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# UNIVERSITY of LOUISVILLE®

The Graduate School  
105 Houchens Building  
University of Louisville  
Louisville, KY 40292  
Phone: (502) 852-6495  
Web: [graduate.louisville.edu](http://graduate.louisville.edu)

*Summer 2008 - Spring 2010  
Graduate Catalog*

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The University of Louisville is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award associate, bachelor, master, specialist, doctoral, and first-professional degrees (D.M.D., J.D., M.D.). Individuals who wish to contact the Commission on Colleges regarding the accreditation status of the university may write the Commission at 1866 Southern Lane, Decatur, Georgia 30033-4097, or call (404) 679-4500.

The University of Louisville reserves the right to change programs of study, academic policies, academic requirements, fees, schedules of courses, procedures for the confirmation of degrees, or the announced academic calendar without prior notice.

The provisions of this publication do not constitute an express or implied contract between the University and any member of the student body, faculty, or general public.

The University of Louisville is an equal-opportunity institution and does not discriminate against persons because of race, religion, sex, age, handicap, color, citizenship or national origin. Inquiries or complaints about illegal discrimination including sexual harassment or handicap access can be made to the Affirmative Action director (502-852- 6538) if response from the unit staff is unsatisfactory.

The Redbook is the official statement of the organizational structure, the rules of governance and procedures and university wide policies of the University of Louisville. If there is any conflict between the policies, procedures or other statements contained within this catalog, the Redbook shall govern. A copy of The Redbook is available on the university's web page at <http://www.louisville.edu>. Official copies are maintained by all University Libraries, the Student Government Association Office, and the student grievance officer. Other policies and information covering students can be found in the Student Handbook.

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# General Information

## Welcome

Experience the excitement of discovery. Create new knowledge in your field of study. Learn the practical applications of theory from world-class faculty.

At the University of Louisville, we believe a graduate program should change your work...and your life.

UofL is a metropolitan research university with an attractive main campus in Kentucky's largest city and a Health Sciences Center in the downtown medical complex. Enrollment is more than 20,000, with 6,000 students pursuing graduate degrees.

Louisville is an exciting, vibrant city, centrally located within the United States. With lots of charm and much to see and do, from the cultural arts to sports, it is home to almost one million people from across the U.S. and around the world.

**Ronald M. Atlas, Ph.D.**

*Dean of the Graduate School*

## The Graduate School

The University of Louisville is an urban institution that has had close historical and legal ties with the city of Louisville and Jefferson County (now Louisville-Jefferson County Metro). Founded in 1798 as Jefferson Seminary, later known as Louisville College, in 1846 it became the University of Louisville with an academic department and a medical school. Also in 1846, a School of Law was added, and a charter was obtained from the Commonwealth of Kentucky. Under that charter the University has functioned ever since. Currently, it includes the following units: College of Arts and Sciences, College of Business, College of Education and Human Development, Graduate School, School of Dentistry, Raymond A. Kent School of Social Work, Louis D. Brandeis School of Law, School of Medicine, School of Music, School of Nursing, School of Public Health and Information Sciences, and J.B. Speed School of Engineering.

In July of 1970, the University of Louisville officially entered the state university system of the Commonwealth of Kentucky, and thus began

a new era of service to community, state, and nation. Through the Graduate School, the University assumes its responsibility not only to teach but to contribute to the sum of knowledge. It encourages investigation, promotes research, and endeavors to organize the store of human knowledge to serve the needs of present-day life.

By fostering the spirit of inquiry and research in the members of its faculties, it not only strengthens undergraduate instruction but also advances knowledge. Through its graduate courses, it furnishes advanced preparation for those who are planning to become investigators or teachers in the social sciences, humanities, and natural sciences.

Because of its location in a major metropolitan area, the Graduate School is very much aware of both the research opportunities and the obligations in teaching and public service that such a location presents.

The Graduate School of the University of Louisville was formally established in 1915, with advanced degrees awarded as early as 1908. Other advanced courses were offered by the Schools of Medicine and Law as early as 1856. It is a member of the Council of Graduate Schools.

The legislative functions of the Graduate School are vested in the Graduate Council which consists of elected representatives of the Graduate Faculty. The Council is responsible for establishing policies relating to graduate education and for maintaining a standard of excellence for graduate work within the University.

The Dean of the Graduate School serves as chair of this body and of the Graduate Faculty. The dean and the dean's staff are responsible for the administration of the rules and regulations of the Graduate School and are expected to maintain and safeguard the standards and policies of the school as outlined by the Graduate Faculty and the Graduate Council.

Graduate students participate in the operation and decision-making process of the Graduate School through the Graduate Student Union (to which all Graduate School students belong) and its executive committee, the Graduate Student

Council, which consists of one elected representative from each duly constituted graduate student organization. A representative of the Graduate Student Council is a voting member of the Graduate Council. Students are actively sought as members of many of the standing committees of the Graduate School, and they are urged to participate and become involved in the administration of the Graduate School through these channels.

## Mission Statement for the University of Louisville

The University of Louisville shall be a premier, nationally recognized metropolitan research university with a commitment to the liberal arts and sciences and to the intellectual, cultural, and economic development of our diverse communities and citizens through the pursuit of excellence in five interrelated strategic areas: (1) Educational Experience, (2) Research, Creative, and Scholarly Activity, (3) Accessibility, Diversity, Equity, and Communication, (4) Partnerships and Collaborations, and (5) Institutional Effectiveness of Programs and Services. Source: The University of Louisville Board of Trustees, April 18, 2006.

## Structure of the University

In accordance with the statutory authority of the Commonwealth of Kentucky, the Board of Trustees of the University of Louisville shall exercise final jurisdiction over the University. It shall select the President of the University; and upon recommendation of the President, it shall make all appointments of individuals in administrative capacities who serve at the pleasure of the Board. The Board of Trustees shall adopt a budget annually for the ensuing year and grant all degrees conferred by the University.

## Graduate Degree Programs

At the present time the following programs for advanced degrees are available:

**Doctor of Audiology – Au.D.**

**Doctor of Education - Ed.D.**

Education Leadership and Organizational Development

**Doctor of Philosophy – Ph.D.**

Anatomical Science and Neurobiology  
Applied and Industrial Mathematics

Art History  
Biochemistry and Molecular Biology  
Biology  
Biostatistics: Decision Science  
Chemical Engineering  
Chemistry  
Civil Engineering  
Clinical Psychology  
Computer Science and Engineering  
Counseling and Personnel Services  
Curriculum and Instruction  
Educational Leadership and Organizational Development  
Electrical Engineering  
English Rhetoric and Composition  
Entrepreneurship  
Experimental Psychology  
Humanities  
Industrial Engineering  
Interdisciplinary Studies  
Mechanical Engineering  
Microbiology and Immunology  
Nursing  
Pharmacology and Toxicology  
Physics (Joint Program with UK)  
Physiology and Biophysics  
Public Health Sciences  
Social Work  
Urban and Public Affairs

### **Master of Arts – M.A.**

Art (Creative) and Art History  
Clinical Psychology  
Communication  
English  
French Language and Literature  
Higher Education Administration  
History  
Humanities  
Interdisciplinary Studies  
Mathematics  
Pan-African Studies  
Political Science  
Sociology  
Spanish  
Women's and Gender Studies

### **Master of Arts in Teaching – M.A.T.**

Art Education  
Early Childhood Education  
Early Elementary Education  
Middle School Education  
Music Education  
Physical Education  
Secondary Education

### **Master of Education – M.Ed.**

Counseling and Personnel Services  
Early Elementary Education

Educational Administration  
Health Education  
Health Professions Education  
Instructional Technology  
Middle School Education  
Reading Education  
Secondary Education  
Special Education

**Master of Fine Arts – M.F.A.**

Theatre Arts

**Master of Music – M.M.**

Music Composition  
Music History and Literature  
Music Performance  
Music Theory

**Master of Music Education – M.M.Ed.**

**Master of Public Administration – M.P.A.**

**Master of Public Health – M.P.H.**

**Master of Science – M.S.**

Administration of Justice  
Anatomical Science and Neurobiology  
Biochemistry and Molecular Biology  
Biology  
Biostatistics: Decision Science  
Chemical Engineering  
Chemistry  
Civil Engineering  
Communicative Disorders  
Computer Science  
Electrical Engineering  
Epidemiology  
Exercise Physiology  
Experimental Psychology  
Human Resource Education  
Industrial Engineering  
Interdisciplinary Studies  
Mechanical Engineering  
Microbiology and Immunology  
Oral Biology  
Pharmacology and Toxicology  
Physics  
Physiology and Biophysics  
Sport Administration

**Master of Science in Clinical Investigation  
Sciences – M.Sc.**

**Master of Science in Nursing – M.S.N.**

**Master of Science in Social Work – M.S.S.W.**

**Master of Urban Planning – M.U.P.**

**Specialist in Education – Ed.S.**

Educational Administration – Instructional  
Leadership

**Professional Degrees**

**Doctor of Dental Medicine - D.M.D.**

offered through the School of Dentistry

**Doctor of Medicine - M.D.**

offered through the School of Medicine

**Juris Doctor - J.D.**

offered through the Brandeis School of Law

**Master of Accountancy – M.Ac.**

offered through the College of Business

**Master of Business Administration – M.B.A.**

offered through the College of Business

**Master of Engineering – M.Eng.**

Bioengineering  
Chemical Engineering  
Civil Engineering  
Computer Engineering Computer Science  
Electrical Engineering  
Engineering Management  
Industrial Engineering  
Mechanical Engineering  
offered through the J.B. Speed School of  
Engineering

**Cooperative Ph.D. Program**

The University of Louisville participates in a cooperative Ph.D. program in education administration with Western Kentucky University. To enroll in this program, a student must be admitted to both institutions. Those who complete the program will receive a diploma that states the degree is awarded by the University of Louisville in cooperation with Western Kentucky University.

**Dual Degrees**

- Combined Doctor of Medicine and Master of Business Administration (M.D./M.B.A.)
- Combined Doctor of Philosophy and Doctor of Medicine (M.D./Ph.D.)
- Combined Doctor of Philosophy in Applied and Industrial Mathematics and Master of Science in Biostatistics-Decision Science
- Combined Juris Doctor and Master of Arts in Humanities (J.D./M.A.)
- Combined Juris Doctor and Master of Arts in Political Science (J.D./M.A.)
- Combined Master of Arts in Pan-African Studies and Master of Science in Social Work (M.A./M.S.S.W.)
- Combined Master of Arts in Women's and Gender Studies and Master of Science in Social Work (M.A./M.S.S.W.)
- Combined Master of Business Administration and Juris Doctor (M.B.A./J.D.)
- Combined Master of Business Administration and Master of Engineering (M.B.A./M.Eng.)

- Combined Master of Business Administration and Master of Accountancy (M.B.A./M.A.C.)
- Combined Master of Public Administration and Master of Urban Planning (M.P.A./M.U.P.)
- Combined Master of Science and Doctor of Dental Medicine (M.S./D.M.D.)
- Combined Master of Science and Doctor of Medicine (M.S./M.D.)
- Combined Master of Science in Social Work and Juris Doctor (M.S.S.W./J.D.)

### Graduate Certificates

- African American Theatre
- Clinical Investigative Sciences
- Data Mining
- Environmental Engineering
- Health Professions Education
- Latin American Studies
- Logistics and Distribution
- Marriage and Family Therapy - Post Master's
- Pan-African Studies
- Police Executive Leadership Development
- Women's and Gender Studies

### Interdisciplinary Degrees

It is possible to establish interdisciplinary programs for individual students in the areas not represented by the traditional disciplines at the masters and doctorate level.

