Marjorie Hershey, Francis Hoole (Emeritus), Gregory Kasza (East Asian Languages and Cultures), Michael McGinnis, Eugene McGregor (Public and Environmental Affairs), Bernard Morris (Emeritus), Patrick O'Meara (African Studies, Public and Environmental Affairs), James Perry (Public and Environmental Affairs), Karen Rasler, Leroy Rieselbach (Emeritus), Jean Robinson, Robert Rohrschneider, William Thompson, Timothy Tilton, Charles Wise (Public and Environmental Affairs), Lois Wise (Public and Environmental Affairs), Gerald Wright

Associate Professors

Yvette Alex-Assensoh*, Judith Failer, Lawrence Hanks*, Robert Hattery (Emeritus), Scott Kennedy* (Emeritus, East Asian Languages and Cultures), Dina Spechler, Richard Stryker

Assistant Professors

Aurelian Craiutu*, Henry Hale*, Amber Levanon Seligson*

Director of Graduate Studies

Professor Yvette Alex-Assensoh, Woodburn Hall 210, (812) 855-1208

Degrees Offered

Master of Arts, Master of Arts for Teachers, and Doctor of Philosophy

Special Departmental Requirements

(See also general University Graduate School requirements.)

Admission Requirements

Satisfactory scores on the Graduate Record Examination General Test; satisfactory previous academic record; three letters of recommendation. Applicants holding no academic degree higher than the bachelor's may be admitted to the M.A. or M.A.T. program; those with master's degrees must be admitted as Ph.D. students. Admission to the Ph.D. program is based primarily on performance by the applicant in graduate work at Indiana University that can be applied toward the Ph.D. Application for admission to the Ph.D. program may be made after the completion of one semester of graduate study in the department, but not later than the conclusion of the third semester of such study. If the application is rejected, the student may reapply once any time after one additional semester has elapsed, through the fourth semester of graduate study. (In the case of a student enrolled on a part-time basis, the appropriate number of semester equivalents will be determined by the departmental director of graduate studies.) Evidence considered by the departmental Admissions and Awards Committee in reviewing applications to the Ph.D. program includes: (1) student performance in seminars and course work in political

science; (2) successful completion of at least the first language/research-skill requirement; and (3) other evidence of scholarly skill and attainment, as provided by research projects and faculty evaluations.

Master of Arts Degree

Course Requirements

A total of 30 credit hours, including Y570. At least 15 of the 30 credit hours must be in graduate courses (500 level or higher). Each graduate student must complete five graduate seminars in political science, averaging at least a grade of B (3.0) in all seminars, to qualify for the M.A. degree. (For students entering with previous graduate work, the director of graduate studies, with the recommendation of the student's M.A. committee, can reduce the number of required seminars based on the prior graduate training.)

Essay

Required. The essay may be based on a research paper prepared in a departmental seminar. If a new paper is written and presented as a thesis, it may receive no more than 4 hours of credit. The essay must be presented to all members of the examining committee, prior to the examination, for approval.

Foreign Language/Research-Skill Requirement

The student must demonstrate reading proficiency in one foreign language or proficiency in an approved research skill. Students specializing in public policy must use an approved research skill, not a foreign language, to meet this requirement.

Other Provision

Work taken to meet the requirements of such programs as the area certificate of the Russian and East European Institute may be applied toward the M.A. degree.

Final Examination

An oral examination for the M.A. degree will be conducted by a faculty committee and will cover both the student's course of study and required essay.

Master of Arts for Teachers Degree

Information regarding this degree program may be obtained from the director of graduate studies.

Doctor of Philosophy Degree

Course Requirements

A total of 90 credit hours, including dissertation. Y570 Introduction to the Study of Politics is to be taken in the first year of residence. Students who select a field with an approaches-and-issues seminar should take the seminar during the first two years of residence. Each graduate student must complete 10 graduate seminars numbered 500 and above in political science (excluding directed reading and directed research courses), averaging at least a B (3.0) in all seminars, prior to nomination to candidacy for the Ph.D. degree. (For students entering with previous graduate work the director of graduate studies, with the recommendation of the student's advisory committee, can reduce the number of required seminars based on the prior graduate training.) Students must also complete Y550. A substantial research paper is required at the end of a student's second year. This paper should represent original research performed by the student. The advisory committee will evaluate whether the student's paper is adequate for purposes of this requirement.

Fields of Study

The student will select two fields in political science from the following: American politics; international relations; comparative politics; political theory and methodology; public policy; political philosophy. In exceptional cases, with the written approval of the director of graduate studies, the student may offer as one of the fields a course of study that cuts across two of the established fields. For students in comparative politics, the department offers specialized training on Russia, the other Soviet successor states, and Eastern Europe; Western Europe, the Middle East, Africa, and East Asia (China, Japan, and Korea).

Minors

One or more minor fields in related departments or in an interdepartmental program, embracing either substantive material or methodology.

Advisory Committee

Each student will be assigned an advisory committee, which will include two faculty members from each of the student's two fields in political science and a representative of each minor. The chairperson of the committee serves as the student's principal advisor. The committee will supervise the student's course of study. Early in the student's residence, but in no case later than the third semester of study, the advisory committee will provide the student with a formal review of progress toward the degree.

Foreign Language/Research-Skill Requirement

The student must demonstrate proficiency in any two of the following: French, German, Spanish, Russian, mathematics, logic, statistics, or computer science. With approval of the department and the dean of the University Graduate School, another language may be substituted if appropriate to the student's proposed program. With the approval of the advisory committee, the student may qualify in a single language or research skill at an advanced level, rather than in two. In order to qualify in a language at the advanced level, the student must satisfy the in-depth proficiency requirement. For rules regarding qualification in a research skill at the advanced level, consult the director of graduate studies. The student is expected to make satisfactory progress in meeting the requirements for the degree; in particular, the student must satisfy the first language or research-skill requirement during the first year of study, the second requirement no later than the second year.

¹ Graduate students must obtain consent of the instructor in order to enroll for graduate credit.

Qualifying Examination

The qualifying field examination is intended to evaluate the student's substantive knowledge and analytical ability in both of the student's fields of study. The written qualifying examination is administered two times a year: in the fall and spring.

Research Committee

Upon completion of the qualifying examination and presentation of a satisfactory dissertation proposal, the student will be nominated to candidacy for the Ph.D. The University Graduate School, on the recommendation of the department, will appoint a research committee to supervise the dissertation.

Final Examination

Covers the field of study related to the dissertation and defense of the dissertation.

Courses

300 LEVEL¹

Y311 Democracy and National Security (3 cr.)

Y313 Environmental Policy (3 cr.)

Y333 Chinese Politics (3 cr.)

Y334 Japanese Politics (3 cr.)

Y337 Latin American Politics (3 cr.)

Y338 African Politics (3 cr.)

Y339 Middle Eastern Politics (3 cr.)

Y340 East European Politics (3 cr.)

Y342 Topics on the Regional Politics of Africa (3 cr.) May be repeated once for credit with consent of instructor and department graduate advisor.

Y343 Development Problems in the Third World (3 cr.)

Y381-Y382 History of Political Theory I-II (3-3 cr.)

Y368 Russian and Soviet Foreign Policy (3 cr.)

Y383-Y384 American Political Ideas I-II (3-3 cr.)

Y385 Russian Political Ideas (3 cr.)

Y394 Public Policy Analysis (3 cr.)

500 LEVEL

Y550 Political Science and Professional Development (1-3 cr.)

Philosophies and techniques of teaching various types of political science courses in different learning environments; factors related to the motivation and performance of students; development of course materials for undergraduate courses; preparing to present papers at conventions and to apply for grants; improving self-presentation skills for job interviews. May be repeated for up to three credits.

Y557 Comparative Politics: Approaches and Issues (3 cr.)

Overview and analysis of the approaches and issues in the literature of comparative politics. Required of students taking comparative politics as a field of study for the Ph.D. It is recommended that this course be taken during the first two years of graduate work at Indiana University.

Y561 American Politics: Approaches and Issues (3 cr.)

Overview and analysis of the approaches and issues in the literature of American politics. Required of students taking American politics as a field of study for the Ph.D. It is recommended that this course be taken during the first two years of graduate work at Indiana University.

Y565 Public Administration, Law, and Policy: Approaches and Issues (3 cr.)

Overview and analysis of the approaches and issues in the literature of public administration, law, and policy. Required of students taking public administration, law, and policy as a field of study for the Ph.D. It is recommended that this course be taken during the first two years of graduate work at Indiana University.

Y569 International Relations: Approaches and Issues (3 cr.)

Overview and analysis of the approaches and issues in the literature of international relations. Required of students taking international relations as a field of study for the Ph.D. It is recommended that this course be taken during the first two years of graduate work at Indiana University.

Y570 Introduction to the Study of Politics (3 cr.) Problems of graduate study and professional scholarship; central organizing concepts and the use of theory in political science and related disciplines; specialized areas of research and scholarship in political science; conditions of scientific inquiry and methodological problems in the study of political phenomena; central importance of theory in explanation.

Y572 Mathematical Tools for Political Scientists (1 cr.) Review of topics in mathematics that are particularly useful in the application of formal political theory and political methodology. Typical topics include Euclidean spaces and functions; sets, neighborhoods, sequences, and limits; derivatives; integrals; vectors and matrices; optimization. To be taken prior to or concurrent with Y573 and Y577.

Y573 Introduction to Formal Political Theory (3 cr.) Introduction to the use of formal models in political science. Provides the training required to develop basic models of political process and exposes students to classic works and problems in formal political theory.

Y575 Political Data Analysis I (3 cr.) Basic quantitative analysis techniques applied to political science data: principles of measurement, tables, graphs, probability distributions, nonparametric statistics, matrix algebra, Markov chains, correlations and simple regression, tests of significance. Computer processing of data and applications of bivariate statistics to problems in political science emphasized.

Y576 Political Data Analysis II (3 cr.) P: Y575 or equivalent. Focuses on general linear model and multivariate statistical techniques such as analysis of variance and covariance, partial and multiple regression and correlation, time series analysis, logit and probit analysis, canonical correlation, and discriminant analysis. Applications to problems in political science research emphasized.

Y577 Advanced Topics in Political Data Analysis (3 cr.) P: Y576 or equivalent. Content varies. Topics include analysis of covariance structures, dynamic modeling, estimation of multiple equation systems, mathematical models, time series analysis. Applications to problems in political science research emphasized. May be repeated for credit if topic differs.

Y580 Research Methods in Political Science (1-3 cr.) Foundations of political research; alternative research strategies; problems of measuring political variables; design of research to test hypotheses. S/F grading.

Y591 Computer Applications in Political Science (1 cr.) Introduces students to computing applications for political scientists. Topics include computing packages such as STATA, GAUSS, and EXCEL; creating datasets; and transferring datasets among programs. Covers only personal computer (DOS) applications and operating systems.

Y592 Bibliography of Political Science (1 cr.) Introduction to library research tools in political science, problems of bibliographical research, special resources of Indiana University, problems of utilizing library resources.

600 Level

With the exception of individual readings courses, 600-level courses are seminars or colloquia. In some instances a seminar will introduce students broadly to the principal scholarly literature in a field; in others, the objective will be to provide an in-depth analysis of a more specialized area of research.

The kinds of seminar topics that are offered regularly are illustrated below.

Seminar topics often have relevance for each of several of the departmental examination fields. Furthermore, a given topic may be approached from a variety of perspectives. Therefore, although cross-listing is avoided here for the sake of brevity, it should be noted that essentially the same topic may appear under each of two or more generic titles at various times. Interested students should consult detailed course descriptions, which are available on request from the departmental graduate office in advance of each semester. Any course at the 600 level may be taken more than once, provided the topic is not repeated.

Y657 Comparative Politics (3 cr.) (The focus may be on one or more political systems within regions indicated.) Illustrative topics: political elites and social stratification, comparative administration and public policy, cross-national analysis, West Europe, East Europe, comparative Communist systems, Russia, Africa, Middle East, Latin America, East Asia, comparative development strategies.

Y661 American Politics (3 cr.) Illustrative topics: the presidency, legislative process, political behavior, political parties and representation, political socialization, comparative state politics, urban politics, bureaucratic politics.

Y663 Political and Administrative Development (3 cr.) Illustrative topics: politics of social change, comparative urbanization, political and administrative development.

Y665 Public Law and Policy (3 cr.) Illustrative topics: urban policy analysis; politics of higher education; science, technology, and public policy; politics of environmental policy.

Y669 International Relations (3 cr.) Illustrative topics: international conflict, international organization,

quantitative international relations, analysis and evaluation of policy making, U.S. foreign policy, Russian and Soviet foreign policy, international and comparative communism, international political economy.

Y671 Public Administration (3 cr.)
Illustrative topics: organization theory, urban administration, public administration.

Y673 Empirical Theory and Methodology (3 cr.) Illustrative topics: survey of empirical theory, theory building and causal inference, positive political theory, institutional analysis and design, empirical democratic theory, research design.

Y675 Political Philosophy (3 cr.)
Illustrative topics: analysis of political concepts; political theory of the Enlightenment; nineteenth-century political thought; welfare state: theory and practice; Marxist theory; American political thought.

Y681 Readings in Comparative Politics (1-4 cr.)

Y683 Readings in American Politics (1-4 cr.)

Y685 Readings in Public Administration, Law, and Policy (1-4 cr.)

Y687 Readings in International Relations (1-4 cr.)

Y689 Readings in Political Theory and Methodology (1-4 cr.)

700 Level

All 700-level courses are research seminars. Students are expected to demonstrate their own research enterprise on a topic agreed upon with the instructor. In some instances, team research may be carried out. Students are also expected to make significant progress toward identification of an eventual dissertation project in the research seminars in the major field. Each course may be taken more than once.

**These courses are eligible for a deferred grade.

Y757 Comparative Politics (3 cr.)

Y761 American Politics (3 cr.)

Y763 Political and Administrative Development (3 cr.)

Y765 Public Law and Policy (3 cr.)

Y769 International Relations (3 cr.)

Y771 Public Administration (3 cr.)

Y773 Empirical Theory and Methodology (3 cr.)

Y775 Political Philosophy (3 cr.)

Y780 Directed Research in Political Science (1-4 cr.)**

800 Level

Y880 M.A. Thesis (1-4 cr.)**

Y890 Ph.D. Thesis (cr. arr.)**

Population Institute for Research and Training

Bloomington

Director

Professor George Alter

Departmental E-mail
pirt@indiana.edu

Departmental URL

www.indiana.edu/~pirt

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors

Judith Allen (History), George Alter (History), Jorge Chapa (Latino Studies), Dennis Conway (Geography), John Odland (Geography), James C. Riley (History), Nazif Shahrani (Central Eurasian Studies), James Vaughan

(Emeritus, Anthropology), Richard Wilk (Anthropology)

Associate Professors

Laurel Cornell (Sociology), Carl Ipsen (History), Elyce Rotella (Economics)

Assistant Professors

Quincy Stewart (Sociology)*, Leah VanWey (Sociology)

Director of Graduate Studies

Professor George Alter, 408 N. Indiana, Room 222, (812) 855-5631

Ph.D. Minor in Population Studies

The minor in population studies requires 12 credit hours of approved courses, which must include two core courses. The core curriculum consists of an overview of issues in population studies (G590) and a basic course in demographic methods (G591). The director of the Population Institute for Research and Training serves as chairperson of the minor field and certifies completion of the minor for students who have (1) completed the required courses in good standing and (2) passed an examination given at the discretion of the director and the program faculty.

Courses

G590 Population Analysis: Concepts, Issues, Problems (3 cr.)

P: graduate status or approval of instructor. Theoretical issues, empirical questions on social determinants and consequences of biological events like birth and death. Age structure, marriage and household formation, gender, migration, quality of data, population policy in developing countries and advanced industrial societies. Contemporary and historical sources.

G591 Methods of Population Analysis and Their Applications (3 cr.)

P: an undergraduate course in statistics. Techniques of measuring and analyzing population size and trends, fertility and mortality patterns, migration flows. Population estimates and projections. Major models of formal demography.

G592 Topics in Population Research (3 cr.) P: G590 and G591 or approval of instructor. Seminar-level course emphasizing class presentations, reviews of advanced literature, and the writing of research papers. Subject areas will include fertility, mortality, migration, economic demographic interrelations, mathematical demography, dynamics of small populations, and population projections.

G593 International Perspectives on Population Problems (3 cr.) International trends in population growth, characteristics, and structure with attention to major social, environmental, economic, and political implications. Comparisons between industrially advanced economies and less developed countries in Latin America, Africa, and Asia. Special emphasis will be placed on local and national circumstances affecting fertility, mortality, migration, and emerging roles of population policies in development planning.

CROSS-LISTED COURSES

Anthropology

E600 Seminar in Cultural and Social Anthropology (3 cr.)
Economics

E592 Economic Development of Less-Developed Countries (3 cr.)

Geography

G803 Seminar in Economic Geography (3 cr.)

G812 Seminar in Population Geography (3 cr.)

Sociology

S660 Advanced Topics (2-6 cr.)

Certificate in Professional Editing

**School of Liberal Arts
Indianapolis**

Departmental E-mail
iat@iupui.edu

Departmental URL
www.liberalarts.iupui.edu/iat/
acadprograms/profediting/
profediting.html

Graduate Faculty
(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Director
William F. Touponce, Institute for American Thought (Liberal Arts), CA 545, (317) 278-3374; e-mail: wtouponce@iupui.edu

Professors
William F. Touponce (English),
Marianne Wokeck (History)

Degree Offered

Doctor of Philosophy

Graduate Certificate

An interdisciplinary 15 credit hour research certification covering the fundamental theories and methods involved in the practice of scholarly editing and other more general applications of professional editing. The interdepartmental curriculum includes editing concentrations in English, history, and journalism and is administered by graduate faculty of the scholarly editions consortium within the School of Liberal Arts.

Special Program Requirements

(See also general University Graduate School requirements.)

Admission Requirements
Students already admitted into Indiana University or Purdue University graduate degree programs are automatically eligible to earn a certificate. Such students must

declare their participation in the degree program and also submit a statement of interest. Continuing graduate nondegree students must meet the following requirements: (1) A bachelor's degree from an accredited college or university, with the expectation of a minimum 3.0 overall GPA (on a scale of 4.0) and a minimum 3.0 average GPA in the student's major, (2) a statement of interest, and (3) three letters of recommendation. There is no specific major requirement, but candidates should have a record of course work to demonstrate sufficient writing and research experience. Foreign applicants are required to take the Test of English as a Foreign Language (TOEFL) and receive a score of 550 or above. They are also required to take an on-campus exam for English proficiency before beginning course work and may be required to take additional classes in English as a second language.

Foreign Language/Research-Skill Requirement
None.

Grades

Certificate students must maintain at least a 3.0 (B) grade point average.

Course Requirements

A minimum of 15 credit hours, which include completion of any one of several three-course core concentrations (9-12 credit hours) and one or more open electives (3-6 credit hours). Normally, 9 credit hours can be taken before admission to the certificate program, provided that all course work is completed within a four-year period. For course descriptions, see the course listings for the Departments of English and History at Indiana University–Purdue University Indianapolis.

Core Options

Three courses (9-12 credit hours) in one of the following field concentrations:

Scholarly Editing Concentration I: Critical (Eclectic) Texts (12 credit hours)

L501 Professional Scholarship in Literature [English] (4 cr.)

L680 Topics: Textual Theory and Textual Criticism [English] (4 cr.)

L701 Descriptive Bibliography and Textual Problems (Bloomington campus) [English] (4 cr.)

Scholarly Editing Concentration II: Documentary Texts (11 credit hours)

H501 Historical Methodology [History] (4 cr.)

H543 Internship: Practicum in Public History [History] (4 cr.)

H547 Topics in Public History: Historical Editing [History] (3 cr.)

Technical Editing Concentration (9-10 credit hours)

W531 Designing and Editing Visual Communication [English] (3 cr.)

W532 Managing Document Quality [English] (3 cr.)

W609 Directed Writing Project (arranged individual editing project with the IUPUI scholarly editions consortium, 3-4 cr.)

Professional Editing Concentration I: Journalism (9-10 credit hours)

J520 Seminar in Visual Communication (3 cr.)

J530 Issues in New Communication Technology (3 cr.)

W609 Directed Writing Project (arranged individual editing project with the IUPUI scholarly editions consortium, 3-4 cr.)

Professional Editing Concentration II: General (11-12 credit hours)

W502 Fields of Editing: Theories and Practices [English] (4 cr.)

W503 Technologies of Editing: Producing Letterpress and Electronic Texts [English] (4 cr.)

W609 Directed Writing Project (arranged individual editing project with the IUPUI scholarly editions consortium, 3-4 cr.)

Note: Staffing limitations preclude scheduling sections of W502 or W503 at this time.

Open Elective Course(s)

One or two courses (3-6 credit hours), depending on the number of credit hours required to meet the 15 credit hour certificate minimum after completion of the chosen core concentration. Any of the core options listed above (outside of the student's chosen field concentration) may be counted as an open elective, as well as any of the following courses (for course descriptions, see the course listings for the Departments of English and History at Indiana University–Purdue University Indianapolis).

N501 Principles of Multimedia Technology [New Media] (3 cr.)

I501 Introduction to Informatics [Informatics] (3 cr.)

I502 Information Management [Informatics] (3 cr.)

J560 Topics Colloquium [Journalism]: Writing, Editing, and Designing for the World Wide Web (3 cr.), Digital Photography (3 cr.), or Informational Graphics (3 cr.)

J563 Computerized Publication Design I [Journalism] (3 cr.)

J565 Computerized Publication Design II [Journalism] (3 cr.)

L505 Organization and Representation of Knowledge and Information [SLIS] (3 cr.)

L515 History of the Book [SLIS] (3 cr.)

L585 Descriptive Bibliography [SLIS] (3 cr.)

L590 Internship in English [English] (4 cr.)

Psychology

**College of Arts and Sciences
Bloomington**

Chairperson

Professor Joseph E. Steinmetz

Departmental URL

www.indiana.edu/~psych

Departmental E-mail

psych@www.indiana.edu

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Distinguished Professor

Eliot Hearst (Emeritus)

Luther Dana Waterman Professor

Richard Shiffrin

Eleanor Cox Riggs Professor

Joseph Steinmetz

Rudy Professor

James T. Townsend

Chancellors' Professors

James Craig, David Pisoni, George Rebec, Steven Sherman, Linda Smith

Professors

Jeffrey Alberts, James Allison (Emeritus), John Bates, Richard Berry (Emeritus), Geoffrey Bingham, Alexander Buchwald (Emeritus), Jerome Busemeyer, Jerome Chertkoff (Emeritus), James Dinsmoor (Emeritus), Joseph Farley, Gabriel Frommer (Emeritus), Robert Goldstone, S. Lee Guth (Emeritus, Visual Sciences), Kenneth Heller (Emeritus), Amy Holtzworth-Munroe, Margaret Intons-Peterson (Emerita), John Kruschke, Richard McFall, Conrad Mueller (Emeritus), Robert Nosofsky, Lloyd Peterson (Emeritus), Donald Robinson (Emeritus), Richard Rose (Emeritus), Dale Sengelaub, Esther Thelen, William Timberlake, Charles Watson (Emeritus, Speech and Hearing Sciences), Meredith West

Associate Professors

Thomas Busey, Peter Finn, Preston Garraghty, Edward Hirt, Susan Jones, Harold Lindman (Emeritus),

Kelly Mix*, Julie Stout*, Richard Viken

Assistant Professors

Jason Gold*, William Hetrick*, Brian O'Donnell*, Paul Lysaker*, Sarah Queller*, Carolyn A. Schult*, Olaf Sporns*, Cara Wellman*

Senior Scientist

Andrew King*

Graduate Advisor

Professor Meredith West,
Psychology Building 351, (812) 855-9597

Special Departmental Requirements

(See also general University Graduate School requirements.)

Admission Requirements

General psychology, laboratory work, and one course in statistics. In exceptional cases, these requirements may be reduced by the chairperson with the consent of the dean of the University Graduate School, particularly if the student has a good background in a biological science, physics, or mathematics. Deficiencies may be removed while pursuing graduate degrees.

Grades

An average of at least a B+ (3.3) must be maintained in all course work. No grades below B- (2.7) may be counted toward degree requirements. Students receiving more than one grade below B- (2.7) are not in good standing and are subject to dismissal.

Research

To remain in good standing, students must successfully complete research projects during their first and second years of graduate study. Evaluation of students is based on first- and second-year research projects and on research potential, as well as on course work. All students are expected to develop research skills appropriate to their programs through a combination of course work, individual study, and experience.

Master of Arts Degree

Course Requirements

A total of 30 credit hours including a core consisting of P553 and P595, and one graduate course in four areas of specialization in the department.

No training program in clinical psychology is offered at the master's level. Students ordinarily are not admitted for work leading only to the master's degree. They may be admitted when unusual administrative or evaluative circumstances warrant.

Thesis

Required.

Doctor of Philosophy Degree

Course Requirements

A total of 90 credit hours, including dissertation, a core consisting of P553, P554, and P595, course selections from the student's area of specialization and one graduate course in two areas outside the student's specialization. Majors in clinical science must also take 12 credit hours of clinical core courses, two clinical elective courses, and 4 credit hours in P690 and must successfully complete a one-year internship at an institution approved by the department. Additional course requirements may be specified by the student's advisory committee.

Minor

A doctoral student may choose to minor outside of the department or to take an in-depth minor within the Department of Psychology. If a minor outside the department is elected, the requirements are specified by that unit. An in-depth minor within the department consists of 9 credit hours of graduate course work in an area of psychology other than that of the major. The specific courses making up such a minor must be approved by the student's advisory committee.

Other Provision

All students are required to serve one year as associate instructors or obtain equivalent teaching experience as approved by the department chair.

Qualifying Examination

Written and oral; must be taken at the beginning of the fifth regular semester of residency. Students failing the qualifying examination twice will be dismissed from the program.

Ph.D. Minor in Psychology

Doctoral students in other departments may elect psychology as an outside minor. A minimum of four courses at the 400 level or above is required. The student must achieve a grade of at least B- in each course and an overall grade point average of at least 3.0. The specific courses must be approved by a faculty advisor and may include no more than one research course (P895).

Courses

Courses in the department numbered below P400 are not acceptable as credit toward a graduate degree in psychology.

P400 Psychological Measurement and Scaling (2 cr.)

P412 Laboratory in Human Performance (3 cr.)

P417 Animal Behavior (3 cr.)

P421 Laboratory in Social Psychology (3 cr.)

P423 Human Neuropsychology (3 cr.)

P424 Laboratory in Sensation and Perception (3 cr.)

P425 Behavior Disorders of Childhood and Adolescence (3 cr.)

P426 Laboratory in Behavioral Neuroscience (3 cr.)

P427 Laboratory in Psychological Measurement (3 cr.)

P428 Laboratory in Comparative Psychology (3 cr.)

P429 Laboratory in Developmental Psychology (3 cr.)

P434 Community Psychology (3 cr.)

P435 Laboratory in Human Learning and Cognition (3 cr.)

P436 Laboratory in Animal Learning and Motivation (3 cr.)

P438 Language and Cognition (3 cr.)

P456 Theory Construction in Psychology (2 cr.)

P459 History and Systems of Psychology (3 cr.)

P460 Women: A Psychological Perspective (3 cr.)

P465 Psychophysics of Hearing (3 cr.)

Undergraduates may, by consent of the instructor, register in and receive credit for graduate courses (numbered P500 and above). Ordinarily such consent is not granted unless the student has completed 20 credit hours of psychology. Students in the psychology Ph.D. program may not take a 400-level course for graduate credit if an equivalent higher-level graduate course is available.

P500 Psychology for Graduate Students (3 cr.) P: graduate standing or consent of instructor. Basic psychological principles. For students with little or no previous training in psychology.

P501 Research Issues in Clinical Psychology (3 cr.) P: graduate standing in psychology or consent of instructor. A research-oriented survey of psychopathy, assessment, and psychotherapy. Models of psychological disorder; strategies of etiological research; test construction and clinical prediction; research on process and outcomes of psychotherapy. Credit not given for both P501 and P530.

P502 Developmental Psychology (3 cr.) An advanced introduction to the theory and experimental analysis of ontogenetic processes. Special emphasis on human development.

P503 Complex Cognitive Processes (3 cr.) P: graduate standing in

psychology or consent of instructor. A survey of topics in human information processing, including attention, short-term storage, long-term retention, retrieval from memory, concept attainment, problem solving, speech perception, and psycholinguistics.

P504 Learning and Motivation (3 cr.) P: graduate standing in psychology or consent of instructor. Introduction to theory and experimental literature in learning and motivation. Focus on nonhuman behavior.

P505 Physiological Psychology (3 cr.) P: graduate standing in psychology or consent of instructor. Intensive introduction to physiological psychology, with special emphasis on its relation to other areas of psychology.

P506 Sensory Psychology (3 cr.) P: graduate standing in psychology or consent of instructor. Introduction to methods and research in sensory psychology.

P507 Theories of Learning (3 cr.) Survey, comparison, and critical analysis of modern theories of learning, from Thorndike to present.

P510 Principles of Research in Psychology (2 cr.) Scientific methods of psychology. Principles of construction and testing of psychological theories; role of correlation and experimental techniques; requirements of valid inference. Topics will be discussed using examples from all areas of psychological research.

P511 Social Psychology (3 cr.) P: graduate standing in psychology or consent of instructor. Introduction to theory and research in social psychology.

P514 Methods in Biopsychology (2 cr.) P: K300 or equivalent, course in laboratory psychology. Training in research techniques in sensory and physiological psychology.

P517 Methods in the Direct Observation of Behavior (3 cr.) P: P553 or its equivalent. Reviews

current use of observational techniques in the study of animal and human behavior and critically considers the development of coding schemes and strategies of data recording and analysis.

P519 Current Theories of Personality (3 cr.) P: graduate standing, consent of instructor. Original writings of major contemporary theorists of personality.

P523 Operant Research (2 cr.) Preparation for research using operant procedures: rationale, instrumentation, techniques of behavioral control, experimental strategy, problems of within-subject comparison, analysis of data.

P525 Classical Conditioning (3 cr.) Critical evaluation of experimental literature. Emphasis on methodological and theoretical issues.

P526 Neurobiology of Learning and Memory (3 cr.) Comprehensive survey of the cellular and molecular bases of associative and nonassociative forms of learning and memory. Vertebrate and invertebrate model systems and preparations as well as data obtained from the human neuropsychology literature will be studied.

P527 Developmental Psychobiology (3 cr.) Ontogeny of sensory-motor behavior and its underlying anatomical and physiological development.

P528 Experimental Analysis of Economic Behavior (3 cr.) P: graduate standing or permission of instructor. Relations between experimental psychology and microeconomics: basic concepts, theory, and research.

P530 Clinical Psychology (3 cr.) P: graduate standing and consent of instructor. Introduction to clinical psychology as an experimental-behavioral science, with an emphasis on theoretical, methodological, and ethical issues basic to clinical research and professional practice.

P536 Theory of Tests and Measurements (3 cr.) P: P553. Survey of test and measurement procedures; classical test theories, statistical theories; models of tests.

P540 Principles of Psychological Assessment and Prediction (3 cr.) P: P553-P554 or equivalent. Concepts of validity and reliability. Diagnostic devices viewed as bases for decisions. Classification. Comparison of methods of making predictions about individuals.

P541 Individual Differences in Intellectual Abilities (3 cr.) P: graduate standing in psychology or consent of instructor. Individual differences in cognitive functioning; evaluation of assessment techniques.

P553-P554 Advanced Statistics in Psychology I-II (3-3 cr.) P: K300 or equivalent. Statistical inference applied to problems in psychological research. Experimental design and data interpretation. Elementary probability theory, statistical distribution, classical and nonparametric tests of hypotheses, point and interval estimation. Relations between statistical models and experimental controls.

P555 Computer Application in Psychological Research (3 cr.) P: P553, knowledge of FORTRAN. Survey of uses of computers as research tools. Programming languages, numerical methods, data analysis, library routines, simulation, graphics, and laboratory control.

P556 Independent Computer Project (2 cr.) The student carries out a project involving the use of a computer in some phase of psychological research. Some new development or sophisticated modification of available programs is required.

P557 Representation of Structure in Psychological Data (3 cr.) P: P553 or consent of instructor. Survey of multidimensional scaling, clustering, choice theory, and signal detection approaches to modeling similarity and classification. Theory and application.

P564 Psychophysics (3 cr.) Classical and modern methods for investigation of sensory-perceptual processes. Application of signal detectability theory to psychophysics; emphasis on current research on detection and recognition of auditory signals in noise.

P565 Psychophysics of Vision (3 cr.) Critical evaluation of research literature on visual functions of brightness, color, and spatial discrimination.

P566 Psychophysiology of Vision (3 cr.) Relations among physiology of sensory action and psychophysics of brightness, color, and spatial discrimination.

P595 First-Year Research Seminar (2-3 cr.) Presentation and discussion of first-year graduate student research projects.

P605 Introduction to Mathematical Psychology (3 cr.) P: P553 or consent of instructor. Current applications of mathematics to psychology.

P615 Developmental Psychology I (3 cr.) An analysis of developmental processes in humans and nonhumans. Emphasis on the study of mechanisms that control the ontogeny of sensory, motor, cognitive, and language systems.

P616 Advanced Child Psychology (3 cr.) Critical examination of the literature. Behavior changes from birth through adolescence.

P619 Seminar in Personality (3 cr.) P: P519 or consent of instructor. Critical discussion of current factual and theoretical issues in personality.

P620 Attitudes and Attitude Change (3 cr.) P: P320, P511, or consent of instructor. Conceptions of the attitude construct and theories of attitude formation and change.

P623 Psychology of Language (3 cr.) Psycholinguistic events, including communicative speech, gestures, and symbolic behavior. Interrelations between linguistic and

other psychological processes in individual and social situations.

P624 Principles of Psychopathology (3 cr.) P: graduate standing and consent of instructor. Description of the phenomena of psychopathology and the principles associated with their classification.

P625 Operant Conditioning (3 cr.) A survey and interpretation of research findings on problems of systematic interest for a general science of behavior, with emphasis on recent work.

P628 Psychophysiology of Somatic Functions (3 cr.) Theories and current experimental work on emotions. Environmental and organismic factors affecting somatic functions. Control of somatic functions.

P631 Intervention and Evaluation (3 cr.) P: consent of instructor. A systematic comparison of theories of psychotherapy and behavior change. Introduction to evaluation techniques appropriate to applied settings.

P632 Introduction to Clinical Interventions (3 cr.) P: P631 and consent of instructor. Systematic integration of theory, research, technique, and evaluation. Based on the available research literature, time-limited, structured interventions for specific clinical problems are designed, administered, and evaluated.

P634 Advanced Survey of Community Psychology (3 cr.) P: 15 credit hours of psychology or consent of instructor. A survey of issues and research in community psychology. Topics covered include the role of conceptual models in guiding intervention practices; research in social epidemiology, prevention, consultation, and organizational and community change.

P635 Applied Human Learning (3 cr.) P: graduate standing and one course in learning or consent of instructor. Critical study of situational attempts to apply learning principles, e.g., programmed

instruction, second-language learning, speech correction, psychotherapy, training and retraining of the handicapped and the retarded.

P638 Experimental Psychology of Reading (3 cr.) Examination of the component stages of the reading process. Focuses on how visual information is processed within the framework of information processing and psycholinguistics. Topics to be considered include alphabets, phonetics and phonology, letter recognition, word and sentence processing, cognitive bases of reading, and methods currently employed in teaching reading.

P641 Assessment (3 cr.) P: consent of instructor. Review of research and theory on methods of gathering information about individuals.

P643 Perception and Sensory Memory (3 cr.) Analysis of the experimental literature and theories of perception and sensory memory.

P644 Attention and Short-Term Memory (3 cr.) Analysis of the experimental literature and theories of human attention and short-term memory, including visual and verbal systems and forgetting.

P645 Learning and Long-Term Memory (3 cr.) Analysis of the experimental literature and theories of human learning and long-term memory, including forgetting, organization, sentence memory, and nonverbal memory.

P646 Knowledge Systems and Problem Solving (3 cr.) Analysis of the experimental literature and theories of human knowledge systems and problem solving, including conceptual systems for word meanings, propositions, abstractions, and spatial and serial relations.

P647 Decision Making under Uncertainty (3 cr.) P: P553 or consent of instructor. Detailed survey of decision making under uncertainty. Theories, data, and application of decision making in situations involving imperfect

(probabilistic) information; preference and inference in judgment. Applications covered include learning, risky choice, diagnostic decisions, group decisions.

P648 Choice Behavior (3 cr.) P: P553 or consent of instructor. Preferential choice under conditions of certainty. Critical review of the properties and limitations of current theories of choice and scaling.

P651 Perception/Action (3 cr.) P: consent of instructor. Coverage will include event perception, optical flow analysis (aperture problem, correspondence problem, structure from motion, sensory psychophysics, contact with machine vision), problems in motor coordination and control (motor equivalence, degrees of freedom problem, contact with physiology of movement and robotics). Focus on the relation between perception and action.

P653 Analysis of Variance (3 cr.) P: P553-P554. Data analysis of standard experimental designs, including multiway designs, nested and crossed, with fixed and random factors. Statistical tests and estimation, with emphasis on individual comparisons, including trend analysis.

P654 Multivariate Analysis (3 cr.) P: P553-P554. Survey of multivariate statistical methods; partial, multiple, and canonical correlation, factor analysis, discriminant analysis, classification procedures, profile analysis, and multivariate analysis of variance.

P657 Topical Seminar (cr. arr.) Topics of current interest, with intensive critical examination of appropriate literature. Different staff member in charge each semester.

P658-P659 Mathematical Models in Psychology I-II (4-4 cr.) P: P605 or consent of instructor. Intensive study of mathematical models employed in experimental psychology: learning, perception, reaction time, social processes. Emphasis on probability methods.

P660 The Teaching of Psychology (1 cr.) Open to advanced graduate students. Problems of selection, organization, and presentation of psychological knowledge to undergraduates. Emphasis on introductory lecture and laboratory courses.

P665 Psychophysics of Hearing (3 cr.) A critical analysis of current research in psychoacoustics: signal analysis, psychophysical techniques, theories of detection and parameter extraction, frequency analysis, and binaural signal processing.

P667 Neuropsychopharmacology (3 cr.) Analysis of neural mechanisms of drug effects on animal and human behavior, based on behavioral and biological experiments.

P669 Neurobiology of Behavioral Disorders (3 cr.) P: N500 and N501, and at least one other graduate course in neuroscience or behavioral neuroscience. Neural mechanisms underlying selected neurological and psychological dysfunctions.

P674 Seminar in Abnormal Psychology (2 cr.) Selected topics.

P686-P687 Current Psychological Literature I-II (1-1 cr.) Review of current psychological journals.

P690 Practicum in Clinical Psychology (cr. arr.) P: consent of instructor.

P695 Second-Year Research Seminar (1-2 cr.) Presentation and discussion of second-year graduate student research projects.

P717 Evolutionary Bases of Learning (3 cr.) P: written consent of instructor. Examines learning as an evolved ability which equips organisms to deal with predictable variability in the environment. Compares ethological, comparative, and general process approaches to the study of learning.

P720 Dyadic Interaction (3 cr.) P: P320, P511, or consent of instructor. General models of dyadic interaction; theories and research on

affiliation, interpersonal attraction, and the development, maintenance, and dissolution of social relationships.

P721 Conflict, Aggression, and Altruism (3 cr.) P: P320, P511, or consent of instructor. Theories and research on social conflict, aggression, and altruism in humans.

P734 Community Intervention (3 cr.) P: P634 or consent of instructor. Theories and concepts of change in community systems. Ecological conception of human adaptation. Research methods for defining problems, monitoring processes, and assessing outcomes of changes in social systems. Models of intervention with emphasis on community participation, collaboration, and accountability.

P736 Child Psychopathology (3 cr.) Seminar on serious behavior disturbances of children. Comparisons with development of normal child interacting with family.

P747 Seminar in Cognitive Psychology (1-3 cr.) Selected topics.

P820 Social Perception (3 cr.) P: graduate standing in psychology or consent of instructor. Critical review of theoretical and experimental literature concerning knowledge of others as intervening variable in social behavior.

P895 Research (cr. arr.)

P898 Master's Degree Research (cr. arr.)**

P899 Ph.D. Degree Research (cr. arr.)**

**These courses are eligible for a deferred grade.

Public Affairs

School of Public and Environmental Affairs Bloomington

Dean
Astrid E. Merget

Departmental E-mail
speainfo@indiana.edu

Note: Be sure to specify the program in which you are interested when sending mail.

Departmental URL
www.indiana.edu/~speaweb/index.html

Graduate Faculty
(An asterisk [*] denotes associate membership in University Graduate School faculty.)

University President Emeritus
John W. Ryan

University Professor Emeritus
York Y. Willbern

Arthur F. Bentley Professors
Lynton K. Caldwell (Emeritus),
Elinor S. Ostrom

Chancellors' Professor
James L. Perry

Distinguished Professor
Ronald A. Hites

Professors
Robert Agranoff (Emeritus), David B. Audretsch, Randall Baker, Wolfgang Bielefeld (Indianapolis), Lisa Bingham, William Black, Stephen P. Bogdewic (Indianapolis), Charles Bonser (Emeritus), Jeremy Dunning, Kirsten Grønberg, Hendrick M. Haitjema, Roger Hamburg (South Bend) (Emeritus, Political Science), William Hojnacki* (South Bend), Jack W. Hopkins (Emeritus), Robert Lehnen (Indianapolis), Leslie Lenkowsky (Indianapolis), Greg Lindsey* (Indianapolis), Eugene McGregor, Astrid E. Merget, John Mikesell, Theodore Miller, Samuel Nunn* (Indianapolis), Patrick O'Meara, Clinton Oster, John Ottensman (Indianapolis) (Geography), David Parkhurst, Roger B. Parks, Joseph

Pellicciotti* (Northwest), Maureen Pirog, J. C. Randolph, Edward Rhodes, Barry Rubin, Richard Rubin, Roy Shin (Emeritus), Tim A. Tilton, Jeffrey White, Daniel Willard (Emeritus), Charles Wise, Lois Wise, Terrell Zollinger (Indianapolis), Kurt Zorn

Associate Professors
Allen Anderson (Kokomo), Debera Backhus, Terry L. Baumer (Indianapolis), Christopher Craft*, Karen Evans* (Northwest), David Good, Jane Grant* (Fort Wayne), Karen Harlow* (Indianapolis), Diane Henshel, Ann Holmes (Indianapolis), Roger Jarjoura* (Indianapolis), Craig Johnson*, Robert Kravchuk, Kerry Krutilla, William Ludwin (Fort Wayne), Joyce Man, David McSwane* (Indianapolis), Vicky Meretsky*, Deborah Mesch (Indianapolis), C. James Owen* (Emeritus, Fort Wayne), D. Jeanne Patterson (Emerita), Flynn W. Picardal, Sara Pryor, Kenna Quinet* (Indianapolis), David Reingold*, Ingrid Ritchie* (Indianapolis), Frank Vilardo*, Stephen L. Walston*

Assistant Professors
Matthew Auer*, Rafael Reuveny*, Philip Stevens*, Susan Zinner-Kemp* (Northwest)

An I after a faculty member's name indicates that the person teaches at Indiana University-Purdue University Indianapolis; FW, at Fort Wayne; K, at Kokomo; NW, at Gary; and SB, at South Bend.

Academic Advisor
Professor Roger B. Parks, SPEA
441, (812) 855-2457

Degree Offered
Doctor of Philosophy

Doctor of Philosophy Degree in Public Affairs

The Doctoral Program in Public Affairs takes advantage of the unique strengths of SPEA's interdisciplinary faculty and research programs, both of which have earned wide recognition from peer institutions, national and international agencies, and professional groups. The curriculum equips students with the necessary skills for independent

research and analysis of problems, issues, and solutions in government and the nonprofit sector in the following three major fields:

1. Public finance: the theory and practice of fiscal administration, including public budgeting, revenue administration, and financial management;
2. Public management: the design and operation of governmental institutions, including strategic/operations management and interrelationships between public and private organizations; and
3. Public policy analysis: research methods and quantitative techniques for policy analysis, including the content, design and evaluation of public programs.

Instead of being grounded in a traditional academic discipline, each of the fields has developed from several theoretical literatures applied to real-world public affairs problems. Although research is grounded in the social sciences, the context of inquiry reverses the normal research process: instead of beginning with questions originating with discipline-based scholarship, the research process originates with public problems and issues. The research challenge, then, is to match available tools of inquiry to the research opportunities presented by problems.

Admission

Students apply to the School of Public and Environmental Affairs. Those accepted are recommended to the University Graduate School for formal admission into the Ph.D. program. Applicants to this program must have completed at least a bachelor's degree. Prospective students are required to submit (1) a statement of purpose, which should be as specific as possible and, preferably, should refer to potential research mentors by name; (2) official results of the Graduate Record Examinations (GRE); (3) official transcripts of all undergraduate and graduate work completed; and (4) three letters of recommendation. Applicants whose

native language is not English must also submit results of the Test of English as a Foreign Language (TOEFL).

Advisory Committee

Early in the student's program, but in no case later than the third semester in the program, the student must form an advisory committee. The committee consists of four to five members and includes at least one faculty member from each of the student's two chosen major fields of study and also a representative of his or her minor field. The committee members act as mentors and help monitor the selection and fulfillment of program requirements. The chairperson of the committee serves as the student's principal advisor.

Qualifying Examination

To enter into formal degree candidacy, students must successfully complete written and oral qualifying examinations covering content from their two major fields of study.

Dissertation

Upon completion of course work and exams, the student writes a dissertation. This allows the student to apply the knowledge acquired during the formal parts of the program and to contribute to the advancement of the student's field of study.

Public Management

**School of Public and Environmental Affairs
Bloomington**

Dean

Astrid E. Merget

Graduate Faculty

See listing under "Public Affairs."

Graduate Advisor

Professor Roger B. Parks, SPEA
441, (812) 855-2457

Ph.D. Minor in Public Management (12 credit hours)

Students in doctoral programs at Indiana University may, with the consent of their advisory committee, select public management as an outside minor.

Requirements

1. The doctoral candidate must secure an advisor from the faculty of the School of Public and Environmental Affairs. The faculty advisor serves as the representative of SPEA in all examinations and other requirements of the student's Ph.D. program that pertain to the minor.
2. The student must take at least 12 credit hours of SPEA graduate-level courses in public management. The choice of courses must be approved by the advisor.
3. A cumulative grade point average of at least 3.0 (B) must be maintained.

Public Policy

Combined Degree Program

**College of Arts and Sciences
School of Public and Environmental Affairs
Bloomington**

Director

Professor Roger B. Parks

Departmental E-mail

speainfo@indiana.edu

Note: Be sure to specify the program in which you are interested in when sending mail.

Departmental URL

www.indiana.edu/~speaweb/index.html

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Department of Political Science
See listing under “Political Science.”

School of Public and Environmental Affairs
See listing under “Public Affairs.”

Academic Advisor
Professor Roger B. Parks, SPEA
441, (812) 855-2457

Degree Offered
Doctor of Philosophy

Special Departmental and School Requirements
See also general University Graduate School requirements.

Doctor of Philosophy Degree
The joint Ph.D. Program in Public Policy is a collaborative endeavor of the Department of Political Science and the School of Public and Environmental Affairs (SPEA). Its emphasis is on the broad field of public policy, concerning the environment of public policy; the processes of policy formation, management, and implementation; and the analysis and evaluation of policy outputs and results. The institutional setting and design of the program offer a unique educational opportunity. Students in the program receive rigorous social science training and gain knowledge of government decision making processes, problem-solving capabilities, and an understanding of the substantive aspects of public problems and their effects on public institutions.