- Interdisciplinary Studies - M.A.
- Bioethics and Medical Humanities
- Interdisciplinary Studies - M.S.
- Interdisciplinary Studies - Ph.D.

## Academic Calendar

Links to the academic calendars for the various schools within the University of Louisville are linked below. In most cases, the graduate and undergraduate academic calendars are the same. If you have any questions about which calendar a school is using, contact that school directly.

**School of Dentistry:** [louisville.edu/calendars/academic/dmd.html](http://louisville.edu/calendars/academic/dmd.html)

**School of Law:** [louisville.edu/calendars/academic/jd.html](http://louisville.edu/calendars/academic/jd.html)

**School of Medicine:** [louisville.edu/calendars/academic/md.html](http://louisville.edu/calendars/academic/md.html)

**All other graduate programs** (follow the undergraduate calendar):  
[louisville.edu/calendars/academic/undergrad-grad.html](http://louisville.edu/calendars/academic/undergrad-grad.html)

## Application to the Graduate School

It is the applicant's responsibility to consult the appropriate department, school or program for application deadlines and specific program requirements. The university reserves the right to change programs of study, academic requirements, tuition and fees, schedule of courses, the announced academic calendar and deadlines without prior notice.

### Requirements for All Applicants

(see below for details):

- Application
- Application fee
- Transcript(s)
- Letters of recommendation
- GRE/GMAT Test Scores

### Additional Requirements for Some Applicants:

- PRAXIS II Speciality Exam
- Personal Statement
- TOEFL Examination
- Test of Spoken English

### Application for Admission

Apply online at [graduate.louisville.edu/apply](http://graduate.louisville.edu/apply)  
A paper application is available at the Graduate School (to request an application be mailed, call the Graduate School at 502-852-3101).

Paper applications and each of the credentials listed below should be sent to the Office of Graduate School Admissions, University of Louisville, Louisville, KY 40292 at least six weeks prior to the beginning of the semester or summer session in which the student wishes to enroll; otherwise the application may not be reviewed in time for registration. Six weeks is a general deadline.

Any program may have a different deadline and may require additional credentials or higher standards than those described in this General Information Section. Applicants should consult the pertinent departmental section of this bulletin or check directly with the department office.

The application and supporting documents become the property of the University of Louisville and will not be returned to the applicant or forwarded to another university.

If you do not enroll, your academic credentials will be retained in the Graduate School for two years.

### **Application Fee**

A \$50.00 (US currency) non-refundable application processing fee is required. When applying online, the fee may be paid with a credit card or electronic check to College Net (details are provided online at the time of application).

If a paper application is submitted, payment must be made via check, money order or credit card.

Checks should be made payable to the University of Louisville for the paper application only - be sure to include applicant's full name and birth date on the check.

Exceptions: Applicants who were accepted and enrolled in the University of Louisville Graduate School previously, and who have not attended another college or university since enrollment at UofL, do not have to pay the fee again. Students on any type of public assistance or who have a disability, may be exempt from the fee with supporting documentation.

Applications are processed when the application fee is received.

### **Transcripts**

Official transcripts showing all degrees awarded and all undergraduate and all graduate work completed at all colleges/universities previously attended must be furnished by all degree-seeking applicants. The minimum requirement for admission is the baccalaureate degree or its equivalent from an accredited institution.

All transcripts that are not in English must be translated verbatim into English and must be notarized. International applicants may be required to have transcripts evaluated by a credential evaluation service:

- World Education Services: [www.wes.org](http://www.wes.org)
- Educational Credential Evaluators: [www.ece.org/](http://www.ece.org/)

**Unofficial or faxed copies of transcripts will not be accepted.**

### **Test Scores**

The Graduate Record Exam (GRE) General Test is required for most programs. Test

registration and information about the exam can be found at [www.gre.org](http://www.gre.org). The applicant must instruct the Educational Testing Service to forward the results to the Office of Graduate School Admissions, Belknap Campus, University of Louisville, Louisville, Kentucky, 40292. University of Louisville institution code for score-reporting is 1838.

The Subject Test Section may be required at the discretion of a department, and the applicant should consult the pertinent departmental section of this catalog.

The Kent School of Social Work does not require the GRE for the Master of Science in Social Work degree, unless the undergraduate grade point average is below a 2.75. Applicants to the Doctoral Program in the Kent School of Social Work must provide GRE scores. Students may substitute the Medical College Admissions Test for the Graduate Record Examination with the approval of the department chair or graduate program advisor.

Graduate Management Admissions Test (GMAT) is required for all applicants to the College of Business degree programs. Test registration and information about the exam can be found at [www.gmac.com](http://www.gmac.com).

Applicants, who have completed a terminal degree, may be exempt from submitting GRE or GMAT test scores pending departmental approval.

The PRAXIS II Speciality Exam is the certification exam students must pass in their subject matter to be certified to teach in Kentucky and will be required of all applicants applying to teacher certification programs. Information about the required PRAXIS II Speciality Exam Principles of Learning and Teaching (PLT) test and passing scores for the PRAXIS specialty exams in each certification area can be found at: [kyepsb.net/TestingResearch/beg\\_tch\\_exams.html](http://kyepsb.net/TestingResearch/beg_tch_exams.html).

The College of Education and Human Development (CEHD) offers free classes to help teacher candidates prepare for the PRAXIS II Speciality Exam and the CEHD Dean's Office has copies of the PRAXIS Registration Bulletin. PRAXIS toll free number: 1-800-334-8635.

### **Letters of Recommendation**

A minimum of two letters of recommendation are required; however some departments require three (it is advisable to discuss admissions requirements with department representatives). It is recommended that the letters be written by someone who can speak to the applicant's academic and/or professional capabilities. Letters of recommendation may be sent via College Net (online application service), to [gradadm@gwise.louisville.edu](mailto:gradadm@gwise.louisville.edu) or by regular mail.

### **Personal Statement**

Some programs require a personal statement, addressing specific issues pertaining to knowledge, work experiences, and/or interests in the chosen field of study. It is advisable to discuss admissions requirements with department representatives.

### **International Students**

Students from foreign countries must meet three criteria before they can be granted admission: (1) they must meet the regular admissions standards as applied to all successful applicants, (2) if English is not the student's primary language they must show proficiency in English by scoring 210 or higher on the computer-based TOEFL examination or successfully completing the exit examination for the advanced level of the Intensive English as a Second Language Program at the University of Louisville, and (3) approval from the University of Louisville International Center by presenting evidence of financial resources adequate to support their educational and living expenses in the United States for the duration of their studies. The award of a University Fellowship or Graduate Assistantship is considered evidence of adequate financial resources.

The Test of English as a Foreign Language (TOEFL) is required of all foreign students from countries in which English is not the native language.

Applicants holding a baccalaureate or advanced degree from an accredited college or university in the United States are exempt from the TOEFL requirement.

Information about the times and places for the examination may be obtained from the Educational Testing Service, TOEFL, Princeton, New Jersey 08540 ([www.TOEFL.org](http://www.TOEFL.org)), University

of Louisville Testing Services ([www.louisville.edu/student/services/testing/](http://www.louisville.edu/student/services/testing/)).

Graduate programs may require higher TOEFL scores than the Graduate School minimum. Applicants who have not scored 210 or more on the computer-based TOEFL Examination may choose to apply to the Intensive English as a Second Language Program. Successful completion of the Advanced Level of this program will be considered adequate proof of the English proficiency required for course work in the chosen graduate program. Acceptance to the Intensive English Program does not constitute acceptance to the Graduate School. For information and application forms, write to: IESL, University of Louisville, Louisville, Kentucky 40292, U.S.A. [www.louisville.edu/a-s/iesl/](http://www.louisville.edu/a-s/iesl/).

Students whose native language is not an American or British dialect of English may not be awarded teaching assistantships unless they present an acceptable score on the Test of Spoken English (TSE) or a locally administered teaching competency demonstration. Applications and information about the times and places for the TSE may be obtained from [www.ets.org](http://www.ets.org), TSE, Princeton, NJ, 08540. The teaching competency demonstration is administered by the Intensive English as a Second Language program [www.louisville.edu/a-s/iesl/](http://www.louisville.edu/a-s/iesl/).

The International Center is your primary liaison with the Department of Homeland Security and the Department of State. International Center staff members are well informed about general immigration regulations and can advise you on proper compliance with DHS procedures. Make an appointment with the International Student

Advisors to discuss specific questions or concerns. It is important that you do not rely on the advice of friends regarding immigration matters. Please refer to the International Center web page at: [www.louisville.edu/provost/intcent/](http://www.louisville.edu/provost/intcent/).

## **Admissions**

Upon evaluation of the application and credentials, the department in which the applicant wishes to enroll forwards a recommendation concerning admission to the Graduate School. A recommendation for



admission will specify the admission status and any conditions of admission.

The official admission letter will come from the Graduate School.

### **Degree status**

In order for a student to be recommended unconditionally for admission to degree status, all admission credentials must have been received and evaluated. The applicant must have earned a grade-point average of at least 2.75 on a 4-point scale in either his/her complete undergraduate program or the senior-college years. Each student in this classification is a prospective candidate for an advanced degree and is expected to pursue a program leading to the master's degree, specialist's degree, or doctoral degree.

Each applicant should consult the departmental sections of this catalog to determine any additional admissions criteria or any more restrictive requirements for admission to this status.

### **Degree status - provisional**

This status is intended for students who have furnished their application and baccalaureate transcript but whose remaining application materials are incomplete. Students in provisional status must also meet the general academic requirements of their program. Students may not enroll for a second consecutive term in provisional status. Not all departments allow admission on a provisional basis.

### **Degree status - special conditions**

This status is intended for students who have furnished all application materials, but whose academic background is slightly below the minimum for their program. Students admitted in this status will be expected to meet certain criteria within a specific time-frame outlined by the admitting department.

### **Degree status - provisional/special conditions**

An applicant who has both missing credential(s) and academic criteria below the minimum may be admitted in this status, pending program approval. Students in this status will be expected to meet certain criteria within a specific timeframe outlined by their program.

A student has one semester to furnish any missing admission credentials and clear any conditions made at the time of admission.

Failure to complete the admission process within a semester may result in refusal of permission to register in the next semester.

A student admitted with an undergraduate grade point standing of less than 2.75 may be subject to departmental limitations on the number of hours in which he/she may enroll for each semester. Graduate credits earned prior to achieving good academic standing are not automatically applicable to the degree program.

### **Probation**

Any student admitted with a point standing below 2.75 will be considered "on probation." Students who fail to attain the required 3.0 GPA or other higher GPA required by their program in the first term of enrollment following admission, or who do not meet any other departmental requirements outlined in the admission letter, may be subject to academic dismissal from their program.

No applicant with a grade-point average of less than 2.50 will be admitted to graduate study. Under unusual circumstances, exceptions to this policy may be made upon specific recommendation and documented justification for admission by the department chairman or graduate program advisor. Such justification must be provided in writing to the Graduate Dean, who must approve or disapprove the recommendation.

### **Non-degree status**

Pending program approval, applicants who do not desire to seek an advanced degree may be permitted to enroll under non-degree status. Application credentials must include the application form, \$50.00 application fee and an official undergraduate transcript showing the award of a baccalaureate degree. Please note that not all programs will admit under non-degree status, thus it is advisable that applicants contact check with the specific department they wish to apply to if wanting to be admitted in non-degree status.

Six hours of course work taken in a non-degree status may be applied to a graduate degree program with departmental approval.

Students may accumulate a maximum of fifteen

hours while in non-degree status. Exceptions to this policy are the RANK I and II programs in the College of Education and Human Development, the Nurse Practitioner program in the School of Nursing, and certificate programs.