Admission
All applicants to the public policy program are subject to approval by a SPEA-Department of Political Science joint admissions committee. Applicants for admission and for financial assistance are required to submit a statement of career goals, official results of the Graduate Record Examination (GRE), official transcripts of all undergraduate and graduate work, and a minimum of three letters of recommendation. Students whose native language is not English must also submit results of the Test of English as a Foreign

Language (TOEFL). The Joint Program Committee in Admissions and Financial Aid examines each application closely, to determine suitability for the program. The committee looks beyond the formal academic record, at the applicant’s demonstrated ability to pursue independent study, language and research-skill training, and maturity and experience.

Advisory Committee
The advisory committee must include at least two faculty members from SPEA and two from the Department of Political Science. Members of the committee who hold joint appointments are considered representatives of their primary unit. The chairperson of the committee serves as the student’s principal advisor. Early in the student’s program term—no later than the third semester—the committee provides the student with a formal review of the progress made toward the degree.

Degree Requirements

Fields of Study
Public policy must be the student’s major field of preparation and specialization. In addition, each student must select one of the following fields of concentration in political science: American politics, comparative politics, international relations, or political theory and methodology; and one of the following fields of concentration in Public and Environmental Affairs: environmental policy, public finance, urban affairs, or public management.

Course Requirements
All first-year students must take either Political Science Y570 Introduction to the Study of Politics or SPEA V680 Research Design and Methods in Public Affairs; a research-skill course sequence such as POLS Y575-Y576 Political Data Analysis I-II or SPEA V606-V607 Statistics for Public Affairs I-II; and SPEA V690 Seminar in the Public Policy Process. Students are also required to take SPEA V691 Workshop in Public Policy for six semesters and Sociology S554/S650. Because of the unique and sensitive issues surrounding professional

ethics and public teaching, all doctoral students are required to complete a seminar in the professional ethics and teaching of public affairs. All course work in public policy and the two concentration fields (one each in political science and SPEA) must be approved by the Advisory Committee (or the program director if a committee has not been appointed). Students must maintain a cumulative grade point average of at least 3.0 (B). For specific courses acceptable for this degree, consult with the public policy doctoral advisor.

Language and Research-Skill Requirements

Students are required to take a basic research-skill sequence in statistics (such as POLS Y575-Y576, SOC S554-S650, SPEA V606-V607, or the equivalent) approved by the major advisor and the dean of the University Graduate School. Students are also required to either demonstrate proficiency in depth in a foreign language or to take two advanced research skill courses. Students are not permitted to take qualifying examinations until these requirements are satisfied.

Qualifying Examination
Qualifying examinations have both written and oral components. The examinations cover the primary field of public policy and the two concentration fields.

Dissertation
Following successful completion of the qualifying examinations, the student shall form a dissertation committee subject to the approval of the program director. The committee shall consist of a chairperson, who shall serve as the student’s principal advisor; at least two members from the Department of Political Science; and at least two members from SPEA. The responsibilities of the dissertation committee include granting formal approval of the student’s research proposal, guiding the student’s research agenda to completion, and conducting the formal defense of the dissertation. Following the satisfactory defense of the dissertation, the committee recommends to the University

Graduate School that the candidate be awarded the degree Doctor of Philosophy.

Regional Economic Development

**School of Public and Environmental Affairs
Bloomington**

Dean

Astrid Merget

Departmental URL

www.indiana.edu/~speaweb/index2.html

Departmental E-mail

speaweb@indiana.edu

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors

David B. Audretsch, Randall Baker, Charles F. Bonser (Emeritus, Business), Dennis Conway (Geography), Marc Dollinger (Business), Jeffrey Hart (Political Science), F. Robert Jacobs (Business), Bruce Jaffee (Business), Heejuon Kang (Business), Daniel Knudsen (Geography), Joseph Miller (Business), John Odland (Geography), Maureen Pirog, Brian Powell (Sociology), J. C. Randolph (Biology), Barry Rubin, Roy Shin (Emeritus)

Associate Professor

Michael McGregor
(Telecommunications)

Academic Advisor

Professor David B. Audretsch, SPEA 201, (812) 855-6766

Ph.D. Minor in Regional Economic Development (12 credit hours)

Students in a Ph.D. program at Indiana University may select regional economic development as an outside minor.

Program Description

The minor field in regional economic development involves study in the topics facing regional planners, developmental specialists, and researchers, and an introduction to the body of knowledge in regional development. The study of regional economic development broadens students' perspectives, and students may apply this knowledge to a research agenda that incorporates regional development questions. The student is expected to have studied both micro- and macroeconomics before beginning the minor program.

Requirements

1. The director of the Institute for Development Strategies serves as minor advisor. The advisor ensures that prerequisites have been met and certifies that the candidate has met the requirements of the minor. An examination may be required at the discretion of the advisor.
2. The candidate must take at least 12 credit hours of approved courses, which must include two core courses and 6 credit hours of electives. The core curriculum consists of a topics course and a general methodology course. (If the required methodology course has been completed as a requirement for the student's major, an additional elective must be taken to fulfill the minor requirement.) The required topics course is SPEA V669 Economic Development, Globalization, and Entrepreneurship. This course is cross-listed as GEOG G817 Seminar in Regional Geography. The elective courses may come from a variety of disciplines and must be selected in consultation with and approved by the student's minor advisor.
3. A cumulative grade point average of at least 3.0 (B) must be maintained.

Religious Studies

**College of Arts and Sciences
Bloomington**

Chairperson

Professor David Haberman

Departmental E-mail

religion@indiana.edu

Departmental URL

www.indiana.edu/~relstud

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Chancellors' Professor

Stephen J. Stein

Professors

James Ackerman (Emeritus), David Brakke, Robert Company, David Haberman, James Hart (Emeritus), Gerald J. Larson (Emeritus), John McRae, Richard B. Miller, Jan Nattier, David Smith (Emeritus), Mary Jo Weaver

Associate Professors

J. Albert Harrill, Steven Weitzman

Assistant Professors

Constance Furey*, R. Kevin Jacques*, Rebecca Manring*

Adjunct Professors

Daniel Conkle (School of Law), Dyan Elliott (History), Michael Morgan (Philosophy)

Adjunct Associate Professors

Stephen Bokenkamp (East Asian Languages and Cultures), Jamsheed Choksy (Central Eurasian Studies), Paul Gutjahr* (English), Herbert Marks (Comparative Literature)

Director of Graduate Studies

Associate Professor David Brakke, Sycamore Hall 217, (812) 855-3532

Degrees Offered

Master of Arts and Doctor of Philosophy

Special Departmental Requirements

(See also general University Graduate School requirements.)

Graduate Record Examination General Test. In addition, Ph.D. applicants must submit a writing sample. Specific deadlines and expectations are spelled out in the “Student Guide,” available in the department office.

Master of Arts Degree

Grades

B (3.0) average; B or higher for each course.

Course Requirements

A total of 30 credit hours, including R665, at least two other 600-level seminars, and 3 credit hours in each of the three divisions of the M.A. curriculum (religious traditions in the West, religious traditions in the East, critical issues in religious studies). Students choosing to write a thesis may register for 6 credit hours of R699; those opting for the language study project, 6 credit hours of R698. The distribution requirement is satisfied by taking courses in the Department of Religious Studies, or cross-listed courses.

Language Work

All M.A. students must demonstrate reading proficiency in a language appropriate to their program of study, to be selected from the following: Arabic, Classical Chinese, French, German, Classical Greek, Hebrew (Biblical, Medieval, or Modern), Hindi, Japanese, Latin, Sanskrit, Spanish, Classical Tibetan. Another relevant language may be chosen with the approval of the director of graduate studies. Students may demonstrate proficiency in French, German, or Spanish by any of the three methods normally sanctioned by the University Graduate School. They may demonstrate proficiency in one of the other languages by successful completion of course work through the intermediate level or by departmental examination.

Thesis/Language Study Project/Examination Option

Students may complete degree requirements in one of three ways: (1) by writing a thesis, (2) by carrying out a language study project, or (3) by passing a comprehensive examination. The **thesis option** involves 6 credit hours of research and writing in addition to 24 credit hours of course work. A thesis is generally 60-100 pages long and focuses on a theme, problem, and/or historical movement in the study of religion. The **language study option** involves use of a foreign language in which the primary or significant secondary sources of a religious tradition are written (e.g., Hebrew, Greek, Sanskrit, Chinese). The student must (a) demonstrate competence in the language (normally by passing an examination administered by the department), and (b) prepare a scholarly, annotated translation into English of a religious text written in that language, together with an introduction dealing with its historical and cultural context and significance. Students opting for the **comprehensive examination** may not take the examination until they have completed 30 credit hours of course work. The examination is in two parts: (a) general field examination, and (b) area examination in the student’s field of specialization.

Doctor of Philosophy Degree

Admission Requirements

(1) Completion of an M.A. degree in the study of religion at Indiana University or another recognized institution, (2) a superior record in religious studies, (3) proficiency in one of the required languages, and (4) review and approval by a field committee consisting of faculty in the student’s major area of interest.

Grades

No grades below B (3.0) will be counted toward this degree.

Areas for Doctoral Study

Track I (Critical and Ethical Studies) pays particular attention to problems of ethics and social theory as they relate to specific traditions of religious thought and practice. Track II (Cross-Cultural Studies) focuses on one or more religious traditions in one or more geographic and

historical settings, building on resources in the history and methods of the comparative study of religion. Track III (Biblical Interpretation) examines Jewish and Christian Bibles and the history of their interpretation, drawing on tools in literary theory and criticism. Track IV (Historical Studies) features inquiry into one religious tradition or the religious history of one geographical/cultural setting. Please note that the four Ph.D. tracks do not correspond to the curriculum divisions listed for M.A. courses.

Course Requirements

Doctoral students must earn 90 hours of graduate credit, no more than 30 of which may be transferred from other institutions. The department allows up to 30 hours of M.A. credit toward the doctorate, which means that doctoral students must earn 60 hours of credit beyond the M.A. Up to 30 of the total 90 credit hours may be designated as thesis hours (R699, R799). Thus, students whose 30 M.A. credit hours include 6 hours of thesis credit will earn 36 credit hours of course work and 24 credit hours of thesis at the Ph.D. level. Course work requirements beyond the M.A. degree include one track seminar (4 credit hours), three 700-level courses (12 credit hours), R790, a 1 credit hour course devoted to the development of teaching skills, and an outside minor (12 credit hours). Students who have not completed their M.A. at Indiana University are normally required to take R665 as well. The remaining credit hours come from enrollment in R799 Ph.D. Thesis. Doctoral students are also required to produce two research papers before taking comprehensive exams. These papers will normally develop out of students’ 700-level seminars, although they may grow out of other research projects as well. Papers should be modeled on a submission to a refereed journal in the student’s main area of interest and should follow that journal’s requirements for length and documentation (e.g., Turabian, MLA). The two research papers must be approved for the student’s file by two different

professors. Length is normally 20-25 pages, not counting endnotes. An approved research paper may not be a language translation, a bibliographical essay, a text edition, or a set of field notes. Annotated translations may be accepted with approval of the graduate committee. For details, consult the director of graduate studies.

Language Work

All candidates will be required to show proficiency in two modern languages of scholarship (French or German) and any necessary primary source languages required by their field. Another modern language may be substituted for French or German with the approval of the director of graduate studies and the student's advisors. Skill levels for primary source languages will be determined through departmental examinations in cooperation with other departments where appropriate.

Qualifying Examinations

"Qualification for (or Admission to) Candidacy" means being authorized to embark on a dissertation project by passing the qualifying examinations and having a dissertation proposal approved by a research committee. Exams are set and supervised by the advisory committee after all residency requirements are completed. Normally, they consist of three 4-hour written exams plus an oral exam, all taken within a three-week period. Exams are initially taken in toto, but may be retaken once as a whole or in part at the discretion of the committee.

Termination of Enrollment in the Doctoral Program

If a doctoral student fails the written examination two times, fails the oral qualifying examination two times, falls below a 3.0 (B) grade point average, or fails to complete the written and oral examinations by the end of the approved length of time, the director of graduate studies, in consultation with the advisory committee, can initiate steps to terminate the student's enrollment in the program.

Final Examination

Oral defense of dissertation.

Ph.D. Minor in Religious Studies

Students electing the study of religion as an outside minor in a doctoral program will be required to complete 12 credit hours of course work. A maximum of 6 credit hours may be transferred from other institutions or taken from cross-listed courses. At least 6 credit hours are to be taken in the department.

Courses

500-level courses are attached to upper-level undergraduate courses. 600- and 700-level courses are graduate seminars and usually require instructor's permission to enroll. 700-level courses are normally reserved for doctoral students.

REQUIRED AND TRACK SEMINARS

R661 Religion and Social Criticism (4 cr.) Track I Seminar. Religion and social practices, with emphasis on religion and rationality, religion and culture, and religion and the self.

R662 Cross-Cultural Study of Religions (4 cr.) Track II seminar. Historical survey of the development of cross-cultural studies of religious traditions and analysis of the intellectual issues entailed in such studies.

R663 History of Biblical Interpretation (4 cr.) Track III seminar. Chronological introduction to the most influential works of biblical interpretation, from antiquity to the present. Readings in Jewish, Christian, and esoteric sources will include both commentary and hermeneutic theory.

R664 Religious Historiography (4 cr.) Track IV seminar. Survey of significant approaches to the history of religious traditions.

R665 Interpretations of Religion (4 cr.) Major theories and current problems. Required of all departmental graduate students.

R761 Religion and Social Criticism (3 cr.) Meets concurrently with R661, with additional reading and research assignments.

R762 Cross-Cultural Study of Religion (4 cr.) Meets concurrently with R662, with additional reading and research assignments.

R763 History of Biblical Interpretation (4 cr.) Meets concurrently with R663, with additional reading and research assignments.

R764 Religious Historiography (4 cr.) Meets concurrently with R664, with additional reading and research assignments.

RELIGIOUS TRADITIONS IN THE WEST

R511 Religion of Ancient Israel (3 cr.) Survey of scholarship related to specific subfield of ancient Israelite religion. May be repeated for credit when topics vary.

R521 Studies in Early Christianity (3 cr.) Study of the New Testament, early Christian history and thought, or the religious milieu of late antiquity, with special attention to issues of methodology and critical scholarship. May be repeated for credit when topics vary.

R531 Studies in Christian History (3 cr.) Study of primary and secondary sources in select eras of Western Christian history, such as the medieval, Renaissance, Reformation, and early modern periods. May be repeated for credit when topics vary.

R532 Studies of Religion in American Culture (3 cr.) Study of selected topics in the history of religious life and thought in America. May be repeated for credit when topics vary.

R533 Selected Topics in Modern Christian Thought (3 cr.) Topics on figures and movements: Barth, Berdyaev, Newman, Teilhard de Chardin, Niebuhr, and Tillich; Catholic modernism, Protestant

liberalism and neoorthodoxy, Vatican Council II and its aftermath, developments in Eastern Orthodoxy. May be repeated for credit when topics vary.

R541 Studies in the Jewish Tradition (3 cr.) Study of various aspects of medieval and modern Jewish literature, religion, and thought. May be repeated for credit when topics vary.

R553 Studies in Islam (3 cr.) Selected topics in the history of Muslim society and institutions, sectarian developments, law, theology, mysticism, popular piety, and reform movements in medieval and modern contexts. May be repeated when topics vary.

R610 Studies in Biblical Literature and Religion (4 cr.) Issues in the literature, history, and religion of ancient Israel from its origins to the rise of rabbinic Judaism and Christianity. May be repeated for credit when topics vary.

R615 The Bible in Literature Courses (4 cr.) The historical-cultural background of the biblical period, literary analysis of the Bible, and analysis of modern literature dependent on the Bible. Designed for teachers of English.

R620 Ancient and Medieval Christianity (4 cr.) Issues in the history and literature of early Christianity from its origins through the early medieval period. May be repeated for credit when topics vary.

R630 Historical Studies (4 cr.) Development of Western religions in their cultural setting. May be repeated once for credit when topics vary.

R635 Colloquium on North American Religious History (4 cr.) Examination and discussion of selected historiography in the field of North American religious history. May be repeated once for credit when topics vary.

R644 History and Culture in Islam (4 cr.) Selected topics focusing on critical approaches to Islamic historiography, canon formation,

modes of religious authority, scriptural and other forms of textual interpretation, epistemology, and theological discourse. May be repeated once for credit when topics vary.

R652 Colloquium on Religion in the West (4 cr.) P: consent of instructor. Readings and research on patterns of religious life and thought in the West: continuities, changes, and contemporary issues. May be repeated once for credit when topics vary.

RELIGIOUS TRADITIONS IN THE EAST

R547 Meditation Traditions of India (3 cr.) Survey and analysis of the practice of meditation in Hindu, Buddhist, and Jain traditions of India. Focus on the philosophical and structural basis of meditation and the relation of meditation to the monastic traditions of India. The role of the holy person and importance of the guru-student relationship.

R551 Religions of South Asia (3 cr.) Study of the major religious traditions of India: Hinduism, Buddhism, Jainism. May be repeated for credit when topics vary.

R552 Studies in Buddhism (3 cr.) Topics include the history of Buddhist thought, practice, literature, and institutions. Areas covered regularly include the Prajnaparamita and Ratnakuta literature, lay and monastic roles in Mahayana Buddhism, images of women in Buddhist literature, and aspects of early Buddhist thought. May be repeated for credit when topics vary.

R554 Religions of East Asia (3 cr.) Study of historical, interpretive, or philosophical issues in one period, genre, or aspect of an East Asian religion. May be repeated for credit when topics vary.

R649 Issues in the Study of Chinese Religions (3 cr.) Introduction to bibliographic materials, research problems, history of the field, and current issues. Includes a condensed overview of

Chinese religious history from the earliest records to the present.

R650 The Hindu Tradition (4 cr.) Selected topics in Hindu religious history: sects, institutions, texts, doctrines, periods. May be repeated for credit when topics vary.

R651 South Asian Buddhism (4 cr.) Selected topics in South and Southeast Asian Buddhism from the earliest to the modern period. May be repeated for credit when topics vary.

R653 The Confucian Tradition (4 cr.) Selected topics in Confucianism: history, philosophy, literature, authors. May be repeated for credit when topics vary.

R654 The Taoist Tradition (4 cr.) Selected topics in the Taoist tradition. May be repeated for credit when topics vary.

R655 East Asian Buddhism (4 cr.) Selected topics in the Buddhist traditions of East Asian countries. May be repeated for credit when topics vary.

R656 Buddhism in Central Asia (4 cr.) P: graduate-level background in Buddhism or Central Asian studies or consent of instructor. Issues in the history of Buddhism in Central Asia (Afghanistan, Uzbekistan, Xinjiang) from King Ashoka (third century B.C.E.) to the coming of the Mongols (thirteenth century C.E.). May be repeated for credit when topics vary.

R657 Religion in Japan (4 cr.) Selected topics in Japanese religious history. May be repeated for credit when topics vary.

R658 Materials and Methods in Buddhist Studies (4 cr.) Introduction to bibliographic materials, research methods, and current issues in the field of Buddhist studies. Includes a condensed overview of the history of Buddhism from its origins to the present.

R659 Religion and Society in Asia (4 cr.) Selected topics in the interaction between religion and

society in Asian countries. May be repeated for credit when topics vary.

R749 Issues in the Study of Chinese Religions (4 cr.) Meets concurrently with R649. In addition, student will carry out research on appropriate Chinese materials in consultation with instructor.

R750 Advanced Readings in Asian Religious Texts (1-4 cr.) Readings in primary-language Chinese, Japanese, Mongolian, Pali, Sanskrit, Tibetan, or other texts. May take the form of a seminar or of individually directed readings. May be repeated for credit when different texts are read and with consent of instructor.

CRITICAL ISSUES IN RELIGIOUS STUDIES

R561 Social-Scientific Approaches to Religion (3 cr.) Study of various social-scientific disciplines (psychology, sociology, anthropology) as their methods and theories inform our understanding of religious phenomena. May be repeated for credit when topics vary.

R563 Religion in Literature (3 cr.) Study of religious issues raised in literary works. May be repeated for credit when topics vary.

R571 Studies in Religious Ethics (3 cr.) Selected readings in religious thought and morality. May be repeated for credit when topics vary.

R574 From Christian Ethics to Social Criticism I (3 cr.) Christian ethics from the early modern period through the twentieth century, followed by the emergence of comparative religious ethics. Readings include biblical sources and early Christian teachings, the patristic period, Augustine, Bernard of Clairvaux, Aquinas, Luther, Calvin, radical reformers, and Enlightenment Christianity.

R575 From Christian Ethics to Social Criticism II (3 cr.) Christian ethics from the early modern period through the twentieth century, followed by the emergence of comparative religious ethics. Readings include Edwards,

Schleiermacher, Kierkegaard, Barth, modern Catholics and Protestants, and various contributors to the rise of religious ethics and social criticism.

R581 Philosophical Approaches to Religion (3 cr.) Study of selected philosophers, philosophical movements, or philosophical themes as they relate to religious studies or theology. May be repeated for credit when topics vary.

R604 Seminar in Cross-Cultural Philosophy of Religion (3 cr.) Critical analysis of issues in the philosophy of religion in comparative perspective. The manner in which philosophical issues are framed in Indian, European, Chinese-Japanese, and Middle Eastern thought. Attention to the critique of Orientalism and critical theory in recent comparative philosophy.

R670 History of Religious Ethics (4 cr.) Readings of major ethical texts in key periods. Topics vary according to major religious traditions. May be repeated for credit when topics vary.

R672 Religious Thought and Ethics (4 cr.) Key figures, issues, and movements. May be repeated for credit when topics vary.

R673 Religion and Violence (4 cr.) Topics course on the relation between religious belief and practice and violence. Readings draw from ethics, history, and social theory. Topics include peace traditions; just-war tradition; religious sacrifice; and cultural order. May be repeated with consent of instructor.

R674 Ethics and Ethos (4 cr.) Exploration of the relation between ethics and ethos, that is, between human agency and the social, political, and religious conditions in which that agency is exercised. Introduction to currents in moral theory presupposed in subsequent ethics courses.

**These courses are eligible for a deferred grade.

R675 Feminist Perspectives on Religious Traditions (4 cr.) Topics course which includes a focus on one or more of the following: goddess traditions; Western or Eastern feminist theology; comparative feminist theology; feminist encounters with American religions; recovering women's contributions to Eastern or Western religions. May be repeated for credit with permission of instructor.

R680 Religion and the Problems of Modernity (4 cr.) Topics course on problems posed to religion by recent developments, e.g., disbelief, pluralism, secularization, technology, rapid socioeconomic and political change, class conflict, historical consciousness. May be repeated for credit when topics vary.

OTHER SEMINARS, READINGS, AND RESEARCH

R590 Directed Readings in Religious Studies (1-6 cr.)

R600 Methods in Religious Studies (4 cr.) Seminar in methodology, e.g., historiography, interpretation theory, ethnography in the study of religion. May be repeated when topics vary.

R601 Historical Interactions of Religion (4 cr.) Study of secondary and primary literature (in translation) on interaction between two or more religious cultures. May be repeated for credit when topics vary.

R602 Cross-Cultural Topics (4 cr.) Study of selected myths, rituals, institutions, or doctrines, in different cultural settings. May be repeated for credit when topics vary.

R603 Seminar in Comparative Mysticism (4 cr.) Critical and comparative analysis of selected mystical traditions from India, Europe, China-Japan, and the Middle East. Typologies of mysticism will be studied together with an attempt to formulate a critical definition of "mysticism."

R638 Religious Dissent (4 cr.) Selected topics in the study of dissenting religious traditions. May

be repeated once for credit when topics vary.

R660 Religion and Culture (4 cr.) Religious dimensions of cultural phenomena. May be repeated for credit when topics vary.

R698 Master's Research Project (3-6 cr.)** Study of religious texts.

R699 Thesis (M.A.) (1-6 cr.)**

Additional Doctoral Courses

R711 Religion and Scripture (4 cr.) Selected topics on the nature, function, and interpretation of scripture, both oral and written, within specific religious traditions or in cross-cultural perspective. May be repeated for credit when topics vary.

R713 Historical Studies in Western Religions (4 cr.) Selected topics in the histories of Judaism, Christianity, or Islam in the ancient and medieval periods, with study of primary sources in the original language(s). May be repeated for credit when topics vary.

R735 North American Religions (4 cr.) Research on selected topics. May be repeated once for credit when topic changes.

R738 Modern Religious History (4 cr.) An investigation of developments in religion in the modern period (mid-seventeenth century to the present) in a variety of religious and cultural settings. Topics include Catholicism and modernity; modern Protestant Christianity; religious development in China, India, or Japan in the postcolonial period. May be repeated for credit when topics vary.

R744 Women and Religion (4 cr.) Research seminar on selected topics from ancient, medieval, or modern period in any religious traditions, or in comparative religious traditions. May be repeated once for credit when topic changes.

**These courses are eligible for a deferred grade.

R770 Social Ethics (4 cr.) Research seminar on selected topics, including subtraditions in religion, historical developments in a religious tradition, comparative religious ethics, medical ethics. May be repeated with consent of instructor.

R780 Topics in Religious Philosophy (4 cr.) A focus on selected authors, e.g., Plotinus, Augustine, Husserl, Patanjali, Shankara, Chu Hsi, and/or philosophical movements, e.g., German idealism, existentialism, phenomenology, yoga, Madhyamika Buddhism, Vedanta, that are formative for religious or theological thought. May be repeated for credit when topics vary.

R790 Departmental Teaching Practicum (1 cr.) Preparation of syllabus, bibliography, assignments, and exams for undergraduate religion courses.

R791 Advanced Critical and Ethical Study (1-4 cr.) Individually directed reading and research for doctoral students in critical and ethical problems in religion. May be repeated for credit when topics vary.

R792 Advanced Cross-Cultural Study (1-4 cr.) Individually directed reading and research for doctoral students in cross-cultural study of religions. May be repeated for credit when topics vary.

R793 Advanced Biblical Study (1-4 cr.) Individually directed reading and research for doctoral students in biblical interpretation. May be repeated for credit when topics vary.

R794 Advanced Historical Study (1-4 cr.) Individually directed reading and research for doctoral students in historical study of religious traditions. May be repeated for credit when topics vary.

R799 Ph.D. Thesis (1-30 cr.)

CROSS-LISTED COURSE

India Studies

I580 Women in South Asian Religious Traditions (3 cr.) A

historical view of the officially sanctioned roles for women in several religious traditions in South Asia, and women's efforts to become agents and participants in the religious expressions of their own lives.

Renaissance Studies

College of Arts and Sciences
Bloomington

For information contact the Arts and Humanities Institute of the College of Arts and Sciences.

Interdepartmental Graduate Committee on Renaissance Studies

Studies Professor Giancarlo Maiorino (Comparative Literature), Chairperson; Distinguished Professors Peter Bondanella (French and Italian); Bruce Cole (Emeritus, Fine Arts); Professors J. Peter Burkholder (Music), Richard Carr (French and Italian); Associate Professors Ann Carmichael (History and Philosophy of Science), Linda Charnes (English), Catherine Larson (Spanish and Portuguese)

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Distinguished Professors

Willis R. Barnstone (Emeritus, Comparative Literature), Peter Bondanella (French and Italian), Bruce Cole (Emeritus, Fine Arts), Mark Musa (Emeritus, French and Italian), Gerald Strauss (Emeritus, History)

Professors

Judith Anderson (English), Frank Banta (Emeritus, Germanic Studies), Gustav Bayerle (Emeritus, Central Eurasian Studies), Luis Beltrán (Emeritus, Spanish and Portuguese), Michael Berkvam (French and Italian), Ernest Bernhardt-Kabisch (Emeritus, English), Peter Boerner (Emeritus, Germanic Studies), Leon Brauner (Emeritus, Theatre and Drama), Yuri Bregel (Emeritus, Central Eurasian Studies), George Buelow (Emeritus, Music), J. Peter

Burkholder (Music), Diana Carr (Emerita, French and Italian), Richard Carr (French and Italian), Austin Caswell (Emeritus, Music), Stephen Conrad (Law), Raymond DeMallie (Anthropology), Georges Edelen (Emeritus, English), Frank Edmondson (Emeritus, Astronomy), Paul Eisenberg (Philosophy), Jurgis Elisonas (Emeritus, East Asian Languages and Cultures), Molly Faries (Fine Arts), Charles Forker (Emeritus, English), Robert Fulk (English), Thomas Gieryn (Sociology), Kenneth R. R. Gros Louis (English), James Halporn (Emeritus, Classical Studies), Iliya F. Harik (Emeritus, Political Science), Roger Herzal (Theatre and Drama), Quentin Hope (Emeritus, French and Italian), Olga Impey (Spanish and Portuguese), H. James Jensen (English), Howard Jensen (Theatre and Drama), Sidney Johnson (Emeritus, Germanic Studies), Herbert Kaplan (Emeritus, History), Oscar Kenshur (Comparative Literature), Eleanor Leach (Classical Studies), Edoardo Lèbano (Emeritus, French and Italian), Peter Lindenbaum (English), Consuelo López-Morillas (Spanish and Portuguese), Giancarlo Maiorino (Comparative Literature), Bradford G. Martin (Emeritus, History), Michael Morgan (Philosophy), George Nakhnikian (Emeritus, Philosophy), Paul Newman (Linguistics), Thomas Noblitt (Emeritus, Music), Christopher Peebles (Anthropology), Eberhard Reichmann (Emeritus, Germanic Studies), James Riley (History), Benito Rivera (Music), Samuel Rosenberg (Emeritus, French and Italian), Kathleen Rowold* (Apparel Merchandising and Interior Design), William Shetter (Emeritus, Germanic Studies), Paul Spade (Philosophy), Lynn Struve (History), Ian Thomson (Emeritus, Classical Studies), William Trapnell (Emeritus, French and Italian), Stephen Watt (English), Marc Weiner (Germanic Studies), Albert Wertheim (English), William Wiatt (Emeritus, English), William Wiethoff (Communication and Culture), David Zaret (Sociology), Malvin Zirker (Emeritus, English)

Associate Professors

Reed Benhamou* (Apparel

Merchandising and Interior Design), Martin Burkhead (Emeritus, Astronomy), Ann Carmichael (History), Linda Charnes (English), Arthur Field (History), Mona Houston (Emerita, French and Italian), S. Catherine Larson (Spanish and Portuguese), Roy Leake (Emeritus, French and Italian), Sheila Lindenbaum* (English), Joan Linton* (English), Eric MacPhail (French and Italian), Charles Peet (Emeritus, English), Wesley Peters* (Theatre and Drama), Russell Pfohl (Emeritus, French and Italian)

Ph.D. Minor in Renaissance Studies

Course Requirements

Four courses in the Renaissance period: R501, R502, and two additional courses in any other department.

Selection of courses should be made in consultation with the chairperson of the Renaissance Studies Committee. Students should also seek approval for the minor from their respective departments.

Grades

Minimum of a B (3.0) in all courses that count toward the minor.

Examination

None.

Area Certificate in Renaissance Studies

Renaissance studies offers an area certificate, which enables doctoral students to investigate Renaissance civilization more extensively than in the Ph.D. minor program.

Course Requirements

Nine courses in the Renaissance period: R501, R502, two courses outside the home department, and five courses in any other department. The selection of courses not in the student's major department should be made in consultation with the chairperson of the Renaissance Studies Committee.

Grades

Minimum of a B (3.0) in all courses that count toward the certificate.

Examination

None.

Courses

R501 The Culture of the Renaissance (4 cr.) A cross-cultural course that examines the European Renaissance as a whole.

R502 Topics in Renaissance Civilization (4 cr.) A cross-cultural course in which specific topics, problems, and themes are analyzed in the context of the European Renaissance as a whole. May be repeated.

R503 Independent Projects in the Renaissance (3-4 cr.) Independent projects on Renaissance topics for advanced research to be chosen in consultation with the chairperson of the Renaissance Studies Committee.

Russian and East European Institute

**College of Arts and Sciences
Bloomington**

Director

Professor David L. Ransel

Departmental E-mail

reei@indiana.edu

Departmental URL

www.indiana.edu/~reeiweb

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Distinguished Professors

Robert W. Campbell (Emeritus, Economics), Linda Dégh (Emerita, Folklore), Denis Sinor (Emeritus, Central Eurasian Studies, History)

Professors

Michael Alexeev (Economics), Robert Arnove (Emeritus, Education), David Audretsch (School of Public and Environmental Affairs), Randall Baker (School of

Public and Environmental Affairs), Ilhan Basgöz (Emeritus, Central Eurasian Studies), Gustav Bayerle (Emeritus, Central Eurasian Studies), Jacob Bielasiak (Political Science), Leon I. Brauner (Emeritus, Theatre and Drama), Yuri Bregel (Emeritus, Central Eurasian Studies), Malcolm Brown (Emeritus, Music), Matei Calinescu (Emeritus, Comparative Literature), Jamsheed Choksy (Central Eurasian Studies), Henry R. Cooper Jr. (Slavic Languages and Literatures), Devin DeWeese (Central Eurasian Studies), A. Benoit Eklof (History), Ronald Feldstein (Slavic Languages and Literatures), William Fierman (Central Eurasian Studies), Steven L. Franks (Linguistics, Slavic Languages and Literatures), Roy J. Gardner (Economics), Sue Grimmond (Geography), Jeffrey Hart (Political Science), Jeffrey Isaac (Political Science), Charles Jelavich (Emeritus, History), Herbert Kaplan (Emeritus, History), Gyorgy Kara (Central Eurasian Studies), Janet Kennedy (Fine Arts), Dov-Ber Kerler (Jewish Studies), Hiroaki Kuromiya (History), Paul Marer (Emeritus, Business), Howard Mehlinger (Emeritus, Education), John Mikesell (School of Public and Environmental Affairs), Bernard Morris (Emeritus, Political Science), Christine Ogan (Journalism), Felix Oinas (Emeritus, Central Eurasian Studies, Slavic Languages and Literatures), Nina M. Perlina (Slavic Languages and Literatures), Alexander Rabinowitch (Emeritus, History), David L. Ransel (History), Toivo Raun (Central Eurasian Studies, History), Jean C. Robinson (Political Science), Alvin Rosenfeld (English), Anya Royce (Anthropology), M. Nazif Shahrani (Anthropology, Central Eurasian Studies, Near Eastern Languages and Cultures), Mihály Szegedy-Maszák (Comparative Literature, Central Eurasian Studies), Bronislava Volkova (Slavic Languages and Literatures), Charles Wise (School of Public and Environmental Affairs)

Associate Professors

Christopher Atwood (Central Eurasian Studies), Matthew Auer (Public and Environmental Affairs), Joëlle Bahloul (Anthropology), Bonnie Brownlee* (Journalism),

Maria Bucur-Deckard (History), Andrew Durkin (Slavic Languages and Literatures), Inta Carpenter (Folklore and Ethnomusicology), Aurelian Craiutu (Political Science), George Fowler* (Slavic Languages and Literatures), Halina Goldberg (Musicology), Henry Hale (Political Science), Bill Johnston (TESOL/Applied Linguistics), Owen V. Johnson (Journalism, History), Michael Kaganovich (Economics), Dodona Kiziria* (Slavic Languages and Literatures), Robert Kravchuk (Public and Environmental Affairs), Vadim Liapunov (Emeritus, Slavic Languages and Literatures), Philip Parnell (Criminal Justice), Sarah Phillips (Anthropology), Beate Sissenich (Political Science), Dina Spechler (Political Science), Beverly Stoeltje (Folklore), Herbert Terry (Telecommunications), Jeffrey Veidlinger (History), Ilinca Zarifopol-Johnston* (Comparative Literature)

Academic Advisor

Professor David L. Ransel, Ballantine Hall 565, (812) 855-7309

Degree Programs

The Russian and East European Institute (REEI) offers a Master of Arts program in Russian and East European studies and four dual degree programs: a Master of Arts and Master of Business Administration with the Kelley School of Business, a Master of Arts and Master of Library Science or Master of Information Science with the School of Library and Information Science, and a Master of Arts and Master of Public Affairs with the School of Public and Environmental Affairs. The Russian and East European Institute master's program gives students a broad understanding of the geographical area and its peoples, while providing the opportunity to examine in depth the aspect of Russian and East European studies that most interests them. The dual degrees add high-level professional training. Students may focus on the study of Russia, another country or region of the former Soviet Union, or East Central or Southeastern Europe. Within their chosen geographic area, students may concentrate on the study of a

particular discipline (business, history, library science, information science, political science, literature, public affairs, or some other) while also taking courses outside of that discipline.

REEI also offers a Graduate Certificate Program and a Ph.D. Minor Program.

Master of Arts Degree

The REEI master's degree program is intended to prepare area specialists for nonacademic careers in government and private-sector fields such as research and foreign aid, or in exchange organizations, journalism, and business. Students may also choose to follow the REEI degree with advanced graduate studies. The program normally takes two years to complete. Its aim is to provide a broad interdisciplinary introduction to the Russian and East European area, with language competency appropriate for professional research.

Admission Requirements

Bachelor's degree with evidence of superior ability and completion of the Graduate Record Examination. Students who intend to specialize in East Central, European, Southeast European, or Central Asian studies do not need previous study in languages of those areas for admission. For work in Russian area studies, proficiency in Russian language equivalent to two years of college study is required.

Course Requirements

Thirty (30) credit hours of graduate course work to be distributed as follows: (1) R600 Proseminar in Russian and East European Area Studies (3 credits) to be taken the first fall semester of enrollment; (2) four courses (3 credits each) from area studies offerings, one each from the social science group, historical/geographical group, sociocultural group, and literature group; (3) four courses (3 credits each) in the area of concentration. The concentration can be disciplinary (e.g., comparative politics, or business and economics); or it can be geographic (e.g., East Central Europe or Russia); and

(4) REEI R601 Interdisciplinary Colloquium in Russian and East European Studies (3 credits). All course requirements must be completed with an average grade of B or above.

M.A. Essay and Interdisciplinary Oral Examination

The paper by a student in the Interdisciplinary Colloquium in Russian and East European Studies (R601) usually becomes the M.A. essay. The essay must be interdisciplinary in focus and use research in the language of concentration as a defining element. In other words, the foreign language sources must form part of the foundation on which the argument of the essay rests. Three REEI faculty members evaluate the essay and administer an oral examination that explores the interdisciplinary implications of the essay within the context of the student's graduate course work. The essay should not exceed 13,000 words in length (not counting footnotes/endnotes, bibliography, or tabular material).

Language Requirement

Successful completion of the Russian and East European Oral Proficiency Examination requires a knowledge of Russian at intermediate to high level or knowledge of another area language at the second-year level. Language courses do not count toward the REEI degree requirements, but may be necessary to ensure proficiency. The REEI Oral Proficiency Examination in Russian takes approximately 45 minutes and requires that the student demonstrate fourth-year (intermediate high) proficiency by: (1) participating in an oral interview with the examiner (10-25 minutes); and (2) orally translating a passage from an article (150 words) into English. For the translation section of the exam, the student will be given 15 minutes to prepare the passage and may use a dictionary.

The REEI Oral Proficiency Examination in other area languages takes approximately 30 minutes and requires that the student demonstrate second-year (intermediate)

proficiency by (1) carrying on a conversation on everyday topics in the language; (2) presenting a brief talk (five minutes) on a subject in the student's field and answering questions on the subject matter presented; and (3) orally translating a passage from an article (75 words) into English. For the translation section of the exam, the student will be given 15 minutes to prepare the passage and may use a dictionary.

Dual Degree Programs

Dual Master of Arts in Russian and East European Studies and Master of Business Administration (M.A./M.B.A.)

The Russian and East European Institute and the Kelley School of Business jointly offer a three-year program that qualifies students for a dual master's degree. Study for the dual degree (M.A./M.B.A.) can be combined for a total of 64.5 credit hours rather than the 84 credit hours required for the two degrees taken separately. All dual-degree students should expect to pay University Graduate School tuition rates for approximately half of their enrolled semesters at IU and professional school tuition rates for the other half.

Admission Requirements

Same as for the Master of Arts degree except that application must also be made to the Kelley School of Business for study toward the Master of Business Administration degree. Students must be accepted by both units in order to be admitted to the program.

REEI Course Requirements

Twenty-four (24) credit hours of graduate course work to be distributed as follows: (1) R600 Proseminar in Russian and East European Area Studies (3 credits) to be taken the first fall semester of enrollment; (2) four courses (3 credits each) from area studies offerings, one each from the social science group, historical/geographical group, sociocultural group, and literature group; (3) two courses (3 credits each) in the concentration area of international

business management. (These courses should be selected in consultation with the REEI graduate advisor. Students will be encouraged to take an additional 3 credit hours as their M.B.A. elective.); (4) R601 Interdisciplinary Colloquium in Russian and East European Studies (3 credits).

Business Course Requirements

Forty-and-one-half (40.5) credit hours of graduate course. Full information on the M.B.A. curriculum is contained in the Kelley School of Business Bulletin.

M.A./M.B.A. Essay and Interdisciplinary Oral Examination

Same as for the Master of Arts degree except M.A. essay committee should consist of REEI and Kelley School of Business professors.

Language Requirements

Successful completion of REEI Oral Proficiency Examination in one area language (same as for the Master of Arts degree—please see description above).

Dual Master of Arts in Russian and East European Studies and Master of Information Science (M.A./M.I.S.)

The Russian and East European Institute and the School of Library and Information Science jointly offer a three-year program that qualifies students for a dual master's degree. Study for the dual degree (M.A./M.I.S.) can be combined for a total of 60 credit hours rather than the 72 credit hours required for the two degrees taken separately. All dual degree students should expect to pay University Graduate School tuition rates for approximately half of their enrolled semesters at IU and professional school tuition rates for the other half.

Admissions Requirements

Same as for the Master of Arts degree except that application must also be made to the School of Library and Information Science for study toward the Master of Information Science degree. Students

must be accepted by both units in order to be admitted to the program.

REEI Course Requirements

Twenty-four credit hours of graduate course work to be distributed as follows: (1) R600 Proseminar in Russian and East European Area Studies (3 credits) to be taken the first fall of enrollment; (2) four courses (3 credits each) from area studies offerings, one each from the social science group, historical/geographical group, sociocultural group, and literature group; (3) R620 Topics in Information, Literature, and Bibliography: Slavic Library Materials or R610 Seminar in International Librarianship: International Information Issues. (Either R620 or R610 should include a web-based bibliography project.); (4) L596 Internship in Library and Information Science, (research must be conducted in an area pertinent to REEI); and (5) R601 Interdisciplinary Colloquium in Russian and East European Studies (3 credits).

Library and Information Science Course Requirements

Thirty-six (36) credit hours of graduate course work. Full information on the M.I.S. curriculum is contained in the School of Library and Information Science Bulletin.

M.A./M.I.S. Essay and Interdisciplinary Oral Examination

Same as for the Master of Arts degree, except M.A. essay committee should consist of REEI and School of Library and Information Science professors.

Language Requirement

Successful completion of the REEI Oral Proficiency Examination in one area language (same as for the Master of Arts degree—please see description above).

Dual Master of Arts in Russian and East European Studies and Master of Library Science Degree (M.A./M.L.S.)

The Russian and East European Institute and the School of Library

and Information Science jointly offer a three-year program that qualifies students for a dual master's degree. Study for the dual degree (M.A./M.L.S.) can be combined for a total of 54 credit hours rather than the 66 credit hours required for the two degrees taken separately. All dual degree students should expect to pay University Graduate School tuition rates for approximately half of their enrolled semesters at IU and professional school tuition rates for the other half.

Admissions Requirements

Same as for the Master of Arts degree, except that application must also be made to the School of Library and Information Science for study toward the Master of Library Science degree. Students must be accepted by both units in order to be admitted to the program.

REEI Course Requirements

Twenty-four (24) credit hours of graduate course work to be distributed as follows: (1) R600 Proseminar in Russian and East European Area Studies (3 credits) to be taken the first fall semester of enrollment; (2) four courses (3 credits each) from area studies offerings, one each from the social science group, historical/geographical group, sociocultural group, and literature group; (3) L596 Internship in Library and Information Science; research must be conducted in an area pertinent to REEI; (4) R620 Topics in Information, Literature, and Bibliography: Slavic Library Materials; and (5) R601 Interdisciplinary Colloquium in Russian and East European Studies (3 credits).

Library and Information Science Course Requirements

Thirty (30) credit hours of graduate course work. Full information on the M.L.S. curriculum is contained in the School of Library and Information Science Bulletin.

M.A./M.L.S. Essay and Interdisciplinary Oral Examination

Same as for the Master of Arts degree, except M.A. essay

committee should consist of REEI and School of Library and Information Science professors.

Language Requirement

Successful completion of the Russian and East European Institute Oral Proficiency Examination in one area language (same as for the Master of Arts degree—please see description above).

Dual Master of Arts in Russian and East European Studies and Master of Public Affairs (M.A./M.P.A.)

The Russian and East European Institute and the School of Public and Environmental Affairs jointly offer a three-year program that qualifies students for a dual master's degree. Study for the dual degree (M.A./M.P.A.) can be combined for a total of 60 credit hours rather than the 78 credit hours required for the two degrees taken separately. The first semester of course work toward the dual degree should be completed in the School of Public and Environmental Affairs in order to complete prerequisite courses that are offered only in the fall. All dual degree students should expect to pay University Graduate School tuition rates for approximately half of their enrolled semesters at IU and professional school tuition rates for the other half.

Admissions Requirements

Same as for the Master of Arts degree, except that application must also be made to the School of Public and Environmental Affairs for study toward the Master of Public Affairs degree. Students must be accepted by both units in order to be admitted to the program.

REEI Course Requirements

Twenty-four (24) credit hours of graduate course work to be distributed as follows: (1) R600 Proseminar in Russian and East European Area Studies (3 credits); (2) four courses (3 credits each) from area studies offerings, one each from the social science group, historical/geographical group, sociocultural group, and literature

group; (3) two courses (3 credits each) in the concentration area of public and environmental affairs. (These courses should be selected in consultation with the REEI graduate advisor. These courses may not count toward the credit hours required for the Master of Public Affairs.); and (4) R601 Interdisciplinary Colloquium in Russian and East European Studies (3 credits).

Public and Environmental Affairs Course Requirements

Thirty-six credit hours of graduate course work. Full information on the M.P.A. curriculum is contained in the School of Public and Environmental Affairs Bulletin.

M.A./M.P.A. Essay and Interdisciplinary Oral Examination

Same as for the Master of Arts degree, except M.A. essay committee should consist of REEI and School of Public and Environmental Affairs professors.

Language Requirements

Successful completion of REEI Oral Proficiency Examination in one area language (same as for the Master of Arts degree—please see description above).

Graduate Certificate Program

Admissions Requirements

Bachelor's degree with evidence of superior ability. Students admitted to the institute must be admitted first by a department or professional school in which they will work simultaneously for an advanced degree (M.A. or Ph.D.); the certificate is awarded only upon completion of this degree, except in the case of students who have already earned an advanced degree at Indiana University and who wish to add area specialization to competence in their discipline.

Course Requirements

(1) Six to eight courses (18 to 24 credit hours) with at least one course from three of the four following groups: social science group, historical/geographical group,

sociocultural group, and literature group. No more than three courses (9 credit hours) applied toward the certificate may be taken within the student's home department. (2) One colloquium or seminar (600 level or higher) in a department outside the student's own. The courses must be planned in consultation with the graduate advisor or director of REEI.

Language Requirement

Successful completion of REEI Oral Proficiency Examination in one area language (same as for the Master of Arts degree—please see description above).

Thesis/Dissertation

Students must present to the institute a bound copy of the dissertation/thesis for their home department on a Russian or East European area topic, or, in certain cases, a copy of a paper written for the colloquium/seminar.

Ph.D. Minor Program

Admissions Requirement

Bachelor's degree with evidence of superior ability. Students admitted to the institute must be admitted first by a department in which they will work simultaneously for a Ph.D.; the minor is awarded only upon completion of this degree, except in the case of students who have already earned an advanced degree at Indiana University and who wish to add area specialization to competence in their discipline.

Course Requirements

Three to five courses (3 credits each) from area studies courses, with at least one course from three of the four following groups: social science group, historical/geographical group, sociocultural group, and literature group. The courses must be planned in consultation with the graduate advisor or director of REEI.

Courses

INSTITUTE COLLOQUIUMS

R500 Russian and East European Issues (1-3 cr.) Selected issues in Russian and East European history,

politics, culture, economics, and society.

R575 Graduate Readings in Russian and East European Studies (1-3 cr.) Consent of instructor and the director of the Russian and East European Institute required.

R600 Proseminar in Russian and East European Area Studies (3 cr.) Introduction to the disciplines and methodologies of Russian and East European area studies.

R601 Interdisciplinary Colloquium in Russian and East European Studies (1.5-3 cr.)

Capstone course for the Russian and East European Institute master's degree, emphasizing readings in current problems and completion of a major research paper.

R610 Seminar in International Librarianship: International Information Issues (3 cr.)

Comparison of information policies, information standards, and library systems as they affect commercial, scholarly, scientific, and political information contexts.

R620 Topics in Information, Literature, and Bibliography: Slavic Library Materials (3 cr.)

P: knowledge of at least one Slavic language or consent of instructor. Selection and acquisition of Slavic materials; special problems in organization and handling; Slavic bibliographies and other reference materials; online bibliographic databases.

Courses Satisfying Distribution Requirements for the REEI M.A., M.A./M.B.A., M.A./M.I.S., M.A./M.L.S., M.A./M.P.A., Graduate Certificate, and Ph.D.

Minor

In order to receive graduate credit for 300- and 400-level courses, the course must be taught by a professor (not an Associate Instructor) and may require additional assignments. Courses listed in more than one section have varying topics.

GROUP I (SOCIAL SCIENCE)	U720 Seminar in Central Eurasian Studies: Social Science Topics (3 cr.)	V573 Comparative Public Management (3 cr.)
Business	Economics	V575 Comparative Public Management and Administration (3 cr.)
D503 International Business Environment (1.5 cr.)	E501 Seminar in Economics: Soviet-Type Economies in Transition (3 cr.)	V589 Topics in Public Policy: Democratization and Transformation in Eastern Europe and the Newly Independent States (3 cr.)
D504 Operations of International Business (1.5 cr.)	E698 Comparative Economics and Economics of Transition (3 cr.)	West European Studies
D594 International Competitive Strategy (1.5 cr.)	Education	W501 The Economics of European Integration (3 cr.)
D595 International Management (1.5 cr.)	H551 Comparative Education I (3 cr.)	GROUP II (HISTORICAL/ GEOGRAPHICAL)
M594 Global Marketing Management (3 cr.)	H552 Comparative Education II (3 cr.)	Central Eurasian Studies
F570 International Financial Markets (1.5 cr.)	Graduate	U368 The Mongol Conquest (3 cr.)
F571 International Corporate Finance (1.5 cr.)	I701 Interdisciplinary Workshop on Social Science Research in Less Developed Countries (3-3 cr.)	U423 Hungary between 1890 and 1945 (3 cr.)
X575 Kelley International Finance Perspectives Field Study	I702 Interdisciplinary Workshop on Social Science Research in Less Developed Countries (3-3 cr.)	U427 Politics, Society, and Culture in Present-Day Hungary (3 cr.)
X699 International Business and Culture (3 cr.)	Political Science	U436 Finnish Civilization to 1800 (3 cr.)
Central Eurasian Studies	Y340 East European Politics (3 cr.)	U469 The Mongols of the Twentieth Century (3 cr.)
U427 Politics, Society, and Culture in Present-Day Hungary (3 cr.)	Y351 Model European Union (3 cr.)	U493 Central Asia in the Sixteenth-Nineteenth Centuries (3 cr.)
U459 Seminar in Turkish Studies: Social Science Topics (3 cr.)	Y368 Russian and Soviet Foreign Policy (3 cr.)	U494 Central Asia under Russian Rule (3 cr.)
U519 Soviet and Post-Soviet Nationality Policies and Problems (3 cr.)	Y382 Modern Political Thought (REE area topics) (3 cr.)	U496 Ethnic History of Central Asia (3 cr.)
U520 Selected Topics in Central Eurasian Studies: Social Science Topics (3 cr.)	Y385 Russian Political Ideas (3 cr.)	U518 Empire and Ethnicity in Modern Russian History (3 cr.)
U533 Finland in the Twentieth Century (3 cr.)	Y657 Comparative Politics (REE area topics) (3 cr.)	U520 Selected Topics in Central Eurasian Studies: Historical Topics (3 cr.)
U574 Environmental Problems and Social Constraints in Northern and Central Eurasia (3 cr.)	Y675 Political Philosophy (REE area topics) (3 cr.)	U533 Finland in the Twentieth Century (3 cr.)
U574 The Ecology of Central and Northern Asia (3 cr.)	Y681 Readings in Comparative Politics (REE area topics) (1-4 cr.)	U544 The Baltic States since 1918 (3 cr.)
U597 Politics and Society in Central Asia (3 cr.)	Public and Environmental Affairs	U590 Shamanism in Central Eurasia (3 cr.)
	V550 Topics in Public Affairs (REE area topics) (3 cr.)	

U698 Islamic Hagiography of Central Asia (3 cr.)	E600 Seminar in Cultural and Social Anthropology (REE area topics) (3 cr.)	C535 The Later Nineteenth and Early Twentieth Centuries (3 cr.)
U720 Seminar in Central Eurasian Studies: Historical Topics (3 cr.)	E687 Ethnography of Europe (3 cr.)	C641 Literature in its Intellectual and Cultural Contexts (REE area topics) (4 cr.)
Geography	Central Eurasian Studies	Criminal Justice
G427 Russia and Its Neighbors (3 cr.)	U345 Finno-Ugric/Siberian Myth and Religion (3 cr.)	P680 Seminar: Issues in Criminal Justice: (REE area topics) (3 cr.)
History	U370 Uralic Peoples (3 cr.)	Fine Arts
C393 Ottoman History (3 cr.)	U394 Islam in the Soviet Union and Successor States (3 cr.)	A425 Byzantine Art (4 cr.)
T500 Topics in History (REE area topics) (3 cr.)	U427 Politics, Society, and Culture in Present-Day Hungary (3 cr.)	A442 Twentieth Century Art 1900-1924 (4 cr.)
<i>Recent Topics in REE History offered through REEI</i>	U459 Seminar in Turkish Studies: Sociocultural Topics (3 cr.)	A480 Russian Art (3 cr.)
R500 Empire of the Tsars (3 cr.)	U469 The Mongols of the Twentieth Century (3 cr.)	A626 Problems in Byzantine Art (3 cr.)
R500 Russian Revolution and the Soviet Regime (3 cr.)	U498 Studies in Inner Asian Religious Traditions (3 cr.)	Folklore
R500 The People vs. the Emperor (3 cr.)	U520 Selected Topics in Central Eurasian Studies: Sociocultural Topics (3 cr.)	F755 Folklore, Culture, and Society (REE area topics) (3 cr.)
H640 Colloquium in Russian History (4 cr.)	U543 Estonian Culture and Civilization (3 cr.)	Germanic Studies
H645 Colloquium in East European History (4 cr.)	U590 Shamanism in Central Eurasia (3 cr.)	Y505 Modernity and Tradition in Yiddish Literature and Culture (3 cr.)
H720 Seminar in European History (REE area topics) (4 cr.)	U596 Post-Soviet Transition Central Asia (3 cr.)	Y540 Graduate Studies in Yiddish (3 cr.)
H740 Seminar in Russian History (4 cr.)	U597 Politics and Society in Central Asia (3 cr.)	Y595 Individual Readings in Yiddish Language, Literature, or Culture (1-4 cr.)
H745 Seminar in East European History (4 cr.)	U598 Peoples and Cultures of Central Asia (3 cr.)	Journalism
GROUP III (SOCIOCULTURAL)	U720 Seminar in Central Eurasian Studies: Sociocultural Topics (3 cr.)	J414 International Newsgathering Systems (3 cr.)
Anthropology	U797 Seminar on Comparative Study of Muslim Societies of Central Asia and Middle East (3 cr.)	J514 International Communication (3 cr.)
E332 Jewish Women: Anthropological Perspectives (3 cr.)	Comparative Literature	J560 Topics Colloquium: Reporting Foreign Affairs (3 cr.)
E334 Jews in Moslem Society (3 cr.)	C533 Romanticism (3 cr.)	J624 Russian and East European Press Systems (3 cr.)
E371 Modern Jewish Culture and Society (3 cr.)		Library Science
E440 Political Anthropology (REE area topics) (3 cr.)		L596 Internship in Library and Information Science (2-6 cr.)

L610 International Information Issues (3 cr.)	U520 Selected Topics in Central Eurasian Studies: Literature Topics (3 cr.)	R405 Readings in Russian Literature I (3 cr.) (in Russian)
Music		
M502 Composers (REE area topics) (3 cr.)	U534 Classical Finnish Literature (3 cr.)	R406 Readings in Russian Literature II (3 cr.) (in Russian)
M510 Topics in Music Literature (REE area topics) (3 cr.)	U535 Modern Finnish Literature (3 cr.)	R407 Readings in Russian Culture, History, and Society I (3 cr.) (in Russian)
M537 Topics in Russian Music (3 cr.)	U720 Seminar in Central Eurasian Studies: Literature Topics (3 cr.)	R408 Readings in Russian Culture, History, and Society II (3 cr.) (in Russian)
M601 Topics in Music Research (REE area topics) (3 cr.)	Comparative Literature	
M602 Seminar in Musicology: Music and Politics in Eastern Europe (3 cr.)	C535 The Later Nineteenth and Early Twentieth Centuries (REE area topics) (4 cr.)	R500 Proseminar in Russian Literature (3 cr.)
M695 Seminar in Romantic Music (REE area topics) (3 cr.)	C641 Literature in Its Intellectual and Cultural Contexts (REE area topics) (4 cr.)	R503 Old Russian Literature (3 cr.) (in Russian)
Russian and East European Institute	Germanic Studies	R504 Eighteenth Century Russian Literature (3 cr.)
R610 Seminar in International Librarianship: International Information Issues (3 cr.)	Y505 Modernity and Tradition in Yiddish Literature and Culture (3 cr.)	R505 Nineteenth Century Russian Literature I (3 cr.)
R620 Topics in Information, Literature, and Bibliography: Slavic Library Materials (3 cr.)	Y815 Individual Readings in Yiddish Language, Literature, or Culture (1-4 cr.)	R506 Nineteenth Century Russian Literature II (3 cr.)
Slavic Languages and Literatures	Slavic Languages and Literatures	R507 Twentieth Century Russian Literature I (3 cr.)
R407 Readings in Russian Culture, History, and Society I (3 cr.)	C563 Literatures and Cultures of the Czechs and Slovaks I (3 cr.)	R508 Twentieth Century Russian Literature II (3 cr.)
R408 Readings in Russian Culture, History, and Society II (3 cr.)	C564 Literatures and Cultures of the Czechs and Slovaks II (3 cr.)	R520 Twentieth Century Russian Author (3 cr.)
R552 Russian and Soviet Film (3 cr.)	C565 Seminar in Czech Literature and Culture (3 cr.)	R530 Pushkin (3 cr.)
R553 Central European Cinema (3 cr.)	L599 Prague School Linguistics and Poetics (3 cr.)	R531 Gogol (3 cr.)
GROUP IV (LITERATURE)	M565 Individual Readings in Romanian Language and Literature (cr. arr.)	R532 Dostoevsky (3 cr.)
Central Eurasian Studies	P563 Survey of Polish Literature and Culture I (3 cr.)	R533 Tolstoy (3 cr.)
U424 Hungarian Literature from its Beginnings to 1900 (3 cr.)	P564 Survey of Polish Literature and Culture II (3 cr.)	R534 Tolstoy and Dostoevsky (3 cr.)
U426 Modern Hungarian Literature (3 cr.)	P565 Seminar in Polish Literature and Culture II (3 cr.)	R535 Chekhov (3 cr.)
		R545 Jewish Characters in Russian Literature (3 cr.)
		R549 Myth and Reality: Women in Russian Literature and in Life (3 cr.)
		R550 Russian Drama (3 cr.)

R551 Russian Poetry (3 cr.)

R563 Pushkin to Dostoevsky (3 cr.)

R564 Tolstoy to Solzhenitsyn (3 cr.)

R601 Seminar in Russian Literature (1-6 cr.)

S563 Literature and Culture of the Southern Slavs I (3 cr.)

S564 Literature and Culture of the Southern Slavs II (3 cr.)

S565 Seminar in South Slavic Literature (3 cr.)

Scientific Computing

**College of Arts and Sciences
Bloomington**

Departmental URL
php.indiana.edu/~iuisc

Departmental E-mail
bunget@indiana.edu

Director
Associate Professor Randall Bramley

**Interdepartmental
Graduate Committee on
Scientific
Computing**

Distinguished Professors
Steven Girvin (Physics), Ernest Davidson (Chemistry), Allan MacDonald (Physics), Peter Ortoleva (Chemistry)

Professors
Haldan Cohn (Astronomy), Richard Durisen (Astronomy), Dennis Gannon (Computer Science), Robert Glassey (Mathematics), Steven Gottlieb (Physics), Andrew Hanson (Computer Science), Charles Horowitz (Physics), Michael Jolly (Mathematics), Phyllis Lugger (Astronomy), Gary Pavlis (Geological Sciences), Brian Serot (Physics), James Swihart (Emeritus, Physics), Roger Temam (Mathematics)

Associate Professors
Randall Bramley (Computer Science), Glenn Martyna (Chemistry), Gregory Olyphant (Geological Sciences)

Ph.D. Minor in Scientific Computing

Scientific computing is an interdisciplinary, interdepartmental graduate minor recognizing important changes that have introduced a powerful and entirely new mode of scientific research. The increasing availability of high-performance computers has led to a method of scientific inquiry based on mathematical models solved by means of numerical computations, analyzed and viewed by means of advanced computer graphics. Carrying out research by these means is necessarily multidisciplinary, calling on advanced skills in areas that span many classical divisions of academia. The Ph.D. minor in scientific computing provides the interdepartmental education necessary to equip students for research within this new paradigm. Scientific computing courses are generally organized into four categories: numerical analysis, behavior of systems, scientific visualization, and high-performance computing. Students are encouraged to develop expertise in more than one of those areas.

Course Requirements
Twelve (12) credit hours in approved courses, 6 credit hours of which must be outside the student's major department. The course P573 Introduction to Scientific Computing I has been created as an introductory course for students in the program. Students entering with a background in computational science or engineering, in consultation with their advisor on the Scientific Computing Committee, may omit this course from their curriculum. Students develop their course of study with two faculty, one from the student's home department and the other a member of the Graduate Committee on Scientific Computing from outside the student's home department. The proposed course of study will be submitted for approval

by the Graduate Committee on Scientific Computing. If approved, a letter detailing the course of study will be signed by the committee chair with copies given to the student and the student's home department. Significant changes to the course of study need to undergo the same process of development and approval. Certification of completion of the minor requirements will be by the committee chair or an appointed representative.

Courses

Courses which can be used to satisfy the Scientific Computing minor requirement include but are not limited to the following list: A550 (Astronomy), A570 (Astronomy), P573 (CSCI), B673 (CSCI), B582 (CSCI), C668 (Chemistry), P410 (Physics), P609 (Physics), P700 (Physics), M571 (Mathematics), M572 (Mathematics), G612 (Geological Sciences), G514 (Geological Sciences), and G614 (Geological Sciences).

Slavic Languages and Literatures

**College of Arts and Sciences
Bloomington**

Chairperson
Professor Ronald Feldstein

Departmental E-mail
iuslavic@indiana.edu

Departmental URL
www.indiana.edu/~iuslavic

Graduate Faculty
(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors
Henry Cooper Jr., Ronald Feldstein, Steven Franks, Felix Oinas (Emeritus), Nina Perlina, Cornelis Van Schooneveld (Emeritus), Bronislava Volková

Associate Professors

Andrew Durkin, George Fowler*,
Dodona Kiziria*, Vadim Liapunov
(Emeritus)

Visiting Scholar

Bogdan Rakic (Affiliate Member)

Degrees Offered

Master of Arts and Doctor of
Philosophy

Program Information

Attention is called to the program of the Russian and East European Institute, which offers students an opportunity to combine work for an advanced degree in the Department of Slavic Languages and Literatures with interdisciplinary area study of the former Soviet Union or Eastern Europe.

Attention is also called to the Summer Workshop in Slavic and East European Languages, which offers a special certificate program that provides intensive language training in Russian at advanced levels not available during the regular academic year. The workshop also offers first-year and occasionally second-year courses in other Slavic, East European, and Eurasian languages.

Special Departmental Requirements

(See also general University Graduate School requirements.)

General Provision

Students wishing the recommendation of the department for teaching positions must present evidence of their ability to teach Russian through actual teaching experience under departmental supervision.

Master of Arts Degree

Admission Requirements

Graduate Record Examination General Test. Entering students are expected to have: (1) active and passive knowledge of the Russian language adequate for graduate study, as determined by a proficiency examination based on the department's fourth-year course, (2)

a general acquaintance with the major works of nineteenth- and twentieth-century Russian literature equivalent to at least the materials covered in a two-semester undergraduate survey course, and (3) a reading knowledge of German or French. Students seeking to study a departmental language other than Russian must demonstrate a clear interest in that language (e.g., prior study, overseas experience in the relevant country, etc.) for admission. Students enrolling with deficiencies in any of the areas listed above are encouraged to remove them during the summer preceding the start of their graduate work. Students with a Russian language deficiency are urged to apply to the Summer Workshop. Courses taken to satisfy deficiency requirements in Russian, French, or German will not carry graduate credit and will lie outside of the 30 credit hours required for the M.A. degree. Students with a deficiency in Russian literature may take the departmental undergraduate survey courses (R263-R264) without credit.

General Course Requirements

A minimum of 30 credit hours of courses carrying graduate credit, at least 20 of which must be taken in the Department of Slavic Languages and Literatures.

Track Requirements

In addition to the general course requirements, students pursuing the M.A. degree shall complete one of the four programs described below. Tracks 1 and 2 are structured primarily for preparing students who wish to continue toward a Ph.D. degree with a specialization in Russian literature or Slavic linguistics; Track 3 is designed mainly for students pursuing a departmental language other than Russian; Track 4 is for those with other career goals in mind.

Track 1 Russian Literature M.A. Requirements

1. R500 Proseminar in Russian Literature
2. L571 Old Church Slavonic or L576 History of the Russian

Literary Language or L501
Structure of Russian I

3. R501-R502 Advanced Russian Syntax and Stylistics I and II
4. R403 Russian Phonetics
5. R503 Old Russian Literature or R504 Eighteenth-Century Russian Literature
6. R505-R506 Nineteenth-Century Russian Literature I and II
7. R507-R508 Twentieth-Century Russian Literature I and II

Total: 30 credits

Track 2 Slavic Linguistics M.A. Requirements

1. L501 Structure of Russian I: Phonology and Morphology
2. L502 Structure of Russian II: Syntax and Semantics
3. L571 Old Church Slavonic
4. R403 Russian Phonetics
5. Two semesters of a West or South Slavic language
6. R501-R502 Advanced Russian Syntax and Stylistics I and II
7. R505 Nineteenth-Century Russian Literature I or R506 Nineteenth-Century Russian Literature II
8. One SLAV linguistics course

Total: 30 credits

Track 3 Language and Area Studies

Two survey-type Slavic literature courses at the graduate level; a departmental language other than Russian (6-12 credit hours), and 3 credit hours in the department as approved by the graduate advisor; and, in addition, 9 credit hours of graduate courses inside or outside the department selected with the approval of the graduate advisor. (Students taking this option are encouraged to fulfill the additional requirements for a certificate in the

Russian and East European Institute. See below.)

Track 4 Dual Concentration

Two survey-type Slavic literature courses at the graduate level; plus two additional graduate courses in the department; and a program of at least 9 graduate credits in one other department approved by the graduate advisor, such as business, comparative literature, economics, fine arts, geography, history, linguistics, literature, music, political science, or a foreign language. Students may be exempted from Slavic language courses by passing proficiency examinations.

Examination

No examination is required for a terminal M.A. degree, but a doctoral admission examination, based on the M.A. program for Tracks 1, 2, or 3, is required for admission to Ph.D. work and must normally be passed before the student registers for the fifth semester of graduate work. (A student working simultaneously for the M.A. degree and an area certificate in the Russian and East European Institute must pass the doctoral admission examination before registering for the sixth semester of graduate work.)

Master of Arts for Teachers Degree

Admission Requirements

Applicants should have a knowledge of the Russian language adequate for graduate study (a minimum of three years is acceptable, but four is preferred). A broad, solid undergraduate program in the liberal arts is strongly recommended. New students must take a proficiency examination in Russian before registering, and those whose performance is inadequate will be required to take appropriate courses in Russian until their proficiency reaches the level required of B.A. candidates in the department.

Major Field Requirements

A minimum of 20 credit hours, to include R501-R502, R403, and History D411 or equivalent. Students who have not had a two-semester nineteenth- and twentieth-century

Russian literature course must take R263-R264 (without graduate credit) or replace these with two survey-type Russian literature survey courses at the graduate level. Students who have not taken a course in methods of teaching modern foreign languages are required to take Education M455 Methods of Teaching Modern Foreign Languages or the departmental equivalent.

Language Requirement

Active knowledge of Russian (fifth-year proficiency level).

Examination

Oral and written test of proficiency in Russian.

Doctor of Philosophy Degree

Two plans of study are offered.
Plan A: Russian Literature
Plan B: Slavic Linguistics

Plan A: Russian Literature

(A comparable program will be worked out for students choosing another Slavic literature as their major field.)

Admission Requirements

A doctoral admission examination based on the Indiana University M.A. degree in Slavic languages and literatures under Track 1 (Russian literature). Students holding an M.A. in Slavic languages and literatures from another institution will be required, at the discretion of the department, to pass this examination no later than their second semester in attendance at Indiana University.

General Requirements

1. 30 credits from M.A.
2. 12 credits from minor (if second Slavic language, must include second year).
3. R503 Old Russian Literature or R504 Eighteenth-Century Russian Literature.
4. L571 Old Church Slavonic or L576 History of the Russian Literary Language. or L501 Structure of Russian I (N.B.: if

L571 or L576 used for M.A., this course must be L501).

5. Two semesters of a second Slavic language.
6. At least five literature courses in the department, including at least one seminar.

Total: 90 (at least 69 credits of course work and up to 21 credits of dissertation).

Language Requirement

Active knowledge of written and spoken Russian beyond the minimum required for the M.A.; reading knowledge of German, French, and one other Slavic language.

Qualifying Examination

Three written examinations. One will cover all genres of literature in one of the following three periods: (1) from the beginning to 1800, (2) from 1800 to 1890, (3) from 1890 to the present. The second examination will cover the whole history of Russian literature, but will be confined to all forms of narrative. The third examination will cover one of the following categories in its entirety: (1) poetry, exclusive of drama; (2) dramatic literature; (3) criticism. All three of these written examinations are to be taken within two successive semesters. When they have been passed, an oral examination will be given shortly thereafter. The oral examination will cover not only all of Russian literature, but also the following: Russian history and culture and major literary developments in the rest of Europe, including those in the second Slavic literature. The examination will be designed to provide an opportunity for students to demonstrate the range and depth of their scholarly interests and ability.

Plan B: Slavic Linguistics

Admission Requirement

A doctoral admission examination based on the Indiana University M.A. degree in Slavic languages and literatures under Track 2 (Slavic linguistics). Students holding an M.A. in Slavic languages and literatures from another institution

will be required, at the discretion of the department, to pass this examination not later than their second semester in attendance at Indiana University.

General Requirements

1. 30 credits from M.A.
2. R505 Nineteenth-Century Russian Literature I or R506 Nineteenth-Century Russian Literature II.
3. Two semesters of a third Slavic language.
4. 12 credits from minor (if another Slavic language, must include second year).
5. Six diachronic and synchronic linguistics courses, including at least one seminar.

Total: 90 (at least 69 credits of course work and up to 21 credits of dissertation).

Language Requirement

Active knowledge of a major Slavic language beyond the minimum required for the M.A.; reading knowledge of one Slavic language from each of the other two branches and of German and French.

Qualifying Examination

Four written examinations covering (1) the general topic of Slavic synchronic linguistics, (2) a specialized area of Slavic synchronic linguistics, (3) the general topic of Slavic diachronic linguistics, and (4) a specialized area of Slavic diachronic linguistics. The topics of the two specialized exams are to be worked out together with a faculty advisor chosen by the student. All four examinations must be taken within two successive semesters. When all have been passed, an oral examination will be given shortly thereafter.

The Graduate Russian Program

RUSSIAN LANGUAGE COURSES

R401-R402 Advanced Russian I-II (3-3 cr.)

P: B or better in R302. Refinement of active and passive language skills, with emphasis on vocabulary building and word usage. Extensive reading, discussion, composition writing. Individualized remedial drill in grammar and pronunciation aimed at preparing students to meet departmental language proficiency standards. Recitation class supplemented by lab and conversation sections.

R403 Russian Phonetics (3 cr.)

R405-R406 Readings in Russian Literature I-II (3-3 cr.) May not be used for credit toward graduate degree in the department.

R407-R408 Readings in Russian Culture, History, Society I-II (3-3 cr.) P: R302 or equivalent. P or C for R407: R401 or consent of department. P or C for R408: R402. Extensive translation from the original of selected works on Russian history, government, music, folklore, geography, culture. Discussion of both linguistic problems and content.

R491-R492 Russian for Graduate Students I-II (3-3 cr.) Graduate credit not given.

R501-R502 Advanced Russian Syntax and Stylistics I-II (3-3 cr.)

R592 Methods of Russian Language Instruction (3 cr.) Methods of teaching Russian. The course will deal with all methods currently in use in foreign language pedagogy with emphasis on proficiency oriented teaching as applied to Russian. Review of Russian textbooks and video materials. Design and preparation of syllabi and development of lesson plans. Required for SLAV AIs.

RUSSIAN LITERATURE COURSES

Survey Courses

R503 Old Russian Literature (3 cr.) Lectures and readings in the original of Old Russian literary works from the eleventh to the seventeenth centuries.

R504 Eighteenth-Century Russian Literature (3 cr.) Russian intellectual life during the century of Russia's Europeanization; philosophical, religious, aesthetic, and social problems revealed in the writings of leading Russian authors of the century.

R505-R506 Nineteenth-Century Russian Literature I-II (3-3 cr.) Development of Russian prose from Sentimentalism and Romanticism through Realism, with a focus on analysis of primary sources and original texts, to discover narrative and aesthetic principles and practices of major writers of the century.

R507-R508 Twentieth-Century Russian Literature I-II (3-3 cr.) Principal literary movements, major literary works from Symbolism through the Revolution and the Soviet period, culminating in the writing of the *Perestroika* period.

R520 Twentieth-Century Russian Author: (name variable) (3 cr.) Thorough investigation of the *oeuvre* of one or several twentieth-century Russian author(s).

R545 Jewish Characters in Russian Literature (3 cr.) Approaches the "Jewish Question," the identity and self-identity of Jewish characters from the standpoints of literary analyses, cultural ethnography, folklore and religious studies, and social and political history. Literary works of major nineteenth- and twentieth-century Russian writers provide the primary sources for the discussions.

R563 Pushkin to Dostoevsky (3 cr.) (For non-SLAV and SLAV linguistics graduate students only.)

R564 Tolstoy to Solzhenitsyn (3 cr.) (For non-SLAV and SLAV linguistics graduate students only.)

R530 Pushkin (3 cr.)

R531 Gogol (3 cr.)

R532 Dostoevsky (3 cr.)

R533 Tolstoy (3 cr.)

R534 Tolstoy and Dostoevsky (3 cr.) Introduction to the masterworks of Leo Tolstoy and Feodor Dostoevsky. Discussions focus on four major novels; in addition, students read several important short stories and novellas by each author. Lectures in English; readings may be done in English or Russian. (For non-SLAV and SLAV linguistics graduate students only.)

R535 Chekhov (3 cr.)

GENRE COURSES

R550 Russian Drama (3 cr.)

R551 Russian Poetry (3 cr.) Metrical and thematic developments in Russian poetry against aesthetic and philosophical background. Major works read in the original.

R552 Russian and Soviet Film (3 cr.)

R553 Central European Cinema (3 cr.) Emphasizes broad cultural approach to the subject of Central European cinema. Highlights the major developments of cinema in Poland, Hungary, Bulgaria, and the former Republics of Czechoslovakia and Yugoslavia in the post-Stalin era. The course will be divided into four segments, each dealing with a separate theme.

THEORY COURSES

R500 Proseminar in Russian Literature (3 cr.) Designed as an introduction to graduate study in Russian literature. Research methods, sources. History of Slavic scholarship. Required of all graduate literature majors, in first or second semester of study.

R598 Literary Theory in its Russian and East European Context (3 cr.) Advanced survey of literary theories originating in the Slavic world (Formalism, Bakhtin, Tartu School, etc.) and their interaction with western literary theories.

L599 Prague School Linguistics and Poetics (3 cr.) P: interest in theory. An interdisciplinary introduction into linguistics, semiotics, and literary theory based on the methodology of the Prague School. Gives students tools with which to approach analysis in any of these areas. Also included are theory of theater, folklore, and visual arts.

SEMINARS

R601 Seminar in Russian Literature (1-6 cr.) Subject to vary. Intensive study of an author, a period, or a literary movement. Research papers required. May be repeated for credit.

The Graduate Program in Slavic Linguistics

SLAVIC LINGUISTICS COURSES

Synchronic Courses

L501 Structure of Russian I: Phonology and Morphology (3 cr.) Introduction to graduate study in Slavic linguistics. Survey of the field. Research sources. Basic concepts of diachronic linguistics. Introduction to synchronic linguistic theory: Bloomfield, Chomsky, Jakobson.

L502 Structure of Russian II: Syntax and Semantics (3 cr.) P: L501 or consent of instructor. Introduction to the syntactic and semantic structure of contemporary standard Russian.

L503 Russian Word Formation (3 cr.) P: L501. Survey of principles of word formation in Russian. Discussion of formal (morphophonemic) rules governing prefixation, suffixation, and compounding; productive vs. non-

productive processes; and the semantics of derived words.

L504 Comparative Slavic Morphosyntax (3 cr.) Selected topics in the morphosyntax of Slavic languages will be examined from a comparative perspective. Introduces students both to modern generative grammar and to a range of relevant problems posed by Slavic.

L505 Structure and History of a Slavic Language (3 cr.) Synchronic and diachronic analysis of a single Slavic language (usually of language not regularly taught in department), including developmental trends and dialects. Will attempt to provide rapid facility for reading texts (especially linguistic), by building on student's knowledge of Russian.

L599 Prague School Linguistics and Poetics (3 cr.) P: interest in theory. An interdisciplinary introduction into linguistics, semiotics, and literary theory based on the methodology of the Prague School. Gives students tools with which to approach analysis in any of these areas. Also included are theory of theater, folklore, and visual arts.

Diachronic Courses

L571 Old Church Slavonic (3 cr.) History and grammar of Old Church Slavonic; alphabet, sound system, morphology, and elements of syntax. Reading of Old Church Slavonic texts.

L572 Comparative Slavic (3 cr.) A comparative survey of the Slavic languages and their historical development.

L573 History of East Slavic (3 cr.) Survey of East Slavic phonology from Common Slavic to the present. Dialectal divergence in Old Russian and formation of Great Russian, Ukrainian, and Belorussian as literary languages.

L574 History of South Slavic (3 cr.) Since Common Slavic period. Phonemic and morphological divergences within Southern Slavic language group. Formation of Southern Slavic literary languages,

with emphasis on history of Serbo-Croatian and Bulgarian.

L575 History of West Slavic (3 cr.)

Since Common Slavic period. Formation of Western Slavic literary languages, with emphasis on the history of Polish and Czech. Development of Polish and Czech phonemic systems and their dialectal differentiation.

L576 History of the Russian Literary Language (3 cr.) P: S571.

Formation of Russian literary language in connection with cultural development of Kievan Russia and the Muscovite state; Slavic and non-Slavic influences before and after Peter the Great; standardization of Russian in nineteenth century and innovations after October Revolution.

SEMINARS

L600 Proseminar in Slavic Linguistics (3 cr.) Introduction to the profession of Slavic linguistics.

Emphasis on linguistic argumentation, research methods, sources, and critical reasoning. Exposure to a range of approaches to Slavic linguistics and practical training in research methodology and scholarly argumentation. Preparation for doctoral program admissions examination.

L601 Seminar in Synchronic Slavic Linguistics (1-6 cr.) Detailed investigation of one or more specialized areas of synchronic Slavic linguistics. Topic varies; may be repeated for credit.

L602 Seminar in Diachronic Slavic Linguistics (1-6 cr.) Detailed investigation of one or more aspects of Slavic historical linguistics (e.g., historical phonology, morphophonology, morphology, syntax). Examination of general theories and specific issues, complex problems and controversial or innovative solutions. Topic varies, may be repeated for credit.

L603 Topics in Slavic Linguistics (1-6 cr.)

The Graduate Programs in Other Slavic and East European Languages and Literatures

CZECH AND SLOVAK

C501-C502 Elementary Czech I-II (3-3 cr.)

C503-C504 Intermediate Czech I-II (3-3 cr.)

C505-C506 Advanced Intermediate Czech I-II (3-3 cr.) Development of oral and written fluency and comprehension in Czech language based on morphological, lexical, and syntactical analysis of contemporary textual materials.

C511 Intensive Elementary Czech I (5 cr.)

C512 Intensive Elementary Czech II (5 cr.)

C513 Intensive Intermediate Czech I (5 cr.)

C514 Intensive Intermediate Czech II (5 cr.)

C563-C564 Literature and Culture of the Czechs and Slovaks I-II (3-3 cr.) Survey of Czech and Slovak literatures, emphasizing their relation to the literatures of the other Slavic peoples and of Western Europe.

C565 Seminar in Czech Literature and Culture (3 cr.) Intensive study of an author, a period, or a literary or cultural development. Research papers required. May be repeated for credit when topic varies.

V501-V502 Elementary Slovak I-II (3-3 cr.)

POLISH

P501-P502 Elementary Polish I-II (3-3 cr.)

P503-P504 Intermediate Polish I-II (3-3 cr.)

P505-P506 Advanced Intermediate Polish I-II (3-3 cr.)

P511 Intensive Elementary Polish I (5 cr.)

P512 Intensive Elementary Polish II (5 cr.)

P513 Intensive Intermediate Polish I (5 cr.)

P514 Intensive Intermediate Polish II (5 cr.)

P563-P564 Survey of Polish Literature and Culture I-II (3-3 cr.) I: Polish literature from its origins to the end of the eighteenth century. II: Polish literature of the nineteenth and twentieth centuries.

P565 Seminar in Polish Literature and Culture: (variable title) (3 cr.) Intensive study of an author, a period, or a literary or cultural development. Research papers required. May be repeated for credit when topic varies.

ROMANIAN

M501-M502 Elementary Romanian I-II (3-3 cr.)

M503-M504 Intermediate Romanian I-II (3-3 cr.)

M511 Intensive Elementary Romanian I (5 cr.)

M512 Intensive Elementary Romanian II (5 cr.)

M513 Intensive Intermediate Romanian I (5 cr.)

M514 Intensive Intermediate Romanian II (5 cr.)

M565 Individual Readings in Romanian Language and Literature (cr. arr.)

SOUTH SLAVIC

B501-B502 Elementary Bulgarian I-II (3-3 cr.)

B601 Introduction to Bulgarian (3 cr.) P: knowledge of another Slavic language or consent of instructor. Introduction to basic morphology and syntax of Bulgarian.

K501-K502 Elementary Slovene I-II (3-3 cr.)

K 511 Intensive Elementary Slovene I (5 cr.) No previous knowledge of Slovene required. Introduction to basic structure of contemporary Slovene language and to culture. Reading and discussion of basic texts. SSII

K 512 Intensive Elementary Slovene II (5 cr.) No previous knowledge of Slovene required. Introduction to basic structure of contemporary Slovene language and culture. Reading and discussion of basic texts. SSII

K601 Introduction to Slovene (3 cr.) P: consent of instructor. Phonology, morphology, and syntax of the Slovene language. For reading knowledge.

S501-S502 Elementary Serbian and Croatian I-II (3-3 cr.)

S503-S504 Intermediate Serbian and Croatian I-II (3-3 cr.)

S505 Advanced Intermediate Serbian and Croatian I (3 cr.) P: S504 or equivalent proficiency. Reading of literary texts from a variety of periods and locations in the Bosnian-Croatian-Serbian speech area. Sequence of readings in original parallels syllabus of S563-S564 in translation. Review of grammar, syntax, and expansion of lexicon as needed.

S506 Advanced Intermediate Serbian and Croatian II (3 cr.) P: S504 or equivalent proficiency. Reading of literary texts from a variety of periods and locations in the Bosnian-Croatian-Serbian speech area. Sequence of readings in original parallels syllabus of S563-S564 in translation. Review of grammar, syntax, and expansion of lexicon as needed.

S511 Intensive Elementary Croatian/Serbian I (5 cr.)

S512 Intensive Elementary Croatian/Serbian II (5 cr.)

S513 Intensive Intermediate Croatian/Serbian I (5 cr.)

S514 Intensive Intermediate Croatian/Serbian II (5 cr.)

S563-S564 Literature and Culture of the Southern Slavs I-II (3-3 cr.) Survey of the cultures of the Slovenes, Croats, Serbs, Bosnians, Macedonians, and Bulgarians from earliest times to the present. Reading and discussion of their major literary works in translation.

S565 Seminar in South Slavic Literatures (3 cr.) P: S563-S564 or consent of instructor. Intensive study of an author, a period, or a literary development. Research papers required. May be repeated for credit when topic varies.

G501-G502 Elementary Georgian I-II (3-3 cr.)

G511 Intensive Elementary Georgian I (5 cr.)

G512 Intensive Elementary Georgian II (5 cr.)

U601 Introduction to Ukrainian (3 cr.) P: knowledge of another Slavic language or consent of instructor. Introduction to basic morphology and syntax of Ukrainian.

GENERAL SLAVIC COURSES

S540 Graduate Readings in Slavic Studies (cr. arr.)** Readings may be selected in any of the Slavic languages.

S560 Special Studies in Slavic Literature (3 cr.)

S801 Ph.D. Dissertation (cr. arr.)**

**These courses are eligible for a deferred grade.

SUMMER WORKSHOP IN SLAVIC AND EAST EUROPEAN LANGUAGES

Russian

R431 Intensive Russian Oral (2 cr.)

R434 Intensive Russian Phonetics (1 cr.)

W507 Advanced Russian I (5 cr.) Intensive summer equivalent of R401 and R402.

W557 Advanced Russian II (5 cr.)

W508 Advanced Russian Syntax and Stylistics I (5 cr.) Intensive summer equivalent of R501 and R502.

W558 Advanced Russian Syntax/Stylistics II (5 cr.)

W509 Advanced Russian Syntax and Stylistics III (5 cr.) Intensive Russian at the sixth-year level.

W559 Advanced Russian Syntax/Stylistics IV (5 cr.)

OTHER SLAVIC, EAST EUROPEAN, AND EURASIAN LANGUAGES

Undergraduate and graduate sections, on the elementary and intermediate levels, of the following languages are offered on a varying basis: Polish, Czech, Slovak, Hungarian, Slovene, Serbian and Croatian, Romanian, Bulgarian, Georgian, Uzbek, Azeri, Kazak, Estonian, Turkmen.

Social Informatics

**School of Library and Information Science
Bloomington**

Program Director
Howard Rosenbaum

Departmental URL
www.slis.indiana.edu/CSI/Courses/SI_IU_Education.html

Steering Committee members
Chris Ogan (Journalism), Harmeet Sawhney (Telecommunications)

Core Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors

Blaise Cronin (School of Library and Information Science), Alan Dennis (Kelley School of Business), Thomas Duffy (School of Education), Jeffrey Hart (Political Science), Christine Ogan (School of Journalism)

Associate Professors

Susan Herring (School of Library and Information Science), George Marakas* (Kelley School of Business), Ann Massey (Kelley School of Business), Javed Mostafa* (School of Library and Information Science), Alice Robbin (School of Library and Information Science), Harmeet Sawhney (Telecommunications)

Assistant Professors

Katy Borner* (School of Library and Information Science), Susan Brown* (Kelley School of Business), Erik Bucy* (Telecommunications), Diana Burley Gant* (Kelley School of Business), Jon Gant* (School of Public and Environmental Affairs), Howard Rosenbaum* (School of Library and Information Science)

Ph.D. Minor in Social Informatics

Course Requirement for the Ph.D. Minor in Social Informatics (12 credit hours)

The range of courses listed below is designed to enable students to construct a program for the Ph.D. minor in social informatics that is relevant to their primary research interests. This program of courses should include some courses that have strong theoretical and/or methodological content, as well as substantive issues. Students who propose to take “topics courses” (such as L597, R601, and S601/602), as electives to help satisfy these requirements must satisfy the Steering Committee that the particular course they wish to take is relevant to the subject matter of social informatics. Further courses will be added to the list on an

ongoing basis at the discretion of the Steering Committee.

Courses

Required Foundation Courses

Students must take at least one of the following courses (3 credit hours):
J350 Issues in New Communication Technologies
L564 Computerization in Society
T551 Communication, Technology, and Society

Electives

Students seeking the Ph.D. minor in social informatics must complete an additional three courses (9 credit hours). These additional courses must be selected from the following list. The elective courses should be taken from at least two departments or schools other than the student’s home academic unit. The Social Informatics Program is developing rapidly at IU, and we expect that additional doctoral-level courses will be offered each year. Students can propose that their minors include other social informatics courses that are not included on this list. Such proposals should include syllabi and other detailed information about the course.

School of Journalism

J530 Issues in New Communication Technologies
J614 Communication and National Development

Kelley School of Business

S601/S602 MIS Research Topics

School of Library and Information Science

L563 Information Policies, Economics, and the Law
L564 Computerization in Society
L574 Computer-Mediated Communication
L597 Gender and Computerization
L697 Advanced Topics in Information Systems
L764 Information Societies in Critical Perspective (topics change)

Department of Telecommunications (College of Arts and Sciences)

R601 Information Superhighway
R601 Origins of the Information Age

T602 Interactivity and New Media
T651 Communication, Technology and Society

Social Studies

Bloomington

Departmental URL

www.indiana.edu/~socstud

Departmental E-mail

risinger@indiana.edu

Director

Lynn Boyle-Baise

Interdepartmental Graduate Committee on Social Studies

C. Frederick Risinger (Education), Chairperson; Professors John Lovell (Political Science), Gerald Marker (Education), M. Jeanne Peterson (History)

Academic Advisor

C. Frederick Risinger, Education
4066, (812) 856-8582

Degree Offered

Master of Arts for Teachers

This program leads to Indiana teacher certification in secondary social studies, including history. Courses are selected from various departmental offerings and from those of the School of Education.

Special Program Requirements

See also general University Graduate School requirements.

Master of Arts for Teachers Degree

Admission Requirements

Bachelor’s degree, with at least 18 credit hours in the social sciences.

Course Requirements

A total of 36 credit hours, including 24 credit hours in three of the following departments: anthropology, economics, geography, history, political science, psychology, and sociology. At least

12 credit hours must be in one department, the other 12 credit hours divided as equally as possible between two other departments. Remaining credit hours are in the above departments or in the School of Education. S501-S502 may be substituted for any 6 of the 36 credit hours except the 12 credit hours in the major.

Courses

S501-S502 Seminar for Social Studies Teachers I-II (3-3 cr.)

Intensive study of books in the literature of social studies which constitute landmarks of the past or present and important points of view with respect to contemporary problems.

Social Work

School of Social Work
Indianapolis

Departmental URL
socialwork.iu.edu

Departmental E-mail
swkphd@iupui.edu

Director
Professor Margaret E. Adamek

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors

Margaret Adamek, William Barton, Valerie Chang*, Barry Cournoyer*, Michael Patchner, Gerald T. Powers (Emeritus), Irene Queiro-Tajalli*, W. Patrick Sullivan

Associate Professors

Carolyn Black*, Kathy Byers*, James G. Daley, Gail Folaron*, Eldon Marshall*, Paul Newcomb (South Bend), Philip Ouellette, Cathy Pike, Robert Vernon, Marion Wagner*, Becky Van Voorhis*, David Westhuis

Assistant Professors

Carol Hostetter*, Hea-Won Kim*

Academic Advisor

Professor Margaret E. Adamek, Indiana University School of Social Work, 902 W. New York Street, Indianapolis, IN 46202, (317) 274-6730, madamek@iupui.edu

Degree Offered

Doctor of Philosophy. The School of Social Work also offers the Master of Social Work degree on the Indianapolis, and IUN/Gary campuses and the first year of this program may also be completed on the South Bend campus. For further information on the M.S.W. program, see the Bulletin of the School of Social Work.

Doctor of Philosophy Degree

Admission Requirements

All applicants to the Ph.D. program must have a masters degree in social work or a related field of study. Admission to the Ph.D. program is based on evaluations of: (1) the applicant's professional resume, (2) professional experience beyond the M.S.W. degree, (3) undergraduate and graduate transcripts, (4) three letters of reference, (5) an example of the applicant's scholarly writing, (6) a 500-word statement of purpose, and (7) Graduate Record Examination General Test scores.

Application Deadlines

Applications are accepted at any time, but a deadline of February 1 is required in order to be considered for a University Fellowship. Applications are preferred by April 1 to be considered for admission to the program for the following fall semester and by November 1 for the spring semester. Application materials and further information may be obtained from the program director.

Course Requirements

A total of 90 credit hours, including dissertation and research internship. Up to 30 graduate credit hours may be counted toward the minimum 90 credit hours required for the Ph.D. degree. All courses credited toward the Ph.D. degree must have a minimum grade of B and must receive written approval of the

School of Social Work Ph.D. Program Committee and the dean of the University Graduate School. Specific program requirements include: (1) professional social work component (27 credit hours), (2) specialization component (18 credit hours), (3) research component (27 credit hours), (4) research internship (6 credit hours), (5) dissertation (12 credits). See also the "Requirements for the Degree Doctor of Philosophy" discussed in the first section of this bulletin.

Advisory Committee

All students in the Ph.D. program, with the approval of the program director, will select an advisory committee of three faculty members, one of whom will represent the student's area of specialization outside the School of Social Work.

Qualifying Examination

Comprehensive; specific focus and scheduling determined by the student's advisory committee.

Research Proposal

After nomination to candidacy, the student, with the approval of the program director, will select a research committee of no fewer than three faculty members, including an outside member. This committee must approve the proposed dissertation topic.

Final Examination

Oral defense of dissertation.

Pre-Doctoral Exploratory Option

This option is designed to provide prospective Ph.D. students with an opportunity to explore their interests in research and doctoral education before making formal application to the Ph.D. program. Qualified students are admitted under a "special student" status (M9) and are permitted to enroll in up to three of the school's regular Ph.D. foundation courses (9 credit hours) before having to decide whether they intend to apply to the Ph.D. program. If later accepted to the Ph.D. program, credits earned during the pre-doctoral phase will automatically apply toward the Ph.D. degree. Participation in the Pre-Doctoral Exploratory Option does not

guarantee acceptance into the Ph.D. program. Applications for the Pre-Doctoral Exploratory Option should be submitted by July 1st for fall admission and by November 1st for spring admission. All inquiries regarding the pre-doctoral option should be directed to the academic advisor listed above.