### **Auditors**

Auditing at the graduate level is available only to persons who are enrolled in at least one course for credit, unless permission is granted by the department and Graduate Dean. The fee for auditing a course is equal to the tuition for enrolling in the class for credit.

The Graduate School does not require that auditors take examinations, submit papers, or take part in any evaluative activity. However, the instructor, at his or her discretion, may demand or deny the auditor's participation in class to whatever extent is deemed desirable.

A "W" (withdrawn) shall appear on the transcript unless a student attends at least 75% of the classes. Students wishing to audit courses must obtain permission in writing from the course instructor and program director. A graduate student may not satisfy a stated prerequisite for a graduate course or stated degree requirement through auditing a class.

### **Visiting Students**

A graduate student from another university or college may enroll for graduate course work as a visiting student at the University of Louisville pending program approval. The visiting student is responsible for having the home institution provide a letter certifying that the student is in good standing as well as approving the transfer of credits from the University of Louisville to the home institution at the end of the semester.

A graduate application is required and transcripts may also be required by some departments. University of Louisville graduate students who attend another Graduate School as a visiting student must have the permission of their department chair or adviser before the courses are taken in order to transfer credits earned. Visiting student status may be granted only to a student who is in good standing.

## **For the New Graduate Student**

### **Overview**

The University of Louisville operates on a semester system that includes a Fall Semester, Spring Semester, and Summer semester with multiple terms. The University has a computerized admissions and registration system. Students are advised to include their full name and date of birth on all correspondence with the University to facilitate the identification of admission credentials and requests for information. Students who do not enroll for the semester for which they apply may be required to reapply and resubmit credentials. The University holds credentials on applicants for a limited time.

### **Student Responsibility**

It is the responsibility of the graduate student to become familiar with and observe all policies and requirements of the Graduate School and of his or her particular degree program and department. Policies, procedures, and requirements are subject to change, and it is the responsibility of the graduate student to keep her/himself apprised of current regulations.

All students must respond to official notices issued by administrative offices and instructors, whether these notices be posted on official bulletin boards, are sent through postal, or e-mail. A student's status is not dependent upon a written notification but is a consequence of circumstances in the admission process and the student's academic performance. Written notification is simply a verification of status.

### **Graduate Credit**

Courses listed in this catalog are offered for graduate credit. To receive graduate credit, a student must register for the course through the Graduate School or through another graduate level program, such as the Master of Engineering. Students who take these courses as post-baccalaureate registrants do not receive graduate credit.

### **Prerequisites**

Prerequisites for all courses include graduate status and the consent of the graduate advisor (for registration). Specific course prerequisites are indicated in the course listing at <http://access.louisville.edu/crseCatalog/searchCourseCatalog.cfm>.

## **Academic Policies, Procedures and Requirements**

The general policies, procedures and requirements for advanced degrees are stated below; however, each advanced degree has requirements, specific to that degree. These specific requirements are detailed in the program descriptions that follow this section.

These requirements must be consulted, so that the graduate student may be fully apprised of the conditions he/she must meet in order to receive an advanced degree.

The policies and regulations described in this catalog cannot be superseded or invalidated by either oral or written agreement with faculty, staff, or administrators, unless such agreement is confirmed in writing by the Dean of the Graduate School.

### **Registration**

The University of Louisville uses a touch-tone and an on-line web registration system. The schedule of courses for each term may be reviewed at [htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm](http://htmlaccess.louisville.edu/classSchedule/setupSearchClassSchedule.cfm). A limited number of paper copies of the schedule may be available through the Registrar's Office, Dean's Offices, or Campus Bookstore. Students must first contact their department advisor to discuss course selections. The service indicator is changed within the department. If a student is in good standing and admitted

UNCONDITIONALLY, he/she may proceed with the registration process. If, however, a student still has conditions on his/her admission, he/she must contact their department for further instructions. If a student is on academic probation, he/she must contact the Graduate Dean's office for further instructions. A student must participate in touchtone or on-line web registration. No in-person registration is permitted. A student may add courses through the touch-tone or on-line system through the first day of classes. One may also drop or withdraw from courses by touch-tone or on-line (for more information consult:

[www.louisville.edu/student/services/registrar](http://www.louisville.edu/student/services/registrar))

### **Full-and Part-Time Study**

Full-time study is defined as being nine (9) hours of credit during a regular semester, six (6) hours during the summer term, or in degree candidacy status.

### **Full-Time Study for University Fellows and Graduate Assistants**

All University Fellows and Graduate Assistants must be enrolled as full time students during the period for which they are receiving financial support.

### **Course Loads**

Unless a department or program requires a larger number of hours for all full-time students, the maximum number of hours that may be taken in a regular semester is 12; or 15 hours if 3 or more hours are research credit. The maximum number of hours that may be taken in the summer session (both terms) is 12, including research hours.

### **Overloads**

Any student who wishes to enroll in more than the maximum number of hours must obtain the permission of the Dean of the Graduate School. Permission to enroll for excess hours is rarely granted.

### **Continuous enrollment**

Continuous enrollment is defined as being registered in both fall and spring if registering for coursework. If a student has been admitted to either masters or doctoral degree candidacy, continuous registration is defined as fall, spring and summer terms (only one term of registration is required in summer terms).

### **Satisfactory Progress**

All graduate students are expected to make steady and satisfactory progress toward the completion of degrees. Students who fail to enroll for a period of more than 12 months will be considered to have withdrawn from the program.

Students who seek to return after such a period of time are required to apply to their departments for readmission. Based on the request of the department, the Dean of the Graduate School will consider the student for readmission. Prior to reapplying, students should speak with their department. Students may submit a re-enrollment form to the Office of

the Registrar if it has been less than two years since their last enrollment.

Satisfactory progress also involves maintaining the standards of academic and professional integrity expected in a particular discipline or program and, in some disciplines, may include demonstration of the ability to function as a professional practitioner. Failure to maintain these standards or demonstrate such abilities may result in termination of the student's admission to the program.

### **Degree Candidacy**

Degree Candidacy is intended to meet the enrollment need of students who have completed all formal course work and thesis/dissertation hours but who are continuing to perform research for the Masters or Doctorate degree or complete course requirements in other required coursework. It is the responsibility of the student and his/her mentor to maintain contact throughout the program of study to ensure continuous progress towards the timely completion of the degree.

Doctoral students may not enroll in Degree Candidacy until successful completion of the qualifying exam in addition to completion of the required course work in their program of study. Although a student must complete all required courses before entering Degree Candidacy, students have the option of taking additional specialized courses, e.g. courses offered by visiting or new faculty, while in Degree Candidacy (in those cases payment of both the candidacy fee and the course tuition will be required). When necessary, a student may enroll in Degree Candidacy in order to meet the requirement that all students must be enrolled in the Graduate School during the semester in which he/she wishes to graduate.

Enrollment in Degree Candidacy requires the approval of the Graduate School. Once a student is admitted to candidacy, enrollment in Degree Candidacy status must be continuously maintained year round (i.e. Fall, Spring, and Summer) until the degree is awarded. The only exception to this policy of continuous enrollment is if the Graduate Dean has granted the student a formal leave of absence.

Once a student enrolls in Degree Candidacy, the Registrar will automatically enroll the student in Degree Candidacy until the student applies to

graduate. Failure to pay the candidacy fee will be cause to cancel a student's Degree Candidacy.

In order to restore Degree Candidacy, the student must receive approval of his/her department Chair and that of the Graduate Dean. To reestablish Degree Candidacy, the student will be required to pay the candidacy fee for each semester during which candidacy was voided and/or not maintained.

## **Academic Standing**

### **Good Standing**

A graduate student is in good standing when his/her graduate grade point average is 3.0 or higher. Graduate grade point average includes all coursework listed on a graduate transcript, whether the courses are undergraduate or graduate-level. A student must be in good standing in order to receive their degree.

### **Academic Probation**

A student who has a graduate GPA which falls below a minimum level of academic quality (3.0 on a 4-point scale) will be placed on academic probation until the student regains a 3.0 average or is dismissed. Students are ordinarily not permitted to continue on academic probation for more than one semester. Upon request of the student's academic department, the Graduate Dean may approve continuation beyond a single semester.

### **Plagiarism and Cheating**

It is expected that a student in the Graduate School will refrain from plagiarism and cheating. Plagiarism and cheating are serious breaches of academic conduct and may result in permanent dismissal. Each student is advised to become familiar with the various forms of academic dishonesty as explained in the Code of Student Rights and Responsibilities. A plea of ignorance is not acceptable as a defense against the charge or academic dishonesty.

### **Extension of Time**

The Graduate School has policies on time limitations for both Master's (six (6) years) and Doctoral (four (4) years after Qualifying Exam) students. Requests for extension of time must be submitted in writing to the Chair or Graduate Coordinator of the student's department. Once reviewed by the department, the request is forwarded to the Graduate Dean with supporting

documentation for his review. While extensions of time are rare, each request is reviewed thoroughly with an appropriate outcome communicated to all interested parties. Students must be considered in good standing for the request to be considered.

## **Course and Credit Requirements**

### **Transfer of Credit**

Earned graduate credit may be transferred from accredited institutions that offer advanced degrees. The maximum number of semester hours transferable, upon request, is six. Up to six additional hours may be requested, in a master's program, provided that these additional hours are not credit earned by extension, thesis or practicum and provided also that the residency requirement of 24 semester hours is maintained by the addition of University of Louisville credits to the total program.

In unusual circumstances, a lesser residency credit requirement may be considered by the Graduate Council. Requests for such exceptions must be supported by the major department and the program adviser. In no case will a master's degree be awarded to a candidate who has completed fewer than 18 semester hours at the University of Louisville. Final approval rests with the Graduate Council.

Credit earned more than six years prior to the student's application to the Graduate School of the University of Louisville will not normally be considered for transfer; however, the Graduate Council and the Dean may make an exception upon the recommendation of the student's department.

The course work being considered for transfer must have been taken while the student was enrolled in an accredited graduate or professional school and must be evaluated for transfer by the head of the department in which the student is seeking additional graduate work. Six hours may be transferred from previously earned master's degrees toward a second master's degree, subject to the approval of the second degree program and the Dean of the Graduate School. Hours earned toward a culminating experience such as a thesis, practicum, or internship shall not be transferable to the second master's

degree. Only courses in which the student earned grades of "B" or better will be considered for transfer. Hours and quality points earned at other institutions are not included in the calculation of a student's GPA.

Courses in which grades of "P" were earned must have the approval of the Graduate Dean in order to be transferred. In case of questions regarding the transferability of course work, the Graduate Council is empowered to decide. Courses requested to be transferred that have been taken on the quarter system are equivalent to two-thirds the credit hours at the University of Louisville.

Transfers of credit from constituent schools and colleges of the University of Louisville are not subject to the above limitations on transfers but require the recommendation of the student's department and the approval of the Dean of the Graduate School.

### **Course Numbering System**

Courses with numbers from 500 to 599 may be open to both advanced undergraduate and graduate students and can be taken by graduate students for graduate credit. Those numbered 600 and above are primarily for graduate students.

Graduate students who wish to receive graduate credit for 500-level courses must demonstrate a level of mastery of the course material substantially above that required for undergraduate credit. This mastery must be verified in writing by the instructor if graduate credit is requested after course is completed.

Demonstration of an appropriate degree of mastery may include term papers, independent study, comprehensive examinations, or other

More stringent requirements than those applied for undergraduate credit. The nature of the differences between the requirements for graduate credit and those for undergraduate credit must be described in course syllabi. Only those 500-level courses that appear in this catalog are available for Graduate School credit. The student is advised to consult his/her department for information on any particular 500-level course.

### **Undergraduates Taking Graduate Courses**

Undergraduate students with special permission of their undergraduate dean, the Dean of the Graduate School, and the instructors in the courses involved may register in graduate courses, including those at the 600 level. It is understood that such courses will replace courses in the normal undergraduate curriculum and therefore cannot be used for subsequent graduate credit. The student should be registered for at least one undergraduate course if requesting to enroll in a graduate course.

Undergraduate students at the University of Louisville who are within six semester hours of completing the baccalaureate requirements may register in graduate courses, including those at the 600 level, with the permission of the undergraduate dean, the Dean of the Graduate School, and the instructors involved.

Subsequent graduate credit can be obtained only if these courses have not been used to satisfy part of the baccalaureate requirements, and if the recommendation of the chairman of the department involved and the approval of the graduate dean are obtained. Exceptions are those students enrolled in an accelerated Bachelor/Master's program in the College of Arts and Sciences.

## **Grades and Grading Policies**

### **University Grade Point Average (GPA)**

The GPA appearing on the University transcript at the end of each semester of enrollment will be the official GPA for determining Graduate School academic standing. The GPA will be based upon all courses taken at the undergraduate and graduate level. Courses taken at the 500-level and above will be counted as graduate courses.

The University transcript may only include up to a maximum of 6 credit hours in undergraduate course work. Any undergraduate courses beyond this 6 credit hour limit must be taken pass/fail. While possibly including undergraduate coursework, this transcript will determine the overall Graduate GPA. The post-admission advising office with the Graduate School will monitor this Graduate GPA.

### **Grading System**

The Graduate School utilizes a plus/minus grading system. It is at the discretion of the instructor to determine the use of plus/minus grading.

The following is the grading scale:

### **C Grades**

The student's academic department may approve six hours of coursework in which a grade of "C+", C, or C-" was received to count toward the completion of degree requirements. Approval of the Graduate Dean must be secured in order to count additional hours with any grade of C in any course that is part of the degree program.

In no case may more than nine hours of "C" be used to fulfill graduate degree requirements. Some programs may not permit any courses in which a grade of C+, C, or C- has been earned to be used in fulfillment of degree requirements. Although grades below C- will be calculated in the graduate student's grade point average, courses in which these grades have been earned will not be counted towards the fulfillment of degree requirements.

### **Other Grades**

**"W"** - means Withdrew and carries no quality points. No student may withdraw from any course after the published drop date. In exceptional cases, the dean may grant a student's request to withdraw from courses because of illness or conditions beyond the student's control.

Poor performance is not a valid reason to grant an exception. **"I"** - means Work in Course Incomplete. If the work is not completed by the end of the next term, regardless of whether the student is enrolled, the "I" automatically becomes an "F".

**"X"** - means course work has not been finished because of the nature of the research or study involved, e.g., thesis work. This grade is reserved for courses that by their nature extend beyond one semester. This grade may not be used for coursework that is confined to a semester but not completed by the student. During the time an "X" grade is carried on the transcript, continuous enrollment is not required. Graduate students enroll in courses on a term basis. Graduate courses may not be extended

beyond the enrollment term, except as noted for open-ended courses eligible for the "X" or deferred grade. An "I" grade does not extend the course, but rather extends the time a student has for completion of work assigned in the course.

The "I" must be removed within one semester and the new grade assigned for the term in which the student was originally enrolled or the "I" is changed to an "F".

### **Pass/Fail Grading Option**

Each department has the discretion of extending a Pass/Fail option to any or all of its graduate students and graduate courses.

### **Grades**

#### **Quality**

#### **Points Grade**

#### **Quality**

#### **Points**

A+ 4.0 C 2.0  
A 4.0 C- 1.7  
A- 3.7 D+ 1.3  
B+ 3.3 D 1.0  
B 3.0 D- 0.7  
B- 2.7 F 0.0  
C+ 2.3

Because the advisability of such an arrangement varies from department to department, each department, subject to approval of the Graduate Council, works out the arrangement that is most suitable. The student is referred to his/her departmental chair for details.

When using the Pass/Fail option for graduate students enrolled in graduate courses, A+ through C will be passing grades and C- through F will be failing grades.

### **Changes of Grades**

No changes of grades can be made without a request and explanation on the part of the faculty member giving the grade and the approval of the Dean of the Graduate School.

### **Missing Grades**

All missing grades will be changed to failing grades one year after the completion of the semester in which the course was taken.

### **Repetition of Courses**

A student who has received the grade of "C" (in a course that is a degree requirement), "D" or

"F" may repeat that course upon the approval of the graduate program adviser and the graduate dean. When a student repeats a course, the grade point average will be calculated on the basis of the last grade earned, although all previous grades will remain on the transcript.

## **Requirements for Graduate Degrees**

### **Requirements for the Doctor of Philosophy Degree**

In addition to the particular rules of the various departments as stated in their sections of this catalog, the following general rules apply to all Doctor of Philosophy programs.

The award of a Doctor of Philosophy degree indicates that a student has attained mastery of a field and has demonstrated the capacity to perform independent scholarly research and to appreciate the importance of that research within the broad context of his or her discipline.

Accordingly, no specific minimum number of credit hours has been established for Ph.D. programs.

However, it has been customary to consider the equivalent of three years of full-time graduate study as minimal.

### **Application for the Doctorate**

To become an applicant for the doctorate, the student must be admitted to the Graduate School (see previous sections on Admission to the Graduate School and Admission Statuses) and be accepted by the department of specialization.

Only students with exceptional scholarship and originality are accepted for work towards the degree of Doctor of Philosophy, and departments are expected to have more restrictive criteria for admission to this program than those for admission to a master's degree program.

The degree is not awarded solely upon completion of a curriculum of prescribed courses, even though the student has done superior work in them; rather, it is awarded in recognition of creative scholarship as

demonstrated by a substantial contribution in the candidate's chosen field.

Only students who offer promise of meeting this high standard will be accepted by a department to begin work toward this degree. The prospective student should consult in person with the department in which he/she wishes to major.

### **Program of Study**

Each applicant for the doctorate is expected to take such courses as may be required for the advancement of scholarship in general and for training in his/her field of specialization. The major professor shall design a program of study to fit the needs of the individual student subject to approval by the department's graduate program committee and/or department chair.

This program may be modified at any time upon the recommendation of the major professor and approval of the department head and the graduate dean. The program will consist of a major field and such minor fields as the major professor and the department head may agree upon.

All courses offered by the University, at any level and in any school, shall be accessible to the doctoral student, subject to approval by the instructors.

The student is expected to receive high marks in these courses; grades lower than "B" will usually be regarded as evidence of poor scholarship and may bar the student from admission to candidacy.

### **Residency**

In order that the student may be assured of an opportunity to utilize the educational facilities properly and to participate in the intellectual life and research atmosphere of the University, at least two years of study must be spent at the

University of Louisville and at least one must be spent in full-time residency. To be considered in full-time residency for one year, a student must be registered for a minimum of 18 credit hours in a twelve month period.

### **Foreign Language Requirement**

Foreign language proficiency is no longer a general requirement of the Graduate School. However, certain departments may have

established such requirements, which will be specified in their sections of this Catalog.

### **Qualifying Examination and Candidacy**

The applicant for a Doctor of Philosophy degree must pass a qualifying examination, oral or written, or both. Its purpose is to verify that the student has sufficient understanding of and competence in his/her field to become a candidate for the degree. This examination may be referred to by some departments as the preliminary, comprehensive, or candidacy examination.

To be eligible for this examination, the student must have satisfactorily completed the major portion of the prescribed course work and must have met the foreign language requirement, according to departmental policy. It is the student's responsibility to be aware of departmental policy on the consequences of failure of all or part of the examination. A student who fails the examination may not be allowed to retake it more than once.

A doctoral degree student must have been admitted to candidacy not later than the end of the ninth month prior to the awarding of the degree, that is:

- August graduation-November 30 of preceding year
  - December graduation-March 31 of same year
  - May graduation-August 31 of preceding year
- Although the prescribed course work may have been completed, the candidate must maintain an active registration status until the degree is awarded (see previous section on General Academics Policies and Requirements, subsection Maintaining Candidacy).

### **Time Limitation**

The candidate must complete all other requirements for the degree of Doctor of Philosophy within four calendar years after passing the qualifying examination. In exceptional cases, the Dean of the Graduate School is empowered to grant limited extensions of this four-year period.

### **Dissertation**

A dissertation is required of all candidates for the degree of Doctor of Philosophy. It is to be a scholarly achievement in research, and should demonstrate a thorough understanding of research techniques in the field of inquiry and the ability to conduct independent research.



The dissertation is to be submitted in completed form to the head of the major department at least thirty days before the end of the term in which the candidate expects to be graduated, and the candidate is not eligible for final examination until the dissertation has been approved.

The dissertation shall be read by a reading committee, chaired by the major professor, and appointed by the Dean of the Graduate School upon the advice of the head of the major department.

This committee shall consist of not fewer than three members, and must include one representative of an allied department. The dissertation must be approved by the committee and the head of the major department.

One unbound copy of the dissertation, signed by dissertation committee, must be deposited with the Office of the Graduate School before graduation.

Graduate students completing a dissertation in a Ph.D. program offered through the J. B. Speed School of Engineering are required to submit additional copies. Students should contact the dean of that school for specific information.

Standards for the Preparation of Thesis and Dissertations is available on the Graduate School website ([graduate.louisville.edu/pubs/theses-dissertations/](http://graduate.louisville.edu/pubs/theses-dissertations/)).

Alternate standards must be approved if in conflict with this standard.

### **Final Oral Examination**

This examination is to be a defense of the dissertation and a demonstration of the candidate's mastery of his/her field. The examination will be given by a committee of Graduate Faculty members appointed by the Dean of the Graduate School upon recommendation of the head of the major department. The Committee will consist of five or more members representing the major department and at least one allied department.

The major professor shall be chair and must be a Senior Member of the Graduate Faculty. The

remaining Committee members must be Members of the Graduate Faculty. The Graduate Dean's Office shall notify all members of the Graduate Faculty at least one week in advance that they are invited to participate in the examination, but only members of the committee may vote. At the discretion of the major department, a portion of the examination may be written.

The examination must be taken at least fourteen days before the end of the semester in which the degree is to be granted. To be passed in this examination, the student may not receive more than one abstention or dissenting vote.

## **Requirements for the Master's Degree**

The departmental announcements in this catalog should be consulted in all instances; however, the following rules apply to all master's degree programs.

### **Course Credit**

A minimum total of 30 semester hours of graduate credit is required for the master's degree. At least 15 semester hours must be in courses of the major subject area, and the remaining hours in the program distributed as recommended and approved by the major department. At least one half of the credits counted toward the degree (exclusive of thesis, practicum and internships) must be in courses open to graduate students only (600 level or above). A grade average of 3.0 or better must be maintained.

### **Time Limitation**

There is a time limit imposed, stipulating that credit earned more than six years prior to the completion of the degree may not be counted toward meeting its requirements. This time period may be extended upon recommendation of the student's department head and the approval of the Dean of the Graduate School.

### **Maintaining Candidacy**

Refer to previous section entitled, General Academic Policies and Requirements, see subsection entitled Maintaining Candidacy.

### **Thesis**

Students completing degree programs that include a thesis must submit the thesis to their major professor at least thirty days in advance of

graduation (guidelines may be found at [graduate.louisville.edu/student\\_info/theses.html](http://graduate.louisville.edu/student_info/theses.html))

Acceptance of the thesis shall be at the discretion of a special reading committee composed of the major professor and two other persons of professorial rank recommended by the department and appointed by the Dean of the Graduate School. One person so appointed shall be from a different department, and all three must be members of the Graduate Faculty.