Ph.D. Minor in Social Work

A minor in social work requires the completion of at least 12 credit hours of graduate course work. Students must complete either S730 or S740 and at least one additional course from among the 700-level courses listed below. Remaining course requirements may be taken from among the school's 500- and 600-level courses with the approval of the director of the M.S.W. program and the course instructor. The choice of courses comprising the minor must be made in consultation with the Ph.D. program director and have the approval of the student's identified faculty advisor.

Courses

S501 Professional Social Work at the Masters Level: An Immersion (3 cr.)

This foundation course provides an overview of social work, including the definition, scope, history, ethics and values of the profession. This course will provide basic orientation to the available resources and expectations of graduate education in general, and the M.S.W. program, in particular, all within the framework of the adult learner model. Students will develop basic communication, self-assessment, and reflection skills necessary for success in the M.S.W. program. Students will have an opportunity to survey various fields of practice and will begin to identify personal learning goals for their M.S.W. education as well as develop a commitment to lifelong learning as a part of professional practice.

S503 Human Behavior in the Social Environment I (3 cr.) This course provides content on the reciprocal relationships between human behavior and social environments. It includes empirically based theories and knowledge that

focus on the interactions between and within diverse populations of individuals, groups, families, organizations, communities, societal institutions, and global systems. Knowledge of biological, psychological, sociological, cultural, and spiritual development across the lifespan is included. Students learn to analyze critically micro and macro theories and explore ways in which theories can be used to structure professional activities. Concepts such as person-in-environment are used to examine the ways in which social systems promote or deter human well-being and social and economic justice.

S505 Social Policy Analysis and Practice (3 cr.)

This foundation policy course will focus on using several policy analysis frameworks to analyze current social policies and programs both at the state and federal levels and to develop policies that increase social and economic justice. Students will be expected to develop a range of policy practice skills to influence policy development within legislative, administrative, community, political, and economic arenas.

S513 Human Behavior and the Social Environment II (3 cr.)

(variable title) This course builds upon S503 and focuses on developing further knowledge of human behavior theories and their application to practice. Students will link course content to the concentration that the student has selected.

S600 Intermediate Statistics for Social Work (3 cr.)

The intent of this course is for students to acquire an understanding of basic and intermediate statistical analyses that are used in the social sciences, the concepts and uses related to those statistics, and to be able to use a decision-making framework for selecting and computing appropriate statistical techniques for data analysis. The course content will assist students in developing knowledge and skill in selecting appropriate statistics to compute from a variety of basic univariate and bivariate statistics. Students will

learn selected parametric and non-parametric statistics to examine research problems. Included in the learning process are hand computations of statistics, development of skills in using a comprehensive computer statistics package, and selection of statistical techniques based on levels of measurement and analyses of the assumptions of statistics.

S663 Leveraging Organizations, Communities, and Political Systems (3 cr.)

This course focuses on the knowledge and skills essential for understanding, analyzing, and application in organizations, communities, and political arenas. Such knowledge and skills include, but are not limited to: organizational theories, structures, and processes; examination and application of rural, urban and virtual community models, themes and practices; and understanding and involvement in political, social action, and social change interventions and empowerment practices.

S665 Designing Transformational Programs (3 cr.)

This course focuses on alternative, transformational models of strategic, community, and program planning. Featured development models center on collaboration, cultural competence, empowerment, and social justice. The course will address advanced grant writing, identification of funding and other resources, and philanthropic trends within a variety of social service delivery systems. It will move beyond a focus on the technology of program development, to examine planning as a vehicle for designing organizational, community, and social change.

S682 Assessment in Mental Health and Addictions (3cr.)

Recognizing the social, political, legal, and ethical implications of assessment, students enrolled in this course critically examine various conceptual frameworks and apply biopsychosocial and strengths perspectives to understand its multidimensional aspects. Students learn to conduct sophisticated mental status and lethality risk interviews,

engage in strengths and assets discovery, and apply the Diagnostic and Statistical Manual of the American Psychiatric Association and other classification schemes in formulating assessment hypotheses. They gain an understanding of the application of several relevant assessment instruments and learn to evaluate their relevance for service to at-risk populations, including persons affected by mental health and addictions issues. Students learn to collaborate with a diverse range of consumers and other professionals in developing meaningful assessments upon which to plan goals, intervention strategies, and means for evaluation.

S710 Proseminar on Client Systems (3 cr.)

S720 Philosophy of Science and Social Work (3 cr.)

S721 Preparing to Publish: Seminar in Advanced Scholarship Skills (3 cr.)

S724 Theory, Practice and Assessment of Social Work Teaching (3 cr.)

S726 Advanced Social Work Research: Qualitative Methods (3 cr.)

S727 Advanced Social Work Research: Quantitative Methods (3 cr.)

S728 Advanced Statistic for Social Work (3 cr.)

S730 Proseminar on Social Work Policy Analysis (3 cr.)

S740 Interpersonal Social Work Practice: Theory and Research (3 cr.)

S790 Special Topics in Social Work Practice, Theory, and Research (1-3 cr.)

PH.D. COURSES

In addition to the required courses listed below, all students must complete a minimum of 12 credit hours outside the School of Social Work related to their area of

specialization. An advanced course in measurement and statistics is also required and is typically taken as part of the student's area of specialization. All students must enroll for 6 elective credits, which may be taken within or outside the School of Social Work with the approval of the student's advisory committee.

Required Courses

S710 Proseminar on Client Systems (3 cr.) This seminar focuses on the converging forces that have shaped the development, dissemination, and utilization of the human-behavior knowledge base of social work. It specifically examines the social and behavioral science theory and research that provide the foundation for social work practice across a variety of system levels.

S720 Philosophy of Science and Social Work (3 cr.) This course examines the nature and sources of social work knowledge and considers a range of epistemological issues involved in the selection, development, evaluation, and use of knowledge for social work.

S725 Social Work Research Internship (3 cr.) P: S720, S726, S727 or a foundation statistics course, and at least one of the following: S710, S730, or S740. This supervised field internship provides practical experience in conducting research relevant to social work practice. Students participate in a new or ongoing, faculty-supervised research project involving the design and implementation of a study, including the collection and analysis of data, and the development of appropriate research reports. Internship may be registered for up to three times.

S726 Advanced Social Work Research: Qualitative Methods (3 cr.) P: S720 and foundation statistics course. This course provides an opportunity for students to initiate a research project using qualitative research methods. Topics covered will include developing the research question, exploring the literature, writing an interview guide,

interviewing, analyzing data, computer analysis, writing reports, subjectivity and bias, ethics, role of theory, trustworthiness, and audits.

S727 Advanced Social Work Research: Quantitative Methods (3 cr.) P: S720 and foundation statistics course. This advanced quantitative research methods course prepares students with the knowledge and skills necessary to effectively engage in independent research, including: literature review, theory development, hypothesis testing, research design, data analysis, and report writing. It includes related computer applications and use of online data sources.

S730 Proseminar on Social Work Policy Analysis (3 cr.) This seminar focuses on the development and application of analytical tools necessary to critically examine and evaluate social policy theory and research germane to social work, including the values and ideologies that undergird social problem construction, social policy creation, and social program design. Specific attention is devoted to the application of these schemata for diverse populations.

S740 Interpersonal Social Work Practice: Theory and Research (3 cr.) This seminar provides an in-depth orientation to the place of research in social work. It focuses on epistemological, methodological, practical, and ethical issues which affect the way in which research relevant to the profession of social work is conducted and used.

S800 Dissertation Research (1-12 cr.)

Electives

S721 Preparing to Publish: Seminar in Advanced Scholarship Skills (3 cr.) This course prepares doctoral students for academic scholarship. Topics include expectations and standards for scholarly discourse, critical and analytical thinking skills, logical argument, scholarly writing and publication, and developing a research agenda. Web-based peer

and instructor review of successive drafts of writing assignments culminate in a synthesized review of literature.

S724 Theory, Practice, and Assessment of Social Work Teaching (3 cr.) This course prepares doctoral students to effectively and competently teach social work courses. Content includes teaching philosophies; curriculum and syllabus development; teaching methods; technology related to teaching; assessment, testing, evaluation of students; and research related to teaching. Students will learn accreditation standards for bachelors and masters social work education. Course goals will be accomplished using readings, written assignments, guest speakers, demonstrations of teaching, and class discussion.

S728 Advanced Statistics for Social Work (3 cr.) Students in this course learn how to evaluate statistical assumptions and select, compute, and substantively interpret a variety of multivariate statistics, using SPSS to analyze actual social work research data. Online resources, WEB-based materials, and model applications of the statistics support students' learning. Prerequisite: S600-Intermediate Statistics for Social Work.

S790 Special Topics in Social Work Practice, Theory, and Research (1-3 cr.) P: approval by appropriate instructor. This course provides students with an opportunity to engage in focused study of a substantive area of social work practice directly related to the student's identified area of theoretical and research interest. It is completed with the approval and under the guidance of a member of the Ph.D. faculty.

Sociological Practice

School of Arts and Sciences
Fort Wayne

Chairperson
Professor Peter Iadicola

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Departmental E-mail
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Graduate Faculty

Professors
Peter Iadicola, Michael Nusbaumer,
Anson Shupe, Wen-hui Tsai

Associate Professors
Patrick Ashton, Judith DiIorio

Graduate Advisor
Patrick Ashton, 2101 E. Coliseum
Blvd., Fort Wayne, IN 46805-1499,
(219) 481-6669

Degree Offered

Master of Arts in Sociological
Practice

Special Departmental Requirements

(See also general University
Graduate School requirements.)

Admission Requirements
Baccalaureate degree including a major in sociology or related discipline with a grade point average of 3.0 (B); minimum scores of 500 on the GRE mathematics subtest and verbal subtest. Application for admission must include an essay demonstrating that writing skills and career objectives are in line with the program, three letters of recommendation, and an interview with graduate advisor or other faculty member. Students who have not completed an undergraduate degree in sociology may be admitted contingently if they have completed the courses Introductory Sociology, Sociological Theory, Sociological Methods, Statistics, Social

Stratification, and Social Psychology with a B or higher, or agree to complete these undergraduate classes before they are allowed to enroll in graduate classes.

Course Requirements

A total of 33 credit hours, including 24 credit hours in the following topic areas (Principles of Sociological Theory and Practice; Organizations and the Individual; Social Stratification; Statistical Techniques in Sociology; Applied Research Methods; Clinical Methods in Sociological Practice; and 6 credit hours of Practicum in Sociological Practice) and 9 credit hours of electives in Applied and Clinical Sociology or other approved graduate courses.

Grades

Students must complete each course with a grade of B or higher.

Thesis

The thesis requirement is fulfilled by completion of Practicum, which includes a written and oral presentation.

Courses

P510 Seminar on Organizations and the Individual (3 cr.) Focuses on the interplay between social structural factors and individual actions. Examines basic principles of social organizations as well as variations in types of organizational arrangements. Explores impact of organizational structures on individual behavior and attributes, and the implications of various behavioral strategies adopted by individuals functioning within organizations.

P514 Health and Health Care Issues (3 cr.) P: graduate standing. An investigation of health and the health care system in the U.S. with focus on issues, problems, and alternatives for policy reform.

P517 Social Stratification and Social Practice (3 cr.) This course examines social stratification as both an area of scientific inquiry and sociological practice. Course content covers the historical and cross-

cultural variations in social stratification, systems of inequality, and the social policies associated with addressing inequality.

P540 Principles of Sociological Theory and Practice (3 cr.) This course will introduce graduate students to the theoretically informed practice of sociology. Students will develop the ability to use social theory in the analysis of society and social life. Prerequisite: undergraduate course in social theory.

P550 Statistical Techniques for Sociological Practice I (3 cr.) Prerequisite: one basic undergraduate statistics course. Course focuses on how to use statistical analysis to answer common questions in the practice of sociology, as well as on what statistical techniques are useful to answer sociological practice questions, how to apply them and interpret their results. Specific methods to be covered include documentary, ethnographic, survey, experimental design, secondary data analysis, social indicators, focused literature reviews, and library research techniques.

P560 Topics in Sociological Practice (3 cr.) This is a graduate seminar in selected topic areas in sociology, exploring the nature of sociological practice within each area (e.g., policy issues and/or intervention strategies as applied to health).

P562 Topics in Policy Analysis (3 cr.) P: graduate standing. Graduate seminar in selected topic areas in sociology, focusing on the analysis of social policy within each area.

P570 Applied Research Methods (3 cr.) P: undergraduate course in sociological research methods. Course covers the methodological tools and practical knowledge needed to conduct applied social research. Students will be exposed to a variety of methods and will learn how to choose the most appropriate method for specific research problems and settings, and

understand advantages and disadvantages for each.

P571 Clinical Methods in Sociological Practice (3 cr.) This course introduces the student to the range of methods and practices used in the field of clinical sociology, which focuses on the non-research roles of sociologists. Methods included in this course can be employed in work settings as consultants or staff.

P578 Mediation and Conflict Resolution Strategies (3 cr.) Explores the nature of conflict in human social relations and strategies for conflict resolution. Students will learn and practice techniques for proactively and constructively dealing with interpersonal and intergroup conflict. Successful completion of course will enable student to be a certified community mediator in a variety of disputes.

P650 Statistical Techniques for Sociological Practice II (3 cr.) P: graduate standing and P550 or equivalent. Designed to be a continuation of study of statistics as they are used by the practitioners of social science. Explores intricacies of statistical procedures most likely needed by practitioners including factor analysis and index construction, measures of association, and simple and multiple regression.

P670 Advanced Applied Research Methods (3 cr.) P: graduate standing and P570. Designed to provide greater depth of knowledge for topics discussed in P570. Designed to provide greater depth of knowledge for topics discussed in P570 such as focus groups, case studies, survey research, needs assessment and outcome evaluations.

P695 Independent Research in Sociological Practice (1-3 cr.) P: permission of instructor and completion of P540, P550, and P570. Provides the student an opportunity to engage in independent research under the guidance of a faculty member. The student works with a faculty member in developing and carrying out a research under the

guidance of a faculty member in developing and carrying out a research plan. Course requirements are negotiated between the student and the supervising faculty member.

P696 Independent Clinical Analysis Intervention (1-3 cr.) P: graduate standing. Provides the opportunity to do independent work in the area of clinical sociology on a selected problem/issue under the direction of a faculty advisor.

P698 Practicum in Sociological Practice (3 cr.) P: permission of the program director. Capstone class for the master's degree in sociological practice. Guides the student through the process of working with client organizations or agencies as a practicing sociologist. The course is a one-year, two-semester internship as a practicing sociologist.

Sociology

College of Arts and Sciences
Bloomington

Chairperson
Robert Robinson

Departmental E-mail
socinfo@indiana.edu

Departmental URL
www.indiana.edu/~soc

Graduate Faculty
(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Distinguished Professors
Karl Schuessler (Emeritus), Sheldon Stryker (Emeritus)

Allen and Polly Grimshaw Professor
Brian Powell

Chancellor's Professors
J. Scott Long, Bernice Pescosolido

Robert H. Shaffer Class of 1967 Endowed Professor
William Corsaro

Rudy Professors

Thomas Gieryn, David Heise (Emeritus), Pamela Walters

Professors

Robert Althaus (Emeritus), Clem Brooks, Phillips Cutright (Emeritus), Donna Eder, Maurice Garnier, Allen Grimshaw (Emeritus), Elton Jackson (Emeritus), David James, Whitney Pope (Emeritus), Martin Weinberg, Frank Westie (Emeritus), James Wood (Emeritus), David Zaret

Associate Professors

Laurel Cornell, Pamela Jackson, Jane McLeod, Patricia McManus, Eliza Pavalko

Assistant Professors

Arthur Alderson*, Elizabeth Armstrong*, Timothy Bartley*, Timothy Hallett*, Ethan Michelson*, Brian Steensland*, Quincy Stewart*, Leah K. VanWey*, Melissa Wilde

Adjunct Professors

Kirsten Gronbjerg (School of Public and Environmental Affairs), Jorge Chapa (Latino Studies), Jack Martin (Karl F. Schuessler Institute for Social Research)

Adjunct Associate Professor

Daniel Clark* (Medicine, Indianapolis)

Director of Graduate Studies

Professor Eliza Pavalko, Ballantine Hall 756, (812) 855-7629

Degrees Offered

Master of Arts and Doctor of Philosophy

Special Departmental Requirements

See also general University Graduate School requirements.

Master of Arts Degree

Admission Requirements

Fifteen (15) credit hours in sociology with a 3.3 (B+) grade point average (may be waived for students with a strong undergraduate record in another field); satisfactory scores on the Graduate Record Examination

General Test; three letters of recommendation.

Course Requirements

A total of 30 credit hours, including 6 credit hours of the Sociological Research Practicum (S566 and either S567 or S569), S554, and either S510 or S530. An introductory undergraduate statistics course, such as S371, is a prerequisite for S554.

Grades

Students must maintain a grade point average of at least 3.3 (B+) in all course work. No grade below B- in sociology courses will be counted toward this degree.

Essay

The essay requirement is fulfilled by enrollment and participation in S566 and either S567 or S569 and preparation of an acceptable research paper.

Doctor of Philosophy Degree

Admission Requirements

Completion of the M.A. degree (or equivalent training) in sociology at a recognized institution with a grade point average of 3.3 (B+) or higher (students with a master's degree in a related field may be admitted, but may be required to remove deficiencies); three letters of recommendation; and satisfactory scores on the Graduate Record Examination General Test.

Course Requirements

A total of 90 credit hours, consisting of no fewer than 60 credit hours of course work (including the 30 credit hours counting toward the M.A.) and up to 30 credit hours of dissertation research (S869). The required courses are those specified for the M.A. (including both S510 and S530), S540, S558, S650, one advanced methodology course, three 600-level courses, one 700-level seminar, and two elective courses.

Grades

Students must maintain a grade point average of at least 3.3 (B+) in all course work. No grade below B- in sociology courses will be counted toward this degree.

Outside Minor

Required (usually 9-15 credit hours); may be chosen from African studies, Afro-American studies, anthropology, Asian studies, business, cultural studies, economics, education, gender studies, geography, history, history and philosophy of science, human sexuality, Latin American and Caribbean studies, law, linguistics, mathematics, political science, population studies, psychology, religious studies, or West European studies. A field not listed may be chosen with approval of the director of graduate studies.

Qualifying Examinations

All doctoral students are expected to demonstrate proficiency in sociological methods either by achieving a GPA of 3.3 (B+) or above in the required statistics and methods course sequence (S554, S558, S650, one advanced methods course), or by passing a doctoral examination in methodology. In addition, students must pass a written qualifying exam in a research specialty of their choosing. This qualifying exam is to be completed by the start of the student's fourth year in the graduate program.

Dissertation Proposal

Students must pass an oral defense of their dissertation proposal.

Final Examination

Oral defense of the dissertation.

Ph.D. Minor in Sociology

Students from other departments or schools who wish to minor in sociology should consult with the director of graduate studies, who will ordinarily serve as the minor advisor. Students will be required to complete 12 credit hours of course work; these courses must be completed with a grade point average of at least 3.0 (B). No more than one course should be taken below the 500 level. These requirements may be modified in particular cases by the director of graduate studies.

Courses

400-LEVEL

Courses in the 400s listed here are open to graduate students with the prior approval of the director of graduate studies in sociology and the course instructor.

S409 Social Context of Schooling (3 cr.)

S410 Topics in Social Organization (3 cr.)

S413 Gender and Society (3 cr.)

S417 Conversation Analysis (3 cr.)

S419 Social Movements and Collective Action (3 cr.)

S420 Topics in Deviance (3 cr.)¹

S427 Social Conflict (3 cr.)

S431 Topics in Social Psychology (3 cr.)

S433 Adult Socialization (3 cr.)

S435 Social Psychology of the Self (3 cr.)

S438 Childhood Socialization (3 cr.)

S441 Topics in Social Theory (3 cr.)

S450 Topics in Methods and Measurement (3 cr.)

500-LEVEL

S500 Proseminar in Sociology (1 cr.) Introduction to current sociological research interests and concerns through the work of departmental members. May be repeated for credit. S/F grading.

¹ May be repeated three times for credit.

**These courses are eligible for a deferred grade.

S506 Teaching of Undergraduate Sociology (3 cr.) Required of all associate instructors. S/F grading.

S501 Sociology as a Vocation (1 cr.) Students consider the contributions of sociology as a discipline and examine career paths of sociologists both within and outside of academia. The 1 credit course is required of all first-year graduate students. S/F grading.

S502 Launching Your Academic Career (1 cr.) In this course, students are introduced to basic issues that are essential for their professional development. Course time is divided between in-class discussions and exercises both in and outside of class. This 1 credit course is required of all second-year students. S/F grading.

S510 Introduction to Social Organization (3 cr.) R: one course in sociology. Concepts, perspectives, and theories relevant to the analysis of all social organizations or social systems. Emphasizes both dynamic processes and structural forms, including social roles and interaction, patterns of social ordering, effects of culture, and social systems analysis. Examines both classic and contemporary literature.

S530 Introduction to Social Psychology (3 cr.) R: one course in sociology. Examines the broad range of work in social psychology. Emphasis is placed on the relation between the classic and contemporary literature in the field.

S540 Sociological Theory (3 cr.) A rigorous examination of a representative set of theoretical products, with the objective of understanding the basic structure and meaning of each and simultaneously learning about the creation of theory.

S554 Statistical Techniques in Sociology I (3 cr.) P: S371 or consent of instructor. Statistical analysis of single and multiple equation models with continuous

dependent variables. May include techniques such as bivariate and multivariate regression, recursive and nonrecursive structural equation models.

S558 Advanced Research Techniques (3 cr.) The logic of analysis, including development of research questions, relationships between theory and evidence, research design, sampling, data collection strategies, reliability and validity, measurement, analysis, and drawing conclusions. Also includes an overview of data collection techniques such as surveys, interviews, field methods, and the use of archival and secondary data.

S560 Topics in Sociology (3 cr.) Selected topics in social organization and social psychology, including but not limited to the sociologies of work, sex roles, education, mental illness, science, sociolinguistics, socialization, deviance, sexual patterns and variations, and small group processes.

S566-S567 Sociological Research Practicum I-II (1-3; 1-3 cr.) Participation in all aspects of a sociological research project, including conceptualization and design, data collection, analysis, and report writing. Both may be repeated for credit.

S569 M.A. Thesis (3 cr.)**

600-LEVEL

S606 Sociological Issues in College Pedagogy (3 cr.) Introduction to topics such as learning theory, learning and teaching styles, and cognitive development. Focuses on assessment and practice of teaching, challenges to higher education, ethics, and professional responsibility.

S610 Urban Sociology (3 cr.) Historical and contemporary causes, trends, and patterns of urbanization throughout the world. Various approaches to studying the process of urbanization, including ecological, social organizational, and political perspectives. Current developments and problems in urban planning.

S612 Political Sociology (3 cr.)

Possible topics include: experimental studies of power relationships, political socialization, political attitudes, political participation, voting behavior, decision-making processes, theories of social power, organizational power systems and structures, the state as a social institution, and political movements.

S613 Complex Organizations (3 cr.)

Theory and research in formal organizations: industry, school, church, hospital, government, military, and university. Problems of bureaucracy and decision making in large-scale organizations. For students in the social sciences and professional schools interested in the comparative approach to problems of organization and their management.

S615 Problems in Demography and Ecology (3 cr.)

Sociological aspects of theories relating human beings and ecological environment. Selected topics, ranging from fertility and population change to community planning and urbanism in underdeveloped areas as well as Western cultures.

S616 Sociology of Family Systems (3 cr.)

Focus on the nature, structure, functions, and changes of family systems in modern and emerging societies, in comparative and historical perspective. Attention is given to relationships with other societal subsystems, and to interaction between role occupants within and between subsystems.

S617 Social Stratification (3 cr.)

Nature of social stratification; comparison of caste, estate-class, and open-class systems; theories of stratification; characteristics of local and national stratification systems; comparative analysis of stratification systems in various parts of the world; social circulation, changes in stratification structure.

S618 Sociology of Religion and Ideology (3 cr.)

The nature of beliefs and value systems and their institutional arrangements, with specific attention to the interrelationship of these systems to

the larger social structure, in cross-cultural and historical perspective.

S620 Deviance and Social Control (3 cr.)

Current theories of genesis, distribution, and control of deviant behavior. Theories about specific forms of deviant behavior, e.g., crime, suicide, and alcoholism, examined from standpoint of their implications for a comprehensive, general theory of deviant behavior.

S621 Theory and Research in Human Sexuality (3 cr.)

A critical examination of sociological theory and research in the area of human sexuality. Historical and contemporary work will be considered.

S631 Intergroup Relations (3 cr.)

Topics include nature of prejudice, theories of prejudice, psychology of attitudes related to intergroup relations, critique and evaluation of current research of majority-minority relations, and formulation of research designs.

S632 Socialization (3 cr.)

The processes of development of the individual as a social being and societal member, focusing on childhood or socialization into adult roles.

S633 Social Interaction: Interpersonal Relations (3 cr.)

Focuses on social interaction processes. Topics include interpersonal perception, verbal and nonverbal communication, the presentation of self, ecological determinants of interaction, the structure of interactions, social exchange, and stable interaction systems (relationships).

S640 Advanced Topics in Sociological Theory (3 cr.)

Historical development of sociological theory in Europe and the United States during the nineteenth and twentieth centuries, with emphasis on contrasting schools of theoretical thought.

S647 Social Change (3 cr.)

Contemporary theories of social change, analysis of modernization processes such as industrialization

and urbanization, examination of current social movements, and models of future societies.

S649 Theory Construction (3 cr.)

Analysis of the types and structures of formal theory in sociology. Examination of the specific practices of theory construction.

S650 Statistical Techniques in Sociology II (3 cr.)

P: S554 or consent of instructor. Statistical analysis of models with noncontinuous dependent variables. May include techniques such as logit and probit analysis, log-linear models, censoring, and sample selection models.

S651 Topics in Quantitative Sociology (3 cr.)

P: S554, S650. Statistical analysis in social research; selected topics.

S652 Topics in Qualitative Methods (3 cr.)

Selected topics in qualitative data collection and analysis. Various topics which could be covered in a given semester include audiovisual recording in natural settings, comparative/cross-cultural methods, content analysis, ethnographic methods, historical sociology, and intensive interviews and case studies.

S655 Experimental Methods in Sociology (3 cr.)

Analysis of laboratory experiments; problems in experimentation; practice in conducting experiments.

S656 Mathematical Applications in Sociology (3 cr.)

P: S650. Mathematical description of social systems and processes; computer simulation; mathematics and sociological theory.

S657 Community Power, Politics, and Decision Making (3 cr.)

Cross-disciplinary perspectives on community influence structures, governmental forms, and the local and national processes generating community public policies. Research strategies appropriate to the study of these issues.

S658 Selected Problems in Cross-Cultural Sociological Research (3 cr.)

Problems of research in different

cultural settings. Adaptation of standard sociological techniques, development of research designs, administration of research in situations of limited resources.

S659 Qualitative Methods in Sociology (3 cr.) P: S558 or permission of instructor. Methods of obtaining, evaluating, and analyzing qualitative data in social research. Methods covered include field research procedures, participant observation, interviewing, and audio-video recording of social behavior in natural settings.

S660 Advanced Topics (2-6 cr.) Topics announced when course is to be offered.

700-LEVEL

All 700-level courses are research seminars. Topics vary each term.

S700 Topical Seminar (3-12 cr.)

S706 Sociological Research in Higher Education (3 cr.)

S710 Social Organization I (3-6 cr.)

S711 Social Organization II (1-6 cr.)

S720 Deviance and Control I (3-6 cr.)

S721 Deviance and Control II (3-6 cr.)

S730 Social Psychology I (3-6 cr.)

S731 Social Psychology II (3-6 cr.)

S740 Sociological Theory I (3-6 cr.)

S741 Sociological Theory II (3-6 cr.)

S750 Sociological Methods I (3-6 cr.)

S751 Sociological Methods II (3-6 cr.)

**These courses are eligible for a deferred grade.

S864 Readings in Sociology (cr. arr.)** Individual assignments.

S866 Research in Sociology (cr. arr.)**

S869 Ph.D. Thesis (cr. arr.)**

G901 Advanced Graduate Research (6 cr.)

Graduate

G591 Methods of Population Analysis and Their Applications (3 cr.) A course in statistics. Techniques of measuring and analyzing population size and trends, fertility and mortality patterns, migration flows. Population estimates and projections. Major models of formal demography.

Sociology

**School of Liberal Arts
Indianapolis**

Chairperson

Associate Professor Robert Aponte

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Departmental URL

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Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors

David Ford, Carol Gardner, Linda Haas, John T. Liell (Emeritus), Suzanne Steinmetz, Robert White, Colin Williams

Associate Professors

Robert Aponte, William Gronfein, Ain Haas, Jay Howard, David Moller, Peter Seybold, Patricia Wittberg, Eric Wright

Assistant Professors

Wan-Ning Bao*, Carrie Foote-Ardah*

Adjunct Professor

J. Herman Blake

Adjunct Associate Professors

Wolfgang Bielefeld (School of Public and Environmental Affairs), Betsy Fife (School of Nursing), Timothy J. Owens (Purdue University), Gail Whitchurch (Communication Studies)

Lecturers

James Hunter, David Strong

Master of Arts Degree

Admission Requirements

Fifteen (15) credit hours in undergraduate sociology (or approved equivalents, with no more than two of the latter) with a total grade point average of at least 3.0 (on a scale of 4.0); GRE scores at the fiftieth percentile or higher; two samples of writing (a 500-word essay required by the Indiana University Graduate School and a sole-authored report or term paper required by the sociology department); three letters of reference. Foreign applicants are required to take the TOEFL.

Students not meeting the above requirements may be admitted on probation, or they may be required to enroll in courses as a graduate non-degree student to complete the prerequisites.

Course Requirements

A total of 36 credit hours, distributed as follows: 12 credits of basic sociology courses (theory [R556 or R557]; methods [R551 and either R593 or R659], statistics [R559]; 12 sociology credits in one area of concentration (medical sociology; family and gender studies; work and organizations; or other approved topic); 9 credits of electives (any graduate courses approved by the University Graduate School); and 3 credit hours of thesis. An undergraduate statistics course [R359 or the equivalent] is a prerequisite for R551 and R559.

Thesis

A thesis is required.

Graduate Courses

S500 Proseminar in Sociology (1 cr.) P: graduate standing and/or consent of the instructor.

Introduction to current sociological research interests and concerns through the work of departmental members.

R515 Sociology of Health and Illness (3 cr.) Surveys important areas of medical sociology, focusing on social factors influencing the distribution of disease, help-seeking, and health care. Topics covered include social epidemiology, the health-care professions, socialization of providers, and issues of cost and cost containment.

R525 Gender and Work (3 cr.) P: graduate standing and 6 credit hours of sociology, or consent of the instructor. This course explores the historical and contemporary trends in women's paid and unpaid work, and the causes and consequences of sex segregation in the labor force and in the home. An emphasis will be placed on understanding and critically analyzing contemporary theory and research on the subject.

S526 The Sociology of Human Sexuality (3 cr.) P: graduate standing and consent of the instructor. This is a one-semester graduate-level course in the sociology of human sexuality. This course will provide (a) a detailed examination of the development of sex research, (b) a sociological perspective on and critique of this corpus, and (c) an opportunity for students to develop research of their own.

R530 Families and Social Policy (3 cr.) P: R100, R220, graduate standing. This seminar will explore how the government and labor market affect family structure and the quality of family life. Students will study the implications of family research for social policy and learn to develop theoretical frameworks for evaluating social policies affecting families.

S530 Introduction to Social Psychology (3 cr.) P: graduate

standing or consent of the instructor. Examines the broad range of work in social psychology. Emphasis is placed on the relation between the classic and contemporary literature in the field.

R537 Gender and Society (3 cr.) This course examines some central emphases on gender of social interactionist theory and feminist theory/methods. In addition, we will relate these approaches to the study of contemporary gender approaches in selected social spheres, which may vary according to instructor's specialization.

R551 Sociological Research Methods (3 cr.) P: graduate standing or consent of the instructor. This course surveys the major techniques for investigating current sociological problems. It emphasizes the relationship between theory and practice in understanding and conducting research. Although methods intended for rigorous hypothesis-testing through quantitative analysis will be of major concern, the course will also examine issues in field research essential to a full understanding of a research problem.

R556 Advanced Sociological Theory I: The Classical Tradition (3 cr.) P: graduate standing or consent of the instructor. This is the first part of a two-semester graduate course in contemporary sociological theory and theory construction. The first semester will involve the student in detailed study and analysis of sociologists belonging to the positivist tradition in sociology. Students will be expected to comprehend contemporary sociology in terms of its historical roots and to demonstrate their understanding of theory construction.

R557 Advanced Sociological Theory II: The Modern Tradition (3 cr.) P: graduate standing or consent of the instructor. Reading and exercises will involve the student in close analysis and criticism of sociologists belonging to the idealist tradition of sociology. In this second part of a two-semester course in theory and theory

construction in sociology, students will be required to demonstrate their mastery of the theorists studied, as well as to demonstrate their own abilities in theory design and construction.

R559 Intermediate Sociological Statistics (3 cr.) P: R359 or equivalent. Basic techniques for summarizing distributions, measuring interrelationships, controlling extraneous influences, and testing hypotheses are reviewed, as students become familiar with the computer system. Complex analytical techniques commonly applied in professional literature are examined in detail, including analysis of variance, path diagrams, factor analysis, and log-linear models.

S560 Graduate Topics(3 cr.) Exploration of a topic in sociology not covered by the regular curriculum but of interest to faculty and students in a particular semester. Topics to be announced.

S569 M.A. Thesis (3 cr.)

R585 Social Aspects of Mental Health and Mental Illness (3 cr.) This is a graduate-level course which focuses on the sociology of mental illness and mental health. Provides a thorough grounding in the research issues and traditions that have characterized scholarly inquiry into mental illness in the past. Students will become familiar with public policy as it has had an impact on the treatment of mental illness and on the mentally ill themselves.

R593 Applied Fieldwork for Sociologists (3 cr.) This course will provide students with both a theoretical and methodological background in the different types of qualitative analysis used in sociological fieldwork. Students will have the opportunity to study and to evaluate representative examples of qualitative studies and to complete by themselves a project done with qualitative methods.

R610 Sociology of Health and Illness Behavior (3 cr.) This seminar explores sociological and

social scientific research on health and illness behavior. Special emphasis is placed on examining how social factors and conditions shape people's responses to disease, illness, and disability.

S610 Urban Sociology (3 cr.) P: graduate standing or consent of the instructor. Historical and contemporary causes, trends, and patterns of urbanization throughout the world. Various approaches to studying the process of urbanization, including ecological, social organizational, and political perspectives. Current developments and problems in urban planning.

S612 Political Sociology (3 cr.) P: graduate standing or consent of the instructor. An analysis of the nature and operation of power in a political system. Topics may include classical theories of power, political behavior and campaigns, the role of mass media in sustaining power, the state as a social institution, and political movements.

S613 Complex Organizations (3 cr.) Theory and research in formal organizations: industry, school, church, hospital, government, military, and university. Problems of bureaucracy and decision-making in large-scale organizations. For students in the social sciences and professional schools interested in the comparative approach to problems of organization and their management.

S616 Sociology of Family Systems (3 cr.) P: graduate standing or consent of the instructor. Focus on the nature, structure, functions, and changes of family systems in modern and emerging societies, in comparative and historical perspective. Attention is given to relationships with other societal subsystems, and to interaction between role occupants within and between subsystems.

S632 Socialization (3 cr.) The processes of development of the individual as a social being and societal member, focusing on childhood or socialization into adult roles.

S659 Qualitative Methods in Sociology (3 cr.) Methods of obtaining, evaluating, and analyzing qualitative data in social research. Methods covered include field research procedures, participant observation, interviewing, and audio-video recording of social behavior in natural settings.

R697 Individual Readings in Sociology (3 cr.) Investigation of a topic not covered in the regular curriculum that is of special interest to the student and that the student wishes to pursue in greater detail. Available only to sociology graduate students through arrangement with a faculty member.

Spanish

**School of Liberal Arts
Indianapolis**

Chairperson
Professor Gabrielle Bersier

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Assistant Professor
Gustavo V. Garcia*

Director of Graduate Studies
Professor Nancy Newton,
Cavanaugh Hall 501 F, (317) 274-
7342 or 274-3658

Degree Offered
Master of Arts for Teachers

Program Information
This graduate program is a collaboration between IUPUI and the University of Salamanca. It leads to

the M.A.T. in Spanish, awarded by IUPUI, and to a distinctive international degree entitled Master Interuniversitario Hispano-Norteamericano en la Lengua Espanola y las Culturas Hispanas, awarded by the University of Salamanca. The University of Salamanca has a well-developed curriculum for foreign students who aspire to teach Spanish, and its Cursos para profesores enjoy a high level of academic prestige around the world.

This international course of study has been designed specifically for teachers of Spanish. It provides graduate level course work in the Spanish language, Hispanic cultures, teaching methodology, applied linguistics, and Hispanic art and literature. It provides for the professional development of Spanish teachers through the improvement of their language and teaching skills, and it will enable their career advancement. Graduates of the program will in turn contribute to better teaching of Spanish in Indiana schools, improving the language skills and the cultural awareness of Indiana students.

Special Departmental Requirements
(See also general University Graduate School requirements.)

Admission Requirements
(1) A bachelor's degree from an accredited college or university, with a minimum grade point average of 3.0 (on a 4.0 grading scale) in the student's undergraduate major, documented by an official transcript. Applicants are expected to have a B.A. in Spanish, but admission is also considered for those who otherwise demonstrate the competency necessary for successful graduate work in Spanish. Students must have knowledge of Spanish phonetics, linguistics, and literary genres and periods. Students with deficiencies may be admitted on a conditional basis until they complete the relevant undergraduate courses in these areas. (2) Proficiency in the Spanish language. There are two options: (a) Exam-Students may take

the Basic Diploma in Spanish (DELE) issued by the Spanish Ministry of Education, Culture and Sport. The official exam determining this proficiency is offered once a year at IUPUI; or (b) A tape-including applicant's oral sample of 10-15 minutes of spontaneous speech in Spanish and an essay in Spanish on some aspect of Spanish culture, literature, linguistics, or pedagogy. The essay may be in the form of a paper written for a course. (3) Three letters of recommendation. At least two of these should be from professors. (4) For international students, the university requires a minimum TOEFL score of 550 on the paper version, 213 on the computer-based test. Send scores to Institution Code 1325, Dept. Code 2608. Students who do not achieve this score may be admitted to the university conditionally and may be required to take English as a Second Language courses through the Department of English. While taking these courses they will be allowed to register for a maximum of six credit hours in the M.A.T. in Spanish. If admitted, international students will also be required to take IUPUI's ESL Placement test before registering for the first semester. For further admissions instructions and requirements for international students, prospective students should refer to the Office of International web page at www.iupui.edu/cgi-bin/cgiwrap/oia/wrap?

PLEASE NOTE: We do not require the GRE for admission to the M.A.T. in Spanish program.

Online application: Please access the online portion of the application from this link: www.iupui.edu/~resgrad/grad/apply.htm

Course Requirements

The IUPUI-Universidad de Salamanca M.A.T. in Spanish consists of 37 credits and it may be completed in 3 academic semesters and 2 five-week courses in Spain completed in sequential years. The summer work in Spain MUST be done in consecutive years: for example, in 2004-05; or in 2005-06. The remainder of the course work

must be completed in residence at IUPUI. To complete the IUPUI courses as rapidly as possible, students must take 2 graduate courses per semester for 2 of the 3 semesters in the curricular rotation.

Course Work at IUPUI

(to be completed during the academic year):

Methodology and Applied Linguistics

S513 Introduction to Hispanic Sociolinguistics

S515 Acquisition of Spanish as a Second-language

S517 Methods of Teaching College Spanish

Latin American Culture and Literature

S518 Studies in Latino and Spanish-American Culture

S680 Topics in Contemporary Spanish-American Literature

S519 Practicum in the Teaching of Spanish

S685 M.A.T. Thesis

Course Work at the University of Salamanca

(to be completed in two July sessions):

S521 Spanish Grammar and Linguistics for Teachers I (4 cr.)

This course presents themes and issues in Spanish grammar and in Hispanic linguistics selected for their relevance to teaching Spanish to non-native students. Pedagogical implications and teaching strategies will be discussed. Content is distinct from that of S524.

S523 Spanish Literature, Art and Culture for Teachers I (4 cr.)

This course presents authors, artists, themes and issues in Spanish literature, visual art and cultural life selected to enrich the teaching of Spanish to non-native students. Pedagogical implications and teaching strategies will be discussed. Content is distinct from that of S525.

S524 Spanish Grammar and Linguistics for Teachers II (4 cr.)

This course presents themes and issues in Spanish grammar and in Hispanic linguistics selected for their

relevance to teaching Spanish to non-native students. Pedagogical implications and teaching strategies will be discussed. Content is distinct from that of S521.

S525 Spanish Literature, Art and Culture for Teachers II (4 cr.)

This course presents authors, artists, themes, and issues in Spanish literature, visual art, and cultural life selected to enrich the teaching of Spanish to non-native students. Pedagogical implications and teaching strategies will be discussed. Content is distinct from that of S523.

Courses

S507 Foreign Language Institute (3 cr.)

Intensive interdepartmental course involving language laboratory and audiovisual equipment and techniques, lecture, assignments in contemporary civilization (in the foreign language), and discussion of classroom use of applied linguistics. Taught only in summer. Intended primarily for teachers. May be repeated for a maximum of 6 credit hours.

S513 Introduction to Hispanic

Sociolinguistics (3 cr.) Prerequisite: S320, S426 or consent of instructor.

This course examines the relationship between language and society in the Spanish-speaking world. It surveys a wide range of topics relevant to Spanish: language as communication, the sociology of language, and linguistic variation. The course is conducted entirely in Spanish. Instructor: Antón.

S515 The Acquisition of Spanish as a Second Language (3 cr.)

Prerequisite: S426, S428, or consent of instructor. This course is designed primarily to provide graduate students of Spanish with an introduction to the study of the acquisition of Spanish as a second language. We will survey a selection of studies exploring topics that range from the development of second language (Spanish) grammars, to second language production, second language comprehension, input processing, and the acquisition of pragmatic and sociolinguistic competence. Students are expected

to work on a research project. The course is conducted entirely in Spanish.

S517 Methods of Teaching College Spanish (3 cr.) Prerequisite: S428 or consent of instructor. This course on communicative language teaching takes as its point of departure the body of research on second language development. We extrapolate from this base principles and parameters to guide classroom instruction. We cover a full range of topics from grammar and input to spoken and written language. Students are expected to work on a research project and derive pedagogical implications for teaching Spanish. The course is conducted entirely in Spanish.

S518 Studies in Latino and Spanish American Culture (3 cr.) This graduate-level course introduces essential themes and topics in the study of the cultural phenomena produced in Latin America and among Hispanics in the United States. The object of inquiry will include the knowledge, belief systems, artistic production, laws, customs and other socially determined behaviors that pertain to the Spanish-speaking peoples in the Western Hemisphere. Topics such as the relationship between the colonizer and the colonized, the structure of institutions which express or govern social relationships, manifestations of popular culture, the various forms by which communication is effected, high and low art, religious syncretism, and native indigenous cultures will be explored. Students will make an oral presentation on a theoretical text and write a research paper.

S519 Practicum in the Teaching of Spanish (2 cr.) P: S517 or instructor's consent. Practical application of the teaching methodology explored in S517, *Methods of Teaching College Spanish*. Students will undertake teaching projects supervised by a graduate faculty member in Spanish and meet with their mentors to assess their teaching objectives, techniques, materials and outcomes.

S528 Translation Practice and Evaluation (3 cr.) A graduate credit course in the problems and techniques of Spanish/English and English/Spanish translation. Includes the practical aspects of translation from various texts (literary, technical, scientific, commercial, social) and evaluation of professional translations. Translation theory will also be studied.

S680 Topics in Contemporary Spanish American Literature (3 cr.) Topics include poetry, drama, short story, novel, essay.
S686 M.A.T. Thesis (4 cr.) Students will identify a research theme and develop it under the guidance of a director and a co-director. The topic will be related to the teaching of the Spanish language or to the teaching of an aspect of Hispanic culture.

Spanish and Portuguese

**College of Arts and Sciences
Bloomington**

Chairperson
Professor Consuelo López-Morillas

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Departmental E-mail
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(An asterisk [*] denotes associate membership in University Graduate School faculty.)

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Associate Professors
Mary Clayton, J. Clancy Clements, Juan Carlos Conde, Luis Dávila, John Dyson (Emeritus), Catherine Larson, Kathleen Myers*, Daniel

Quilter* (Emeritus), Russell Salmon (Emeritus)

Assistant Professors
Deborah Cohn*, Manuel Díaz-Campos*, Kimberly Geeslin*, Sabrina Karpa-Wilson*, Alejandro Mejias-Lopez*, Vila-Belda*, Steven Wagschal*

Director of Graduate Studies
Professor Kathleen Myers,
Ballantine Hall 805, (812) 855-9194

Degrees Offered
Master of Arts, Master of Arts for Teachers, and Doctor of Philosophy

Special Departmental Requirements
(See also general University Graduate School requirements.)

Admission Requirements

1. Undergraduate major in Spanish or Portuguese or its equivalent. (Students lacking a complete major must remove deficiencies);
2. Graduate Record Examination (GRE) General Test;
3. Test of English as a Foreign Language (TOEFL)-international students only;
4. Three letters of recommendation;
5. Statement of Purpose;
6. Transcripts;
7. Writing sample (Ph.D. Hispanic literature applicants only).

Master's Degrees

Master of Arts Degree
Admission to the M.A. program does not imply that once the degree is received the student may automatically begin work for the Ph.D.; the department will decide in each case.

The following requirements apply to all M.A. degrees.

Final Examination

Six-hour written examination, based on a reading list, and a one-hour oral examination. Both must be passed at least two weeks before the end of the semester in which the degree is to be granted. Students must demonstrate a good command of oral and written Spanish or Portuguese language on the examinations. There are separate reading lists for students of Spanish literature, Portuguese literature, and Hispanic linguistics.

Other Provisions

Students must serve one year (or longer at the discretion of the department) as associate instructors in the department. Students who have taught elsewhere may petition the faculty to have that experience accepted as fulfilling this requirement.

Concentration in Literatures in Spanish

Course Requirements

A minimum of 30 credit hours of departmental courses numbered 500 or better, four of which must be 500-level Spanish literature courses.

Language Requirement

Reading knowledge of an approved second foreign language. Proficiency is satisfied as below under “Doctor of Philosophy, Language Requirement.”

Concentration in Hispanic Linguistics

Course Requirements

A total of 30 credit hours of which at least 21 must be in Hispanic linguistics. S425 and S428, or the equivalent, are required and count toward the required 21 credit hours. Up to 9 credit hours may be taken in other departments related to the student’s field of study.

Language Requirement

Reading knowledge of an approved second modern language; completion of Latin L300 with a grade of B (3.0) or better, or its equivalent. Proficiency is satisfied as below under “Doctor of Philosophy, Language Requirement.”

Master of Arts Degree in Portuguese

Course Requirements

A minimum of 30 credit hours in graduate-level courses, at least 20 credit hours of which must be in departmental courses. A thesis (1-6 credits) is optional. With the approval of their advisor, students may take up to 10 credit hours of course work in a minor field.