The major professor must be a Senior Member of the Graduate Faculty. The committee shall complete its review of the thesis at least one week prior to the final oral examination. One unbound copy of the accepted thesis, signed by the committee members, must be deposited with the Office of the Graduate School (see Schedule of Courses for due date).

Graduate students completing a thesis in an M.S. program offered through the J. B. Speed School of Engineering are required to submit additional copies. Students should contact the office of the dean of that school for specific information.

The thesis normally carries 6 semester hours of graduate credit, which is in addition to the 15-hour minimum taken within the major department.

In certain departments, a professional paper may be required in lieu of a thesis. For procedures in these instances, consult the head of the department.

### **Final Oral Examination**

The final oral examination shall be conducted by a committee of Graduate Faculty members recommended by the head of the major department and appointed by the Dean of the Graduate School in the same manner as the thesis reading committee.

The examination must cover the materials presented in the thesis or professional paper and may include the content of courses taken or other matters pertinent to the candidate's admissibility to the master's degree. At the discretion of the major department, a portion of this examination may be written. The recommendation for the degree shall be determined by a simple majority of the committee members.

Recommendation shall be made to the graduate dean at least one week prior to graduation. In the event of an unfavorable vote, the committee may refuse the candidate's admissibility to the master's degree, or it may recommend another examination with or without additional work.

## **Application for Degree**

Degrees are awarded in August, December, and May. Candidates who expect to receive degrees on a particular award date must complete the application for degree on ULink before the deadline specified in the University calendar (see Schedule of Courses).

The University holds two commencement ceremonies each year. For specific information regarding the ceremonies, apparel, dates, etc. please visit the Commencement web-site: [www.louisville.edu/commencement/](http://www.louisville.edu/commencement/) Each student who is required to submit a dissertation or thesis to fulfill degree requirements must follow the guidelines approved by the Graduate School. These guidelines *The Preparation of a Dissertation and The Preparation of a Thesis* may found on the Graduate School website <http://graduate.louisville.edu/pubs/theses-dissertations/>.

Prior to submission of the final copy of a dissertation/thesis, students must contact the Graduate School to schedule a review of the document.

### **Microfilming and Copyrighting**

The University of Louisville, by action of its graduate faculty, requires that all theses and dissertations be microfilmed. Copyrighting the paper is an optional choice for its author.

Candidates for advanced degrees that require theses or dissertations must submit agreements for microfilming and copyright applications on the appropriate forms supplied by the Graduate School Office. A completed application, one extra copy of the abstract, and one extra copy of the title page must accompany the unbound copies of each dissertation or thesis. The extra copies of the abstract and title page are used by UMI/Proquest in its abstracting journals. A limitation of 350 words is set on the abstracts for doctoral dissertations and 150 words for theses for master's degrees.

## Graduate Student Honors

### Graduate Dean's Citation

Graduate Dean's Citations are awarded at each commencement to students recommended by their departments in recognition of superior accomplishment (e.g., publications, professional service) in their graduate studies beyond the achievement of a high grade point average.

Each school or college may recommend up to 10 percent of its graduate students completing their degrees in August, December, and May of the academic year. Recommendations are to be based on the student's achievements both in their area of scholarship and outside the classroom.

### Alice Eaves Barns Award

This award is named in honor of Mrs. Alice Eaves Barns for her many years of outstanding service as a staff member of the Graduate School at the University of Louisville. This award recognizes a student who has displayed tenacity in the face of adversity, while attaining excellence in both the classroom and outside endeavors.

The Award is given in recognition of outstanding achievement in a Master's Program. Nominations may be submitted to the Graduate Dean for the May and December convocations.

### Guy Stevenson Award

The Guy Stevenson Award for Excellence in Graduate Studies honors a former dean of the Graduate School. The Stevenson Award is presented to a doctoral degree recipient who excels in scholarship, leadership, and other areas within their discipline. The recipient of this award must attend commencement as they will carry the graduate school banner, leading all doctoral students in the processional. This student will be a candidate for student commencement speaker.

### John Richard Binford Memorial Award

The John Richard Binford Memorial Award honors a former chairman of the Department of Psychology.

Doctoral nominees for this award will be assessed in the same manner as those students considered for the Stevenson award. The recipient of this award is not required to attend commencement.

### John M. Houchens Prize

The John M. Houchens Prize honors a former Registrar of the University. In the spring and fall of each year doctoral dissertations are submitted for consideration. If one is considered to be of special merit, a committee may recommend that its author be awarded the Houchens Prize. Nominations for these awards are submitted to the Graduate Dean for December and May commencement recognition. Those individuals who received their degrees in August must be nominated for consideration during the December Commencement program.

Dissertations to be considered for the Houchens Prize are submitted by the same route. Only those students expected to complete their doctoral degree by the end of the current term (or August in the case of December consideration) are eligible for consideration of this award.

## Graduate School Academic Grievance Procedure

The Graduate School follows the procedures for academic grievance as published in the university governance document, The Redbook, Chapter 6, Article 8. This policy is stated below.

Any student considering filing such a grievance is advised to consult with the Graduate School Student Advocate for advice and information.

The Graduate School Academic Grievance Committee is the committee of original jurisdiction for issues involving graduate students enrolled for graduate credit.

### Section 1: Introduction

This procedure is designed to provide fair means of dealing with student complaints regarding a specific action or decision made by the faculty or a faculty member. "Students who believe they have been treated unfairly, discriminated against, or have had their rights abridged may initiate a grievance" (The Redbook, Section 6.8.1).

The Graduate School Academic Grievance Committee has the power to hear all grievances of graduate students involving academic matters other than substantive grade appeals.

"Academic matters are defined as those concerning instructional activities, research

activities, activities closely related to either of these functions, or decisions involving instruction or affecting academic freedom" (The Redbook, Section 6.8.3).

Because the "authority for the determination of grades in any course shall rest with the faculty of the academic unit offering the course" (The Redbook, Section 6.6.2), appeals over individual grades must be made to the faculty member, department chair, and/or dean of the academic department in which the course is offered.

Grievance over grades can only be filed by students who "believe they have been treated unfairly, discriminated against, or have had their rights abridged" after they have used the academic unit's appeals procedures. The Graduate School Academic Grievance Committee may review allegations that a course grade has resulted from an unfair procedure.

However, the committee should not substitute its judgment on the merits of such allegations regarding unfairness or discrimination as an evaluation of academic performance in the course.

All grievances should be pursued, if possible (assuming procedures are available), in the Academic Department or Unit where the student's program is housed before approaching the Graduate School Academic Grievance Committee.

To assist the student, a Student Grievance Officer is provided, who is responsible for "informing students of their rights and obligations under the grievance procedure and especially the deadlines that have been established.

The Student Grievance Officer shall seek to resolve informally as many grievances as possible" (The Redbook, Section 6.8.2). Students are encouraged to seek the assistance of the Student Grievance Officer at any stage of the grievance process.

The procedures established for the Graduate School Academic Grievance Committee are described below.

### **Section 2: Preliminary Steps**

To pursue a grievance concerning academic matters within the academic unit, the following steps of the grievance procedure should be

observed:

- The student should first discuss the matter with the person(s) directly involved and attempt to resolve the grievance through informal discussion.
- If there is no resolution, the student should discuss the matter with that person's supervisor or the person to whom such person reports (e.g., department chair and/or dean), who should attempt to mediate a resolution.
- If the student has not been able to obtain a resolution, he or she may request the Student Grievance Officer (S.G.O.) to attempt informal mediation of the problem.
- If the matter has not been satisfactorily resolved through the informal process, the student shall submit a written statement of the grievance to the Graduate School Academic Grievance Committee through the Office of the Dean of the Graduate School. The statement shall contain:
  - A complete narrative of the condition giving rise to the grievance;
  - identification of the parties involved indicating those to be designated as respondents; and
  - statement of the specific remedy requested.

### **Section 3: Committee Action**

Upon receipt of the written statement, the Graduate School Academic Grievance Committee, or its representatives, shall:

- Contact the student and the Student Grievance Officer to obtain assurance that all steps of the above informal process were completed and that those issues in the statement were discussed at all levels.
- Notify the parties named in the statement of the grievance naming them; and send a copy of the statement to the named parties and to all committee members.
- Notify the grievant and the respondent(s) of the right to challenge committee members for cause, and request early notification of challenge(s) to expedite the grievance procedure.

Challenges or notification that no challenges will be made must be received from the grievant in order for the grievance process to go forward. Challenges from respondents must be received no more than ten (10) working days after the right to challenge notification(s) is mailed. Included in this notification will be a list of the names of all current, regular grievance committee members. The Graduate School Student Advocate, in consultation with the

Chair of the Graduate School Academic Grievance Committee, will determine if sufficient cause is represented in any challenge to exclude a Committee member from participating in the grievance process.

- Meet within twenty (20) working days after receiving both the written statement of any grievance and the grievant's response to the right to challenge committee members and recommend to the Dean of the Graduate School whether sufficient grounds exist to accept a case for hearing. If the Committee recommends against holding a hearing and the Dean concurs, the grievance process is ended. If the Committee recommends against holding a hearing and the Dean does not concur, the Dean can instruct the Committee to hold a hearing. If the Committee recommends that a hearing be held, the Committee shall hear the case. The Committee shall notify, in writing, all persons directly involved as to the reasons for its recommendation. If a grievance statement is received less than fifteen (15) working days before the end of the spring semester and the grievance committee is unable to convene a meeting due to the absence of some of its members from campus during the summer term, the Grievance Committee will meet within ten (10) working days after the beginning of the fall semester.

- If a hearing will be held, notify in writing all the parties involved, including any witnesses, of the date, time and place of the hearing at least ten (10) days prior to the hearing date (which shall be within thirty (30) working days of receipt of the written grievance).

- Request in writing from all parties involved any pertinent material deemed necessary for review by the committee prior to the hearing. These materials, and any additional materials either party chooses to submit, must be submitted to the committee not later than four (4) days prior to the hearing. Any person named in a grievance may submit a written statement to the committee outlining issues from that person's perspective.

- Maintain confidentiality throughout the entire grievance process.

- If a hearing will be held, request in writing from all parties involved to indicate if they wish to bring an advisor with them to the hearing and whether or not that advisor is an attorney.

Note: If present during the hearing, an advisor may act only as a consultant to the grievant or respondent and is not permitted to speak on behalf of the grievant or respondent, ask any

questions of any involved parties, or present any evidence. This information should be submitted to the committee at least seven (7) days prior to the hearing.

- If a hearing will be held, request in writing from all parties involved a list of the name(s) of any witness(es) they wish to invite to the committee at least seven (7) days prior to the hearing date.

The action of the grievance committee as to whether to grant a hearing when accepted by the Dean of the Graduate School shall be final and binding on all parties except when subject to the condition of appeal, as described in Sections 6 and 7.

All communications among the committee, the grievant(s), and the person(s) named in the statement of grievance will be confidential.

#### **Section 4: Hearing Process**

All hearings conducted by the Graduate School Academic Grievance Committee shall be conducted confidentially in the following manner:

- The grievant(s) and the respondent(s) must be present during the information-gathering portion of the hearing. Witnesses will be available and will be reserves the right to allow the presence of

a secretary or a technical assistant.

- A grievant or respondent may have one advisor present at the hearing. An advisor may act only as consultant to the grievant or respondent and is not permitted to speak on behalf of the grievant or respondent, ask any questions of any involved parties, or present any evidence.

The grievant or respondent must notify the committee no less than seven (7) days prior to the hearing whether or not the advisor is an attorney. If the grievant chooses to have an attorney present, the University may decide to retain an attorney to act as advisor to the Committee members or to the respondent(s).

- All statements during the information-exchange phase of the hearing will be tape-recorded.

This record will be preserved in the University Archives for a minimum of five years and shall be confidential.

- Any committee member may question any of the participants at the hearing.

- The grievant will present his or her statements and/or witnesses to the committee.

- The respondent will have the opportunity to

question the grievant(s) and the witnesses about their statements.

- The respondent will present his or her statements and/or witnesses to the committee.
- The grievant will have the opportunity to question the respondent(s) about their statements.
- After all information is exchanged, all persons except the committee members and the recording secretary will leave the committee room.
- The grievant(s), the respondent(s), and the witnesses will continue to be available to the committee should further information be needed.
- The Committee will meet in closed session to decide upon its recommendation(s) to the Dean of the Graduate School.
- The committee shall submit its report with recommendation(s) and reasons for the recommendation(s), to the grievant(s), the respondent(s), and the Dean of the Graduate School. If the grievance directly involves the Dean, the report and recommendation(s) of the Graduate School Academic Grievance Committee shall be referred for decision to the University Provost.
- The student's grievance will not be included as part of the student's record, unless it results in a change in student status or the student voluntarily inserts the information.
- Until the grievance is resolved, the student may continue the natural academic progression through the academic unit, subject to the requirements of Article 6.6, "Academic Review, Advancement, Probation, and Dismissal of Students," and Article 6.7, "Nonacademic Disciplinary Procedures," of The Redbook.

### **Section 5: Decision**

The Dean of the Graduate School (or the Provost in cases where the Graduate Dean is directly involved in the grievance) shall approve or reject the committee's recommendation(s) within twenty-eight (28) days after receiving it (them). If the decision of the Dean or Provost is not in accord with the committee's recommendation(s), the Dean or Provost shall state the reasons for that decision, in writing, to all persons directly involved in the grievance and to the committee.

The Dean or Provost shall then take appropriate action to implement his or her decision after the time for appeal has elapsed.

### **Section 6: Rehearing**

A grievance committee, within twenty-one (21) days after delivery of its report, may be petitioned to reconsider its decision upon the basis of evidence of misrepresentation of materials, facts, or upon the basis of newly discovered evidence clearly not available at the original hearing.

### **Section 7: Appeal**

Any party to the grievance may appeal to the University Student Grievance Committee within twenty-one (21) days from the date of the final decision of the Dean of the Graduate School or Provost if the Dean's or Provost's decision does not concur with the recommendation of the grievance committee.

*Revised by the Graduate Council, June 26, 2007*

## **University Policies and Procedures**

### **Student Grievance Officer**

The University of Louisville Student Grievance Officer is a tenured faculty member who is responsible for informing students of their rights and obligations under the University Student Grievance procedure and especially the deadlines that have been established.

The Grievance Officer will assist the student in efforts to achieve informal resolution in as many academic or non-academic complaints possible. One of the main goals of the Student Grievance Officer is to establish an understanding among students, faculty, staff and administration when there is conflict.

Problems pertaining to grades, financial aid, University parking, housing, food services, registration, etc., may all be discussed with the Student Grievance Officer as a means of seeking direction for the pursuit of a resolution.

Any aspect of the University that creates a problem for students is a matter of concern for the Student Grievance Officer.

This service is available to all students. Voice mail is available (852-0440) but e-mail (bghart01@gwise.louisville.edu) is the preferred method of contact.

## Code of Student Conduct

The Code of Student Conduct is the University's policy regarding nonacademic misconduct and discipline of students. The primary purpose for the imposition of non-academic discipline in the University campus setting is to preserve and protect a quality educational environment. The Code of Student Conduct is published in the Student Handbook and is also available on the worldwide web at [www.louisville.edu/student/life/code.htm](http://www.louisville.edu/student/life/code.htm) and through the Student Life Office, Student Activities Center, Room W302. If you have any questions or would like information pertaining to reporting an alleged incident of non-academic misconduct, please contact the Associate Director of Student Life at 852-5787.

## Code of Student Rights and Responsibilities

### Section 1. Purpose

The Code of Student Rights and Responsibilities is set forth in writing in order to give students general notice of their rights and responsibilities at the University of Louisville. Further rights and responsibilities are set forth in other University rules and policies, including the Code of Student Conduct, Residence Hall contracts, and academic unit bulletins. It is the students' responsibility to be aware of all University rules and policies; students should check with the office of the Assistant Vice President for Student Life and with their academic units if they have any questions about the purposes or intent of these policies.

The University is a public educational institution for adults rather than a custodial institution. Consistent with the role of the University to educate its students and to stimulate student autonomy and independence, University regulation and supervision of student life on and off campus is limited. The University does not assume responsibility or liability for the conduct of its students; responsibility and liability for student conduct rests with the student as inherent attributes of his or her adult status, concurrently with the student's freedom of choice regarding his or her presence at the University and his or her own conduct and associations.

### Section 2. Definitions

When used in this Code:

1. The term "academic dishonesty" means

obtaining or seeking to obtain an unfair academic advantage for oneself or for any other student; it includes lying, cheating, stealing, or engaging in otherwise dishonest conduct in the course of or related to any academic exercise.

2. The term "academic exercise" means a test, quiz, examination, speech, presentation, paper, field or laboratory work, or any other academic activity on which a student is evaluated.

3. The term "group" means a number of persons who are associated with each other and who have not complied with the University requirements for recognition as an organization.

4. The term "organization" means a number of persons who are associated with each other and who have complied with the University requirements for recognition.

5. The term "student" means any person taking courses at the University, either full time or part time, pursuing undergraduate, graduate or extension studies on a regular quarter, semester, or summer-term basis.

6. The term "student broadcast" means oral material published on a student operated radio or television station.

7. The term "student press" means either a student publication or a student broadcast.

8. The term "student publication" means written material published by a student organization.

9. The term "teacher" means any person hired by the University to conduct classroom activities. In certain situations, a person may be both "student" and "teacher." Determination of the person's status in a particular situation shall be determined by the surrounding circumstances.

10. The term "University" means the University of Louisville and, collectively, those responsible for its control and operation.

### Section 3. Admission and Financial Aid

All applicants for admission and financial aid to the University shall be considered without regard for race, color, national origin, religion, sex, handicap not affecting qualification, or political beliefs.

### Section 4. Classroom Rights and Responsibilities.

1. A student shall be evaluated on demonstrated knowledge and academic performance, and not on the basis of personal or political beliefs or on the basis of race, color, national origin, religion, sex, age, or handicap not affecting academic performance.

2. A student has freedom of inquiry, of legitimate classroom discussion, and of free expression of his or her opinion, subject to the teacher's responsibilities to maintain order and to complete the course requirements.
3. A student is responsible for fulfilling the stated requirements of all courses in which he or she is enrolled.
4. A student has the right:
  - a. To be informed in reasonable detail at the first or second class meeting about the nature of the course and to expect the course to correspond generally to its description in the appropriate University catalog or bulletin;
  - b. to be informed in writing and in reasonable detail at the first or second class meeting of course requirements and assignments;
  - c. to be informed in writing and in reasonable detail at the first or second class meeting of standards and methods used in evaluating the student's academic performance;
  - d. to be informed in writing of any necessary changes in assignments, requirements, or methods of grading during the semester with the reasons for such changes.
5. A student has the right to confidentiality in the student/teacher relationship regarding the student's personal or political beliefs. Disclosures of a student's personal or political beliefs, expressed in writing or in private conversation, shall not be made public without explicit permission of the student.

Charges of violations of these classroom rights and responsibilities shall be handled through the appropriate academic unit level procedures.

### **Section 5. Academic Dishonesty**

Academic dishonesty is prohibited at the University of Louisville and all of its programs. It is a serious offense because it diminishes the quality of scholarship, makes accurate evaluation of student progress impossible, and defrauds those in society who must ultimately depend upon the knowledge and integrity of the institution and its students and faculty. Academic dishonesty includes, but is not limited to, the following:

1. *Cheating*:
  - a. Using or attempting to use books, notes, study aids, calculators, or any other documents, devices, or information in any academic exercise without prior authorization by the teacher.
  - b. Copying or attempting to copy from another

person's paper, report, laboratory work, computer program, or other work material in any academic exercise.

- c. Procuring or using tests or examinations, or any other information regarding the content of a test or examination, before the scheduled exercise without prior authorization by the teacher.
- d. Unauthorized communication during any academic exercise.
- e. Discussing the contents of tests or examinations with students who have not yet taken the tests or examinations if the instructor has forbidden such discussion.
- f. Sending a substitute to take one's examination, test, or quiz, or to perform one's field or laboratory work; acting as a substitute for another student at any examination, test, or quiz, or at a field or laboratory work assignment.
- g. Conducting research or preparing work for another student, or allowing others to conduct one's research or prepare one's work, without prior authorization by the teacher.

Except when otherwise explicitly stated by the teacher, examination questions shall become public after they have been given.

2. *Fabrication*: Inventing or making up data, research results, information, or procedures, such as:

- a. Inventing or making up data, research results, information, or procedures.
- b. Inventing a record of any portion thereof regarding internship, clinical, or practicum experience.

3. *Falsification*: Altering or falsifying information, such as:

- a. Changing grade reports or other academic records.
- b. Altering the record of experimental procedures, data, or results.
- c. Altering the record of or reporting false information about internship, clinical, or practicum experiences.
- d. Forging someone's signature or identification on an academic record.
- e. Altering a returned examination paper in order to claim that the examination was graded erroneously.
- f. Falsely citing a source of information.

4. *Multiple Submission*: The submission of substantial portions of the same academic work, including oral reports, for credit more than once without prior authorization by the teacher involved.

5. *Plagiarism*: Representing the words or ideas



of someone else as one's own in any academic exercise, such as:

- a. Submitting as one's own a paper written by another person or by a commercial "ghost writing" service.
- b. Exactly reproducing someone else's words without identifying the words with quotation marks or by appropriate indentation, or without properly citing the quotation in a footnote or reference.
- c. Paraphrasing or summarizing someone else's work without acknowledging the source with a footnote or reference.
- d. Using facts, data, graphs, charts, or other information without acknowledging the source with a footnote or reference. Borrowed facts or information obtained in one's research or reading must be acknowledged unless they are "common knowledge". Clear examples of "common knowledge" include the names of leaders of prominent nations, basic scientific laws, and the meaning of fundamental concepts and principles in a discipline. The specific audience for which a paper is written may determine what can be viewed as "common knowledge": for example, the facts commonly known by a group of chemists will differ radically from those known by a more general audience. Students should check with their teachers regarding what can be viewed as "common knowledge" within a specific field or assignment, but often the student will have to make the final judgment. When in doubt, footnotes or references should be used.

6. *Complicity in Academic Dishonesty*: Helping or attempting to commit an academically dishonest act. The academic units may have additional guidelines regarding academic dishonesty.

It is the student's responsibility to check with their teachers and academic units to obtain those guidelines.

### **Section 6. Discipline Procedures for Academic Dishonesty**

Charges of academic dishonesty shall be handled through the appropriate academic unit level procedures.

An academic unit that determines that a student is guilty of academic dishonesty may impose any academic punishment on the student that it sees fit, including suspension or expulsion from the academic unit. A student has no right to appeal the final decision of an academic unit.

However, a student who believes that he or she has been treated unfairly, has been discriminated against, or has had his or her rights abridged by the academic unit may file a grievance with the Unit Academic Grievance Committee, pursuant to the provisions of the Student Academic Grievance Procedure; the Unit Academic Grievance Committee may not substitute its judgment on the merits for the judgment of the academic unit.