Language Requirement

Reading knowledge of an approved second foreign language. Proficiency is satisfied as below under “Doctor of Philosophy, Language Requirement.”

Master of Arts for Teachers Degree

Course Requirements

A total of 36 credit hours, of which 21 credit hours must be in Spanish, including 12 credit hours in Spanish and Spanish-American literature. Students should plan their study of literature in anticipation of the expectations implicit in the final examinations described below. In addition, students must have a knowledge of Spanish and Latin American culture equivalent to the completion of S411 and S412. Those who have not had courses in linguistics equivalent to S425 and S428 will be required to take them. The remaining 15 credit hours will include 3 graduate credit hours in education approved by the M.A.T. advisor and additional courses in Spanish or Portuguese or Catalan or in related courses in other fields: anthropology, economics, education, folklore, fine arts, geography, history, Latin American studies, linguistics, and political science. Teaching certification is a requirement for this degree. (Refer to the section in this bulletin that describes general requirements for all M.A.T. degrees.) A student wishing to be certified in another state should consult that state’s requirements.

Final Examinations

Written and oral. Students will demonstrate knowledge of phonetics,

applied linguistics, teaching methodology, and Hispanic culture and literature. Proficiency in literature should include a knowledge of periods and movements and common literary terms. The student will also be asked to demonstrate the ability to analyze individual works. Two degrees are offered. The following requirements apply to both. Students are eligible to apply to the Ph.D. programs upon successful completion of an M.A. degree in the intended area of study.

Language/Research-Skill Requirement

Proficiency in multiple languages is an important tool for research. Therefore, students should consult with their advisors and the director of graduate studies before determining which languages they will choose for proficiency. For all plans, students must have reading proficiency in two additional languages (or one in-depth proficiency) besides English and the language of the target program. These may be satisfied in the following ways:

1. **Proficiency in languages taught inside the Department of Spanish and Portuguese:**
 - a. Spanish: completing with a grade of B (3.0) or better, S105, or the equivalent, and one course at the 500 level or higher (excluding S517);
 - b. Portuguese: completing, with a grade of B (3.0) or better, P135, or the equivalent, and one course at the 500 level or higher;
 - c. Catalan: completing, with a grade of B (3.0) or better, two courses at the 400 level or higher;
 - d. In-depth language proficiency: The student must first establish proficiency in the language by one of the methods listed above (a-c). Then the student must pass, with a grade of B or better,

another course at the 500 level or higher;

2. Proficiency for languages not taught in the Department of Spanish and Portuguese:

The Department of Spanish and Portuguese accepts language proficiency by any of the following methods, provided that these also fulfill the target language department's proficiency requirements:

- a. passing a language proficiency examination;
- b. passing a 300-level course with a grade of B (3.0) or better;
- c. passing the second half of a 400-level reading course (492) with a grade of B (3.0) or better;
- d. in-depth language proficiency: The student must first establish proficiency in the language by one of the methods listed above (a-c). Then the student must pass, with a grade of B (3.0) or better, another course at the 500 level or higher. The course must be taught in the target language. Ph.D. students in linguistics may replace reading proficiency in one foreign language with two 500-level courses in statistics or two courses, chosen in consultation with the director of Hispanic linguistics, in computer science. Neither English nor the language of the degree program may be presented as one of the foreign languages.

Qualifying Examination

See individual program outlines for qualifying exam requirements.

Final Examination

Oral, primarily a defense of the dissertation.

Other Provisions

Competence in speaking Spanish or Portuguese fluently and with correct diction is expected of every student;

hence, foreign residence in a Spanish- or Portuguese-speaking country prior to receiving the Ph.D. is highly desirable. Students must serve one year (longer at discretion of the department) as associate instructors in the department. Students who have taught elsewhere may petition the faculty to have that experience accepted as fulfilling this requirement.

Doctor of Philosophy Degree in Hispanic Literature

Concentration in Literatures in Spanish

Course Requirements

A total of 90 credit hours, including at least 18 credit hours (six courses in departmental Spanish literature courses beyond the M.A. (S504, S512, and S517 do not count as literature courses); one of these courses must be an S708 seminar. In addition, students must take S512 or its equivalent. Students must also satisfy course requirements for a graduate minor (at least 12 credit hours). Students must have 60 credit requirements for a graduate minor (at least 12 credit hours). Students must have 60 credit hours in course work before being eligible to take the preliminary examination. (A maximum of 30 credit hours may be transferred from the M.A.) The remaining credit hours can be taken as thesis hours. Ph.D. students in Literatures in Spanish may not take 400-level courses in Spanish.

Minor

Twelve (12) credit hours or more in a related field. Some recommended fields: anthropology, Catalan, comparative literature, history, Latin American studies, philosophy, Luso-Brazilian, cultural studies, folklore and ethnomusicology, and West European studies. Ph.D. students in Spanish who wish to minor in Portuguese must take three graduate courses in literature beyond the foreign-language proficiency requirement.

Qualifying Examination

The qualifying examination for literatures in Spanish will consist of

three parts: (1) two 3-hour written exams; (2) an exploratory paper; and (3) an oral examination. In addition, a written or oral examination may be required in the minor field, at the discretion of the minor department. The qualifying examination may be repeated only once. For details about examinations, write to the director of graduate studies.

Concentration in Literatures in Portuguese

Course Requirements

A total of 90 credit hours (a maximum of 30 credit hours may be transferred from the M.A.) Work in the major, secondary, and minor fields must total 75 credit hours in courses and seminars in addition to completion of a doctoral dissertation. Students' programs are individualized and depend on the approval of the graduate faculty in Portuguese.

Minor

Twelve (12) credit hours or more in a related field.

Qualifying Examination

The qualifying examination is both written and oral. Students concentrating in Portuguese will also be examined in Spanish or another approved secondary area of interest. The written examination is 18 hours. A written or oral examination may also be required in the minor field, at the discretion of the minor department. The qualifying examination may be repeated only once. For details about examinations, write to the director of graduate studies.

Doctor of Philosophy Degree in Hispanic Linguistics

Course Requirements

The degree consists of 90 credit hours. Course work consists of 75 credit hours (up to 30 hours in Hispanic Linguistics may be applied from the M.A.): (1) 12 credit hours in Hispanic Linguistics (9 at the 600 level and 3 at the 700 level); (2) 12 credit hours in the student's primary research area; (3) 12 credit hours in another primary area of interest; (4)

9 credit hours in a secondary area of interest; and (5) 30 elective credit hours. (These distribution requirements fulfill the Ph.D. minor of at least 12 credit hours in another department.) Thesis work consists of 15 credit hours.

Qualifying Examination

Students will take examinations in each of the three areas of concentration. The examining committee will determine whether the format is to be sit-down or take-home. If the exams are sit-down, they will last nine hours, six hours, and three hours, respectively. The nine-hour exam will cover the student's principal area as reflected by the dissertation topic. The six-hour exam will cover the second concentration. The three-hour exam will cover the third concentration, consisting of nine credit hours. If the format is to be take-home, students will have one week to write each portion of the exam, and these exams will be taken in series. In either case, the sequence of exams must be completed within 60 days.

Outside Minor Requirements

Ph.D. Minor in Spanish

Doctoral students from other departments may complete a minor in Spanish by successfully completing no fewer than four Spanish literature courses (12 credit hours). All courses must be at least at the 500 level and approved by the director of graduate studies. S803 Individual Readings cannot be counted toward the minor.

Ph.D. Minor in Hispanic Linguistics

Doctoral students may complete a minor in Hispanic linguistics by successfully completing no fewer than four courses in Hispanic linguistics (12 credit hours). All courses must be at least at the 500 level and approved by the director of Hispanic linguistics. Transfer credits for courses taken elsewhere are not accepted.

Ph.D. Minor in Portuguese

Doctoral students from other

departments may complete a minor in Portuguese by successfully completing no fewer than four courses in Hispanic linguistics (12 credit hours). All courses must be at least at the 500 level and approved by the director of Hispanic linguistics. Transfer credits for courses taken elsewhere are not accepted.

Courses

SPANISH

S407-S408 Survey of Spanish Literature I-II (3-3 cr.)

S411 Spanish Culture and Civilization (3 cr.)

S412 Spanish America: The Cultural Context (3 cr.) P: S331 or equivalent.

S413 Hispanic Culture in the United States (3 cr.) P: S331 or equivalent.

S417 Hispanic Poetry (3 cr.)

S418 Hispanic Drama (3 cr.)

S419 Modern Spanish Prose Fiction (3 cr.)

S420 Modern Spanish-American Prose Fiction (3 cr.)

S421 Advanced Grammar and Composition (2 cr.) For M.A.T. students only.

S423 The Craft of Translation (3 cr.)

S425 Spanish Phonetics (3 cr.)

S428 Applied Spanish Linguistics (3 cr.)

S435 Literatura chicana y puertorriqueña (3 cr.)

S450 Don Quixote (3 cr.)

S470 Women and Hispanic Literature (3 cr.)

S471-S472 Spanish-American Literature I-II (3-3 cr.)

S473 Hispanic Literature and Literary Theory (3 cr.)

S474 Hispanic Literature and Society (3 cr.)

S479 Mexican Literature (3 cr.)

S480 Argentine Literature (3 cr.)

S495 Hispanic Colloquium (1-3 cr.)

THE TEACHING OF SPANISH

S505 Summer Language Workshop (2 cr.) Two-week intensive summer language and culture workshop for school teachers in San Luis Potosí, Mexico. All-Spanish; live with families. Combination of individualized language development, culture seminars, and individual projects.

S510 Foreign Study in Spanish (2-8 cr.) Formal study of Hispanic language, literature, and culture in a foreign country, with credit applying to the M.A.T. degree only. Does not count toward the 20 credit hours required in Spanish. Program must be approved by the department BEFORE COURSES ARE TAKEN.

SPANISH AND SPANISH-AMERICAN LITERATURE

S504 Bibliography and Methods of Research (1-3 cr.)

S512 Theory and Criticism (3 cr.) Focuses on major issues in literary theory, with attention to critical trends in the Hispanic world.

S518 Spanish Medieval Literature (3 cr.) Survey of literature from its beginnings to 1500. The main focus will be on major works studied within their historical and cultural contexts, within the literary genres to which they belonged, and within the traditions they renewed. All texts will be read in the original language.

S528 Spanish Literature of the Sixteenth and Seventeenth Centuries (3 cr.) Survey of the prose, poetry, and theater of the Spanish Golden Age. Authors may include Garcilaso, the mystic writers, Cervantes, Lope de Vega, Calderón,

Zayas, Góngora, and Quevedo. Examines the dynamics of power, gender, and genre in representative texts.

S538 Spanish Literature of the Eighteenth and Nineteenth Centuries (3 cr.) Focuses on the major works of the period of all genres (poetry, fiction, drama, essay) and covers the main intellectual trends: Enlightenment, Romanticism, Realism, and Naturalism. Traces issues such as emerging genres, class and power, gender and sexuality, and nation formation.

S548 Spanish Literature of the Twentieth and Twenty-first Centuries (3 cr.) Survey of literature from the beginning of the twentieth century to the present. May include a variety of genres (e.g., narrative, poetry, drama, and film) and examine a range of issues (e.g., power, gender, nation, and exile).
S558 Colonial Spanish American Literature (3 cr.) Surveys the central literary-historical movements and texts in Spanish America from 1492 to 1820. Includes a study of the chronicles, mid-colonial poetic and autobiographical forms, and pre-independence literature.

S568 Nineteenth-Century Spanish American Literature (3 cr.) Survey of nineteenth-century drama, essay, prose, and poetry. Emphasizes the introduction of European Romanticism, literatura gauchesca, positivism, modernismo, Realism and Naturalism. Primary readings may include Bello, Heredia, Avellaneda, Sarmiento, Echeverría, Isaacs, Hernández, Palma, Darío, Quiroga, and F. Sánchez.

S578 Twentieth- and Twenty-First-Century Spanish American Literature (3 cr.) Survey of Spanish American poetry, prose, and theater of the twentieth and twenty-first centuries. Examines movements such as modernismo, la vanguardia, and the “new narrative.”

S588 U.S. Latino Literature (3 cr.) Survey of Chicano, Continental Puerto Rican, Cuban-American, and other U.S. Latino literature written in Spanish, English, or both. Emphasis

on the Hispanic literary, linguistic, and cultural dialectic with English-speaking society. The course will be conducted in Spanish.

S618 Topics in Spanish Medieval Literature (3 cr.) Investigation of fundamental components of Spanish medieval literature and culture in conjunction with current scholarship and critical approaches. Topics may include lyric poetry, mester de juglaria, mester de clerecia, romancero, didactic and historical prose, fiction, drama, paleography, translation, and cultural issues of medieval Spain and Al-Andalus.

S628 Topics in Early Modern Spanish Literature (3 cr.) Topics may explore questions of genre (the picaresque, the comedia), major works (Don Quijote), authors (Góngora, María de Zayas), themes (madness, seduction), or theoretical approaches (the investigation of power, historiographical accounts).

S638 Topics in Eighteenth- and Nineteenth-Century Spanish Literature (3 cr.) Topics may include the Enlightenment, Romantic drama, Romantic poetry, realist and naturalist prose, an author (e.g., Galdós, Pardo Bazán, Bécquer), the development of a genre (e.g., the short story, the modern novel). Topics will be explored in the context of current critical issues and theories.

S648 Topics in Contemporary Spanish Literature (3 cr.) The literature and culture of Spain from the twentieth century to the present. Topics may include the Spanish essay, Generation X, death and violence, writing memory, urban/rural landscapes and the ecocritical debate, and constructions of the body.

S659 Topics in Colonial Spanish American Literature (3 cr.) Topics may include the chronicles and early modern theories of representation, indigenous writing and identities, *el barroco de indias* in poetic and prose genres, life writings (*vidas*) and gender, and paleographic study of archival texts.

S668 Topics in Nineteenth-Century Spanish American Literature (3 cr.) Topics may include literature of independence, gauchesca poetry and tradition, representations of nature, Romanticism and late Romanticism, modernity, nationalism, race ethnicity, and gender.

S678 Topics in Contemporary Spanish American Literature (3 cr.) The literature and culture of Spanish America from the beginning of the twentieth century to the present. Topics may include the Boom, magic realism, identity formation, modernity, revolution and politics, gender and sexualities, race, and ethnicity.

S688 Topics in U.S. Latino Literature (3 cr.) Study of problems, research trends, and topics in U.S. Latino poetry, prose, drama, and essay. The course will be conducted in Spanish. S708 Seminar: Seminar in Hispanic Studies (3 cr.) Course may be retaken for credit when topic varies.

S803 Individual Readings in Spanish or Spanish American Literature and Language (cr. arr.) P: M.A. degree. Students must make arrangements in advance with the professor who will supervise their readings.

S695 Graduate Colloquium (1-3 cr.) Selected topics on Spanish or Spanish-American literature.

HISPANIC LINGUISTICS

GRAD G611 Romance Linguistics (3 cr.)

S501 Spanish Historical Grammar (3 cr.) P: fulfillment of Latin requirement. History of the system of sounds and forms, of words and their meanings from Latin origins to contemporary standard Spanish.

S503 Bibliography and Research Methods in Hispanic Linguistics (3 cr.) History of Hispanic linguistics scholarship, research skills such as bibliography compilation, and abstract/paper writing on and critical

reading of topics in Hispanic linguistics.

S509 Spanish Phonology (3 cr.) Introduction to the sound system of Spanish. Various theories are presented and analyzed. Some treatment of dialectal phenomena included.

S511 Spanish Syntactic Analysis (3 cr.) Introduction to the analysis of syntactic data. Focus on developing theoretical apparatus required to account for a range of syntactic phenomena in Spanish.

S513 Introduction to Hispanic Sociolinguistics (3 cr.) Examines the relationship between language and society in the Spanish-speaking world. Surveys a wide range of topics relevant to Spanish: language as communication, the sociology of language, and linguistic variation.

S515 The Acquisition of Spanish as a Second-language (3 cr.) Surveys the empirical research conducted on Spanish and investigates how a nonnative linguistic system develops. Course includes four topics: morpheme acquisition studies, interlanguage development, input processing, and Universal Grammar.

S517 Methods of Teaching College Spanish (3 cr.) Trains graduate students to teach the freshman and intermediate college courses in Spanish.

S601 Spanish Historical Grammar I (3 cr.) P: S501 or equivalent. History of the system of sounds and forms, of words and their meanings from Latin origins to contemporary standard Spanish.

S603 History of the Spanish Language (3 cr.) P: fulfillment of Latin requirement. The rise and development of Spanish in the Iberian peninsula and Latin America, seen in historical and cultural contexts. The history of sounds, forms, and words; major dialects; the evolution of prose style to the eighteenth century.

S609 Spanish Phonology II (3 cr.) P: S509 or equivalent. Introduces

recent developments in phonological theory and their application to Spanish, as well as non-derivational approaches. Focuses mainly on nonlinear analyses.

S611 Advanced Spanish Syntax (3 cr.) P: S511 or equivalent. Advanced study of modern approaches to synchronic syntax as applied to contemporary Spanish. Focus on current theories and refinement of linguistic argumentation, as well as on critical analysis or research.

S614 Topics in Acquisition of Spanish (3 cr.) P: S515 or equivalent. Provides closer examination of topics and research in first and/or second language acquisition, focusing specifically on the Spanish language. Topics include the acquisition of phonology, syntax, morphology, and semantics as well as input processing, psycholinguistics, and research design.

S615 Hispanic Dialectology (3 cr.) Principles of linguistic geography and dialectology. History and description of dialects in the Iberian Peninsula and Spanish America. Alternates between peninsular and Latin American dialectology; may be repeated once for credit.

S695 Graduate Colloquium (1-3 cr.) Selected topics on Spanish or Spanish-American literature.

C613 Catalan Linguistics (3 cr.)

S712 Seminar: Themes in Spanish Linguistics (cr. arr.) Course may be repeated for credit when the topic varies.

S716 Seminar: Themes in the Acquisition of Spanish as a Second Language (cr. arr.) Course may be repeated for credit when the topic varies.

S803 Individual Readings in Spanish or Spanish American Literature and Language (cr. arr.) P: M.A. degree.

PORTUGUESE

P412 Brazil: The Cultural Context (3 cr.)

P425 Structure of Portuguese Language (3 cr.)

P500-P501 Literatures of the Portuguese-Speaking World I-II (3-3 cr.) Survey of the literatures from Brazil, Portugal, and Lusophone Africa. Lectures and discussions of selected authors of the major literary periods.

P505 Literature and Film in Portuguese (3 cr.) Survey of literary works and film adaptations from the Lusophone world.

P510 Brazilian Cinema (3 cr.) A survey of Brazilian cinema from the beginning of the twentieth century to present day. Taught in English.

P520 The Brazilian Novel in Translation (3 cr.) Survey of the Brazilian novel from the turn of the century to present day. Emphasis on the relationship between texts and historical contexts. Taught in English. (Cannot count toward graduate degrees with specialization in Portuguese.)

P567 Contemporary Portuguese Literature (3 cr.) Representative authors and works from 1915 to the present.

P570 Poetry in Portuguese (3 cr.) Study of poetic genres in Portuguese; emphasis on major authors from Brazil, Portugal, and Lusophone Africa.

P575 Theatre in Portuguese (3 cr.) A survey of theatre in the Portuguese language from the sixteenth century to the late twentieth century. Particular attention will be given to the social and historical context in which works were produced.

P581 Contemporary Brazilian Literature (3 cr.) Representative authors and works from 1922 to the present.

P601 Portuguese Historical Grammar (3 cr.) History of the system of sounds and forms, of words and their meanings from Latin origins to contemporary standard Portuguese.

P605 Portuguese Linguistics (3 cr.)

A structural description of modern Portuguese to include phonetics and phonology and some of the main features of the morphological and syntactic systems.

P655 Camões (3 cr.)

P676 Machado de Assis (3 cr.)

P695 Luso-Brazilian Colloquium (1-3 cr.) Topic and credit vary. May be repeated for credit when topic varies.

P701 Seminar: Portuguese (cr. arr.) Study in depth of selected topics.

P751 Seminar: Brazilian Literature (cr. arr.) Study in depth of selected topics.

P802 M.A. Thesis (cr. arr.)**

P803 Individual Reading in Portuguese or Brazilian Literature (cr. arr.) P: M.A. degree. Students must make arrangements in advance with the instructor who will supervise their readings.

S805 Ph.D. Thesis (1-12 cr.)**

CATALAN

C400 Catalan Language and Culture I (3 cr.)

C410 Catalan Language and Culture II (3 cr.)

C450 Modern Catalan Literature (3 cr.)

C613 Catalan Linguistics (3 cr.) P: C400. Study of contemporary Catalan language and its history. Deals with phonology, grammar, and lexicology.

C618 Topics in Catalan Literature (3 cr.) Topics include medieval narrative, Valencian literature, the Renaixença, Modernisme and Noucentisme, the avant-garde, poetry and resistance, utopias and dystopias, specific writers (Rodoreda, Capmany, Roig, Roera, Barbal), theatre and the Barcelona stage. Topics to be explored in a

multicultural context and in view of current critical issues and theory.

C803 Individual Reading in Catalan Literature or Language (1-3 cr.)

Students must make arrangements in advance with the professor who will supervise their readings.

P601 Portuguese Historical Grammar (3 cr.)

P605 Portuguese Linguistics (3 cr.) Thesis Hours

S802 M.A. Thesis (cr. arr.)**

S805 Ph.D. Thesis (1-12 cr.)**

P802 M.A. Thesis (cr. arr.)**

P805 Ph.D. Thesis (1-12 cr.)**

COURSES FOR GRADUATE READING KNOWLEDGE

S491 Elementary Spanish for Graduate Students (3 cr.; no grad. cr.)

S492 Readings in Spanish for Graduate Students (3 cr.; no grad. cr.)

P491 Elementary Portuguese for Graduate Students (3 cr.; no grad. cr.)

P492 Readings in Portuguese for Graduate Students (3 cr.; no grad. cr.)

Speech and Hearing Sciences

**College of Arts and Sciences
Bloomington**

Chairperson
Professor Phil Connell

Departmental E-mail
sphsdept@indiana.edu

Departmental URL
www.indiana.edu/~sphsdept

**These courses are eligible for a deferred grade.

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors

Jean Anderson (Emerita), Moya Andrews, Phil Connell, Mary Elbert (Emerita), Aubrey Epstein (Emeritus), Karen Forrest, Nicholas Hipskind, Judith Gierut, Larry Humes, Diane Kewley-Port, Robert Milisen (Emeritus), Kennon Shank (Emeritus), Charles Watson (Emeritus)

Associate Professors

Raquel Teresa Anderson, Lisa Gershkoff-Stowe*, Laura Murray

Assistant Professors

Sumit Dhar*, Jennifer Lentz*, Robert Withnell*

Associate Scientist

Gary Kidd

Adjunct Professors

Daniel Dinnsen (Linguistics), Steven Franks (Linguistics), Karen I. Kirk, Donald Robinson (Emeritus, Psychology), Charles Schmidt (Music)

Graduate Advisors

Master's Program: Speech-Language Pathology: Professor Laura Murray, Speech and Hearing Center C183, (812) 855-3585; Master's Program: Audiology: Professor Sumit Dhar, Speech and Hearing Center C173, (812) 855-3886; Ph.D. Program: Dr. Gary Kidd, Speech and Hearing Center C136, (812) 855-8105.

Degrees Offered

Master of Arts and Doctor of Philosophy. In addition, the College of Arts and Sciences offers the Doctor of Audiology degree.

Areas of Specialization

Speech, language, and hearing sciences, speech-language pathology, audiology. Specific course requirements for these specializations are listed in the Student Handbook, that is available in the departmental office, Speech and Hearing Center C100.

Special Departmental Requirements

(See also general University Graduate School requirements.)

Admission Requirements

Undergraduate major in speech and hearing sciences or other evidence of adequate background for one or more areas of specialization. Deficiencies may be removed by course work or special examination. Graduate Record Examination General Test required.

Grades

All graduate students must maintain at least a 3.0 (B) grade point average. Failure to do so for two semesters may result in dismissal from the program.

Master of Arts Degree

Course Requirements

A minimum of 36 credit hours, of which 15 must be in courses numbered 500 and above; maximum of 6 credit hours in S780.

Minor

Students who wish to earn the M.A. degree and who do not choose to write a thesis are required to complete at least 6 credit hours of course work in a minor area. Such courses must be selected in consultation with a sponsoring faculty member and must be approved by the faculty before the student's enrollment in them. The courses should focus on a single content area, enhance the student's professional preparation, and lie beyond the scope or level of courses specifically required for the M.A. degree. Courses taken in fulfillment of the minor area requirement must be passed with at least a grade of B.

Practicum Requirements

For students who wish to obtain clinical certification, satisfactory clinical performance is an integral part of the master's program. Such students must be registered in a practicum (S561, S570, S563, or school practicum) each semester following the completion of S461. Such students must also complete at least three semesters of practicum

with grades of B (3.0) or higher in order for the department to approve the student's application for certification as an audiologist or speech-language pathologist with the American Speech-Language-Hearing Association. Students should contact Dr. Elizabeth McCrea for all matters related to clinical certification by the national association.

Thesis Requirement

Students who want the M.A. in speech and hearing sciences must present a thesis or complete a minor as described above. Procedures to be followed when writing a thesis can be found in the department's *Master's Student Handbook*.

Final Examination

A written comprehensive examination is required of all students who do not write a thesis.

Doctor of Philosophy Degree

Course Requirements

At least 90 credit hours, including advanced (postbaccalaureate) course work and dissertation. A student must select, in consultation with the advisor, one major area in the department and at least one minor area outside the department. Requirements and examination procedures for the outside minor are determined by the appropriate representative of the minor department or program.

Other Requirements

Any student admitted to the doctoral program must complete a first-year, second-year, and dissertation research project. See the department's *Doctoral Student Handbook* for procedural details; in no way, however, does this handbook substitute for the *University Graduate School Bulletin*.

Research-Skill Requirement

Candidates must demonstrate proficiency in a research skill before being admitted to candidacy. Each course must be passed with a grade of B (3.0) or higher to satisfy the proficiency requirement. (1) The student's academic program must include a minimum of 6 credit hours

in experimental design and statistics (500 level or above) or the equivalent. (2) No more than 12 credit hours of the course work taken to satisfy this requirement may count as part of the 90 credit hour minimum required for degree completion.

Grades

No course with a grade below B (3.0) may be counted toward degree requirements.

Advisory Committee

Each student will be assigned an advisory committee consisting of four members. The majority of the members must be members of the graduate faculty. The advisory committee shall approve the student's program of study and advise the student until successful completion of the qualifying examination.

Qualifying Examination

Guidelines suggest that the student must complete successfully a series of written exams ranging from a conventional timed examination to a research paper composed over a period of several weeks. Examination in the outside minor area is at the discretion of the minor-field representative. Information about specific examination formats is available in the *Doctoral Student Handbook*.

The advisory committee, in conference with the student, will determine for whom the student will write and the exam format. Persons preparing questions will read the answers and pass or fail the student. Students will be informed of the results in writing by the chairperson of the advisory committee within three weeks. Procedures for rewriting a part or all of the qualifying examination are left to the discretion of the advisory committee. Qualifying examinations may be rewritten once only. Oral examination is also required.

Ph.D. Minor in Speech and Hearing Sciences

Students wishing to obtain a minor in speech and hearing sciences must have an advisor from the department.

The advisor will approve the student's program of course work in the minor and will serve on the student's advisory committee, research committee, or both. The student is required to complete at least 12 credit hours of graduate course work in the minor department with a grade of B or higher. A written qualifying examination is not required, but will be administered at the request of the major department.

Courses

GENERAL

S680 Independent Study (1-6 cr.)**

S780 M.A. Thesis (1-6 cr.)**

S880 Ph.D. Thesis (1-6 cr.)**

SPEECH AND HEARING SCIENCES

S461 Introduction to Supervised Clinical Practice (2 cr.)

S474 Introduction to Audiological Testing (3 cr.)

S475 Advanced Audiological Testing (3 cr.)

S477 Auditory Disorders (3 cr.)

S478 Rehabilitative Audiology (3 cr.)

S501 Neural Bases of Speech and Language (3 cr.) Neuroanatomy of central and peripheral brain structures mapped to vocal tract structures; sensory and motor physiology; theories of motor control; neural control of vocalization and upper airway during propositional and nonpropositional speech; localization of receptive and expressive language brain areas, neuropathology and pathophysiology of central and peripheral nervous system lesions.

S502 Acoustic Phonetics (2 cr.) P: S302 or L541. Examines speech perception and the acoustics of speech production in normally developing or speech-language disordered populations. A brief overview of speech acoustics and speech perception in normal adults will be included. Laboratory experiences.

S505 Clinical Application of Linguistic Theory (4 cr.) Application of models of language structure and use of the clinical process of diagnosis, evaluation, and treatment of phonological, lexical, morphological, and syntactic impairments of language acquisition.

S506 Counseling (2 cr.) Provides information about the counseling purview of audiologists and speech pathologists. Topics such as theories of counseling, lifespan issues, emotional responses to communication disorders, family dynamics, support groups, and multicultural issues will be presented. Students will learn basic counseling techniques and the application of these techniques for specific disorders.

S508 Physiological Models for Perception and Production of Speech and Voice (4 cr.) Provides students with understanding of the physiological bases for production and perception of speech and voice in humans. Covers the dynamic functioning of structures of the organs of speech production and perception, and the relations of their parts. This knowledge will form the basis for subsequent understanding of disorders of speech production and perception.

S509 Speech and Language Diagnostics (2 cr.) Theoretical bases of speech-language assessment, including concepts of testing and measurement, formal and informal evaluation techniques, and normative and non-normative approaches. Required accompanying laboratory provides observation and experience with specific assessment procedures.

S510 Supervision in Speech Pathology and Audiology (2 cr.) P: consent of instructor. Study of the supervisory process as it relates to speech pathology and audiology.

S511 Phonetics of American Speech (2 cr.) Scientific study of American pronunciation based on International Phonetic Alphabet. Exercises in transcription.

S512 Cognitive and Social Factors Related to Communication Disorders (4 cr.) Examines the manner in which language influences and is influenced by cognitive processes including attention, categorization, information processing and retrieval, and short and long-term memory. In addition, the course will explore how social factors such as age, gender, ethnicity, and culture interact with language form and use.

S515 Topical Seminar in Speech Pathology (1-6 cr.) Topics of current interest; literature on fundamental behavior related to speech.

S518 Preschool Language Intervention: Working with Teachers and Parents (2 cr.) An overview of current clinical research on preschool classroom and home-based intervention. Reviews preschool language development and introduces students to developmentally appropriate classroom-based and home-based intervention procedures. Participants will review and discuss current research and its relationship to children's language intervention plans.

S519 Mathematical Foundation for Speech and Hearing Sciences (2-3 cr.) Provides mathematical background for core graduate courses in speech and hearing sciences. Covers analysis and generation of periodic and aperiodic acoustic signals and decision theory. Focuses on interactive, project-oriented modules.

S520 Theoretical Bases for Phonological Disorders (2 cr.) P: S420. Theoretical bases for the

**These courses are eligible for a deferred grade.

evaluation of abnormal articulation. Advanced approaches to management. Experimental evidence and areas for further research.

S521 Phonological Acquisitions and Disorders in Children (2 cr.)

Survey of acquisition and development of sound systems, with focus on perception and production. Relationship between normal sound development and phonological disorders. Procedures for assessing and treating phonological disorders.

S522 Digital Signal Processing (3 cr.)

P: one semester of calculus, one course in computer programming. Introduction to digital signal processing for students with a limited background in mathematics. Examines several standard applications in speech processing including LPC. Covers complex numbers, z-transforms, and filter design. Lab experiences with DSP software included.

S524 Survey of Children's Language Development (2 cr.)

Theories and research relating to normal development of phonology, syntax, semantics, and pragmatics in children from birth through age four. Investigation of cognition and various environmental factors as contributors to language development. Emphasizes learning of elementary skills in language sample analysis.

S525 Childhood Dysarthria and Apraxia of Speech (3 cr.)

The aim of this course is to introduce students to the basic correlates of children's motor speech disorders including issues of underlying pathology, physiological development, assessment procedures and treatment alternatives.

S531 Traumatic Brain Injury (2 cr.)

Disorders of perception, cognition, communication, and behavior associated with traumatic brain injury in children and adults are described. Discussion includes assessment and treatment procedures and issues associated with acute and chronic stages of recovery as well as a variety of clinical settings,

including schools, hospitals, and community reintegration facilities.

S532 Early Communicative Development: Intervention Issues (2 cr.)

Provides basic information concerning infant and toddler communicative development, conditions which place infants at risk for speech and language disorders, and assessment and intervention procedures within various models of service delivery.

S534 Language Development in School-Age Children (2 cr.)

R: S333. Survey of theoretical perspectives and research findings related to language development in children aged five through twelve. Particular attention to relationships between oral language skills, reading, and writing. Consideration of language and context, including differences between language demands of home and school.

S535 Academically-Based Language Intervention with School-Age Children (2 cr.)

P: S534. R: at least one semester of S561. Explores issues involved in an academically based language intervention program with a focus on the child's need to use language to learn and to develop literacy. Setting goals for intervention and developing intervention plans will be discussed in the context of a collaborative model using a curriculum-based approach.

S536 Language Diversity and Clinical Practice (2 cr.)

Examines the effects on current clinical practice in speech-language pathology of the linked issues of racial, cultural, and linguistic diversity. Both assessment and intervention issues will be considered.

S537 Diagnosis and Management of Adult Aphasia (2 cr.)

P: S501. In-depth study of diagnosis and management of adult aphasia and related disorders. Recommended procedures for evaluation and treatment of aphasics, including practicum and experience.

S538 Language Development in Atypical Populations: Learning Disabilities, Autism, and Mental Retardation (2 cr.)

P: S333 and S436 or consent of instructor. An introduction to three clinical populations likely to have difficulties with language learning. Aspects of perceptual, cognitive, and social growth as they influence language acquisition; patterns of language development and use; issues related to intervention.

S539 Second-Language Acquisition and Bilingualism in Children (2 cr.)

Focuses on how children acquire two languages. Topics concerning variables that impact dual-language acquisition children and patterns of acquisition will be discussed. Issues and strategies for evaluating language skills in this population, and for providing clinical services are presented.

S540 Voice Disorders (2 cr.)

P: S444 or consent of instructor. Normal and abnormal voice production; diagnosis and management of voice problems. Emphasis will be on clinical intervention strategies for a wide variety of organic and functional voice disorders.

S541 Management of Tracheostomy and Laryngectomy (2 cr.)

Aerodigestive tract dynamics and disorders, including assessment and treatment. Rehabilitation options associated with tracheostomy, laryngectomy, and dysphagia.

S542 Care of the Professional Voice (3 cr.)

Physiological, psychosocial, and occupational aspects of professional voice use. A multidisciplinary perspective on research and practice in the areas of otolaryngology, social psychology, vocal pedagogy, voice science, and communication disorders. Examines historical and current approaches to preventing, assessing, and treating voice breakdown in singers and other professional voice users.

S543 General Methods of Speech Analysis (2 cr.)

Provides a theoretical and practical background

for the use of different analysis techniques. Additionally, computer-based analysis of voice, respiration, and articulation will be introduced and their application in biofeedback will be examined.

S544 Dysphagia: Diagnosis and Treatment of Swallowing Disorders (2 cr.) Anatomy and physiology of adult and child swallowing and respiration is reviewed. Evaluation and treatment of adult and child dysphagia emphasizing instrumental and non-instrumental assessment procedures and the development of efficacious treatment plans. Experience in analysis of adult videofluoroscopic studies of swallowing.

S545 Adult Cognitive-Communication Disorders (2 cr.) Issues in communication and cognitive disorders resulting from right-hemisphere brain damage and dementia. Discussion will include the relation between the nature and locus of brain lesion and the type and severity of communication and cognitive disorders, and assessment and treatment issues.

S547 Language Disorders in Children (2 cr.) Theory and method in language assessment and intervention. Coverage of principles of language intervention based on psycholinguistic theory and research with language-disordered children, design and execution of language intervention experiences; current alternative approaches to language intervention.

S548 Voice and Fluency in Children (2 cr.) Survey of theory and research relevant to the maturation of vocal behavior and prosodic patterns (including rate and fluency) from infancy through adolescence. Identification of characteristics of typical and atypical vocal behavior in interpersonal interactions. Observation and analysis of characteristics and discussion of types of intervention.

S550 Stuttering (2 cr.) P: S444. Theories of the nature and causes of stuttering, with emphasis on learning theories and physiological processes;

evaluation techniques for children and adults; approaches to clinical management; techniques of parent and family counseling.

S555 Motor Speech Disorders (2 cr.) P: S201, S501. Disorders of speech motor programming (dyspraxia) and speech production (dysarthria) resulting from damage to primary motor, sensory, or sensorimotor pathways in the central and/or peripheral nervous system are considered at auditory-perceptual, acoustic, and physiologic levels. Assessment and management of motor speech disorders.

S560 Craniofacial Anomalies (2 cr.) P: S201. Orofacial clefts and other genetically-based craniofacial disorders are considered in relation to speech production and swallowing. Assessment protocols include auditory-perceptual evaluation, vocal tract imaging (nasendoscopy and fluoroscopy), and speech aerodynamics. Introduction to therapy procedures.

S561 Topical Issues in Clinical Practice (1-3 cr.; max. 4 cr. toward degree) Current topics related to clinical practice in speech/language pathology.

S562 Practicum in Supervision (1 cr.) P: S510, S561. Practicum in the supervision of clinical practice in speech-language pathology and audiology.

S563 Externship in Speech-Language-Hearing Services (1-3 cr.) P: S561 or S570. Intensive participation in the clinical activities of community agencies, hospitals, or other service providers. Available only to advanced students in clinical program.

S570 Practicum in Audiology (1-3 cr.; max. 4 cr. toward degree) P: consent of instructor. Supervised clinical work in diagnostic and rehabilitative clinical audiology.

S571 Auditory Anatomy and Physiology (3 cr.) Structure and function of the mammalian auditory system, including aspects of both cellular and systems physiology.

S572 Clinical Electrophysiology (2 cr.) Focuses on current applications of electrophysiologic testing, including auditory evoked potentials, otoacoustic emissions, and electronystagmography. Will address role of each of these test procedures in the diagnostic audiologic test battery.

S574 Clinical Grand Rounds in Audiology (3 cr.) P: consent of instructor. Survey of the medical aspects of audiology pertaining to pathologies encountered in medical environments with emphasis on specific etiologies.

S575 Human Hearing and Communication (2 cr.) Development of the auditory system and landmarks of auditory behavior, types of hearing loss, intake and exit interviewing techniques, audiometric standards, pure tone audiometry, acoustic impedance measurements, screening for auditory disorders, and speech audiometry, effect of age and aging on oral communication, counseling the hearing impaired, strategies in selecting hearing aids, recommending auditory training, speech reading, and manual communication. To be taken concurrently with S576.

S576 Amplification for the Hearing Impaired (3 cr.) Types and components of electroacoustic hearing aids, earmold acoustics, and procedures for the selection, evaluation, and fitting of hearing aids.

S577 Industrial Audiology (2 cr.) P: consent of instructor. The role of audiology, emphasizing identification audiometry, damage-risk criteria, measurement and control of noise, conservation procedures, and medico-legal problems.

S578 Audiological Instrumentation and Calibration (3 cr.) Fundamentals of acoustics and acoustical measurements including waveform measurements, spectral analysis, and noise analysis. Calibration techniques and standards for clinical audiology are also reviewed.

S579 Children with Hearing Loss (3 cr.) P: consent of instructor.

Introduction to the assessment of communication skills in children with hearing loss. Topics covered include early identification of hearing loss, assessment of hearing in very young children, speech and language development in children with hearing loss, and management strategies for hearing-impaired children.

S580 Introduction to Research in Communication Disorders (3 cr.)

Treatment decisions in speech/language pathology must be: 1) based on ethical principles; 2) made responsibly in line with the existing evidence in the literature; and 3) presented in a professional manner. Introduces students to the evaluation of literature that will help them make responsible decisions about assessments and treatments. Provides them with the tools to determine the importance and/or validity of procedures that are used.

S601 Experimental Phonetics II (3 cr.) P: consent of instructor. Speech acoustics. Examination of theories of vocal-tract transmission through a historical perspective. Consideration of literature in acoustic phonetics, with emphasis on research that models speech acoustics relative to articulatory configuration. Laboratory experiences.

S674 Advanced Seminar in Audiology (1-3 cr.) Intended for Ph.D. students. Various topics in clinical and experimental aspects of audiology. Content varies each semester.

S676 Advanced Clinical Concepts in Amplification (2 cr.) This seminar presents advanced material on conventional amplification, assistive listening devices, and classroom amplification systems. Students will develop models for selection, fitting, evaluation, and management of devices for patients with hearing loss. This includes integrating research content into clinical activities leading to appropriate, defensible rationales for a comprehensive hearing program.

S678 Introduction to Psychoacoustics (3 cr.) Perception of sound by normal and hearing-impaired listeners. Topics covered include masking, pitch, loudness, and other auditory phenomena.

S683 Research Forum in Speech, Language, and Hearing Sciences (0-1 cr.) Research presentations by students, faculty in the Department of Speech and Hearing Sciences, and guest speakers. Normally taken each semester by students in Speech and Hearing Sciences without credit, but may be taken once for one credit hour.

S685 Research in Speech, Language, and Hearing Sciences (3 cr.) Selected topics in research design, analysis, and reporting (articles and talks); ethics; and preparation of grant proposals, as appropriate to speech, language and hearing sciences, and disorders.

S686 Physiological Research in Speech, Language, and Hearing Sciences (3 cr.) Course topics vary according to student interests, including: neuroscience research in speech, language, cognition, and hearing; imaging; videostroboscopy; and motor control. Lab components to include instrumentation for EMG, biomechanics, and evoked potentials.

S696 Language Research in Speech, Language, and Hearing Sciences (3 cr.) Topics vary according to student interests, including advances in linguistic theory, language and phonological acquisition theory, neurolinguistics, language intervention, etiological research, cognition and language (including memory and attention) and reading and language. Lab components include computer software for both linguistic analyses and experimental presentation.

S702 Acoustic Research in Speech, Language, and Hearing Sciences (3 cr.) Course topics vary according to student interests including speech production and perception in hearing impaired populations, language development, adult neurogenic speech and language disorders, voice analysis, and speech perception. Lab

components to include digital recording, acoustic analysis, and speech synthesis.

Telecommunications

College of Arts and Sciences
Bloomington

Chairperson
Professor Walter Gantz

Departmental E-mail
ttheodor@indiana.edu

Departmental URL
www.indiana.edu/~telecom

Graduate Faculty
(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors
Richard Burke (Emeritus), Susan Eastman (Emerita), Walter Gantz, Annie Lang, David Waterman

Associate Professors
Donald Agostino (Emeritus), Erik Bucy*, Michael McGregor, Harmeet Sawhney, Herbert Terry

Assistant Professors
Christopher E. Beaudoin*, J. Alison Bryant, Julia R. Fox*, Traci Hong*, Bryant Paul*, Robert Potter*

Director of Graduate Studies
Professor Annie Lang, Radio-TV Center, (812) 855-5824

Degrees Offered
Master of Arts, Master of Science, Joint Master of Arts and Doctor of Jurisprudence (jointly with the School of Law), and Doctor of Philosophy (Ph.D. telecommunications track in the Mass Communications Program)

Special Departmental Requirements
See also general University Graduate School requirements.

Common requirements and policies for the M.A. and M.S. programs include the following:

Admission

1. At least a B (3.0) average in an undergraduate program,
2. appropriate level of performance on the Graduate Record Examination General Test (all scores above 500 or verbal and quantitative scores above 500 and analytical score at or above 4.0),
3. statement of purpose,
4. three letters of recommendation,
5. completion of departmental “Background Information” form, and
6. paper TOEFL score greater than 600 or computer-based TOEFL score greater than 250 for international students.

Applications from students who have not majored in communication at the bachelor’s level are welcomed. If admitted, these students may be required to take supplementary courses.

Grades

B (3.0) average or above. Any semester’s work averaging less than B will result in the student’s being placed on academic probation. Accumulation of three individual course grades of C (2.0) or lower for graduate credit will result in dismissal of the student from the program. The departmental Graduate Committee evaluates each student’s progress toward the degree every semester.

Advisory Committee

Each student will receive initial guidance from the director of graduate studies. During the second semester, each student will select a three-member advisory committee which will be responsible for approving the student’s program. At least two members of this advisory committee must be from the Department of Telecommunications.

Master of Arts Degree

The M.A. program is especially designed for

1. students planning on pursuing the Ph.D. program in mass communications,
2. students seeking management and intermediate-level research positions in electronic media, and
3. students seeking teaching positions in small colleges.

Course Requirements

A minimum of 30 credit hours, including

1. T501 Philosophy of Inquiry in Telecommunications, T502 Introduction to Research Methods in Telecommunications, and either T503 Telecommunications Theory or T504 Introduction to Telecommunications Policy Studies, and
2. thesis, which will normally be taken for 6 credits.

Students enrolled in the MIME concentration have the option of taking the previous sequence or

1. T570 Art, Entertainment, and Information, T571 Applied Cognitive and Emotional Psychology, and one of T501, T502, T503, T504, or T580 Interactive Storytelling and Computer Games, and
2. thesis, which will normally be taken for 6 credits.

At least 21 credit hours must be taken within the Department of Telecommunications. Students must take at least three courses related to their thesis topic.

Thesis

Oral defense required, administered by the advisory committee.

Master of Science Degree

The M.S. program is designed to prepare students for careers in multimedia design or public or commercial electronic media management.

COURSE REQUIREMENTS

Concentration in Electronic Media Management

A minimum of 36 credit hours, including

1. T501 Philosophy of Inquiry in Telecommunications and T504 Telecommunications Institutions and Industry, and
2. one appropriate methods course.

Thesis not required. At least 18 credits must be taken within the Department of Telecommunications.

Final Examination

Students must pass a comprehensive written and oral examination, administered by the advisory committee.

Concentration in Immersive Mediated Environments (MIME)

A minimum of 36 credit hours, including

1. T570 Art, Entertainment, and Information,
2. T571 Applied Cognitive and Emotional Psychology,
3. T580 Interactive Storytelling and Computer Games, and
4. an approved project.

At least 18 credits must be taken within the Department of Telecommunications.

Internship

The internship is a supervised experience in multimedia or new media and is recommended but not required. The internship must be approved by the student’s advisory committee, the internship coordinator, and the graduate advisor.

Final Examination

Students must pass a comprehensive written and oral examination based on their project and course work, administered by the advisory committee.

Joint Degree: Master of Arts in Telecommunications and Doctor of Jurisprudence in the School of Law

To be eligible to receive the degrees of Doctor of Jurisprudence and Master of Arts or Master of Science in Telecommunications, which must be received simultaneously, a student must:

1. complete 77 semester hours of credit in the School of Law including all of the required course work; and
2. complete 27 hours of credit in the Department of Telecommunications, including all of its required course work; and
3. earn a cumulative grade point average of at least 2.3 on all work taken in the School of Law and at least 3.0 on all work taken in the Department of Telecommunications.

Doctor of Philosophy Degree in Mass Communications: Telecommunications Track

The Department of Telecommunications, in cooperation with the School of Journalism, offers a doctoral program in mass communications.

Admission Requirements

1. Master’s degree from a recognized institution,
2. at least a 3.5 average in a master’s program,
3. appropriate level of achievement on the Graduate Record Examination General Test (all scores above 500 or verbal and quantitative score above 500 and analytical score at or above 4.0),
4. statement of purpose,
5. three letters of recommendation,
6. completion of departmental “Background Information” form, and

7. paper TOEFL score greater than 600 or computer-based TOEFL score greater than 250 for international students.

Students holding only the bachelor’s degree are advised to complete M.A. requirements in telecommunications as an integral part of the doctoral program. Applications from students who have not majored in communication at the master’s level are welcomed. If admitted, these students may be required to take supplementary courses. Consult the director of graduate studies as to whether graduate credit might be granted for a non-communication master’s degree and if supplementary course work is necessary.

Grades

As described above for master’s programs.

Course Requirements

A minimum of 90 credit hours, including

1. the core consisting of T501 Philosophy of Inquiry in Telecommunications, T502 Introduction to Research Methods in Telecommunications, T503 Telecommunications Theory, and T504 Introduction to Telecommunications Policy Studies with a grade of at least a B in each course;
2. T600 Proseminar in Telecommunications Research for four semesters;
3. 12 credit hours in a methodology area;
4. a minimum of 6 courses in the Department of Telecommunications if student is transferring 16-30 credits, 8 courses if transferring 1-15 credits, and 10 courses (at least 4 completed after receipt of the M.A.) if student has an M.A. from this department;
5. completion of a minor as required by the minor department;

6. no more than 6 credits of independent study; and
7. no more than 15 credit hours in the dissertation.

Within these requirements, students design a rigorous and coherent individualized plan of study with the help of their advisory committee. This program is to be approved by the student’s advisory committee, the graduate director (with the advice of the graduate committee), and the department chair by the end of the second semester of course work.

Minor

Consistent with University Graduate School policy, each student must have at least one minor subject. Course work in the minor must be approved by the student’s advisory committee and must meet the requirements of the minor department.

Research-Skill Requirement

12 credits of appropriate research skills courses approved by the student’s advisory committee (see number 3 under “Course Requirements” above).

Qualifying Examination

Written and oral, covering the methodology area, the core, the minor, and the student’s individualized areas of specialization.

Teaching or Research Requirement

Students normally serve at least one year as associate instructors or research assistants. This requirement will be waived only when, in the opinion of the departmental chairperson, unusual circumstances justify such action.

Final Examination

Oral, primarily a defense of the dissertation.

Ph.D. Minor in Telecommunications

Graduate students from other departments may choose telecommunications as an outside minor. A minimum of 15 credits in the department at the 500 level or above is required, including T501.

Courses

T501 Philosophy of Inquiry in Telecommunications (3 cr.) Entry-level comparative study of the origin and development of dominant paradigms applied to telecommunications by researchers and policy makers.

T502 Introduction to Research Methods in Telecommunications (3 cr.) Introduction to quantitative and qualitative research methodologies used in telecommunications.

T503 Telecommunications Theory (3 cr.) Introduces students to the wide range of social scientific theories which guide research in telecommunications.

T504 Introduction to Telecommunications Policy Studies (3 cr.) Introduction to the graduate-level study of telecommunications law and policy and its intersection with economics and technology. Fundamental principles and theories of telecommunications law, policy, and policy making. Methodological approaches.

T510 Research Methods in Message Analysis (3 cr.) Methods of analyzing the content of mediated messages. Applications of content analysis techniques to research projects involving new or traditional media.

T511 Research Methods in Audience Analysis (3 cr.) Analysis of audience characteristics and behaviors. Emphasizes methods associated with the assessment of, and audiences for, the electronic media.

T512 Communication and Politics (3 cr.) Social scientific theories of political message effects and normative models of media and democracy. Analysis of political advertising, campaign communication, civic participation, and the role of new media in politics.

T521 Telecommunications Management (3 cr.) Theories of personnel and systems management

applied to the technology-based consumer media of broadcasting, cable, voice, and network access providers. Considers broad issues of programming, infrastructure, finance, competition, corporate and industry structure, budget, and regulations.

T522 Managing the Creative Process (3 cr.) Examination of the business side of video production with emphasis on the role of the producer and/or production manager, including production team organization, schedules, budgets, contracts, markets, and intellectual property.

T530 Legal Environment of Telecommunications (3 cr.) P: T504 or consent of instructor. Analysis of laws and policies affecting the telecommunications industry and its consumers. Regulation of broadcasting, cable television, telephony, and the Internet. Introduction to First Amendment aspects of telecommunications and to antitrust and intellectual property law.

T532 Economics of the Media Industries (3 cr.) Application of economic principles to policy and strategy issues in the print, online, broadcasting, multi-channel, home video, and motion picture industries.

T535 Economics of Information (3 cr.) The production, distribution, and pricing of information products and services; intellectual property and new technologies; information networks and compatibility. Policy and strategy applications.

T540 Special Projects in Telecommunications (1-3 cr.) P: consent of project advisor and chairperson. Individual readings or production projects in telecommunications.

T551 Communication, Technology, and Society (3 cr.) Research seminar to consider the impact of new technologies on society and how the development and structure of information and communication technologies have been influenced by society. Theories

of technology at the social level of analysis.

T552 Cognitive Approaches to Media (3 cr.) Examines the information processing of mediated messages and theories underlying memory, attention, and cognition. Advanced analysis of cognitive psychology and emotion theory as they apply to the study of media.

T560 Business Strategies of Communication Firms (3 cr.) Case studies in marketing and competitive strategies of media and telecommunications firms. Effects of technological change on industry structure and strategy.

T570 Art, Entertainment, and Information (3 cr.) P: Introduces students to the idea of information as art and as entertainment through readings and multimedia experience. Students will learn basic tools of multimedia design, interactive programming, digital paint and draw tools, and 3-D software.

T571 Applied Cognitive and Emotional Psychology (3 cr.) Introduces students to basic theories in cognitive and emotional psychology and focuses on how these theories could be applied to the design of immersive mediated environments.

T575 Directed Group New Media Design Project (3 cr.) P: admission to MIME and consent of instructor. Group project in new media design. Each class will develop, design, and implement a new media product. May be repeated for a maximum of 6 credit hours.

T576 New Media Production (var. 1-2 cr.) P: consent of instructor. Training in traditional and new media production including utilization of new media software packages. In addition to production training, completion of a critical assessment paper in an area of production. May be repeated for up to 4 credits.

T580 Interactive Storytelling and Computer Games (3 cr.) Students work in teams to develop interactive

stories and games using graphics, animation, sound, and text.

T583 Teaching Electronic Media Production (3 cr.) P: consent of instructor. Graduate students review and refine basic production skills in preparation for teaching positions. Basic media production concepts, techniques, and hands-on training. Prior understanding of the production process is expected.

T585 Interactivity and New Media (3 cr.) Theoretical and applied perspectives on interactive communications. Surveys the literature of interactivity and new media, examining relevant concepts such as parasocial interaction, entertainment education, and remediation. Social and psychological consequences of interactivity.

T597 Internship (0-3 cr.) P: consent of faculty advisor. Supervised internship in telecommunications, electronic media, or multimedia design.

T600 Proseminar in Telecommunications Research (1 cr.) Introduction to current telecommunications research through the work of departmental members and visiting scholars. May be repeated for one credit each semester up to four semesters.

T601 Topical Seminar in Telecommunications Technology and Policy (1-3 cr.) P: consent of instructor.

T602 Topical Seminar in Telecommunications Processes and Effects (1-3 cr.) P: consent of instructor.

T603 Topical Seminar in Telecommunications Management (1-3 cr.) P: consent of instructor.

T605 Seminar in Immersive Mediated Environments (1 cr.) Introduction to current research in immersive mediated environments such as virtual reality, telepresence, and new media entertainment through the work of faculty members from Indiana University and visiting

scholars. May be repeated for a maximum of 4 credit hours.

T610 The Networked Society (3 cr.) Analysis of the social, economic, and cultural forces that have set in motion the rise of the networked society. The conceptualization and creation of large scale networks; new modes of organization.

T629 Telecommunications Policy Making (3 cr.) P: T504 or consent of instructor. Models and theories of telecommunications policy making in the U.S. Analysis of selected contemporary policy issues and controversies.

T635 Comparative Telecommunications Policy (3 cr.) P: T504 or consent of instructor. Comparison of telecommunications policy and policy making in the United States with the policies and policy systems of other nations and of international and transnational organizations.

T641 Children and Media (3 cr.) P: T503 or equivalent. Detailed examination of theoretical orientations and research specifically focused on children and media.

T642 Communication Campaigns (3 cr.) Study of public communication campaigns, emphasizing the role of media in influencing attitudes and behavior related to social issues.

T650 Telecommunications and the Constitution (3 cr.) P: T504 or consent of instructor. Impact of the Constitution of the United States on telecommunications law and policy, the telecommunications industries, and the public. Emphasis on the First Amendment. Analysis of the Supreme Court as a telecommunications policy making institution.

T800 Thesis: Telecommunications (1-6 cr.)** P: consent of instructor.

G741 Ph.D. Research in Mass Communications (cr. arr.)** P: consent of instructor.

**These courses are eligible for a deferred grade.

TESOL/Applied Linguistics

College of Arts and Sciences
Bloomington

Departmental E-mail
tesol@indiana.edu

Departmental URL
www.indiana.edu/~tesol

Chairperson
Professor Harry L. Gradman

Graduate Faculty
(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors
Kathleen Bardovi-Harlig, Harry L. Gradman, Beverly Hartford

Associate Professor
Bill Johnston*

Adjunct Rudy Professor
Albert Valdman (French and Italian)

Adjunct Professor
Robert Port (Cognitive Science, Computer Science, Linguistics)

Adjunct Associate Professors
Kenneth de Jong (Linguistics), Samuel G. Obeng (Linguistics), Rex Sprouse (Germanic Studies)

Adjunct Assistant Professor
Daniel Reed*

Academic Advisor for TESOL and Applied Linguistics
Professor Harry L. Gradman,
Memorial Hall 309, (812) 855-3302

Degrees Offered
Master of Arts in Linguistics with a concentration in TESOL and Applied Linguistics, Doctor of Philosophy in Linguistics with a concentration in

TESOL and Applied Linguistics (degree offered by Linguistics), and Certificate in TESOL and Applied Linguistics

Special Departmental Requirements

See also general University Graduate School requirements.

Master of Arts Degree

Admission Requirements

Admission to the M.A. program will be based on evaluations of

1. undergraduate grade record,
2. level of achievement on the Graduate Record Examination General Test,
3. three letters of recommendation, and
4. undergraduate exposure to linguistics and related course work.

Students not satisfying requirement (4) may be admitted but may be required to do course work prerequisite to introductory graduate courses.

Thesis

Optional; maximum of 4 credit hours.

Final Examination

None.

TESOL and Applied Linguistics Course Requirements

A total of 30 credit hours, including T510, T511, T532, T534, T535, T550; L503 may be required for students without a background in linguistics; T560 is also required for international students only. Additional electives as approved by the department. A grade point average of 3.0 (B) is required in 500-level courses in linguistics.

Foreign Language Requirements

Reading knowledge of one foreign language approved by the department.

Certificate in TESOL and Applied Linguistics

Students not intending to get a master's degree with a major in applied linguistics may wish to pursue a program leading to the Certificate in TESOL and Applied Linguistics. The requirements for such a certificate include 20 credit hours, approved by the department, in linguistics and applied linguistics courses. Normally, students will complete at least L503 or its equivalent, T532, T534, T535, and T550. Other hours will be selected in consultation with a departmental advisor. A grade point average of 3.0 (B) must be maintained for the 20 credit hour certificate program. The certificate is a postbaccalaureate award.

Doctor of Philosophy Degree in Linguistics with a Concentration in TESOL and Applied Linguistics

Admission Requirements

Admission to the Ph.D. program will be based upon evaluation of

1. previous academic record,
2. level of achievement on the Graduate Record Examination General Test,
3. three letters of recommendation, and
4. previous exposure to TESOL/applied linguistics and related course work.

Course Requirements

A minimum of 90 credit hours, including dissertation. Specific requirements include one graduate course each in phonetics, phonology, syntax, historical linguistics, and language acquisition, plus at least four courses in linguistics at the 600-700 levels. L653, the first half of the field methods sequence, may not be counted if it is used in partial fulfillment of the language structure requirement. Additional course requirements may be set by the student's advisory committee.

Minor

The choice of a minor field should be agreed to by the student's

advisory committee. The specific requirements for the minor are established by the department that grants the minor. The student is responsible for ascertaining what those requirements are and for meeting them.

Advisory Committee

All students in the Ph.D. program will select an advisory committee consisting of at least three faculty members, one of whom should normally represent the student's minor field. The committee must be selected no later than the end of the semester following the completion of the master's degree at Indiana University, or, in the case of students entering the program with master's degrees from other institutions, no later than two semesters after matriculation.

Students will plan their programs with the advisory committee, which will be responsible for counseling students with regard to the qualifying examination, setting the examination, and administering it.

Foreign Language Requirements

Three languages:

1. Reading or speaking knowledge of two foreign languages, one of which should be either French, German, or Russian, and
2. knowledge of the structure of a language or languages other than English and outside the student's general language family (choice to be determined in consultation with the student's advisory committee).

Qualifying Examination

Comprehensive; specific focus and scheduling of the examination determined by the student's advisory committee.

Research Proposal

After nomination to candidacy, the student will select a research committee composed of no fewer than three members of the Department of TESOL and Applied Linguistics faculty and an outside representative. This committee must approve the proposed dissertation topic.

Final Examination

Oral defense of dissertation. This defense is open.

Ph.D. Minor in TESOL and Applied Linguistics

The minor consists of a minimum of 12 credit hours of TESOL and applied linguistics or related courses. A grade point average of 3.0 (B) or better must be achieved in these courses. The specific program for satisfying this requirement must be developed in consultation with the student's minor advisor.

English as a Foreign Language

The Department of TESOL and Applied Linguistics also offers English language improvement courses which do not carry graduate credit. The courses, designed for the international student who needs instruction in English as a second language, are T100 (0 cr.) Intensive English, and T101 (1-9 cr.) English Language Improvement.

Courses

T510 Applied Traditional and Structural English Grammar (3 cr.)

An examination of pregenerative treatments of English grammar with emphasis on their pedagogical application in the teaching of English as a second language.

T511 Applied Alternate English Grammar (3 cr.)

P: L503. Readings in generative theory with emphasis upon the ability to analyze within the framework of a transformational grammar. Special attention to generative treatments of English syntax for pedagogical purposes.

T514 Phonology and Second-language Learning and Teaching (3 cr.)

Introduction to phonology as it applies to the learning and teaching of second languages. Does not satisfy the phonology requirement for the Ph.D. in linguistics.

T522 Survey of Applied Linguistics (3 cr.)

P: L503 or equivalent. Intensive readings on selected topics relevant to the acquisition of second languages,

sociolinguistics, bilingualism, testing, and research directions. Readings will, for the most part, be current and subject to change as the course is offered.

T532 Second-language Acquisition (3 cr.)

A survey of the major theories of first- and second-language learning and their potential applications to language development strategies.

T534 Methods in Teaching ESL/EFL to Adults (TESOL) (3 cr.)

Analyzes and critiques approaches and methods in teaching ESL/EFL to adults, including research and experiential perspectives on practice and theory. Surveys traditional and innovative approaches in language teaching, analyzes language classroom interaction, and sets language teaching in cultural and sociopolitical context. To be taken concurrently with T535 TESOL Practicum.

T535 TESOL Practicum (3 cr.)

Under supervision, students teach English as a second language to adult learners. The course also provides experience in testing, placement, and materials preparation. Classroom lectures focus on issues related to the art and profession of language teaching. To be taken concurrently with L534 Linguistic Resources and the Teaching of English as a Second-language (TESOL).

T538 Second-language Writing (3 cr.)

P: L503 and T532 or their equivalents. Examines the relationship of second-language writing to composition theory, writing research, second-language acquisitions, and second-language teaching. Topics include theories of second-language composition, second-language writing processes, reading as input for writing, measurement of proficiency, and individual variation.

T539 Pragmatics and Second-language Learning (3 cr.)

This course familiarizes students with principles and issues in pragmatics and cross-cultural pragmatics. Students will learn appropriate data

collection techniques and will collect primary data, learn to analyze spoken and written data, and discuss the application of pragmatics to language learning and teaching, cross-cultural research, and international communication.

T550 Language Testing (3 cr.)

P: L503 or equivalent. Consideration of theory of assessing competence in second languages. Preparation and administration of various language testing instruments. Primary emphasis on English as a second language.

T556 The Language Laboratory: Hardware and Software (3 cr.)

Instructional rationale, equipment, and practical operation of the language laboratory. Lectures on theory combined with actual use of laboratory equipment.

T560 American Culture (3 cr.)

P: for international students only. A survey of issues related to the culture and character of the people of the United States. Topics include the national, social, and linguistic origins of the American people, political and social institutions, and the arts.

T600 Topics in TESOL and Applied Linguistics (3 cr.)

May vary with topic. Intensive study and analysis of selected issues and problems in TESOL and applied linguistics. Topics in this course are of particular interest to the second-language practitioner. May be taken more than once with different topics.

T622 English Dialects (3 cr.)

Investigation of the basic features of English dialects as formally structured systems. Attitudes toward speech and the relationship of language differences to the attainment of social and educational goals.

T632 Current Research in Second-Language Acquisition (3 cr.)

P: L532. This course addresses issues in recent research in second-language acquisition. Examines selected cases illustrating the relation of second-language acquisition studies to linguistic theory. Emphasis on the collection and analysis of acquisition data.

T640 Discourse Analysis (3 cr.)

Surveys theories of discourse analysis including speech acts, conversational maxims, conversation analysis, ethnomethodology, text analysis, and critical discourse analysis. Applications of those theories to areas of special interest to applied linguistics including native speaker-nonnative speaker interaction, nonnative speaker conversation, classroom discourse, and analysis of language in professional settings.

T660 Contrastive Discourse (3 cr.)

P: T532 or consent of the instructor. Considers cross-cultural text organization from the native and nonnative reader's and writer's viewpoints. Various aspects of text are emphasized, including coherence and cohesion, and formal and cultural schemata in genres such as expository writing, letters, news articles, and narratives.

T690 Advanced Readings in TESOL and Applied Linguistics (1-4 cr.)

T695 M.A. Thesis Research in TESOL and Applied Linguistics (1-4 cr.)

T700 Seminar on Current Issues in TESOL and Applied Linguistics (1-4 cr.) This seminar will deal with major books and articles which have defined important areas of debate in the current development of linguistic theory. The specific title will be announced well in advance of each semester. Course may be retaken for up to 12 credit hours.

T711 Seminar in Applied Linguistics (4 cr.) Selected problems in linguistics applied to language teaching. May be repeated for credit when topic changes.

Theatre and Drama

College of Arts and Sciences
Bloomington

Interim Chairperson
Professor Ronald Waincott

Departmental E-mail
theatre@indiana.edu

Departmental URL
www.indiana.edu/~thtr

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors

Leon Brauner (Emeritus), Winona Fletcher (African American and African Diaspora Studies, Emerita), Roger Herzel, Howard Jensen, Dale McFadden*, R. Keith Michael (Emeritus), George Pinney*, Dennis Reardon*, Robert Shakespeare*, Frank Silberstein (Emeritus)*, Ronald Waincott

Associate Professors

Robert Bovard, Bruce Burgun, Marion Michael* (Emerita), Wesley Peters (Emeritus)*, Rakesh H. Solomon*

Director of Graduate Studies
Professor Roger Herzel, Theatre Building A300

Degrees Offered

Master of Arts, Master of Arts for Teachers, Master of Fine Arts, and Doctor of Philosophy

Special Departmental Requirements

(See also general University Graduate School requirements.)

Admission Requirements

Undergraduate major in the field or other evidence of adequate background. Deficiencies may be removed by course work or special examination. Graduate Record Examination General Test required. M.F.A. applicants will be required to audition, interview, or submit examples of appropriate work for evaluation.

Master's Degrees

Master of Arts Degree Course Requirements

A total of 30 credit hours, of which 15 credit hours must be in departmental courses numbered 500 and above, including T500;

maximum of 5 credit hours in T895. Up to 10 credit hours may be taken in an allied field or area of specialization in another department.

Language Requirement

Ability to translate scholarly material on theatre from one foreign language.

Master's Essay

A student may satisfy the master's essay requirement in one of three ways:

1. by submitting a suitable term or seminar paper, revised to the satisfaction of a two-member faculty committee,
2. by writing an original master's essay not based on any previous paper, or
3. by writing a formal master's thesis (maximum of 5 credit hours in T895).

Examination

A written examination on the M.A. reading list in dramatic literature, theory, and theatre history. The examination may be repeated once.

Master of Arts for Teachers Degree

Course Requirements

A total of 36 credit hours. Of the 20 credit hours required in the major field, 15 must be in courses numbered 500 or above, including T500; up to 16 credit hours may be taken in an allied field or area of specialization in other departments.

Master of Fine Arts Degree

Special Requirements

Applicants must provide evidence of a high degree of technical skill and creative ability in the area of special interest. At the end of each year in residence, the student's skill and creative ability will be evaluated as evidenced by work done in the Department of Theatre and Drama. Only students who have clearly demonstrated growth and excellence will be permitted to remain in the program.

Course Requirements

A total of 60 credit hours of graduate work, with an emphasis in one of the following areas: playwriting, acting, directing, scenic design, lighting design, costume design, or theatre technology. The 60 credit hours will include 3 credit hours in the study of resources and materials in the student's area of special interest and not fewer than 6 credit hours in the area of theatre history, dramatic theory, and dramatic literature. When appropriate, up to 12 credit hours (15 credit hours in costume design) may be taken in an allied field in another department. A maximum of 10 credits may be taken in M.F.A. thesis. The distribution of course work will be determined by the student and advisor. A minimum of four semesters or equivalent summer sessions must be spent in residence on the Bloomington campus.

Production Thesis
Required.

Examination
Oral defense of the thesis.

Doctor of Philosophy Degree

Course Requirements

A total of 90 credit hours, of which 50-60 must be in the major field, including 30 credit hours of courses numbered 500 or above, at least 6 credit hours in advanced seminars, and 15 credit hours of dissertation.

Minor

Approximately 15 credit hours within another department in an area related to drama and theatre.

Other Provisions

To demonstrate an acquaintance with the tools, techniques, and reporting of theatre research, all Ph.D. students are expected (a) to have written a research thesis at the master's level (if not, a term paper or other evidence of research writing skill should be submitted); (b) to have taken a graduate-level course in research methods (if not, T500 must be taken in the first year of residence); and (c) to show an ability to translate scholarly material on theatre from two languages, usually selected from French, German,

Russian, Italian, and Spanish. Consult the director of graduate studies for specific details and approval of language selections.

Examinations

Four comprehensive oral examinations (theatre before 1500, 1500-1800, 1800-1915, and 1915-present), and a qualifying examination (written and oral) in one specific area projected for dissertation investigation. Comprehensives may be taken individually, in any order, and at any time acceptable to both student and faculty. The qualifying examination may be taken only when all course work and language requirements have been completed. A representative from the student's minor field will be invited to participate in the qualifying examination. The student will be denied further participation in the doctoral program upon failing the qualifying examination twice.

Courses

T325 Voice and Speech (3 cr.)

T390 Creative Work in Summer Theatre (1-3 cr.; may be repeated for a maximum of 6 cr.)

T410 Movement for the Theatre (3 cr.)

T420 Acting IV (3 cr.)

T423 Acting V (3 cr.)

T425 Theatrical Drafting (3 cr.)

T426 Scene Design II (3 cr.)

T430 Stage Costuming II (3 cr.)

T433 Costume Design (3 cr.)

T434 Historic Costume for the Stage (3 cr.)

T435 Electronics for Theatre Technicians (3 cr.)

T438 Lighting Design (3 cr.)

T442 Directing II (3 cr.)

T443 Directing III (3 cr.)

T453-T454 Playwriting I-II (3-3 cr.)

T458 Screenwriting (3 cr.)

T460-T461-T462 Development of Dramatic Art I-II-III (3-3-3 cr.)

T468 Non-Western Theatre and Drama (3 cr.)

T500 Research Methods and Materials (1.5 cr.) (S/F grading) Methods and materials of theatre research, principles of scholarly investigation, and strategies of production research. Must be taken during the first term of residence.

T501 Introduction to Historiography (1.5 cr.) (S/F grading) P: T500. Reading and discussion of current historiographical problems and methods particular to research and scholarly reporting in theatre history, theory, and literature.

T502 Theatre Design and Technical Research Methods (1.5 cr.) (S/F grading) P: T500. Reading, discussion, and use of computer for scenic, costume, lighting, and technology research. Exploration of commercial software used in developing and communicating each discipline's products.

T510 Advanced Movement for the Theatre (3 cr.) P: T410. Advanced study of movement for actors and directors. Emphasis on eye training, alignment, and the familiarization of various period, idiomatic, and ethnic dance forms used in the theatre.

T515 Studies in Oral Interpretation (1-3 cr.) P: T315 or consent of instructor. Theories of oral interpretation and their application to performance; analysis and performance of literary texts; techniques and practice of readers' theatre. May be repeated for a maximum of 9 credits.

T520 Studies in Acting I (3 cr.) P: consent of instructor. History and analysis of major theories of acting.

T521 Studies in Acting II (1-3 cr.)
P: consent of instructor. Application of major theories of acting to performance. May be repeated for a maximum of 9 credits.

T522 Studies in Acting III (1-3 cr.)
Analysis of script; application of vocal and physical techniques of characterization to various forms and types of drama. May be repeated for a maximum of 9 credits.

T523 Costume and Character in London Theatre Overseas theatre studies in London. Experience theatrical character development through costume design. Survey social influences on costume and dress worn by characters through history, including contemporary trends and dress. Field trips to Bath and Stratford.

T525 Speech for the Stage (3 cr.) P: S325. Advanced study of the voice as it relates to the actor, with emphasis on resonance, rate, volume; the use of the voice in working with a text; phonetics; exercises and practical projects.

T526 Advanced Scene Design (3 cr.) P: T426. To provide the advanced student with a wide variety of theatrical and nontheatrical assignments in design, including portfolio preparation.

T527 Theatre Planning (3 cr.) P: consent of instructor. Function and design of theatre plant with attention to needs of audience and theatre personnel.

T528 Studies in Stage Scenery (1-3 cr.) P: T526 or consent of instructor. Selected problems in designing stage scenery; composition and style. May be repeated for a maximum of 9 credits.

T529 Studies in Theatre Technology (1-3 cr.) P: consent of instructor. The application of engineering methods to solve electronic, acoustical, optical, and mechanical problems; use of computer systems for information storage, manipulation, and retrieval; design and execution of projects.

May be repeated to a maximum of 9 credits.

T530 Advanced Costume Design Aesthetics (3 cr.) Intensive study of costume design and application of design principles. Students will produce projects in various genres. Theatre, opera, ballet, and musical theatre are just some of the forms surveyed. Students work in a collaborative design arena that emulates the process for whichever genre they are designing in.

T533 Studies in Stage Costuming (1-3 cr.) P: T430 and T433 or consent of instructor. Selected problems in costume materials and methods, costume design and historic fashion; application to styles and forms of theatrical production. May be repeated for a maximum of 9 credits.

T538 Studies in Stage Lighting (1-3 cr.) P: T435 and T438 or consent of instructor. Selected problems in the controllable properties and functions of stage lighting; optics, photometry, and instruments; control and dimming systems; application to styles and forms of theatrical procedure. May be repeated for a maximum of 9 credits.

T542 Theories of Directing (3 cr.) History and analysis of major theories of directing. Lecture and practical projects.

T543 Studies in Directing II (3 cr.) P: consent of instructor. Practical problems in directing significant plays of diverse forms and styles. May be repeated for a maximum of 9 credits.

T545 Voice and Dialects (3 cr.) Training for the professional actor that focuses on combining imagery and imagination with the development of vocal technique through exercises in breathing, producing the sound resonance; the mastery of four of the most common dialects used in the American theatre.

T550 Structure of Drama (3 cr.) Theory and structure of drama, based

upon intensive reading of Aristotle's Poetics and other critical writings.

T553 Studies in Playwriting (1-3 cr.) P: consent of instructor. Analysis and composition of dramatic works. May be repeated for a maximum of 9 credits.

T555-T556 Drama Theory I-II (3-3 cr.) Survey of major Western theoretical and critical works. I. Greeks to 1700; II. 1700 to the present.

T563 Forms and Styles in Modern Theatre and Drama (3 cr.) Study of plays in relation to such styles as realism, naturalism, expressionism, and absurdism.

T565-T566 American Drama and Theatre I-II (3-3 cr.) I. Beginnings to 1890; II. 1890 to the present. Either semester may be elected independently.

T567 European Drama from Molière to Ibsen (3 cr.) Representative French, German, Italian, and Russian plays.

T568 Ibsen and Strindberg (3 cr.) Intensive study of the major plays of Ibsen and Strindberg.

T570 Studies in Classical and Medieval Theatre (3 cr.) Concentrated study of Greek, Roman, and medieval theatre.

T571 Studies in Renaissance and Baroque Theatre (3 cr.) Concentrated study of significant figures, practices, and dramas in the European theatre from 1500 to 1800.

T572 Studies in Romantic and Realistic Theatre (3 cr.) Concentrated study of European and American theatre from 1800 to 1915. Emphasis on romanticism, realism, and the reactions to realism.

T573 Studies in Modern and Contemporary Theatre (3 cr.) Concentrated study of significant practices, trends, and figures in the European and American theatre from 1915 to the present.

T583 Topics in Theatre and Drama (1-3 cr.) Studies in special topics not ordinarily covered in other departmental courses. May be repeated once for credit if topic differs.

T585 Theatre Management (3 cr.) Problems in managing a theatre: selection of plays, special programming, business operations, promotion, public relations. Lecture and practical projects.

T600 Directed Research (1-6 cr.) P: T500 or equivalent and consent of instructor. Individual supervised research projects.

T662 Comparative Theatre and Drama: Melodrama (3 cr.) The “third form” of drama, from melodramas of Euripides to tragicomedies and melodramas of modern television and motion pictures.

T700 Independent Study (cr. arr.)** P: consent of instructor and department chairperson.

T701 Readings in Theatre and Drama (cr. arr.)**

T720 Internship in Acting (3-9 cr.) Internship in a professional theatre for one semester or equivalent period of time. Required of all students seeking the M.F.A. in acting. May be repeated for a maximum of 9 credit hours.

T750 Seminar in Structure of Drama (3 cr.) P: T550, T555-T556 or equivalent. Projects in the analysis of different forms and types of drama. Each student is required to complete and report on a sequence of analytical interpretations of the structure of assigned plays.

T765 Seminar in American Theatre and Drama (3 cr.) Selected topics. May be repeated if the topic differs.

**These courses are eligible for a deferred grade.

T774 Seminar in Stage Interpretation of Selected Plays (3 cr.) Study of selected plays through various periods; problems of interpretation and staging for present-day audiences. May be repeated if the topic differs.

T775 Seminar in Theatre History (3 cr.) Selected problems concerning theatres and staging methods in Europe in a restricted period. May be repeated if the topic differs.

T895 M.A. Thesis (cr. arr.)**

T897 M.F.A. Thesis (cr. arr.)**

T899 Ph.D. Thesis (cr. arr.)**

Therapeutic Outcomes Research

School of Health and Rehabilitation Sciences Indianapolis

Program Director
Professor Neil Oldridge

Departmental E-mail
askahl@iupui.edu

Departmental URL
sahs.iupui.edu/hs/

Graduate Faculty
(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors
Deborah Cullen*, Joyce MacKinnon*, Neil Oldridge, Mark S. Sothmann
Associate Professor
William S. Quillen*

Graduate Advisor
Professor Neil Oldridge, 1140 W. Michigan Street, Indianapolis, IN 46202, (317) 278-1690.

Degree Offered
Master of Science in Therapeutic Outcomes Research

Program Information

This program is designed to prepare credentialed health care professionals to conduct patient outcomes research in order to evaluate the effectiveness of therapeutic interventions within their own disciplines. The chief feature of this program is the emphasis on original research to determine therapeutic benefit in terms of physiologic, symptomatic, functional, perceptual, and quality-of-life outcomes.

There have been three major eras in the evolution of the U.S. health care system since the late 1940s: expansion, cost-containment, and now assessment and accountability. In the expansion era, health care underwent remarkable growth in technology, training, and delivery. Emphasis was on the perfection of health care, with no consideration of costs or resource demands. Spiraling costs and disenchantment with the curative power of technology brought on the cost-containment era. Emphasis was then placed on limiting spending and maximizing productivity, often at the expense of patient satisfaction. Today, there is a growing understanding of the balance between use of healthcare resources on one hand and patient benefits on the other, or between assessment and accountability. Based on a more sophisticated awareness of what actually constitutes the costs and benefits of treatment, emphasis is now placed on rational use of resources in light of a realistic appraisal of therapeutic benefits. Patient-centered outcomes research concentrates on the assessment of therapeutic interventions under conditions of real, not ideal, practice. Allied health professionals are

particularly well positioned to conduct therapeutic outcomes research because their clinical work is oriented toward the holistic factors that outcomes research purports to measure: multidimensional assessment of health status and improvement of patient quality of life. Moreover, as demand for useful and valuable outcomes measurement continues to grow among healthcare institutions and organizations, allied health professionals are increasingly being called upon to conduct outcomes assessment at their place of employment.

Master of Science

Admission Requirements

Students accepted into the program must meet all requirements of both University Graduate School and the School of Allied Health Sciences. Applicants must submit the following: (1) official undergraduate transcripts; (2) a 300- to 500-word personal statement of academic and professional goals; (3) three letters of recommendation from those familiar with applicants' academic and professional performance; (4) official scores of the Graduate Record Examination (GRE); and (5) for international students, official TOEFL scores. The minimum admission requirements are:

1. A bachelor's degree from an accredited institution.
2. Eligibility for license or credential in a health profession.
3. Total undergraduate GPA of at least 3.00 on a 4.00 scale.
4. GRE scores of at least 500 each for the verbal and analytical sections.
5. If applicable, a TOEFL score of at least 600.

Course Requirements

A total of 30 credit hours beyond the bachelor's degree, of which 12 credit hours are in health outcomes, 3 credit hours are in electives, and 15 credit hours are in research (including thesis work).

Thesis Requirement

The capstone experience is the writing and submission of a thesis based on original research conducted by the student and supervised by a thesis committee. Curricular electives are focused on developing expertise to articulate and research a testable hypothesis in a specific content area pertaining to patient-centered outcomes under the direction of a research advisor holding graduate faculty membership in University Graduate School. Theses must follow the Indiana University *Guide to the Preparation of Theses and Dissertations*.

Curriculum

Health Outcomes (12 cr.)

AHLT W510 Trends and Issues in the Health Sciences (3 cr.)
SPEA H517 Managerial Epidemiology (3 cr.)
INFO I530 Seminar in Health Informatics Applications (3 cr.)
AHLT W540 Patient-Centered Outcomes Research (3 cr.)

Electives (3 cr.)

(In consultation with graduate advisor) (3 cr.)

Research (15 cr.)

GRAD G651 Introduction to Biostatistics I (3 cr.)
AHLT W520 Evidence-Based Critical Inquiry in the Health Sciences (3 cr.)
AHLT W570 Research Communication in the Health Sciences (3 cr.)
AHLT Z599 Thesis in Health Sciences (6 cr.)
AHLT W799 Master's Thesis Continuation (1 cr., may be repeated)

Total minimum credits: 30 cr.

Courses in Therapeutic Outcomes Research

Courses offered in the School of Health and Rehabilitation Sciences
"P" refers to a course prerequisite and "C" to a course that must be taken concurrently.

AHLT W510 Trends and Issues in the Health Sciences (3 cr.) A seminar course to review pertinent literature and other sources of information as a basis for discussing trends and issues affecting the therapeutic professions and the healthcare delivery system.

AHLT W520 Evidence-Based Critical Inquiry in the Health Sciences (3 cr.) P: GRAD G651 or equivalent. Fundamental concepts of research, ranging from philosophical foundations to practical applications. Course provides the conceptual framework in which graduate students may develop their own research agenda. In keeping with the diversity of research, this course strives to introduce graduate students to the entire continuum of research paradigms, from qualitative, naturalistic inquiry to quantitative, experimental designs.

AHLT W540 Patient-Centered Outcomes Research (3 cr.)

Explorations of selected patient-centered outcomes evaluation methodology and research evidence related to the health professions at an advanced level.

AHLT W560 Topics in Therapeutic Outcomes Research (1-3 cr.)

Explorations of selected patient-centered outcomes assessment methodology and research evidence related to allied health science professions at an advanced level.

AHLT W570 Research Communication in the Health Sciences (3 cr.)

P: W520 and consent of both instructor and research advisor. Instruction and consultation in the preparation of master's thesis proposals, including computer applications for conducting online literature searches, developing an individual bibliographic database, designing an original research project, and devising a sound methodology. Final outcome is a completed thesis proposal for submission to a graduate student's thesis committee. Course is open only to allied health graduate students pursuing the research/thesis track in their program of study.

Students must begin the course with a specific research agenda already approved by their research advisor.

AHLT Z599 Thesis in Health Sciences Education (3 cr.)

Individual investigation in the form of an organized scientific contribution or a comprehensive analysis in a specified area related to health sciences education.

AHLT Z799 Master's Thesis Continuation (1 cr., may be repeated)

Used as continuation credits for completing the master's thesis in a format acceptable to the student's advisory committee, leading to successful defense of the final product. May be repeated for credit.

COURSES OFFERED IN OTHER IUPUI SCHOOLS

GRAD G651 Introduction to Biostatistics I (3 cr.)

SPEA H517 Managerial Epidemiology (3 cr.)

SPEA H615 Outcomes Assessment and Outcomes Management (3 cr.)

Urban Affairs

School of Public and Environmental Affairs
Bloomington

Departmental E-mail
spea@indiana.edu

Departmental URL
www.spea.indiana.edu/home/

Urban Affairs Committee

Professor Barry M. Rubin (Public and Environmental Affairs), Chairperson; Professors Bruce Jaffee (Business), Roger B. Parks (Public and Environmental Affairs), David Wildasin (Economics); Associate Professor Philip Parnell (Criminal Justice)

Academic Advisor

Professor Barry M. Rubin, Public and Environmental Affairs Building 330, (812) 855-0731

Ph.D. Minor in Urban Affairs (12 credit hours)

Students in doctoral programs at Indiana University may, with the consent of their advisory committee, choose urban affairs as an outside minor. The minor is flexible and is designed by students and their advisors in accordance with students' needs.

Requirements

1. After consulting the director of the Joint Ph.D. in Public Policy Program, the doctoral candidate must secure an advisor from the faculty of the School of Public and Environmental Affairs. This faculty advisor serves as the school's representative in all examinations or other minor program requirements of the candidate's Ph.D. program. The advisor determines the character of the minor examination (if any), participates in the candidate's oral examinations, and certifies that the candidate has met the requirements of the minor.
2. The candidate must take at least 12 credit hours of graduate-level courses related to urban affairs. Courses should be selected from at least two departments outside that of the candidate's major. The selection of courses must be approved by the candidate's SPEA advisor.
3. A cumulative grade point average of at least 3.0 (B) must be maintained.

Victorian Studies

College of Arts and Sciences
Bloomington

Departmental E-mail
victstu@indiana.edu

Departmental URL
www.indiana.edu/~victstu/
homeframe.html

Chairperson

Professor Andrew H. Miller

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Distinguished Professor

Susan Gubar (English)

Professors

Patrick Brantlinger (English), Sarah Burns, (History of Art), Donald Gray (English, Emeritus), M. Jeanne Peterson (History, Emeritus), Stephen Watt (English)

Associate Professors

Joss Marsh (English), Andrew Miller (English), Lee Sterrenburg* (English), Dror Wahrman (History)

Assistant Professor

Ivan Krielkamp (English)

Academic Advisor

Professor Andrew H. Miller, Ballantine Hall 429, (812) 855-2529, or contact Victorian Studies (812) 855-9533

Area Certificate in Victorian Studies

The Victorian Studies Program concentrates upon Great Britain during the reign of Queen Victoria, extending its attention in certain fields back into the last decades of the eighteenth century, up to the outbreak of World War I, and out into America, Continental Europe and other areas in the nineteenth century. The program is open to all graduate students. Courses within the program are chosen from a range of offerings in the following departments or programs: African studies, comparative literature, cultural studies, economics, English, fine arts, folklore, gender studies, geography, history, history and philosophy of science, philosophy, and Victorian studies.

Course Requirements

16 credit hours in courses approved for the Victorian Studies Program, at

least 4 of which must be in the Victorian Studies Program proper and 4 outside both the student's department and the Victorian Studies Program. Consult the chairperson of the program for courses outside of Victorian studies that are acceptable for the certificate.

Examination

Satisfactory performance in the departmental qualifying examinations required.

Courses

V611 Victorian Britain: Culture and Society, 1820-1900 (4 cr.) An examination of the civilization of Victorian Britain from a variety of perspectives, emphasizing problems of movement from a traditional to a modern society, industrial and democratic revolutions, and the rise and decline of Britain as a world power.

V701 Studies in Victorian Britain (4 cr.) Interdepartmental investigation of topics related to Victorian Britain; their illumination of the whole period in method or substance.

V711 Social Science and Social Philosophy in the Victorian Age (4 cr.) First part of course includes lectures on major philosophical and theoretical ideas underlying the approach of the Victorian period to economic and social questions; second part is based on research papers prepared by students on selected topics in their fields.

V805 Readings in Victorian Britain (1-6 cr.)

Vision Science

**School of Optometry
Bloomington**

Departmental E-mail
opt@indiana.edu

Departmental URL
www.opt.indiana.edu

Director

Professor Graeme Wilson

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors

Carolyn Begley, Joseph Bonanno, Arthur Bradley, Robert DeVoe (Emeritus), David Goss, S. Lee Guth (Emeritus), Gary Hafner, Gordon Heath (Emeritus), Gerald Lowther, Edwin Marshall, Paul Pietsch (Emeritus), P. Sarita Soni, Larry Thibos, Graeme Wilson

Associate Professors

Ronald Everson (Emeritus), Sally Hegeman* (Emerita), Douglas Horner

Assistant Professors

T. Rowan Candy*, Donald Miller*, S. P. Srinivas*, Suresh Viswanathan*

Academic Advisor

Professor Graeme Wilson,
Optometry Building 511, (812) 855-7595

Degrees Offered

Master of Science and Doctor of Philosophy

Program Information And Requirements

The Vision Science Program is designed primarily for students wishing to prepare themselves for teaching and research in the sciences that relate to vision.

Admission Requirements

Course requirements are flexible to accommodate students with interests in vision science but with varying backgrounds. A bachelor's degree (or equivalent) is required. Course work with appropriate laboratories in the following areas is strongly recommended: optics, computing and engineering, physics, biology, mathematics through differential and integral calculus, statistics, and psychology of sensation and perception.

Degree Requirements

Students must demonstrate breadth of knowledge in vision science. This requirement is normally fulfilled by completion of V700 and V701 with a minimum grade of B in each course.

Each semester, students are required to register for and participate in the weekly Vision Science Seminar (V765) known as "Oxyopia." Participation implies that the seminar will be taken for credit and that the student will make an annual presentation.

Students commence their research training by joining an ongoing research project directed by a faculty member chosen by the student during the first few weeks in residence. The research topic will be formulated in consultation with the faculty member and an advisory committee. The topic may or may not be in the same field in which the student expects to do dissertation research.

Master of Science Degree

Course Requirements

A total of 30 credit hours is required, of which 15 credit hours must be didactic hours in vision science (or approved substitutes), generally excluding seminars. Students holding the O.D. degree or enrolled concurrently in the O.D. and M.S. programs may accelerate progress by receiving graduate credit for relevant work completed in the optometry curriculum. In regard to credits for prior or concurrent O.D. work, no more than 4 credit hours may apply to the requirement of 15 didactic credit hours.

Research Requirements

Candidates must submit a written research report by the end of the first year in residence. Students enroll in 3 hours of research credit per semester. A thesis research proposal must be submitted and approved by the end of the first year of study.

Thesis
Required.

Doctor of Philosophy Degree

Course Requirements

A total of 90 credit hours is required. Of these, a minimum of 30 credit hours will come from didactic courses, including courses in the minor subject, but generally excluding seminars.

Because students are expected to read the important literature in their chosen field, study of a foreign language may be required by the student's advisory committee.

Students who hold recent optometric degrees from recognized institutions or who are enrolled concurrently in the O.D. and Ph.D. programs may accelerate progress by receiving graduate credit for relevant work completed in the optometry curriculum. In regard to credit for prior or concurrent O.D. work, no more than 6 credit hours may apply to the requirement of 30 didactic credit hours.

Minor Subject

Students will select at least one minor in any relevant field of study, subject to formal approval by their advisory committee. Interdepartmental minors, as described in the University Graduate School Bulletin, are permissible.

Qualifying Examination

A student will be nominated to candidacy for the Ph.D. degree only after successful completion of written and oral qualifying examinations specified by the advisory committee. The requirements for 30 credit hours of didactic course work and two annual research reports must be fulfilled prior to the qualifying examination. Enrollment in the program will be terminated if the student twice fails the qualifying examination.

**These courses are eligible for a deferred grade.

Courses

GENERAL

V595 First-Year Research (1-5 cr.)** Required to complete with a grade of A-F within the first year.

V695 Second-Year Research (1-5 cr.)

V700 Introduction to Vision Science I (4 cr.) The first of a two-semester sequence of courses that provides a comprehensive introduction to vision science. The course is designed for graduate students enrolled in the Vision Science Program, but is also suitable for students from other disciplines who are interested in the eye and vision.

V701 Introduction to Vision Science II (4 cr.) The second of a two-semester sequence of courses on vision science. V700 and this course constitute a breadth requirement for Ph.D. students in Vision Science.

V703 Refractive Anomalies I (3 cr.) Optics and epidemiology of refractive anomalies of the human eye.

V704 Refractive Anomalies II (3 cr.) Development, progression, and management of myopia.

V705 Ocular Surface I: Basic Biology and Physiology (4 cr.) Basic biology and physiology of the ocular surface, including the cornea, conjunctiva, and tear film.

V706 Ocular Surface II: Current Issues (4 cr.) Current issues affecting the ocular surface, including contact lenses, disease, and surgery.

V707 Clinical Vision Research Techniques Course (1-6 cr.) Techniques and procedures used to record and quantify ocular function and changes in clinical research including ocular photography, digital imaging, corneal and retinal topography, confocal microscopy, endothelial microscopy, image processing, surface cell analysis.

V716 The Visual Pathways (4 cr.) P: permission of the instructor. For students in the visual sciences, comprehensive study of the human optic pathways.

V717 Noninvasive Assessment of Visual Function (3 cr.) Focuses on the clinical application of psychophysical techniques for the detection and diagnosis of visual anomalies and ocular disease.

V718 Visual Functions in Low Vision (3 cr.) Studying behavioral aspects of visual function measurements in the low-vision population.

V723 The Eye as an Optical Instrument (4 cr.) P: V663 or equivalent.

V754 The Motility of the Eye (4 cr.) P: V665 or equivalent. Quantitative and qualitative study of eye movements and myologic reflexes, monocular and binocular, and related phenomena.

V764 Cellular and Molecular Aspects of Ocular Disease and Injury (4 cr.) Study of selected reports dealing with corneal-wound healing, the cataractous lens, and retinal degenerations.

V765 Vision Sciences Seminar (1 cr.) Students in the Ph.D. program in Vision Science are required to take this seminar and make a presentation annually.

V767 Electrophysiology of Vision (3 cr.) Review of techniques of recording neural events, development of a neural hypothesis, experimental testing of hypothesis, writing and presenting of data and conclusions.