An academic unit that suspends or expels a student from the academic unit because the student has been found guilty of academic dishonesty may recommend to the University Provost in writing that the student also be suspended or expelled from all other programs and academic units of the University. Within four weeks of receiving such a recommendation, the Provost shall issue a written decision. Neither the student nor the academic unit shall have the right to appeal the Provost's decision. However, a student who believes that he or she has been treated unfairly, has been discriminated against, or has had his or her rights abridged by the issuance of a decision by the Provost may file a grievance with the University Student Grievance Committee, pursuant to the provisions of the Student Academic Grievance Procedure; the University Student Academic Grievance Committee may not substitute its judgment on the merits for the judgment of the Provost.

### **Section 7. Campus Expression**

1. Students have the right of freedom of expression to the extent allowed by law.
2. Students may picket or demonstrate for a cause, subject to the following conditions:
  - a. The students must act in an orderly and peaceful manner.
  - b. The students must not in any way interfere with the proper functioning of the University.
  - c. Where students demonstrate in an area not traditionally used as an open public forum, the University reserves the right to make reasonable restrictions as to time, place, and manner of the student demonstrations.
3. Students may distribute written material on campus without prior approval, providing such distribution does not disrupt the operations of the University or violate University rules.
4. Students may invite to campus and hear on campus speakers of their choice on subjects of their choice; approval will not be withheld by any University official for the purpose of censorship.

### **Section 8. The Student Press**

1. The student press is free to deal openly, fearlessly, and responsibly with issues of interest and importance to the academic community. There shall be no prior approval of student press content by the University.
2. The student press is responsible for adhering to the canons of responsible journalism and for complying with the law. Student publications and broadcasts shall not publish libelous or slanderous matter, or any other content that violates the law.
3. All student publications and broadcasts shall explicitly state that the opinions expressed are not necessarily those of the University or its student body.
4. Students may not be disciplined by the University for their participation with the student press except for violations of University rules that are not inconsistent with the guarantees contained herein.

### **Section 9. University Facilities**

Appropriate University facilities shall be available to organizations within the University community for regular business meetings, for social programs, and for programs open to the public.

1. Reasonable conditions may be imposed to regulate the timeliness of requests, to determine the appropriateness of the space assigned, to regulate time and use, and to insure proper maintenance.
2. Preference may be given to programs designed for audiences consisting primarily of members of the University community.
3. Allocation of space shall be made based on priority of requests and the demonstrated needs of the organization.
4. Charges may be imposed for any unusual costs for use of facilities.
5. Physical abuse of assigned facilities may result in reasonable limitations on future allocation of space to offending parties and will require restitution of damages.
6. The organization requesting space must inform the University of the general purpose of any meeting open to persons other than members and the names of outside speakers.

### **Section 10. Use of University Name and Insignia**

No individual, group, or organization may use the University name or insignia without the express authorization of the University except to

identify the University affiliation. University approval or disapproval of any policy or issue may not be stated or implied by any individual, group, or organization.

### **Section 11. Campus Residence Facilities**

Students have the right of privacy in campus residence facilities.

1. Nothing in the University relationship or residence hall contract may expressly or impliedly give the institution or residence hall officials authority to consent to search of a student's room or residence by police or other law enforcement officials unless they have obtained a search warrant.
2. The University reserves the right to enter a student's room in a residence hall or a student's apartment in a campus residence:
  - a. in emergencies where imminent danger to life, safety, health, or property is reasonably feared;
  - b. to make necessary repairs, improvements, or alterations in the facility;
  - c. to provide necessary pest control services;
  - d. to inspect the facility as deemed necessary by the University.

### **Section 12. Student Records**

The privacy and confidentiality of all student records shall be preserved in accordance with applicable laws. The University shall establish and adhere to a clear and definitive records policy.

### **Section 13. Campus Organizations**

Organizations and groups may be established within the University for any legal purpose. Affiliation with an extramural organization shall not, in itself, disqualify the University branch or chapter from University privileges. A group shall become a formally recognized organization through procedures established by the Student Government Association, upon approval of the Vice President for Student Affairs.

1. Groups of a continuing nature must institute proceedings for formal recognition if they are to receive benefits from the University.
2. Recognition of an organization by the University infers neither approval nor disapproval of the aims, objectives, and policies of the organization, nor liability for the actions of the organization.
3. Membership in all University-related organizations shall be open to any member of the University community who is willing to subscribe to the stated aims and meet the stated

obligations of the organization, provided such aims and obligations are lawful.

4. Membership lists are confidential and solely for the use of the organization, except that names and addresses of current organization officers shall be reported to the University as a condition of continuing University recognition.

5. Any organization that engages in activities either on or off campus that are illegal or contrary to any University policy may have sanctions imposed against it, including withdrawal of University recognition.

#### **Section 14. Promulgation of University Rules Affecting Students**

Rules and Policies affecting students shall be published in the Student Handbook, in the appropriate University catalogs, or in any other appropriate publication prior to their enforcement.

Included in the Student Handbook are the following:

Academic Grievance Procedure, Code of Student Conduct, Code of Student Rights and Responsibilities, Policy on Consumption of Alcoholic Beverages for Recognized Student Organizations, Hazing and Initiation Activities Policy, Non-academic Grievance Policy and the Sexual Harassment Policy. Copies of the Student Handbook are available from the Office of Student Life.

### **Privacy of Student Records**

The University of Louisville hereby notifies students concerning the Family Educational Rights and Privacy Act of 1974 (FERPA). This Act, with which the institution intends to comply fully, was designed to protect the privacy of educational records, to establish the right of students to inspect and review their education records, and to provide guidelines for the correction of inaccurate or misleading information. Students also have the right to file complaints with the Family Educational Rights and Privacy Act Office, Department of Education, concerning alleged failures by the institution to comply with the Act.

The University has adopted a policy which explains in detail the procedures to be used by the University for compliance with the provisions of the Act and the regulations adopted pursuant thereto. Copies of the policy can be obtained

from the University Archives and Records Center, Ekstrom Library. Questions concerning the Family Educational Rights and Privacy Act may be referred to the Director, University Archives and Records Center or visit the Website at:  
[library.louisville.edu/uarc/stupriv.htm](http://library.louisville.edu/uarc/stupriv.htm).

### **Drug-Free Schools and Communities Act Amendments of 1989**

On December 12, 1989, President Bush signed into law the Drug-Free Schools and Communities Act Amendments of 1989. These Amendments require that higher education institutions receiving any federal funding must notify each student and employee annually of its program to prevent the illicit use of drugs and the abuse of alcohol by students and employees.

We at the University of Louisville have begun programs in the past few years to combat the misuse and abuse of alcohol and other chemical substances. We realize; however, that only through a concerted effort by all, can we make any major strides in preventing substance abuse.

The following is the University of Louisville's Drug-Free Schools Notice:

Drug-Free Schools Notice as required by the Federal Drug-Free Schools and Communities Act Amendments of 1989, you are hereby notified by the University of Louisville that on University premises or at University sponsored activities the following acts are prohibited:

1. distribution, possession, or use of any illegal drug or controlled substance without legal authorization;
  2. providing alcoholic beverages to individuals under 21 years of age, or possession of alcoholic beverages by individuals under 21 years of age; or
  3. illegal possession of an open container of an alcoholic beverage, public intoxication, driving while intoxicated, and drinking alcoholic beverages in an unlicensed public place.
- In addition to imposition of disciplinary sanctions under University procedures including suspension or separation from the University for such acts, students or employees may face

prosecution and imprisonment under Federal and Kentucky laws which make such acts felony and misdemeanor crimes.

The Code of Student Conduct lists details of offenses and disciplines for students. Staff may be disciplined under Section 11.1 of the Staff Handbook. Faculty may be disciplined by Deans per Redbook Sections 4.5.3 or 3.2.2 with review per 4.4 for sanctions less than dismissal or suspension for one year.

The health risks associated with the misuse and abuse of mind-altering drugs, including controlled substances and alcohol, include but are not limited to: physical and psychological dependence; damage to the brain, pancreas, kidneys and lungs; high blood pressure, heart attacks, and strokes; ulcers; birth defects; a diminished immune system; and, death.

The Counseling Center and Student Health Services provide assessment and referral services to University students, as well as serving as an alcohol and other drug information/education resource. For further information, call 852-6585.

Service for faculty and staff are available through the Faculty/Staff Assistance Program. For further information call 852- 6543.

## **Americans with Disabilities Act**

### **ADA Policy Statement University of Louisville**

The University of Louisville is committed to providing equal opportunity for persons with disabilities in full compliance with the Americans with Disabilities Act of 1990 (ADA), and Section 504 of the Rehabilitation Act of 1973 (504). The University's 504/ADA Coordinator is responsible for all campus activities relevant to Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) of 1990.

The University Affirmative Action Officer will monitor compliance and assist all unit heads in meeting their equal opportunity obligations. The University Disability Resource Center staff will assist the university community in fulfilling its responsibility by serving as an information resource center and coordinating support services for students with disabilities.

### **ADA and 504 Grievance Procedures University of Louisville**

The following grievance procedure is being recommended to provide prompt and equitable resolution of complaints concerning ADA and Section 504 of the Rehabilitation Act of 1973. The University of Louisville ADA Grievance Procedure is an internal grievance procedure providing for prompt and equitable resolution of complaints alleging any action prohibited by the U.S. Department of Justice regulations implementing Title II of the Americans with Disabilities Act. Title II states, in part, that "no otherwise qualified individual with a disability shall, solely by reason of such disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination" in programs or activities sponsored by an agency. General information regarding ADA or 504 can be addressed to:

**Director  
Disability Resource Center  
Robbins Hall Room 101  
852-6938**

Complaints should be addressed to the person who has been designated to coordinate ADA compliance efforts:

**Director  
Affirmative Action Office  
Personnel Services Building  
852-6538**

1. A complaint should be filed in writing, contain the name and address of the person filing it, and briefly describe the alleged violation. Upon receipt of the written notice of complaint, the Director of Affirmative Action/Employee Relations or his/her designee shall acknowledge receipt within five workdays.
2. A complaint should be filed within 180 days after the complainant becomes aware of the alleged violation.
3. An investigation, as may be appropriate, shall follow a filing of complaint. The investigation shall be conducted by the Affirmative Action Office. This internal Complaint procedure contemplates an informal but thorough investigation, affording all interested persons and their representatives, if any, an opportunity to submit evidence relevant to a complaint.
4. A written determination regarding the investigation of the complaint and a description of the resolution, if any, shall be issued by the Affirmative

Action Office and a copy forwarded to the complainant no later than 60 days after its filing.

5. The Affirmative Action Office shall maintain the files and records relating to the complaints filed.

6. The complainants may request a reconsideration of the case in instances where he or she is dissatisfied with the resolution. The request for reconsideration should be made within 15 work days after receipt of the determination to the Affirmative Action Office.

7. The right of a person to a prompt and equitable resolution of the complaint filed hereunder shall not be impaired by the person's pursuit of other remedies such as the filing of an ADA complaint with the responsible federal department or agency. Use of this grievance procedure is not a prerequisite to the pursuit of other remedies.

8. These rules shall be construed to protect the substantive rights of interested persons to meet appropriate due process standards, and to assure that the University complies with the ADA and implementing regulations.

## Special Facilities and Services

### University Libraries

The University offers an extensive library system designed to support undergraduate and graduate teaching, learning and research. The Library system consists of the Main Library, the Fine Arts Library, the Law Library, the Music Library, the Health Sciences Library, the Engineering, Physical Science, and Technology Library and the University Archives and Records Center. Total library holdings number approximately two million volumes.