V768 Special Topics in Vision Science (1-4 cr.) Covers topics not offered on a regular basis. Possible topics include cell and molecular biology as it relates to the eye and vision, comparative studies of the vertebrate eye, current research, experimental design, optical and ophthalmic instruments, pathology,

and pharmacology. May be taken more than once when different topics are covered.

V773 Classics in Physiological Optics (1 cr.) Study of selected scientific articles of early contributors to our understanding of ocular motility, monocular and binocular functions, the optics of the eye, and ocular physiology.

V783 Monocular Sensory Aspects of Vision (4 cr.) P: V664 or equivalent. Analysis of visual stimulus and its perception in color, form, brightness, motion, etc.

V784 Binocular Sensory Aspects of Vision (4 cr.) P: V666 or equivalent. A study of perceptual phenomena and responses facilitated by binocular vision.

V785 The Vertebrate Eye (3 cr.) Comparative anatomy of the vertebrate retina. Primate retina used as a model. Accommodative mechanisms discussed. Laboratory exercises required.

V791 Quantitative Methods for Vision Research (3 cr.) Introduction to communication theory approach to problems in vision. Topics include the sensory nerve code, representation of nerve messages by orthogonal functions, sampling theorem, linear filters, Fourier analysis in one and two dimensions, analysis of directional data, stochastic processes, and signal detection theory.

V792 Ethical Issues in Scientific Research (1 cr.) This course explores the ethical issues and dilemmas raised by research in the biological sciences.

V795 Third-Year Research (3 cr.)

V799 M.S. Thesis Research (1-10 cr.)

V801 Basic Experimental Design and Methods in Vision Science (3 cr.) An introduction to basic research skills in vision science.

V899 Ph.D. Dissertation Research (1-12 cr.)

DOCTOR OF OPTOMETRY CURRICULUM COURSES

V512 Ocular Anatomy (2 cr.) P: V511 Human Gross Anatomy, or equivalent. A detailed study of the normal anatomy and embryology of the eye and its adnexa. The organization of various components of the eye is studied at the light and electron microscopic level and this organization is related to the molecular structure where it is known.

V514 Neuroanatomy (1.5 cr.) P: V511 Human Gross Anatomy, or equivalent. Functional anatomy of the human brain, with emphasis on the visual system.

V516 Ocular Physiology (2.5 cr.) C: V512 or equivalent. Vegetative physiology of the eye, with attention to the chemical constitution, intermediary metabolism, regulation of hydration and intraocular pressure, transparency of the ocular components, and retinal physiology.

V648 Neurophysiology of Vision (1 cr.) Introduction to the functional organization of the visual system and the physiological basis of vision. This course treats the visual system as a biological image processor to reveal how the structure and function of the retina and brain determine visual performance and constrain the quality of vision.

V663 Physiological Optics I: Visual Optics (3.5 cr.) P: V522 Geometric Optics II, or equivalent. The eye as an optical instrument.

V664 Physiological Optics II: Visual Function (2.5 cr.) The basic aspects of monocular vision, including light and dark adaptation, color vision, and both spatial and temporal resolution. The science of measuring visual performance and its application to clinical optometry.

V665 Physiological Optics III: Ocular Motility (3.5 cr.) Characteristics, control, and deficits of the five somatic eye-movement systems (convergence, saccadic version, pursuit version, fixation maintenance, vestibular reflex) and the autonomic systems subserving

accommodation and pupillary diameter reflexes.

V666 Physiological Optics IV: Binocular Function (2.5 cr.) Binocular sensory mechanisms of vision. Summary of the geometry of three-dimensional space and stereo vision, underlying neuroanatomy and physiology of binocular vision, prerequisites for normal stereopsis, and commonly encountered anomalies of binocular vision.

CROSS-LISTED COURSES

Biology

L586 Cell Biology (4.5 cr.)

Psychology

P553 Advanced Statistics in Psychology I (3 cr.)

P554 Advanced Statistics in Psychology II (3 cr.)

West European Studies

**College of Arts and Sciences
Bloomington**

Director
Ameritech Professor David
Audretsch

Departmental E-mail
west@indiana.edu

Departmental URL
www.indiana.edu/~west

Graduate Faculty

(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Chancellor's Professors
Robert Fulk (English), Roy Gardner (Economics), James Naremore (Communication and Culture)

**Robert H. Schaffer Class of 1967
Endowed Chair**

William Corsaro (Sociology)

Rudy Professors

Karen Hanson (Philosophy), Jeff Isaac (Political Science), Rosemary Lloyd (French and Italian), Giancarlo Maiorino (Comparative Literature), Albert Valdman (French and Italian)

Ameritech Endowed Chairs

David Audretsch (School of Public and Environmental Affairs), Charles Bonser (Dean Emeritus, School of Public and Environmental Affairs)

Amoco Professor

Michele Fratianni (Kelley School of Business)

Roscoe C. O'Byrne Chair

Alfred Aman (School of Law)

Distinguished Professors

Willis Barnstone (Comparative Literature, Emeritus), Peter Bondanella (French and Italian), Alan Rugman (Kelley School of Business)

Professors

George Alter (History), Julie Auger (French and Italian), Michael Berkvam (French and Italian), Domenico Bertolini-Meli (History of Philosophy of Science), Maryellen Bieder (Spanish and Portuguese), Jack Bielasiak (Political Science), Julia Conaway Bondanella (French and Italian), Bonnie Bronlee (School of Journalism), Gilbert Chaitin (French and Italian), Andrea Ciccarelli (French and Italian), Lawrence Clopper (English), Allen Douglas (West European Studies and History), Dyan Elliott (History), Molly Faries (Fine Arts), Catherine Fraser (Germanic Studies), Jane Fulcher (School of Music), Norman Furniss (Political Science), Kari Gade (Germanic Studies), Gerhard Glomm (Economics), Kirstin Gronbjerg (School of Public and Environmental Affairs), Jeffrey Hart (Political Science), David Hertz (Comparative Literature), Roger Herzel (Theater and Drama), Janet Kennedy (Fine Arts), Oscar Kenshur (Comparative Literature), Dov-Ber Kerler (Germanic Studies),

W. Eugene Kleinbauer (Fine Arts, Emeritus), Dan Knudsen (Geography), Catherine Larson (Spanish and Portuguese), Emanuel Mickel (French and Italian), Christine Ogan (School of Journalism and School of Informatics), James Riley (History), Robert Rohrschneider (Political Science), Alvin Rosenfeld (English and Jewish Studies), Darlene Sadlier (Spanish and Portuguese), Josep Sobrer (Spanish and Portuguese), Terence Thayer (Germanic Studies), Timothy Tilton (Political Science), Stephen Watt (English), Lois Wise (School of Public and Environmental Affairs)

Associate Professors

Guillaume Ansart (French and Italian), Matt Auer* (School of Public and Environmental Affairs), Joelle Bahloul (Jewish Studies and Anthropology), Linda Charnes (English), J. Clancy Clements (Spanish and Portuguese), Juan Carlos Conde (Spanish and Portuguese), Laurent Dekydtspotter* (French and Italian), Michelle Facos (Fine Arts), Mary Favret (English), Arthur Field (History), Margaret Gray (French and Italian), Carl Ipsen (History), Owen V. Johnson (School of Journalism), Eric MacPhail (French and Italian), Herbert Marks (Comparative Literature), Luise McCarty (School of Education), Jacques Merceron (French and Italian), Richard Nash* (English), David Pace (History), Angela Pao (Comparative Literature), William Rasch (Germanic Studies), Leah Shopkow (History), Rex Sprouse (Germanic Studies), Wayne Storey (French and Italian), Margaret Sutton* (School of Education)

Assistant Professors

Fritz Breithaupt (Germanic Studies), Michel Chaouli (Germanic Studies), Aurelian Craiutu* (Political Science), Kimberly Geeslin* (Spanish and Portuguese), Hugh Kelley* (Economics), Massimo Scalabrini* (French and Italian), Jonathan Sheehan* (History), Steven Wagschal* (Spanish and Portuguese)

Academic Advising

Ballantine Hall 542, (812) 855-3280

Program Information

West European Studies (WEST) offers a Master of Arts degree in West European Studies, and two dual degree programs: a Master of Arts and a Master of Business Administration (M.A./M.B.A.) with the Kelly School of Business, and a Master of Arts and a Master of Public Affairs (M.A./M.P.A.) with the School of Public and Environmental Affairs. The West European Studies master's program offers a flexible, yet rigorous approach to the study of modern Europe that combines courses in the social sciences, humanities, and languages to give students broad understanding of the politics, economics, history, and cultures of the countries of Western Europe and the European Union, while allowing the student to tailor the program to their interests. Students may focus on a particular country or region in Western Europe, or on the European Union. The dual degrees add a level of professional training. M.A. graduates have in-depth knowledge about Western Europe and are prepared to work in a wide variety of positions in the public and private sector. Students may also choose to follow the master's degree with advanced graduate studies. WEST also offers a Graduate Certificate and a Ph.D. minor for doctoral students.

Degrees Offered

Master of Arts Degree
Master of Arts in West European Studies and Master of Business Administration
Master of Arts in West European Studies and Master of Public Affairs

**Special Program
Requirements**

(See also general University Graduate School requirements.)

Master of Arts Degree

Admission

Bachelor's degree and completion of the Graduate Record Examination.

No language proficiency is required for admission, although knowledge of at least one West European language is recommended.

Course Requirements

A total of 30 credit hours of graduate course work, consisting of W301 (3 credits), W401 (3 credits), W501 (3 credits), one W605 or cross-listed equivalent social science course (3 credits), one W605 or cross-listed equivalent humanities course (3 credits), plus 9-12 credit hours of electives and 3-6 credit hours of thesis.

Language Requirement

Proficiency in depth of one approved West European language plus reading knowledge in another European language appropriate to the student's program. The second language should relate to thesis research and must be approved by the advisor. Language requirements are explained in detail in the "Academic Regulations" section of this bulletin. Language proficiency exams are administered by the respective language departments.

Thesis

Required. The student must select a thesis advisory committee of at least three University Graduate School faculty members. West European Studies adheres to thesis format and printing requirements set by the University Graduate School. Master's theses range in length from 50 to 100 pages.

Dual Degree: Master of Arts in West European Studies and Master of Business Administration

The Department of West European Studies and the Kelley School of Business jointly offer a three-year program that qualifies students for two master's degrees. Study for these two degrees can be combined for a total of 65 credit hours rather than the 84 credit hours required for the two degrees taken separately. The area studies require 30 hours of credit, 6 of which, taken in the Kelley School of Business, will count towards the M.A. degree. The other 24 hours of credit must be in

accordance with the respective area studies program.

Admission

To be eligible for the joint M.A./M.B.A. program, students must apply to the two master's programs separately. A student must submit an application to and be accepted by the Kelley School of Business for study toward the Master of Business Administration and by West European Studies in the Graduate School for study toward the Master of Arts degree. See "Master of Arts Degree" for admission requirements.

West European Studies Course Requirements

Students take 24 graduate credits in West European Studies under the course requirements for the M.A., including: W301 (3 credits), W401 (3 credits), W501 (3 credits), one (1) W605 or cross-listed equivalent social science course (3 credits), one (1) W605 or cross-listed equivalent humanities course (3 credits), one general elective (3 credits), 3-6 thesis credits.

Business Course Requirements

40.5 graduate credit hours for the M.B.A. degree under the course requirements for the M.B.A. Information about the M.B.A. program may be obtained from the Kelley School of Business.

Language Requirements

Proficiency in depth of one approved West European language. Language requirements are explained in detail in the "Academic Regulations" section of this bulletin. Language proficiency exams are administered by the respective language departments.

Thesis

Required. The student must select a thesis advisory committee of at least three faculty members representing both WEST and SPEA. West European Studies adheres to thesis format and printing requirements set by the University Graduate School. Master's theses range in length from 50 to 100 pages.

It is strongly advised that the student spend the first of the three-year program completing requirements for the M.A. (WEST) part of the program, and that the second year be spent in the first year of the M.B.A. program, thus allowing the third year to focus on electives and the thesis.

Dual Degree: Master of Arts in West European Studies and Master of Public Affairs

West European Studies (WEST) and the School of Public and Environmental Affairs (SPEA) jointly offer a three-year program that qualifies students for two master's degrees. Study for these two degrees can be combined for a total of 60 credit hours rather than the 78 credit hours required for the two degrees taken separately.

Admission

To be eligible for the joint M.A./M.P.A. program, students must apply to the two master's programs separately. A student must submit an application to and be accepted by the School of Public and Environmental Affairs for study toward the Master of Public Affairs degree and by West European Studies in the Graduate School for study toward the Master of Arts degree. See "Master of Arts Degree" for admissions requirements.

West European Studies Course Requirements

Students take 24 graduate credits in West European Studies under the course requirements for the M.A., including: W301 (3 credits), W401 (3 credits), W501 (3 credits), one W605 or cross-listed equivalent social science course (3 credits), one W605 or cross-listed equivalent humanities course (3 credits), one general elective (3 credits), 3-6 thesis credits.

Master of Public Affairs Course Requirements

Students are required to complete 36 graduate credit hours comprised of the M.P.A. core and a specialized concentration. M.P.A. Core (18 credits): V502 Public Management (3 credits), V506 Statistical Analysis for Policy and Management

(3 credits), V517 Public Management Economics (3 credits), V540 Law and Public Affairs (3 credits), V560 Public Finance and Budgeting (3 credits), V600 Capstone in Public and Environmental Affairs (3 credits); Specialized Concentration (18 credits): Students are required to develop a specialized concentration comprised of courses approved by School of Public and Environmental Affairs faculty advisors.

Language Requirements

Proficiency in depth of one approved West European language. Language requirements are explained in detail in the “Academic Regulations” section of this bulletin. Language proficiency exams are administered by the respective language departments.

Thesis

Required. The student must select a thesis advisory committee of at least three graduate school faculty members representing both West European Studies and the School of Public and Environmental Affairs. West European Studies adheres to thesis format and printing requirements set by the University Graduate School. Master’s theses range in length from 50 to 100 pages.

Area Certificate in West European Studies

Area certificates can be awarded only in conjunction with a degree program and cannot be awarded prior to the completion of all requirements for the degree. Students must apply for admission and be accepted into another unit in the University Graduate School.

Course Requirements

A total of 30 credit hours, consisting of W301 (3 credits), W401 (3 credits), W501 (3 credits), one (1) W605 or cross-listed equivalent social science course (3 credits), one (1) W605 or cross-listed equivalent humanities course (3 credits), plus 12 credit hours of electives that are offered through West European Studies or are approved cross-listed courses.

Language Requirement

Proficiency in depth of one approved West European language plus reading knowledge in another European language appropriate to the student’s program. The second language must be approved by the advisor. Language requirements are explained in detail in the “Academic Regulations” section of this bulletin. Language proficiency exams are administered by the respective language departments.

Ph.D. Minor in West European Studies

A Ph.D. minor in West European Studies is awarded as an outside minor to students who are pursuing a Ph.D. in another unit in the University Graduate School.

Course Requirements

A total of 12 graduate credit hours of West European area studies courses. These courses should include W301 and W401 (a waiver for either or both may be obtained from the director if the student has a knowledge of West European history and politics or if the student prefers to select another West European history or political science course), at least two W605 seminars or cross-listed equivalents. Students should select W605 seminars outside their major field. Waivers do not count toward meeting the 12 credit hour requirement. No more than 3 of the 12 credit hours may be in readings (W805) or independent research (W875).

Language Requirement

Reading knowledge of at least one approved West European language. Language requirements are explained in detail in the “Academic Regulations” section of this bulletin. Language proficiency exams are administered by the respective language departments.

**These courses are eligible for a deferred grade.

Courses

GENERAL COURSES

W301 Modern European Politics and Society (3 cr.) The politics, economics, and social structures of Western European countries. Examination of selected domestic and international issues, including the welfare states, the European community, and West-East European relations.

W401 Topics in European Intellectual History (3 cr.) A survey of modern European intellectual history from the French Revolution to the present. Open to advanced undergraduate and graduate students.

W501 The Economics of European Integration (3 cr.) Study of the integration of the economies of the member states of the European Union (EU) since the Treaty of Rome; economic policy making institutions and the EU budget; economic theory of a customs union and a single market; imperfections in the single market, including unemployment; monetary integration and monetary union; common policies and reforms; widening of the EU to the east and south; and emphasis on relevant current events.

W504 Model European Union (1-3 cr.) Analysis of the decision-making powers of the European Union (EU). Formal simulation of the EU. Course may be repeated for credit.

W602 International Briefing (1.5 cr.) Covers three large regions: East Asia, Russia and Eastern Europe, and Western Europe. Team-taught by three specialists in politics, culture, and societies.

W605 Selected Topics in West European Studies (1.5-4 cr.; 12 cr. max.)

W800 M.A. Thesis (cr. arr.)**

W805 Individual Readings in West European Studies (1-8 cr.)

W875 Research in West European Studies (cr. arr.)

MODERN GREEK COURSES

E491 Elementary Modern Greek for Graduate Students (3 cr.) For graduate reading knowledge. Credit will not count toward degree.

E492 Readings in Modern Greek for Graduate Students (3 cr.) P: E491 or equivalent. Continuation of first semester. Credit will not count toward degree.

E200 Second-Year Modern Greek (3 cr.) Students enrolling must have either taken E491 or placement examination. Course will build on language skills acquired during first semester. This will involve covering more advanced grammar, vocabulary, and developing writing skills. Emphasis placed on verbal expression. For graduate reading knowledge. Credit will not count toward degree.

Women's Studies

School of Liberal Arts
Indianapolis

Departmental E-mail
wostudy@iupui.edu

Departmental URL
www.iupui.edu/~wostudy

Graduate Faculty
(An asterisk [*] denotes associate membership in University Graduate School faculty.)

Professors
Gabrielle Bersier, (German), Barbara Cambridge (English), Ulla Connor (English), Linda Haas (Sociology), Missy Kubischek (English), Miriam Langsam* (Liberal Arts), Phyllis Stern (School of Nursing), Susan Sutton (Anthropology)

Associate Professors
Dennis Bingham (English), Paul Carlin (Economics), Jeanette Dickerson-Putnam (Anthropology), Catherine Dobris* (Communication Studies), Carol Gardner (Sociology), Susanmarie Harrington* (English), Barbara Jackson (Anthropology), Karen Johnson* (English), Karen Kovacic*, Nancy Newton (Spanish),

Ursula Niklas (Philosophy), Obinnaemeka Nnaemeka (Women's Studies, French), Susan Shepherd* (English), Catherine Souch (Geography), Robert Sutton* (Classical Studies), Patricia Wittberg (Sociology), Marianne Woceck* (History)

Assistant Professors
Peg Brand* (Philosophy), Jane Schultz (English)

Graduate Advisor
Women's Studies, Cavanaugh Hall, Room 540A, Indianapolis, IN 46202-5140, (317) 274-7611.

Women's Studies Program
Women's studies brings together faculty, women and some men, interested in women's issues in teachings, research, and service. Interdisciplinary in nature, WOST explores a wide range of issues as seen through the perspective of gender. Women's studies can help shape a vision of women's position in society that will enable students to make a more meaningful contribution wherever their career paths and future engagements may lead. A degree in women's studies should enhance a student's effectiveness in virtually any career.

For careers in law or social service, WOST gives insight into social practices that oppress women, such as rape, abuse, and job discrimination. For careers in biology, medicine, nursing, or other allied health professions, WOST offers an understanding of women's health needs. For business careers, WOST teaches students to understand the barriers and the opportunities for women seeking careers in the corporate world.

Requirements for the Graduate Minor
A total of 12 credit hours.

Courses

BASIC COURSES

Students must choose one of the following:

W601 Survey of Contemporary Research in Women's Studies: The Social and Behavioral Sciences (3 cr.) An exploration of feminist perspectives in the social sciences. Theoretical frameworks and research styles are examined, as are feminist critiques of traditional social scientific frameworks and research methods.

W602 Contemporary Research in Women's Studies: The Humanities (3 cr.) Review of literature on sex roles, psychology of women, socialization and politicization of women. Training in methodology of research on women; critique of prevailing and feminist theoretical frameworks for studying women.

COLLATERAL STUDY

Students must choose one of the following:

W500 Feminist Theory (3 cr.) An examination of contemporary feminist analyses of gender relations, how they are constituted and experienced, and how social structures maintaining sexist hierarchies intersect with hierarchies of race, class, and ethnicity.

W601 Survey of Contemporary Research in Women's Studies: The Social and Behavioral Sciences (3 cr.) An exploration of feminist perspectives in the social sciences. Theoretical frameworks and research styles are examined, as are feminist critiques of traditional social scientific frameworks and research methods.

W602 Contemporary Research in Women's Studies: The Humanities (3 cr.) Review of literature on sex roles, psychology of women, socialization and politicization of women. Training in methodology of research on women; critique of prevailing and feminist theoretical frameworks for studying women.

W695 Graduate Readings and Research in Women's Studies (3-6 cr.) An opportunity for graduate students in various programs at IUPUI to explore specific issues within the field of Women's Studies,

guided by faculty with particular expertise in these areas.

W701 Graduate Topics in Women’s Studies (3-4 cr.)

Advanced investigation of selected research topics in women’s studies. Topics to be announced.

Electives

6 additional credits are to be earned by taking any combination of courses chosen from the above course offerings and/or the list of courses that have been approved and are cross-listed under the Women’s Studies Graduate Minor Program.

Graduate Faculty

The names of all members of the graduate faculty who hold appointments in graduate degree-granting units of Indiana University are listed with the respective unit entries. (Asterisks following names designate associate status.) Other members of the graduate faculty are listed below by category.

Full Members

ALAM, MOHAMMAD, Assistant Professor of Electrical Engineering (FW)

ALVIS, DEAN, Associate Professor of Mathematics (SB)

AMBA-RAO, SITA, (Emerita) Professor of Management (KO)

ANDERSON, ALLEN, Associate Professor of Criminal Justice (KO)

ANDERSON, GRETCHEN, Associate Professor of Chemistry (SB)

ANDERSON, WILLIAM J., Professor of Anatomy and Cell Biology (TH)

ARSHANAPALLI, BALA, Professor of Finance (NW)

BAILEY, JOHN, Clinical Professor of Medicine (IN)

BALDWIN, WILLIAM W., Professor of Microbiology and Immunology (NW)

BANDYOPADHYAY, SUBIR, Associate Professor of Marketing, School of Business and Economics (NW)

BANKSTON, PATRICK, Professor of Anatomy and Cell Biology, and Pathology (NW)

BARR, ALAN P., Professor of English (NW)

BARRY, JAMES, Jr., Professor of Philosophy (SE)

BARTON, PAUL, (Emeritus) Professor of Community Dentistry and of Journalism (IN)

BEIN, FREDERICK, Professor of Geography (IN)

BEINEKE, LOWELL E., J. W. Schrey Professor of Mathematics (FW)

BENDER, EILEEN, Professor of English (SB)

BENSON, MERRILL, Professor of Medicine, and Pathology and Laboratory Medicine (IN)

BERSIER, GABRIELLE, Professor of German and Adjunct Associate Professor of Women’s Studies (IN)

BHATIA, SHAM, Professor of Economics (NW)

BHATTACHARYA, PRADEEP, Professor of Biology (NW)

BLANEY, DORIS, (Emerita) Professor of Nursing (NW)

BLEHER, PAVEL, Professor of Mathematical Sciences (IN)

BLOMQUIST, WILLIAM A., Associate Professor of Political Science (IN)

BODMER, GEORGE, Professor of English (NW)

BOGDEWIC, STEPHEN, Professor of Family Medicine and SPEA (P-T), Adjunct Professor of Medicine and Pediatrics (IN)

BOND, GARY R., Chancellor’s Professor of Psychology and Adjunct Professor of Nursing (IN)

BONSER-NEAL, CATHERINE, Associate Professor of Finance, School of Business (IN)

BRINGLE, ROBERT G., Professor of Psychology (IN)

BROWN, JAMES W., Professor of Journalism and Adjunct Professor of Communication Studies (IN)

BROXMEYER, HAL, Professor of Medicine and of Microbiology and Immunology (IN)

BUCKLEY, WILLIAM, Professor of English (NW)

BUHNER, JOHN, (Emeritus) Professor of Public and Environmental Affairs and Political Science (IN)

BURKINSHAW, OWEN, Professor of Mathematical Sciences (IN)

BUSHNELL, PETER, Associate Professor of Biology (SB)

CARDUCCI, BERNARDO J., Professor of Psychology (SE)

CARR, STEVEN ALAN, Associate Professor, Communication (FW)

CHANG, WENDY C., Associate Professor of Computer Science (EA)

CHARY, FREDERICK, Professor of History (NW)

CHERNOFF, ELLEN, Associate Professor of Biology (IN)

CHERRY, CHARLES C., Distinguished Professor, Adjunct Professor of American Studies (IN)

CHESNUT, GLENN, Professor of History (SB)

CLAPP-ITNYRE, CATHERINE, Associate Professor of English (EA)

CHOWDHURY, DIPAK (Emeritus), Professor of Geology (FW)	DUFF, DOUGLAS, (Emeritus) Professor of Biological Sciences (SB)	GARDNER, CAROL B., Professor of Sociology, Adjunct Professor of American Studies and Women's Studies (IN)
COCHRAN, PHILIP L., Associate Professor, School of Business (IN)	DYKSTRA, CLIFFORD, Chancellor's Professor of Chemistry (IN)	GOERING, ELIZABETH, Associate Professor of Communication Studies (IN)
COFFIN, DONALD A., Associate Professor of Economics, School of Business and Economics (NW)	DZIARSKI, ROMAN, Professor of Microbiology and Immunology (NW)	GOFF, PHILIP, Associate Professor of Religious Studies (IN)
COHEN, RONALD, Professor of History (NW)	EAST, JAMES, (Emeritus) Professor of Communication Studies (IN)	GOMPA, RAGHU R., Professor of Mathematical Sciences (KO)
COOPER, WILLIAM E., Professor of Biology (FW)	ECHTENKAMP, STEPHEN F., Associate Professor of Cellular and Integrative Physiology (NW)	GOODLETT, CHARLES, Professor of Psychology (IN)
COUFOUDAKIS-PETROUSSIS, E., Professor of Political Science (FW)	EICKMEIER, VALERIE, Professor of Herron School of Art (IN)	HAMBURGER, PETER, Professor of Mathematical Sciences (FW)
COX, DENA S., Associate Professor of Marketing (Business), Adjunct Associate Professor Public Health (Medicine) (IN)	EVENBECK, SCOTT, Associate Professor of Psychology (IN)	HAZER, JOHN T., Associate Professor of Psychology (IN)
DARNEL, MICHAEL R., Professor of Mathematics (SB)	FARLOW, JAMES, Professor of Geology (FW)	HENDRIE, HUGH CURTIS, Professor of Psychiatry, Adjunct Professor of Nursing (IN)
DAVIS, THOMAS J., Associate Professor of Religious Studies (IN)	FETTERMAN, JOHN G., Professor of Psychology (IN)	HERON, RANDALL, (Emeritus) Associate Professor of Finance (IN)
DE LEON, NELSON, Associate Professor of Chemistry (NW)	FIFE, WILMER, (Emeritus) Professor of Chemistry (IN)	HILL, EMITA B., (Emerita) Professor of Romance Languages (KO)
DEMAREE, ROBERT W., Jr., (Emeritus) Professor of Music (SB)	FINDLING, JOHN E., Professor of History (SE)	HINNEFELD, JERRY D., Associate Professor of Physics (SB)
DEMYER, MARIAN K., (Emerita) Professor of Psychiatry (IN)	FINEBERG, NAOMI S., Professor of Medicine, Adjunct Professor of Nutrition and Dietetics (IN)	HOFTIEZER, VIRGIL, Professor of Anatomy and Cell Biology (NW)
DENNE, SCOTT C., Professor of Pediatrics (IN)	FINKEL, DEBORAH, Professor of Psychology (SE)	HOUSEMAN, GERALD, (Emeritus) Professor of Political Science (FW)
DICK, ROBERT, Professor of Communication Studies (IN)	FOLTZ, TANICE G., Associate Professor of Sociology (NW)	HOYT, GILES, Professor of German (IN)
DILTS, DAVID A., Professor of Economics (FW)	FREDLAND, RICHARD, (Emeritus) Professor of Political Science, Adjunct Professor of Environments for Health/Nursing (IN)	HOZO, IZTOK, Associate Professor of Mathematics (NW)
DOEBBELING, BRADLEY N., Professor of Medicine	FRITSCHNER, LINDA, Professor of Sociology (SB)	HUBBARD, RICHARD W., Associate Professor of Psychology (SB)
DOLPH, GARY, Professor of Botany (KO)	GALLMEIER, CHARLES P., Associate Professor of Sociology (NW)	HUI, SIU L., Professor of Medicine, Adjunct Professor of Psychiatry and Public Health (IN)
DOWNS, STEPHEN M., Associate Professor of Pediatrics (IN)		IATRIDIS, PANAYOTIS, (Emeritus) Professor of Physiology, Biophysics and of Medicine (NW)

INUI, THOMAS S., Professor of Medicine (IN)	KOCHANOWSKI, PAUL, Professor of Economics, Adjunct Professor of Continuing Studies (SB)	MANGINI, NANCY, Associate Professor of Anatomy and Cell Biology (NW)
JACKSON, WILLIAM J., Professor of Religious Studies (IN)	KOFAS, JON, Professor of History (KO)	MANN, SUSAN GARLAND, Associate Professor of English (SE)
JANSSEN, ERICK, Associate Scientist at the Kinsey Institute, Adjunct Assistant Professor of Psychology (BL)	KREMER, JOHN F., Professor of Psychology (IN)	MARCH, KEITH, Associate Professor of Medicine and of Cellular and Integrative Physiology (IN)
JENKS, RICHARD, Professor of Sociology (SE)	KROENKE, KURT, Professor of Medicine (IN)	MARFURT, CARL, Professor of Anatomy and Cell Biology (NW)
JOHNSON, ERIC N., Associate Professor of Accounting (IN)	KUZNAR, LAWRENCE A., Professor of Anthropology (FW)	MASON, GLENN, Professor of Geography (SE)
JOHNSTON, BARRANCE V., Professor of Sociology (NW)	LAFUZE, JOAN E., Professor of Biology and Adjunct Professor of Nursing (EA/IN)	McCORMICK, JOHN, Associate Professor of Political Science (IN)
JONES, EARL, Associate Professor of Afro-American Studies, Associate Professor of Public and Environmental Affairs (P-T) (NW)	LAMON, LESTER C., Professor of History (SB)	McDONALD, CLEMENT J., Distinguished Professor of Medicine, Professor of Public and Environmental Affairs (IN)
JONES, STEVEN L., Associate Professor, Kelley School of Business (IN)	LARSEN, GLEN A., Jr., Associate Professor of Finance, Kelley School of Business (IN)	McGEEVER, PATRICK, (Emeritus) Professor of Political Science and Adjunct Professor of American Studies (IN)
KAMEN, JOSEPH M., (Emeritus) Professor of Marketing (NW)	LEE, BU-RYUNG (BRIAN), Associate Professor of Accounting, School of Business (KO)	McGOVERN, LIGAYA, Associate Professor of Sociology (KO)
KAMINKER, JEROME, Professor of Mathematical Sciences (IN)	LEE, MONLE, Professor of Marketing (SB)	McGOWAN, JULIE J., Professor of Pediatrics, Professor of Knowledge Informatics, Adjunct Professor of Nursing (IN)
KASEM, KASEM, Associate Professor of Chemistry (KO)	LEES, N. DOUGLAS, Professor of Biology (IN)	McINTOSH, JOHN L., Professor of Psychology (SB)
KATZ, BARRY P., Professor of Medicine, Adjunct Professor of Oral Biology and Public Health (IN)	LEFANOWICZ, CRAIG, Associate Professor, Kelley School of Business (IN)	McNEAL, PATRICIA, Professor of Women's Studies (SB)
KEMPLE, MARVIN, Professor of Physics (IN)	LEGG, DAVID A., Professor of Mathematics (FW)	MEHRAN, JAMSHID, Professor of Finance (SB)
KENNEDY, BRIAN GERARD, Associate Professor of Cellular and Integrative Physiology (NW)	LEWIS, DAVID, Librarian of University Library (IN)	MENA, LUCILIA, (Emerita) Associate Professor of Spanish (IN)
KINYON, MICHAEL, Associate Professor of Mathematics (SB)	LIELL, JOHN, (Emeritus) Professor of Sociology (IN)	MERKEL, GLENN J., Associate Professor of Microbiology and Immunology (FW)
KLAMEN, DAVID, Professor of Fine Arts (NW)	LONG, ERIC C., Professor of Chemistry (IN)	MEYBODI, MOHAMMAD, Associate Professor of Business (KO)
KLEINHANS, FREDERICK, Adjunct Associate Professor of Geology, Associate Professor of Physics (IN)	LUTZ, JAMES M., Professor of Political Science (FW)	MISIUREWIZA, MICHAL, Professor of Mathematical Sciences (IN)
KNOWLES, BRENDA, Professor of Business (SB)	LYNKER, MONIKA, Associate Professor of Physics and Astronomy (SB)	
	MALIK, DAVID, Professor of Chemistry (IN)	

MOLLER, DAVID W., Associate Professor of Sociology, Adjunct Associate Professor of Medicine (IN)	PATTERSON, RICHARD R., Associate Professor of Mathematical Sciences, Associate Professor of Computer and Information Science (IN)	SCHANSBERG, D. ERIC, Professor of Economics (SE)
MORRIS, BARNETT, (Emeritus) Professor of Psychology (IN)	PEACOCK, MUNRO, Professor of Medicine (IN)	SCHULTZ, FRANKLIN, Professor of Chemistry (IN)
MUKHOPADHYAY, SNEHASIS, Associate Professor of Computer and Information Science (IN)	PETERSEN, BRUCE, Adjunct Assistant Professor of Biology (IN)	SEN, STEPHANIE E., Associate Professor of Chemistry (IN)
MURPHY, JAMES, Professor of Psychology (IN)	PIPPERT, RAYMOND, Professor of Mathematics (FW)	SHAFII-MOUSAVI, MORTEZA, Associate Professor of Mathematics (SB)
NAFFZIGER, FREDERICK J., Professor of Business Law (SB)	PREER, JEAN L., Associate Professor of Library and Information Science, (IN)	SHANKS-MEILE, STEPHANIE, Professor of Sociology (NW)
NEEL, ROBERT, (Emeritus) Professor of Psychology (IN)	RAJECKI, DONALD W., Professor of Psychology (IN)	SHELDON, MARK, Professor of Philosophy (NW)
NEWCOMB, PAUL, Associate Professor of Social Work (SB)	RAND, LEON, (Emeritus) Professor of Chemistry (SE)	SHEN, ZHONGMIN, Associate Professor of Mathematical Sciences (IN)
NG, BART, Professor of Mathematical Sciences (IN)	RAO, B. D. NAGESWARA, Professor of Physics (IN)	SHERRILL, ROWLAND, Professor of Religious Studies, Adjunct Professor of American Studies (IN)
NICOL, GRANT, Professor of Pharmacology and Toxicology (IN)	RICKARD, KARYL, Professor of Nutrition and Dietetics (IN)	SHILLINGSBURG, MIRIAM, Professor of English (SB)
NNAEMEKA, OBIOMA, Associate Professor of French, Women's Studies, and African American and African Diaspora Studies (IN)	RODEN, DIANNE, Associate Professor of Finance (KO)	SHORE, STEVEN, Professor of Physics (SB)
NUROK, DAVID, Associate Professor of Chemistry (IN)	ROSS, JOHN, Associate Professor of Information Systems (KO)	SINGER, LESLIE, (Emeritus) Professor of Economics (NW)
O'DONNELL, MARTIN J., Professor of Chemistry (IN)	RUDY, JOHN, Professor of English (KO)	SIVAM, SUBBIAH P., Professor of Pharmacology and Toxicology (NW)
OLSON, ANDREW, Associate Professor of Computer and Information Science (IN)	SABBAGHI, ASGHAR, Professor of Decision Sciences (SB)	SMITH, JOHN REED, Associate Professor, Kelley School of Business (IN)
OLSON, DANIEL V. A., Associate Professor of Sociology (SB)	SACHS, STEPHEN, Professor of Political Science (IN)	SONG, YU, Associate Professor of Mathematics (SB)
OTTENSMANN, JOHN, Adjunct Professor of Geography and Professor of Public and Environmental Affairs (IN)	SANDSTROM, ALAN, Professor of Anthropology (FW)	SOTHMANN, MARK, Professor of Health and Rehabilitation Sciences (IN)
PALAKAL, MATTHEW, Professor of Computer and Information Science (IN)	SARGEANT, ADRIAN, Visiting Associate Professor of Marketing (IN)	STATEN, CLIFFORD, Associate Professor of Political Science (SE)
PASSET, JOANNE ELLEN, Associate Professor of History (EA)	SAYWELL, ROBERT M., Jr., Professor of Family Medicine, Adjunct Professor of Nursing and Public and Environmental Affairs (IN)	STILLWELL, WILLIAM H., Professor of Biology (IN)
	SCANLAN, MARGARET T., Professor of English (SB)	STRUPECK, C. DAVID, Associate Professor of Accounting (NW)

SUZUKI, DAVID A., Professor of Ophthalmology, and Anatomy and Cell Biology (IN)

SVANUM, SOREN, Associate Professor of Psychology (IN)

SWARTZ, DARL, Associate Professor of Anatomy and Cell Biology (IN)

TATIKONDA, MOHAN V., Associate Professor of Operations Management, Kelley School of Business (IN)

TAYLOR, DAVID W., Professor of Biology (SE)

THACKERAY, FRANK, Professor of History (SE)

TOWNSEND, DOUGLAS W., Professor of Mathematical Sciences (FW)

TROUT, ANDREW P., Jr., (Emeritus) Professor of History (SE)

TUCERYAN, MIHRAN, Associate Professor of Computer and Information Science (IN)

TURK, ELEANOR, Professor of History (EA)

TWIGG, HOMER, Associate Professor of Medicine (IN)

TZENG, OLIVER C. S., Professor of Psychology, Adjunct Professor of Nursing (IN)

VANDEN BERGE, JAMES, (Emeritus) Professor of Anatomy and Cell Biology (NW)

VARGUS, BRIAN, Professor of Political Science, Adjunct Professor of Communication Studies and Philanthropic Studies (IN)

VASAVADA, KASHYAP, Professor of Physics (IN)

VILENSKY, JOEL A., Professor of Anatomy and Cell Biology (FW)

VINODGOPAL, KIZHANIPURAM, Professor of Chemistry (NW)

VON DER EMBSE, THOMAS J., Professor of Management (KO)

WARE, J. ROGER, Associate Professor of Psychology (IN)

WASHBURN, MICHAEL, Professor of Philosophy (SB)

WASSALL, STEPHEN, Associate Professor of Physics (IN)

WHITCHURCH, GAIL, Associate Professor of Communication Studies (IN)

WHITE-MILLS, KIM, Associate Professor of Communication Studies (IN)

WILLIAMS, LYNN R., Professor of Mathematics (SB)

WILLIAMSON-IGE, DOROTHY, Associate Professor of Communications (NW)

WOLF, THOMAS, (Emeritus) Professor of Political Science (SE)

WOLFER, JAMES, Associate Professor of Computer and Information Sciences (SB)

WOLLONS, ROBERTA, Professor of History (NW)

WYSONG, EARL, Professor of Sociology (KO)

YOVITS, MARSHALL, (Emeritus) Professor of Computer and Information Science (IN)

ZELDIN, MARTEL, Professor of Chemistry (IN)

ZHENG, JIANG YU, Associate Professor of Computer and Information Science (IN)

ZUSMAN, MARTY E., Professor of Sociology (NW)

Associate Members

ALDRICH, CARLA, Associate Professor of Microbiology and Immunology (IN)

ALLEN, RUTH, Associate Professor of Biology (IN)

ALSE, JANARDHANAN, Associate Professor of Economics (SE)

ASARE, BENJAMIN, Professor of Sociology (SE)

ASH, ROBERT C., Assistant Professor of Business Administration (SE)

ATNIP, GILBERT, Professor of Psychology (SE)

BAHAMONDE, RAFAEL, Assistant Professor of Physical Education (IN)

BAKER, CRUMP, Professor of Mathematics (SE)

BARNEY, DOUGLAS, Associate Professor of Business Administration (SE)

BARRAU, OSCAR, Assistant Professor of Foreign Language (SB)

BARTON, DAVID K., Professor of Music (SE)

BELL, JOHN P., (Emeritus) Associate Professor of History (FW)

BERTRAND, DIDIER, Professor of French (IN)

BESEL, KARL, Assistant Professor of Environmental Affairs (KO)

BJORK, ULF JONAS, Professor of Journalism (IN)

BJORNSON, CHRISTIAN, Associate Professor of Business Administration (SE)

BLOOM, JACK M., Associate Professor of Sociology, Adjunct Associate Professor of History and of Philosophy (NW)

BLUMENSHINE, GARY, Associate Professor of History (FW)

BLUMENTHAL, ELLIOTT, Assistant Professor of Biology (FW)

BORDEN, VICTOR, Associate Professor of Psychology (IN)

BORSHUK, CATHERINE, Assistant Professor of Psychology (IN)

BOSCHMANN, ERWIN, Professor of Chemistry (IN)	CULLEN, DEBORAH, Professor of Respiratory Therapy (IN)	FANG, SHIAOFEN, Associate Professor, Computer and Information Science (IN)
BOWER, STEPHANIE, Professor of History (SE)	CURTIS, RICHARD, (Emeritus) Professor of Communication and Theatre (IN)	FARLOW, MARTIN, Adjunct Professor of Psychiatry and Professor of Neurology (IN)
BRENNER, MARK L., Professor of Biology (IN)	DAHLGREN, DONNA, Associate Professor of Psychology (SE)	FARNSELEY, ARTHUR, Assistant Dean of the Graduate School (IN)
BROWN, PAUL, Professor of Visual Communication, Herron School of Art (IN)	DALKILIC, MEHMET, Assistant Professor of Informatics, Adjunct Professor of Computer Science (BL)	FASTENAU, PHILIP, Assistant Professor of Psychology, Adjunct Assistant Professor of Psychology (IN)
BRYANT, DE, Associate Professor of Psychology (SB)	DESAI, MAYUR S., Associate Professor of Business (EA)	FAULK, DAGNEY, Assistant Professor of Economics (SE)
CALLAHAN, CHRISTOPHER M., Associate Professor of Medicine (IN)	DEXTER, PAUL R., Associate Professor of Medicine (IN)	FELTON, MARIANNE, (Emerita) Professor of Economics (SE)
CAMERON, ANN M., Assistant Professor of English (KO)	DHAWALE, SHRIKRISHNA W., Professor of Chemistry (EA)	FINKLER, MICHAEL, Assistant Professor of Biology (KO)
CANTOR, LOUIS, (Emeritus) Professor of History (FW)	DOBRIS, CATHERINE, Associate Professor of Communication and Studies (IN)	FISCHER, BERND, Professor of History (FW)
CAROW, KENNETH, Assistant Professor of Finance (IN)	DRUMMOND, CARL, Professor of Geology (FW)	FISHER, TIMOTHY, Associate Professor of Geosciences and Geography (NW)
CAUCCI, FRANK, Professor of French (NW)	DUBE, MICHAEL P., Associate Professor of Medicine and Infectious Diseases (IN)	FOOS, K. MICHAEL, Professor of Biology (EA)
CHAURET, CHRISTIAN, Assistant Professor of Biology (NW)	DUNLOP, STEPHEN R., Clinical Associate Professor of Psychiatry (IN)	FORINASH, KYLE, Professor of Physics (SE)
CHENG, YI, Associate Professor of Mathematics (SB)	DUNN, MILLARD, Professor of English (SE)	FORTENBERRY, J. DENNIS, Professor of Pediatrics (IN)
CLARK, THOMAS M., Assistant Professor of Biological Sciences (SB)	EARLEY, SAMANTHA, Assistant Professor of English (SE)	FRENCH, GEORGE, Professor of Business Administration (SE)
CLEM, DEBRA, Associate Professor of Fine Art (SE)	EDMONDS, KENT, Assistant Professor of Biology (SE)	FRENCH, SANDRA, Professor of Sociology (SE)
COLLINS, LOUISE, Associate Professor of Philosophy (SB)	ELMORE, GARLAND, Associate Professor of Communication Studies (IN)	FRICKE, GORDON H., (Emeritus) Associate Professor of Chemistry (IN)
CORTWRIGHT, SPENCER, Associate Professor of Biology (NW)	ERNST, MICHAEL, Assistant Professor of Mathematical Sciences (IN)	GABLE, KAREN, Associate Professor of Health and Rehabilitation Sciences and Adjunct Associate Professor of Education (IN)
COX, STEVEN, Associate Professor of Business (KO)	ERNSTBERGER, KATHYRN, Associate Professor of Business Administration (SE)	GALVIN, JOHN E., Assistant Professor of Information Systems, Kelley School of Business (IN)
CRAIG, ROBIN, Associate Professor of Law, (IN)	ESSELSTROM, MICHAEL, (Emeritus) Professor of Music (IN)	GALVIN, PETER, Associate Professor of Geography (SE)
CROOP, JAMES M., Associate Professor of Pediatrics, (IN)		
CROTHERS, A. GLENN, Associate Professor of History, (SE)		

GAO, SUJUAN, Associate Professor of Medicine, Adjunct Associate Professor of Public Health (IN)	HUITINK, GERALDINE, Professor of Chemistry (SB)	LEE, JONATHAN, Assistant Professor of Marketing, Kelley School of Business (IN)
GARCIA, CRYSTAL A., Assistant Professor of Public and Environmental Affairs (IN)	HUNT, RANDY E., Associate Professor of Biology (SE)	LEITCH, CATHERINE A., Associate Scientist of Pediatrics (IN)
GERENCSEK, STEVEN, Assistant Professor of Political Science (SB)	IMPERIALE, THOMAS F., Professor of Medicine (IN)	LIECHTY, EDWARD A., Professor of Pediatrics (IN)
GINDELE, KAREN, Associate Professor of English (SB)	IRWIN, ARCHIBALD, (Emeritus) Professor of English (SE)	LOEHRER, PATRICK J. SR., Professor of Medicine (IN)
GOLDSTEIN, JOANNA, Professor of Music (SE)	ISIORHO, SOLOMON, Associate Professor of Geography (FW)	LUCAL, BETSY, Assistant Professor of Sociology (SB)
GOODMAN, NEIL, Professor of Fine Arts (NW)	JONES, BRIAN H., Professor of Fine Arts (SE)	LOWE, MARK J., Assistant Professor of Radiology (IN)
GORSKI, J. CHRISTOPHER, Assistant Professor of Medicine (IN)	KARAKATSANIS, NEOVI M., Associate Professor of Political Science (SB)	LUKE, JON C., Associate Professor of Mathematical Sciences (IN)
GRAHAME, NICHOLAS J., Assistant Professor of Neurobiology, Psychiatry (IN)	KAUFFMAN, JAMES, Professor of Speech Communication (SE)	MAGID, JULIE M., Assistant Professor of Business Law, School of Business (IN)
GRECKEL, FAY R., (Emerita) Professor of Economics (SE)	KERN, GARY, Associate Professor of Decision Sciences (SB)	MANATUNGA, AMITA K., Assistant Professor of Medicine (IN)
GRENS, ANN, Associate Professor of Developmental Biology (SB)	KIM, SUN, Assistant Professor of Informatics, Adjunct Assistant Professor of Computer Science (BL)	MARR, DEBORAH L., Assistant Professor of Biology (SB)
GUENTHER, JOHN, Professor of Fine Arts (SE)	KING, GRANVILLE, Associate Professor of Speech Communication (SE)	MARTI, DONALD, Associate Professor of History (SB)
GUGIN, LINDA, Professor of Political Science (SE)	KINGSBURY, BRUCE, Assistant Professor of Biology (FW)	MAWHINNEY, V. THOMAS, Associate Professor of Psychology (SB)
HALL, LEDA MCINTYRE, Associate Professor of Public and Environmental Affairs (SB)	KINGSLEY, ROBERT, Associate Professor of Cellular and Integrative Physiology (SB)	McGREW, JOHN H., Associate Professor of Psychology (IN)
HARE, SARA CORNELL, Assistant Professor of Sociology (SE)	KIRCHNER, GRETCHEN, Associate Professor of Biology (SE)	McGUIRE, GAIL, Assistant Professor of Sociology (SB)
HARTSELL, HEATHER D., Associate Professor of Health and Rehabilitation Sciences (IN)	KOMENICH, ANGELINE, (Emerita) Professor of Spanish (NW)	MENDONCA, MARC, Assistant Professor/Assistant Scientist of Radiation Oncology (IN)
HAW, JAMES, Professor of History (FW)	KRISHNA, VIJAY, Associate Professor of Speech Communication (SE)	MILSTEIN, VICTOR, Professor of Clinical Psychology in Psychiatry (IN)
HOJNACKI, WILLIAM P., Professor of Public and Environmental Affairs (SB)	KUROWSKI, LOIS LANDIS, Assistant Professor of Management, School of Business (KO)	MOE, SHARON M., Associate Professor of Medicine (IN)
HOWARD, JAY R., Associate Professor of Sociology (CO)	LANG, WILLIAM, Associate Professor of Mathematics (SE)	MORGAN, ROBIN, Professor of Psychology (SE)
HUANG, JEFFREY, Assistant Professor of Computer and Information Science (IN)	LAUER, JOAN, Associate Professor of Psychology (IN)	MORRIS, EVAN D., Assistant Professor of Radiology Imaging Science (IN)

MOSER, WILLIAM H., Assistant Professor of Chemistry (IN)	POPE, ROBERT K., Assistant Professor of Biology (SB)	SCHREIBER, ROY E., Professor of History (SB)
MULLINS, PAUL, Associate Professor of Anthropology (IN)	PRATT, J. HOWARD, Professor of Medicine (IN)	SCHULTZ, GEOFFREY F., Professor of Education (NW)
MUKHIN, EVGENY, Assistant Professor of Mathematical Sciences (IN)	PRESSON, ROBERT G., Professor of Anesthesia (IN)	SEDDIGHIN, MORTEZA, Associate Professor of Mathematical Science (EA)
MUSTAFA, AHMED, Assistant Professor of Biology (FW)	QUATE, SHIRLEY, (Emerita) Associate Professor of Journalism (IN)	SEGAL, MARCIA, Professor of Sociology (SE)
NASHEL, JONATHAN, Assistant Professor of History (SB)	QUILLEN, WILLIAM, Associate Professor of Physical Therapy (IN)	SELECKY-ADAMS, TERI, Assistant Professor of Biology (IN)
NASSIM, BAHMAN, Professor of Chemistry (SE)	QUINET, KENNA, Associate Professor of Public and Environmental Affairs (IN)	SHEFFER, RICHARD D., Associate Professor of Biology (NW)
NAUMANN, CHRISTOPH A., Assistant Professor of Chemistry (IN)	RAJAH, TALITHA, Assistant Professor of Biology (SE)	SHEN, YU, Associate Professor of History (SE)
NAYLOR, ANDREW E., Professor of Philosophy (SB)	RAJE, RAJEEV R., Assistant Professor, Computer and Information Science (IN)	SHI, DYLAN, Associate Professor of Mathematics (SE)
NEWMAN, JOHN, Professor of Sociology (SE)	RAKICH, JONATHAN S., Professor of Management (SE)	SHLAPENTOKH, DMITRY, Associate Professor of History (SB)
O'PALKA, JACQUELYNN, Professor of Clinical Nutrition and Dietetics (IN)	ROBERTSON, JEAN, Professor, Herron School of Art (IN)	SLOSS, G. SAM, Associate Professor of Sociology (SE)
OTU, EMMANUEL, Associate Professor of Chemistry (SE)	RODEN, DIANNE, Associate Professor of Finance (KO)	ST. CLAIR, JAMES, Associate Professor of Journalism (SE)
OUKADA, LARBI, Professor of French and Adjunct Professor of Education (IN)	ROMINGER, ANNA S., Associate Professor of Business Administration, School of Business and Economics (NW)	STABLER, TIMOTHY, Associate Professor of Biology (NW)
OVERHAGE, J. MARC, Assistant Professor of Medicine (IN)	RYTTING, MARVIN B., Associate Professor of Psychology (IN)	STANTON, KATHLEEN, Assistant Professor of Physical Education (IN)
PARKISON, KATHY, Associate Professor of Economics (KO)	SABINE, NEIL, Associate Professor of Biology (EA)	SUTTON, ROBERT F., JR., Associate Professor of Classics (IN)
PELLICCIOTTI, JOSEPH, Professor of Public and Environmental Affairs (NW)	SAKELLARIDIS, NIKOS N., Assistant Professor of Clinical Pharmacology and Toxicology, and Neurology (NW)	SVIRSKY, MARIO A., Associate Professor of Otolaryngology-Head and Neck Surgery (IN)
PERKINS, SUSAN M. Assistant Professor of Medicine (IN)	SAJDYK, TAMMY L., Assistant Scientist in Psychiatry	SWAN, JOHN SHANNON, Associate Professor of Radiology (IN)
PERRY, DOUGLAS G., Adjunct Associate Professor of Medicine, Associate Professor of Respiratory Therapy (IN)	SCHNABEL, ANDREW, Associate Professor of Biology (SB)	SWEIGART, WILLIAM, Associate Professor of English (SE)
PIERCE, JENNIFER BUREK, Assistant Professor of Library and Information Science (IN)	SCHRADER, STUART, Assistant Professor of Communication Studies (IN)	SZARKOWICZ, DONALD, Associate Professor of Computer and Information Systems (NW)
		TAYLOR, NOLAN J., Assistant Professor of Information Systems, Kelley School of Business (IN)

TEPPER, ROBERT S., Professor of Pediatrics (IN)

TIERNEY, WILLIAM M., Professor of Medicine and Public and Environmental Affairs (IN)

TORSTRICK, REBECCA L., Assistant Professor of Anthropology (SB)

TOUTKOUSHIAN, ROBERT K., Associate Professor of Educational Leadership and Policy Studies (BL)

TREVES, DAVID S., Assistant Professor of Biology (SE)

TU, WANZHU, Assistant Professor of Medicine (IN)

TULL, CHARLES J., (Emeritus) Professor of History (SB)

TURNIPSEED, DAVID L., JR., Associate Professor of Management (FW)

UDRY, EILEEN, Associate Professor of Physical Education (IN)

VAN SCODER, LINDA, Associate Professor of Respiratory Therapy (IN)

VERAMALLAY, ASHTON, Professor of Economics (EA)

VIOLETTE, AURELE, Associate Professor of History (FW)

WADSWORTH, FRANK, Associate Professor of Business Administration (SE)

WALLIHAN, JAMES, Professor of Labor Studies (IN)

WALSTON, STEPHEN L., Associate Professor of Public and Environmental Affairs, Adjunct Associate Professor of Business Administration, Kelley School of Business (IN)

WANG, XIANZHONG, Assistant Professor of Biology (IN)

WEBB, DOROTHY L., (Emerita) Professor of Communication Studies (IN)

WEBB, J. EDGAR, (Emeritus) Professor of Communication and Theatre (IN)

WEINER, MICHAEL, Assistant Professor of Medicine (IN)

WHEAT, JERRY, Professor of Business Administration (IN)

WIGGINS, GARY, Librarian, University Libraries (BL)

WILLE, DIANE E., Professor of Psychology (SE)

WILLIAMS, STEPHEN D., Professor of Medicine (IN)

WOEPEL, JAMES J., Professor of Mathematics (SE)

WOJCIECHOWSKI, KRZYSZTOF, Professor of Mathematical Sciences (IN)

WYANDOTTE, ANNETTE, Associate Professor of English (SE)

ZHOU, XIAO-HUA (ANDREW), Associate Professor of Medicine, Adjunct Associate Professor of Public Health (IN)

ZOPPI, KATHLEEN, Assistant Professor of Clinical Family Medicine, Adjunct Assistant Professor of Communication Studies (IN)

Indiana University

When you become a student at Indiana University, you join an academic community internationally known for the excellence and diversity of its programs. With 1,072 degree programs, the university attracts students from all 50 states and around the world. The full-time faculty numbers more than 4,000 and includes members of many academic societies such as the American Academy of Arts and Sciences, the American Philosophical Society, and the National Academy of Sciences. Indiana University was founded at Bloomington in 1820 and is one of the oldest and largest institutions of higher education in the Midwest. It serves more than 99,000 students on eight campuses. The residential campus at Bloomington and the urban center at Indianapolis form the core of the university. Campuses in Gary, Fort Wayne, Kokomo, New Albany, Richmond, and South Bend join Bloomington and Indianapolis in bringing an education of high quality within reach of all of Indiana's citizens.

General Policies

Equal Opportunity/Affirmative Action Policy of Indiana University

Indiana University pledges itself to continue its commitment to the achievement of equal opportunity within the university and throughout American society as a whole. In this regard, Indiana University will recruit, hire, promote, educate, and provide services to persons based upon their individual qualifications. Indiana University prohibits discrimination based on arbitrary consideration of such characteristics as age, color, disability, ethnicity, gender, marital status, national origin, race, religion, sexual orientation, or veteran status.

Indiana University shall take affirmative action, positive and extraordinary, to overcome the discriminatory effects of traditional policies and procedures with regard to the disabled, minorities, women, and Vietnam-era veterans.

An Affirmative Action office on each campus monitors the university's policies and assists individuals who have questions or problems related to discrimination.

Special Assistance

For people who have disabilities and need special assistance, special arrangements can be made to accommodate most needs. In Bloomington, contact Disability Services for Students at (812) 855-7578; at IUPUI, contact Adaptive Educational Services at (317) 274-3241.

Confidentiality of Student Records

In accordance with federal statutes and regulations, student records are confidential and available for disclosure to persons other than the student only under stated conditions.

Student Rights and Responsibilities

A statement of students' rights and responsibilities is published in a handbook, *Code of Student Rights, Responsibilities, and Conduct*, which contains a description of due process hearings in the event of disciplinary action.

Degree Requirements

Students are responsible for understanding all requirements for graduation and for completing them by the time they expect to graduate. Information about a specific school or division can be found in the front section of the bulletin for that school.

Requests for deviation from department, program, or school requirements may be granted only by written approval from the respective chairperson, director, or dean (or a designated administrative representative). Disposition at each level is final.

Rules Determining Resident and Nonresident Student Status for Indiana University Fee Purposes

These Rules establish the policy under which students shall be classified as residents or nonresidents upon all campuses of Indiana University for University fee purposes. Nonresident students shall pay a nonresident fee in addition to fees paid by a resident student.

These Rules shall take effect February 1, 1974; provided, that no person properly classified as a resident student before February 1, 1974, shall be adversely affected by this Rule, if he or she attended the university before that date and while he or she remains continuously enrolled in the university.

1. “Residence” as the term, or any of its variations (e.g., “resided”), as used in the context of these Rules, means the place where an individual has his or her permanent home, at which he or she remains when not called elsewhere for labor, studies, or other special or temporary purposes, and to which he or she returns in seasons of repose. It is the place a person has voluntarily fixed as a permanent habitation for himself or herself with an intent to remain in such place for an indefinite period. A person at any one time has but one residence, and a residence cannot be lost until another is gained.
 - (a) A person entering the state from another state or country does not at that time acquire residence for the purpose of these Rules,

but except as provided in Rule 2(c)¹, such person must be a resident for 12 months in order to qualify as a resident student for fee purposes.

- (b) Physical presence in Indiana for the predominant purpose of attending a college, university, or other institution of higher education, shall not be counted in determining the 12-month period of residence; nor shall absence from Indiana for such purpose deprive a person of resident student status.
2. A person shall be classified as a “resident student” if he or she has continuously resided in Indiana for at least 12 consecutive months immediately preceding the first scheduled day of classes of the semester or other session in which the individual registers in the University, subject to the exception in (c) below.
 - (a) The residence of an unemancipated person under 21 years of age follows that of the parents or of a legal guardian who has actual custody of such person or administers the property of such person. In the case of divorce or separation, if either parent meets the residence requirements, such person will be considered a resident.²
 - (b) If such person comes from another state or country for the predominant purpose of attending the University, he or she shall not be admitted to resident student status upon the basis of the residence of a guardian in fact, except upon appeal to the Standing Committee on Residence in each case.¹
 - (c) Such person may be classified as a resident student without meeting the 12-month residence requirement within Indiana if his or her presence in

Indiana results from the establishment by his or her parents of their residence within the state and if he or she proves that the move was predominantly for reasons other than to enable such person to become entitled to the status of “resident student.”¹

- (d) When it shall appear that the parents of a person properly classified as a “resident student” under subparagraph (c) above have removed their residence from Indiana, such person shall then be reclassified to the status of nonresident; provided, that no such reclassification shall be effective until the beginning of a semester next following such removal.
 - (e) A person once properly classified as a resident student shall be deemed to remain a resident student so long as remaining continuously enrolled in the university until such person’s degree shall have been earned, subject to the provisions of subparagraph (d) above.
3. The foreign citizenship of a person shall not be a factor in determining resident student status if such person has legal capacity to remain permanently in the United States.
4. A person classified as a nonresident student may show that he or she is exempt from paying the nonresident fee by clear and

¹ Rules 2(b) and 2(c) apply only to unemancipated persons under 21 years of age.

² Invocation of the provision in Rule 2(a) that applies to cases of divorce or separation requires appropriate legal documentation.

convincing evidence that he or she has been a resident (see Rule 1 above) of Indiana for the 12 months prior to the first scheduled day of classes of the semester in which his or her fee status is to be changed. Such a student will be allowed to present his or her evidence only after the expiration of 12 months from the residence qualifying date, i.e., the date upon which the student commenced the 12-month period for residence. The following factors will be considered relevant in evaluating a requested change in a student's nonresident status and in evaluating whether his or her physical presence in Indiana is for the predominant purpose of attending a college, university, or other institution of higher education. The existence of one or more of these factors will not require a finding of resident student status, nor shall the non-existence of one or more require a finding of nonresident student status. All factors will be considered in combination, and ordinarily resident student status will not result from the doing of acts which are required or routinely done by sojourners in the state or which are merely auxiliary to the fulfillment of educational purposes.

- (a) The residence of a student's parents or guardians.
 - (b) The situs of the source of the student's income.
 - (c) To whom a student pays his or her taxes, including property taxes.
 - (d) The state in which a student's automobile is registered.
 - (e) The state issuing the student's driver's license.
 - (f) Where the student is registered to vote.
 - (g) The marriage of the student to a resident of Indiana.
 - (h) Ownership of property in Indiana and outside of Indiana.
 - (i) The residence claimed by the student on loan applications, federal income tax returns, and other documents.
 - (j) The place of the student's summer employment, attendance at summer school, or vacation.
 - (k) The student's future plans including committed place of future employment or future studies.
 - (l) Admission to a licensed profession in Indiana.
 - (m) Membership in civic, community, and other organizations in Indiana or elsewhere.
 - (n) All present and intended future connections or contacts outside of Indiana.
 - (o) The facts and documents pertaining to the person's past and existing status as a student.
 - (p) Parents' tax returns and other information, particularly when emancipation is claimed.
5. The fact that a person pays taxes and votes in the state does not in itself establish residence, but will be considered as hereinbefore set forth.
 6. The registrar or the person fulfilling those duties on each campus shall classify each student as resident or nonresident and may require proof of all relevant facts. The burden of proof is upon the student making a claim to a resident student status.
 7. A Standing Committee on Residence shall be appointed by the president of the university and shall include two students from among such as may be nominated by the student body presidents of one or more of the campuses of the university. If fewer than four are nominated, the president may appoint from among students not nominated.
 8. A student who is not satisfied by the determination of the registrar has the right to lodge a written appeal with the Standing Committee on Residence within 30 days of receipt of written notice of the registrar's determination, which committee shall review the appeal in a fair manner and shall afford to the student a personal hearing upon written request. A student may be represented by counsel at such hearing. The committee shall report its determination to the student in writing. If no appeal is taken within the time provided herein, the decision of the registrar shall be final and binding.
 9. The Standing Committee on Residence is authorized to classify a student as a resident student, though not meeting the specific requirements herein set forth, if such student's situation presents unusual circumstances and the individual classification is within the general scope of these Rules. The decision of the committee shall be final and shall be deemed equivalent to a decision of the Trustees of Indiana University.
 10. A student or prospective student who shall knowingly provide false information or shall refuse to provide or shall conceal information for the purpose of improperly achieving resident student status shall be subject to the full range of penalties, including expulsion, provided for by the university, as well as to such other punishment which may be provided for by law.
 11. A student who does not pay additional monies which may be due because of his

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| <p>or her classification as a nonresident student within 30 days after demand, shall thereupon be indefinitely suspended.</p> <p>12. A student or prospective student who fails to request resident student status within a particular semester</p> | <p>or session and to pursue a timely appeal (see rule 8) to the Standing Committee on Residence shall be deemed to have waived any alleged overpayment of fees for that semester or session.</p> <p>13. If any provision of these rules or the application</p> | <p>thereof to any person or circumstance is held invalid, the invalidity does not affect other provisions or applications of these rules which can be given effect without the invalid provision or application, and to this end the provisions of these rules are severable.</p> |
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Fees

The instructional fees listed here were approved at the April 2004 meeting of the Trustees of Indiana University. Fees are subject to change by action of the trustees. For up-to-date information about fees in effect at registration time, see the campus *Enrollment and Student Academic Information Bulletin* (Bloomington campus) or the *Schedule of Classes* (Indianapolis campus).

Certain courses and programs requiring studios, laboratories, microscopes, computers, or other special equipment may involve special fees in addition to the instructional fee. Applied music, distance education, student teaching, and some physical education courses also carry additional fees. See the campus *Enrollment and Student Academic Information Bulletin* or *Schedule of Classes* for a list of such courses and programs.

Fees for Indiana University campuses other than Bloomington and Indianapolis are published in the bulletin of the specific campus.

INSTRUCTIONAL FEES	Indiana Resident	Nonresident
	Bloomington Campus	
Undergraduate ¹	\$2,473.10 flat fee/ semester for 12 to 17 credit hours (returning students)	\$8,369.25 flat fee/ semester for 12 to 17 credit hours (returning students)
	\$2,993.10 flat fee/ semester for 12 to 17 credit hours (new students)	\$8,899.25 flat fee/ semester for 12 to 17 credit hours (new students)
	\$154.40/credit hour under 12 or over 17 (returning students)	\$523.10/credit hour under 12 or over 17 (returning students)
	\$186.90/credit hour under 12 or over 17 (new students)	\$556.25/credit hour under 12 or over 17 (new students)
Graduate and Professional ¹		
Business—M.B.A. Program ²	\$6,292.15/semester	\$12,826.30/semester
Business ²	\$419.55/credit hour	\$815.15/credit hour
Law ²	\$337.30/credit hour; \$6,177.30/semester for 9 or more credit hours	\$881.70/credit hour; \$12,592.15/semester for 9 or more credit hours
Library and Information Science	\$235.80/credit hour	\$686.90/credit hour
Optometry ²	\$279.55/credit hour; \$5,765.80/semester for 8 or more credit hours	\$647.95/credit hour; \$13,364.00/semester for 8 or more credit hours
Public and Environmental Affairs	\$257.45/credit hour	\$698.05/credit hour
Other	\$212.70/credit hour	\$619.60/credit hour
Independent Study (Correspondence)	\$125.40/credit hour	\$125.40/credit hour
Dissertation Research (G901) ³	\$150.00/semester	\$150.00/semester
Advanced Research Law (B798)	\$150.00/semester	\$150.00/semester
(See footnotes on pages 398-399.)		

INSTRUCTIONAL FEES, Continued	Indiana Resident	Nonresident
Auditing (no credit)	\$25.00/credit hour	\$25.00/credit hour
Distance Education Special Courses ⁴ for Schools of Education; Library and Information Science; and Health, Physical Education, and Recreation: Graduate and Undergraduate	Same as rate for on-campus instruction in respective category	
Indianapolis Campus		
Undergraduate (returning) ¹	\$150.85/credit hour	\$478.20/credit hour
Undergraduate (new) ¹	\$178.55/credit hour	\$506.45/credit hour
Graduate and Professional ¹		
Business—M.B.A. Program	\$384.80/credit hour	\$784.40/credit hour
Business—Columbus M.B.A. Program	\$227.15/credit hour	\$613.15/credit hour
Business—M.P.A. Program	\$319.30/credit hour	\$650.85/credit hour
Dentistry	\$17,257.80/year	\$39,786.90/year
Engineering	\$219.55/credit hour	\$627.85/credit hour
Law	\$341.60/credit hour	\$754.90/credit hour
Library and Information Science	\$235.80/credit hour	\$686.90/credit hour
Medicine	\$18,712.50/year	\$38,299.70/year
Nursing	\$228.60/credit hour	\$691.30/credit hour
Public and Environmental Affairs	\$218.40/credit hour	\$604.95/credit hour
Doctor of Physical Therapy	\$270.40/credit hour	\$582.55/credit hour
Other	\$201.85/credit hour	\$582.55/credit hour
Dissertation Research (G901) ³	\$100.00/semester	\$100.00/semester
Auditing (no credit)	applicable credit hour rate	applicable credit hour rate
Distance Education Special Courses for Allied Health Histotechnology: Graduate and Undergraduate	Same as rate for on-campus instruction in respective category	
MANDATORY FEES⁵	Bloomington Campus	Indianapolis Campus
Athletics fee ¹⁴	\$30.00	
Student health fee ⁶	\$87.96/semester \$57.03/summer session, 6 or more credit hours	
Student activity fee ⁷	\$31.28 or \$62.60/semester \$15.63 or \$31.28/ summer session	\$40.64 to \$76.61/semester \$31.47/semester for athletic development
Technology fee, fall or spring semesters ⁸		
Undergraduate	\$50.00, \$100.00, \$150.00, \$200.00	\$59.00, \$88.50, \$118.10, \$177.10
Graduate/professional, nondegree students	\$38.00, \$76.00, \$150.00	(varies)
Technology fee, summer sessions ⁹		
Undergraduate	\$50.00, \$100.00, \$150.00, \$200.00	\$59.00, \$88.50, \$118.00, \$147.50, \$177.00

MANDATORY FEES, Continued	Bloomington Campus	Indianapolis Campus
Graduate/professional, nondegree students	\$38.00, \$76.00	(varies)
Transportation fee ¹⁵	\$7.50, \$15.00, \$30.00/semester \$7.50, \$15.00/summer sessions	

INCIDENTAL FEES¹⁰	Bloomington Campus	Indianapolis Campus
Application for admission	\$50.00	\$50.00
Domestic, undergraduate	\$50.00	\$50.00
Domestic, graduate	\$60.00	\$60.00
International		
Deferment service fee ¹¹	\$30.00	\$25.00
Late payment charge ¹²	1.5 percent of balance	\$12.75/month
Late program change ¹³	\$22.00/course added or dropped	\$21.00/course added
Late registration ¹³	\$57.00 to \$97.00/semester \$57.00/summer session	\$45.00 to \$100.00/semester \$45.00 to \$68.00/ summer session
Transcripts	\$9.00	\$7.00
University Division services fee (freshmen and sophomores)	\$25.00/semester	
(juniors and seniors)	\$50.00/semester	
Business undergraduate program fee ¹⁶	\$157.50, \$315.00, \$415.00/semester \$157.50, \$315.00/summer sessions	
M.B.A./M.P.A./M.S.I.S. program fee	\$200.00/academic year \$100.00/summer session	

¹ Includes credit courses in the School of Continuing Studies.

² M.B.A., law, and optometry students: New M.B.A. students enrolled in 1 or more credit hours of business courses will be assessed this flat rate. Returning students will be assessed their entering rate. Enrollment in any courses other than business will be assessed on a per-credit-hour basis. Law students enrolled in or after 2001-02 with 9 or more credit hours of law courses will be assessed a flat rate, and enrollment in any courses other than law will be assessed on a per-credit-hour basis. Law students entering before 2001-02 will be assessed the credit hour rate. Optometry students enrolled in 8 or more credit hours of optometry courses will be assessed a flat rate, and enrollment in any courses other than optometry will be assessed on a per-credit-hour basis. Graduate business credit hour rates apply to students enrolled in a doctoral business program.

³ To keep their candidacies active, doctoral students with 90 credit hours or more and Master of Fine Arts students with 60 credit hours or more may enroll in G901 for a flat fee of \$150.00 (Bloomington) or \$100.00 (Indianapolis). Also, they must have completed all graduate degree requirements except for the dissertation or final project/performance. Enrollment in G901 is limited to six times. Students who do not meet these criteria pay the applicable credit hour rate for dissertation research.

⁴ In addition to instructional fee rates, course fees of \$90.00 for education, \$50.00 for library and information science, and \$75.00 for HPER will be assessed.

⁵ Assessed to all students based on the number of enrolled on-campus credit hours.

⁶ The health fee is assessed each semester/session on the bursar's bill for all day and evening students enrolled in more than 6 credit hours. Eligible individuals not covered by the health fee will be seen on a fee-for-service basis.

⁷ Bloomington students enrolled in 3 or fewer credit hours during the fall and spring semesters pay a mandatory student activity fee of \$31.28. Students enrolled in more than 3 credit hours pay \$62.60. Summer-session students pay a fee per session according to the number of credit hours in which they are enrolled: 3 or fewer credit hours, \$15.63; more than 3 credit hours, \$31.28. At Indianapolis, students pay a fee according to the number of credit hours in which they are enrolled each semester: 0.5 to 5.5 credit hours, \$40.64; 6 to 8.5 credit hours, \$55.50; 9 to 11.5 credit hours, \$71.91; and more than 11.5 credit hours, \$76.61.

⁸ Technology fees are listed at temporary 100 percent increases until state technology funding is restored. A technology fee will be assessed according to the number of enrolled credit hours as follows: 3 credit hours or fewer; greater than 3 through 6 credit hours; greater than 6 credit hours.

⁹ At Bloomington, summer-session students are assessed a technology fee based on the number of credit hours as follows: 3 credit hours or fewer; 3 through 6 credit hours; more than 6 through 9 credit hours; more than 9 credit hours. At Indianapolis, a technology fee is assessed for summer sessions according to the number of enrolled credit hours as follows: 3 or fewer credit hours; more than 3 through 4.5 credit hours; 5 through 6.5 credit hours; 7 through 8.5 credit hours; 9 or more credit hours.

Course Fee Refund Schedule

Time of Withdrawal Refund

9- through 16-week classes

During 1st week of classes	100%
During 2nd week of classes	75%
During 3rd week of classes	50%
During 4th week of classes	25%
During 5th week of classes and thereafter	None

5- through 8-week classes

During 1st week of classes	100%
During 2nd week of classes	50%
During 3rd week of classes and thereafter	None

Time of Withdrawal Refund

2- through 4-week classes

During the 1st and 2nd day of classes	100%
During 3rd and 4th day of classes	50%
During 5th day of classes and thereafter	None

1-week (or less) classes

During 1st day of classes	100%
During 2nd day of classes	50%
During 3rd day of classes and thereafter	None

The refund policy applies to credit hour fees and all course-related fees.

Procedure See the specific campus bursar Web site for more information about how to withdraw from classes.

Student Financial Assistance Students can obtain information about financial assistance through the financial aid office, through the student employment office, or through their schools and departments. For courses taken in Bloomington, contact Human Resources Management for information about faculty/staff fee courtesy; for courses taken at IUPUI, contact the Office of Student Financial Aid Services.

¹⁰ Applicable to both in-state and out-of-state students.

¹¹ Fee is assessed if deferred billing option is elected.

¹² After drop/add period (100 percent refund period), students will be assessed \$22.00 in Bloomington and \$21.00 in Indianapolis for each added course, section change, change of arranged hours, or credit/audit change. On the Bloomington campus, students will also be assessed for each dropped course.

¹³ A late registration fee will be assessed any student who does not register during the scheduled registration period. On the Bloomington campus, the fee is \$57.00 for students who register by the last Friday before classes begin and increases by \$10.00 on the Monday of each successive week to a maximum of \$97.00. On the Indianapolis campus, a \$45.00 late registration fee is in effect upon conclusion of registration through the end of the first week of classes, increasing by \$23.00 the first week, \$20.00 the second week, and \$12.00 the third week to a maximum of \$100.00. In Indianapolis summer sessions, a late registration fee of \$45.00 is assessed the first week, and \$68.00 the second week and thereafter.

¹⁴ The athletics fee is approved for one year only while other options are explored.

¹⁵ At Bloomington, the ranges for the transportation fee during each semester are 3 or fewer credit hours; more than 3 through 6 credit hours; more than 6 credit hours. The ranges during each summer session are 3 or fewer credit hours; greater than 3 credit hours.

¹⁶ At Bloomington, the semester ranges for the business undergraduate program fee are fewer than 6 credit hours; 6 to 12 credit hours; more than 12 credit hours. During the summer, the ranges are fewer than 6 credit hours; 6 or more credit hours.

Veterans Benefits

Eligible students will receive veterans benefits according to the following scale, which is based on the number of credit hours in which the student is enrolled.

Undergraduate Benefits	Bloomington and IUPUI Fall/Spring Semesters¹	IUPUI Summer I¹	Bloomington Summer I	Bloomington and IUPUI Summer II¹
full	12 or more	6	4	6
three-quarters	9-11	4-5	3	4-5
one-half	6-8	3	2	3
tuition only	fewer than 6	1-2	1	1-2
Graduate Benefits				
full	8 or more	4	4	4
three-quarters	6-7	3	3	3
one-half	4-5	2	2	2
tuition only	fewer than 4	1	1	1

It is the responsibility of the veteran or veteran dependent to sign up for benefits each semester or summer session of enrollment. It is also the responsibility of the veteran or veteran dependent on the Bloomington campus to notify the Office of Veterans Affairs of any schedule change that may increase or decrease the amount of benefits allowed. Veterans and veteran dependents on the IUPUI campus should notify the Office of the Registrar.

Veterans with service-connected disabilities may qualify for the Department of Veterans Affairs Vocational Rehabilitation Program. They should contact their regional VA office for eligibility information.

At IUPUI, veterans and veteran dependents must notify their veteran benefit representative in the Office of the Registrar in person at the time of registration.

¹On the IUPUI campus, check with a VA representative in the Office of the Registrar for positive verification of your hourly status.

Index

- Academic probation, 10
Academic integrity, 14
Academic regulations, 10
Addition of course work, 13
Admission
 to University Graduate School, 8
 to Ph.D. candidacy, 14
Advanced degree. *See* Degrees, general requirements
 for
Advisory committee, 17
African languages, 22, 239, 243
African Languages and Linguistics minor, 241
African Studies, 28
African American and African Diaspora Studies, 24
Albanian, 22
American Sign Language, 22
American Studies, 31
Anatomy and Cell Biology
 Bloomington, 258
 Indianapolis, 35
Animal Behavior, 39
Anthropology, 41
Anthropology and Health (Indianapolis), 48
Apparel Merchandising and Interior Design, 48
Application
 for admission, 8
 for financial aid, 20, 21
Applied Linguistics, 367
Applied Statistics, 52
Arabic, 22, 28, 196, 197, 219, 273, 274, 319
Area certificates, 14. *See also* Certificates
Arts Administration, 53
Assistantships
 graduate, 21
 research, 21
 resident, 21
Associate instructorship, 21
Asterisks, explained, 7, 11
Astronomy, 54
Astrophysics, 56
Auditing, 10
Automatic F, 13
Awards. *See* Financial aid
Azeri, 22, 221

Bambara, 22, 28
Beam Physics and Technology, 301
Biblical and Literary Studies, Institute for, 57
Biochemistry
 Bloomington, 59
 Indianapolis, 61
Biology, 65
Biophysics, 255
Biotechnology, 61
Botany. *See* Biology
Bulgarian, 22, 337

Buryat, 22, 78
Business, 72

Campuses, other Indiana University
 general description, 393
 graduate work, 10
Candidacy, admission to Ph.D., 18
 reinstatement of, 20
 termination of, 20
Cantonese, 22
Caribbean Studies, 229
Catalan, 13, 22, 170, 354, 359
Cellular and Molecular Biology of Biomedical
 Systems minor, 264
Cellular and Integrative Physiology, 75
Central Eurasian Studies, 77
Certificates
 Animal Behavior, 40
 Applied Linguistics (TESOL), 368
 Biblical and Literary Criticism, 58
 Biotechnology, 63
 Dynamical Systems in Cognitive Science, 95
 English and Germanic Philology, 144
 Geographic Information Science, 181
 Human-Computer Interaction, 96
 Inner Asian and Uralic Studies, 219
 Language and Speech (Cognitive Science), 96
 Latin American and Caribbean Studies, 231
 Literary Translation, 109
 Logic, Language, and Computation (Cognitive
 Science), 97
 Medieval Studies, 218
 Modeling in Cognitive Science, 97
 Museum Studies, 266
 Pure and Applied Logic, 296
 Renaissance Studies, 325
 Russian and East European Institute, 329
 Summer Slavic Workshop, 334
 Victorian Studies, 376
 West European Studies, 379
Chaghatay, 22, 79, 221
Chechen, 22
Chemical Physics, 82
Chemistry, 83
Chichewa, 22, 31
Chinese, 22, 126
Chuvash, 220
CIC (Committee on Institutional Cooperation), 4
 Traveling Scholar Program, 4
Citizenship, foreign, 394
Classical Studies, 88
*Code of Student Rights, Responsibilities, and
 Conduct*, 393
Cognitive Science, 93
Combined degrees, Commencement, 17,
Committee on Institutional Cooperation (CIC), 6
Committees
 advisory, 17
 research, 18

- Communication and Culture, 102
- Communications, Mass, 244
- Comparative Literature, 106
- Computational Linguistics, 240
- Computer Science, 111
- Computing services, 22
- Conditional admission, 8
- Confidentiality of student records, 393
- Continuing enrollment, 18
- Continuing nondegree students, 10
- Coptic, 22
- Correspondence study, 13
- Course work
 - addition of, 13
 - listings. *See* specific department
 - withdrawal from, 13
- Credit hour requirements. *See* various degrees, departmental, and program listings
- Criminal Justice, 118
- Croatian, 22, 337
- Cross-listed courses. *See* departmental listings
- Cultural Studies, 123
- Czech, 18, 338

- Defense of dissertation, 19
- Degree conferral, 21
- Degrees, general requirements for
 - Doctor of Philosophy, 14
 - Master of Arts, 14
 - Master of Arts for Teachers, 15
 - Master of Fine Arts, 15
 - Master of Science, 15
- Dentistry, 124
- Dissertation, 14
 - defense of, 19
 - preparation requirements, 16
 - submission of, 20
- Double major (Ph.D.), 17
- Dual masters' degrees, 16, 25, 78, 108, 128, 137, 143, 153, 158, 166, 196, 203, 206, 225, 226, 230, 231, 236, 237, 269, 291, 292, 327, 328, 381,
- Dutch, 22, 188
- Dynamical Systems in Cognitive Science, certificate in, 95

- East Asian Languages and Cultures, 126
- Ecology and Evolutionary Biology, 65
- Economics
 - Bloomington, 132
 - Indianapolis, 137
- Education, 139
- Employment, 21
- English
 - as a foreign language, 9
 - Bloomington, 141
 - Fort Wayne, 147
 - Indianapolis, 149
 - proficiency in, 9
- English and Germanic Philology minor, 144
- Environmental Programs, 153
- Estonian, 22, 220, 221, 331, 339
- Ethnomusicology, 156, 165
- Evenki, 22, 78, 81, 219
- Ewe, 31

- Examinations
 - Graduate Record, 9
 - Ph.D. final, 19
 - Ph.D. qualifying examination, 18
- Executive Committee of the Graduate Student Organization, 7

- Faculty, 384
 - See also* departmental listings
- Fees, 396, 397, 398
 - fee courtesy, 399
 - refunds, 399
 - scholarship, 21
- Fellowships, 20
- Feminist Critical Studies minor, 144
- Film Studies, 157
- Final Ph.D. examination (defense), 19
- Financial aid, 20
 - assistantships, 21
 - fee courtesy, 399
 - fee scholarship, 21
 - fellowships, 20
 - grants-in-aid of research, 21
 - loans, 21
 - scholarships, 20
 - Work-Study, 21
- Fine Arts, 158
- Finnish, 22, 219
- Folklore and Ethnomusicology, 165
- Foreign language
 - and research skills, 13
 - list of, 22
 - proficiency in, 13
 - requirements. *See* departmental listings
- Forensic Studies. *See* Criminal Justice
- French and Italian, 169
- Full-time study, definition of, 10

- Gender Studies, 174
- General Requirements for Advanced Degrees, 14
- General Science, 175
- Genetics, 65, 252
- Geographical Information Science, 181
- Geography
 - Bloomington, 176
 - Indianapolis, 181
- Geological Sciences
 - Bloomington, 182
 - Indianapolis, 185
- Georgian, 22, 339
- German, 22, 187, 188
- German Studies, Institute of, 187
- Germanic Studies, 188
- Gothic, 22
- Grades,
 - automatic F, 12
 - deferred, 12
 - grade points, 12
 - incomplete, 12
- GradGrants Center, 21
- Graduate assistantships, 21
- Graduate council, 5
- Graduate credit, 7, 8, 11
- Graduate faculty, 384
 - Associate members, 388
 - Full members, 384

- See also* departmental listings
- Graduate Minority Fellowship, 20
- Graduate Record Examination (GRE), 9
- Graduate Student Organization, 7
- Grant-in-Aid of Research, 21
- Grants. *See* Financial aid
- Greek (classical and modern), 22, 88, 383
- Haitian Creole, 22, 99, 173, 230, 232, 242, 243
- Hausa, 22, 243
- Health, Physical Education, and Recreation, 193
- Health service fee, 397
- Hebrew, 22, 58, 223, 224, 271, 272, 274, 296, 320
- Hindi, 22, 214
- History
 - Bloomington, 195
 - Indianapolis, 202
- History and Philosophy of Science, 205
- History of University Graduate School, 6
- Human-Computer Interaction, 208
- Human Dimensions of Global Environmental Change, 209
- Human Evolutionary Studies, 212
- Human Sexuality, 213
- Hungarian, 22, 78, 79, 80, 82, 199, 219, 220, 221, 332
- Immunology, 263
- Incomplete grades, 12
- India Studies, 214
- Inner Asian and Uralic Studies, 219
- Institutes
 - Biblical and Literary Studies, 57
 - German Studies, 187
 - Medieval Studies, 218
 - Population Institute for Research and Training, 309
 - Russian and East European, 325
- Integrity guidelines, 14
- Interdepartmental minors, 16
- International students, 9
- Italian, 22, 169
- Japanese, 22, 126
- Jewish Studies, 222
- Journalism, 224
- Kazak, 22, 80,
- Kirghiz, 22
- Kirundi, 31
- Korean, 22, 126
- Lakota, 22, 47
- Languages. *See* specific language
 - list of, 22
 - proficiency in, 13
 - proficiency-in-depth, 13
 - requirements. *See* departmental listings
- Latin, 22, 88
- Latin American and Caribbean Studies, 229
- Law, 232
- Liberal Studies
 - Fort Wayne, 234
 - South Bend, 234
 - Southeast, 235
- Library and Information Science, 236
- Life Science minor, 36, 62
- Linguistics
 - Bloomington, 239
 - Fort Wayne, 149
- Literacy Studies minor, 144
- Literary Theory minor, 144
- Literary Translation, certificate in, 109
- Literature and Science minor, 144
- Livonian, 22, 81
- Loans, 21
- Major subject, 16
- Manchu, 22, 80
- Mari (Cheremis), 22, 80
- Mass Communications, 244
- Master's degree. *See* Degrees, general requirements
 - for
 - Mathematical Physics, 244
 - Mathematics, 245
 - Medical Biophysics, 255
 - Medical and Molecular Genetics, 252
 - Medical Neurobiology, 256
 - Medical Sciences, 258
 - Medieval Studies, Institute of, 218
 - Microbiology
 - Bloomington, 65
 - Indianapolis, 263
 - Microbiology and Immunology, 263
- Minor subjects, 16
- Minority Fellowships, 20
- Mission and History of the Graduate School, 6
- Molecular, Cellular, and Developmental Biology, 65
- Mongolian, 22, 78, 80, 81, 219, 220, 221, 323
- Mordvin, 22, 78
- Museum Studies, 266
- Music, 267
- Mythology Studies, 271
- Náhuatl, 22
- Navajo, 22, 47
- Near Eastern Languages and Cultures, 271
- Neural Science, 275
- Nondegree students, 9
- Nondiscrimination policy, 393
- Nonresident students, 394
- Nursing Science, 278
- Nutrition and Dietetics, 281
- Old Church Slavonic, 22, 334
- Old English, 22, 144, 145, 147, 189, 190
- Old Icelandic, 22, 144
- Old Irish, 22
- Old Saxon, 22, 192
- Old Tibetan, 22, 221
- Optics. *See* Visual Sciences
- Pahlavi, 22
- Part-time work, 21
- Pass-fail option, 12
- Pathology
 - Bloomington, 258
 - Indianapolis, 283
- Pathology and Laboratory Medicine, 283

- Performance Studies Minor, 286
 Persian, 22, 78, 81, 218, 219, 221, 274
 Pharmacology
 Bloomington, 258
 Indianapolis, 286
 Pharmacology and Toxicology, 286
 Philanthropic Studies, 289
 Philosophy
 Bloomington, 294
 Indianapolis, 297
 Physical Education (Health, Physical Education, and Recreation), 193
 Physics, 300
 chemical, 82
 mathematical, 244
 Physiological optics, 377
 Physiology
 Bloomington, 258
 Indianapolis, 75
 Plant Sciences, 65
 Police Administration. *See* Criminal Justice
 Polish, 22, 333
 Political Science, 305
 Population Institute for Research and Training, 309
 Portuguese, 22, 353
 Preparing Future Faculty, 22
 Probation, academic, 12
 Professional degrees, 14
 Proficiency, foreign language and research skills, 13
 Psychology, 311
 Public Affairs, 316
 Public Management, 317
 Public Policy, 317
 Pure and Applied Logic, certificate in, 296

 Qualifying Examination, 18

 Records, confidentiality of, 393
 Recreation (Health, Physical Education, and Recreation), 193
 Regional Economic Development, 319
 Registration for classes, late, 398
 Reinstatement of Ph.D. candidacy, 20
 Religious Studies, 319
 Renaissance Studies, 324
 Requirements
 for degree. *See* Degrees, general
 for foreign language. *See* departmental listings
 general, for advanced degrees, 14
 research skills. *See* departmental listings
 residency, 394
 undergraduate, 8
 Research assistantships, 21
 Research Committee, 18
 Research-skills requirement, 13
 Residence requirement, 363
 criteria, 394
 on IU campuses, 10
 Resident assistantships, 21
 Revalidation of lapsed courses, 11
 Romanian, 22, 332
 Russian, 22, 325, 333
 Russian and East European Institute, 333
 Sami (Lappish), 1822

 Sanskrit, 22, 214
 Scholarships, 21
 Science
 Environmental, 153
 General, 175
 History and Philosophy of, 205
 Scientific Computing, 333
 Serbian, 22, 333
 Sexuality, Human, 213
 Shona, 22, 31
 Sioux, 22, 47
 Slavic Languages and Literatures, 333
 Slovak, 22, 333
 Slovene, 22
 Social Informatics, 339
 Social Studies, 340
 Social Work, 341
 Sociological Practice (IPFW), 344
 Sociology
 Bloomington, 345
 Indianapolis, 349
 Sogdian, 22, 81
 Spanish, IUPUI, 351
 Spanish and Portuguese, 353
 Spanish Linguistics minor, 354
 Spanish Literature minor, 355
 Special Opportunities, 22
 Special Student (nondegree), 8
 Speech and Hearing Sciences, 359
 Statistics, Applied, 52
 Summer Slavic Workshop, certificate in, 339
 Swahili, 22, 31, 243
 Syriac, 22

 Teachers, Master of Arts for, 15
 Teaching associate. *See* Associate instructorship
 Teaching certification, 15
 Teaching English as a Second Language (TESOL), 368
 Telecommunications, 364
 Television (Telecommunications), 364
 Termination of Ph.D. candidacy, 15
 TESOL (Teaching English as a Second Language), 368
 TESOL and Applied Linguistics, 368
 Test of English as a Foreign Language (TOEFL), 9
 Theatre and Drama, 371
 Therapeutic Outcomes, 374
 Thesis, 16
 preparation requirements, 16
 Tibetan, 22, 78, 80, 81, 82, 219, 220, 221, 323
 Toxicology, 286
 Transfer from one department to another, 9
 Transfer of credit, 10
 Traveling Scholar Program (CIC), 10
 Tuition (Fees), 396
 Turkish (Ottoman and modern), 22, 78, 80, 81, 219, 220, 221, 330, 331
 Turkmen, 22, 81, 219, 339
 Twi, 22

 Ukrainian, 22, 337, 339
 Undergraduate courses, 8

University Graduate School, Organization of, 6
University Information Technology Services, 22
Urban Affairs, 376
Uygur, 22, 80
Uzbek, 22, 78, 80, 81, 219, 332, 339

Veterans benefits, 400
Victorian Studies, 376
Vision Science, 377

W changes to F, 13
Welsh, 22, 145

West European Studies, 379
Withdrawal from course work, 13
Wolof, 22
Women's Studies (Indianapolis), 383
Work-Study, 21

Yakut, 22, 78
Yiddish Studies, 22, 190, 191, 193, 222, 223, 331

Zapotec, 22
Zoology, 65
Zulu, 22, 31,

Indiana University Bulletins

You may want to explore other schools of Indiana University. The following is a complete list of our bulletins. Please write directly to the individual unit or campus for its bulletin.

Indiana University Bloomington

College of Arts and Sciences
Kelley School of Business¹
School of Continuing Studies²
School of Education¹
School of Health, Physical Education, and Recreation
School of Informatics¹
School of Journalism
Division of Labor Studies
School of Law—Bloomington³
School of Library and Information Science
School of Music
School of Optometry
School of Public and Environmental Affairs¹
University Division⁴
University Graduate School

*Indiana University–Purdue University Indianapolis

* Kelley School of Business¹
* School of Continuing Studies²
* School of Dentistry
School of Education³
School of Engineering and Technology (Purdue University)
School of Health and Rehabilitation Sciences
Herron School of Art
School of Journalism
Division of Labor Studies
* School of Law—Indianapolis³
School of Liberal Arts
* School of Medicine
Military Science Program
* School of Nursing¹
School of Physical Education
School of Public and Environmental Affairs¹
School of Science (Purdue University)
* School of Social Work
* University College
University Graduate School

Indiana University East
Indiana University-Purdue University Fort Wayne
Indiana University Kokomo
Indiana University Northwest (Gary)
Indiana University South Bend
Indiana University Southeast (New Albany)

¹ Two bulletins are issued: graduate and undergraduate. Undergraduate information about the Schools of Business and Nursing at IUPUI is found in the IUPUI campus bulletin.

² Bulletins on the General Studies Degree Program and the Independent Study Program are available from this school.

³ There are two Indiana University schools of law. Be sure to specify whether you want a bulletin of the Bloomington or Indianapolis school.

⁴ Available only to admitted University Division students.

* IUPUI produces one campus bulletin including information about all schools listed here. Schools marked with an asterisk (*) also produce separate bulletins.