The libraries subscribe to 24,872 journals and to over 30 electronic databases, with electronic access to more than 30,000 journals. In addition, the libraries hold over 2 million items in microform.

The University Libraries provide access to electronic resources and databases covering a wide spectrum of subjects for faculty, staff and students.

The Interlibrary Loan units of the Ekstrom and Health Sciences libraries provide access to the collections of the Kentuckiana Metroversity

member schools, the Kentucky Commonwealth Virtual Library (KCVL), and other libraries throughout the state, nation and the world for materials not owned by the University of Louisville Libraries. The libraries' collections are accessed through the Minerva online catalog at: [library.louisville.edu/](http://library.louisville.edu/)

For more extensive information regarding The University of Louisville Libraries visit their website: [www.louisville.edu/library/](http://www.louisville.edu/library/)

### University Archives and Records Center

The University Archives is a research repository of national significance. It contains primary sources relating to the university, Louisville, and the nation. It attracts students, faculty, and scholars from Louisville, from elsewhere in the U.S., and from other countries. It collects, preserves, and makes available for research historical manuscripts, oral history interviews, and other primary research materials, and thus serves as a research laboratory for humanists, social scientists, and others. Its collections include nineteenth and twentieth century records of area businesses, cultural organizations, social service agencies, and churches; personal papers of politicians, scholars, members of the Jewish and African-American communities, women, and other prominent and representative Louisvillians; and publications, papers, and photographs documenting the history of the university. Students with class projects, theses, or dissertations requiring primary sources are invited to consult this office. Additional information can be found at: [library.louisville.edu/uarc](http://library.louisville.edu/uarc).

### Information Technology Services

U of L's Information Technology unit (IT) is responsible for planning, implementation, deployment, and management of information technology services in support of the instructional, research, administrative, and service programs of the University. For more information regarding the many services offered by Information Technology, please visit their web-site: [www.louisville.edu/it/](http://www.louisville.edu/it/)

### International Center

The International Center is the university-wide clearing house of information and resources for UofL faculty, students, and researchers involved in academic exchanges, overseas "live and learn" opportunities, and academic research.

The International Center promotes energetically the internationalization efforts of the University.

It provides advice and counsel to UofL faculty, students, and researchers traveling abroad and assistance to international students, faculty, and researchers coming to UofL for study or work.  
E-mail: [intcent@louisville.edu](mailto:intcent@louisville.edu)  
[www.louisville.edu/provost/intcent/](http://www.louisville.edu/provost/intcent/)

### **Residence Facilities**

For complete information regarding accommodations and for application forms inquiries should be addressed to the Residence Administration, Belknap Campus, University of Louisville, Louisville, KY 40292.  
[www.louisville.edu/student/housing/](http://www.louisville.edu/student/housing/)

### **Student Health and Insurance**

The University of Louisville offers a Comprehensive Medical Plan to meet student health care needs. This Comprehensive plan is a major medical and hospitalization plan which has coverage for both inpatient and outpatient services. Similar to an HMO, the Health Services Office serves as the primary care provider and a referral is necessary for most services rendered outside of the Student Health Services. Purchase of the Comprehensive Plan provides coverage for physician visits at the Health Services Office (HSO) which has two clinical locations.

To be eligible for coverage under the Comprehensive Plan, students must be one of the following:

1. an undergraduate student taking 6 or more credit hours
2. a graduate student taking 3 or more hours or degree candidate,
3. GTA, GTS and GRA students receiving a stipend check from the University receive the Comprehensive Plan coverage as a benefit of their employment. If you believe you are eligible for this benefit please check with your department to verify coverage.

Dependents of insured students are eligible for the Comprehensive Medical benefits for an additional premium. Insured spouses are eligible for coverage at the Health Service Office facilities.

Children under the age of 18 are not eligible for the Health Services benefit and cannot be seen in the Health Services Office.

The Health Service Offices operate 12 months of the year. The Belknap Office is located on the main Campus, 2207 South Brook Street, in the Student Health & Counseling Building, between the Student Activities Center and the Post Office.

The Health Sciences Center (HSC) Office is located at 550 South Jackson Street, Ambulatory Care Building (ACB) 1st Floor. For more information and appointments, please call the Belknap Office at (502) 852-6479 or the HSC Office at (502) 852-6446. The Insurance Advocate can be reached at (502) 852-6519.

### **Student Services**

Student Services Administration, Undergraduate Admissions, Orientation, Testing Services, Financial Aid, Registrar, Enrollment Systems, Commencement, Residency, and Student-Athlete Certification.

### **Student Life**

Housing and Residence Life, Intramural and Recreational Sports, Student Activities, Greek Life, Recognized Student Organizations, Student Government Association, ACCESS (Adult Services), Service Learning, Swain Student Activities Center Administration, Student Disciplinary Services, Counseling Center, Career Development Center, and International Service Learning Program.

### **Disability Resource Center**

The Disability Resource Center coordinates services and programs for students and prospective students with disabilities. Accommodations and support services are individualized, depending on the needs of each student. Services and programs are designed to assure access for qualified students with disabilities to all programs and activities of the university. Students are strongly encouraged to make early contact with the Disability Resource Center to assure adequate time to implement support services.

## **Financial Aid and Financial Settlement**

### **Continuing Registration**

Tuition and fees are due on, or before, the designated due date for the semester. Payment may be made by cash, check, money order,

charge card (MasterCard, Visa), or financial aid credit.

Payments may be made by mail, by use of the deposit box located in the front entrance of the Houchens Building, or at the Office of the Bursar. Failure to receive a Statement of Account will not relieve the student of the responsibility for making financial settlement by the designated due date. Continuing registrations which are not financially settled by the designated due date may have their course registration cancelled and/or be assessed financial penalties.

The Continuing Registration designated due dates are listed in the current Schedule of Courses and on the Bursar's web site at: [unlink.louisville.edu](http://unlink.louisville.edu) (Tuition-Fees-Payment Options, Payment Options). Students may view their account via ULink. Financial statements are no longer sent to students via mail. All account information may be found on the students ULink.

### **Regular Registration**

Students who register after Continuing Registration should be prepared to fully settle financial obligations by the last day to drop/add for the semester. Failure to fully settle financial obligations may result in course cancellation and/or financial penalties.

### **Senior Citizen Tuition Remission**

The University offers tuition remission to individuals who are classified by Admissions as residents of Kentucky and are at least 65 years of age on, or before, the first day of classes for the semester. Special costs, such as course fees and parking, are not covered by this program and are the financial responsibility of the student.

Proof of age may be shown by presenting a driver's license or other age verification document at the Office of the Bursar.

These individuals must secure permission of the Graduate School in order to enroll in graduate level courses. Normal admission processes must be followed in order to gain admission to a degree program.

### **Financial Penalties**

Students whose accounts are not paid by established semester deadlines may be subject to course cancellation. Students with unpaid

account balances will be placed on Financial Hold by the Bursar's Office. Students placed on Financial Hold become ineligible for further registration and transcripts will not be released until the student account is paid in full. A late payment fee of \$50.00 may be assessed when student accounts are not paid by the last day to drop/ add. A student whose payment is not honored by the bank on which it was drawn may be assessed a return payment fee. If restitution is not made within 10 days of notification, the student may be subject to course cancellation and/ or legal action.

Debtors who do not make satisfactory payment arrangements on their past due accounts may have their accounts placed with a collection agency. It is the policy of the University that unpaid accounts will be assessed the costs and expenses of collection, including attorney fees.

### **Withdrawal Policy**

The effective withdrawal date is the date on which the withdrawal is processed in the Student Records System. This date is used in calculating any applicable tuition reduction.

### **Financial Aid Recipients**

Determinations regarding refunds of resulting credit balances will be based on regulations governing the financial aid awarded to the student.

Federal regulations mandate that students have the right to cancel all or a portion of an EFT loan disbursement and have the loan proceeds returned to the lender. To request cancellation of all or a portion of your loan, contact the Financial Aid Office in writing. (Financial Aid Office, University of Louisville, Louisville KY 40292)

For additional information contact Student Financial Aid Office or review our Consumer Information online at: [www.financialaid.louisville.edu](http://www.financialaid.louisville.edu)

### **Financial Settlement Options**

Due dates, payment information, payment plan options, and payment plan forms for specific semesters is updated regularly on the Bursar's web site at: [www.ulink.louisville.edu](http://www.ulink.louisville.edu), Tuition-Fees-Payment Options, Payment Options. Any questions may be directed to the Bursar's Office (502-852-6503). You may also address your questions to the Bursar's Office by

email and receive an email response (bursar@louisville.edu).

### **Financial Aid**

If federal financial assistance is needed, the Free Application for Federal Student Aid (FAFSA) may be obtained on the web at [www.fafsa.ed.gov](http://www.fafsa.ed.gov), by calling the Federal Student Aid Information Center at 1800-433-3243, or in U of L's Financial Aid Office. The formal application period for financial assistance for the following academic year is January 1 to March 15. Applications submitted after March 15 will be evaluated subject to the availability of funds. Applications and information are available from the Student Financial Aid Office, Belknap Campus, University of Louisville, Louisville, KY 40292 or visit our website [www.louisville.edu/student/services/fin-aid](http://www.louisville.edu/student/services/fin-aid).

### **Contact Information**

Student Financial Aid Office  
University of Louisville  
Louisville, KY 40292  
Website: [www.financialaid.louisville.edu](http://www.financialaid.louisville.edu)  
Email: [finaid@louisville.edu](mailto:finaid@louisville.edu)  
Call Center: 502-852-5511  
Fax: 502-852-0182

### **Satisfactory Academic Progress for Financial Aid Assessment**

All students who apply for aid from the federal financial aid programs must meet the standards of the University's Satisfactory Academic Progress Policy. This policy consists of three components: GPA, FEH, and FAYE. Graduate students are not considered to be meeting the GPA requirement as long as they are allowed to continue to enroll. Financial Aid Earned Hours (FEH) is a quantitative measure to evaluate minimum financial aid earned hours during each term for which federal aid was disbursed. Graduate students who receive federal aid based on at least half time enrollment are expected to earn 4.5 hours each semester or 9 hours fall/spring and 12 if you attended the prior summer term.

Financial Aid Years of Eligibility (FAYE) is an index which establishes limitations on the cumulative length of time that a student may be enrolled in a degree program and receive consideration for federal financial aid awards. FAYE is a calculation based on the number of cumulative earned hours toward a degree in a student's career. For graduate students the limit has been set at 54 cumulative earned hours.

Graduate School hours are included toward the 90 hour cumulative limit on a Specialist Degree and 108 hours on a Doctorate Degree. Once students have reached the maximum FAYE, they are no longer eligible for federal financial aid at their current degree level.

### **Aid Recipients Receiving All `F' Grades**

A student receiving all `F' grades is required to comply with the federal Title IV Refund Policy as well as the University of Louisville Satisfactory Academic Progress Policy. When federal financial aid either partially or fully pays educational expenses and the student receives all `F' grades, the Financial Aid Office is required by federal regulation to treat the student's financial aid file as an "Unofficial Withdrawal."

The student can avoid this status by providing acceptable proof of attendance or participation in a class related activity beyond the midpoint of the semester. If not, then an unofficial withdrawal status is considered and the Financial Aid Office must cancel and return fifty percent of the University charges back to the Title IV programs.

### **Scholarships**

All students are encouraged to contact their particular College or University Department for information on scholarships and/or fellowship opportunities. Please visit our Outside Scholarship webpage at [www.financialaid.louisville.edu](http://www.financialaid.louisville.edu) for free search websites, guides to avoid scholarship scams, and postings on outside scholarships.

### **Federal Perkins Loan**

The Federal Perkins Loan program provides low interest loans to students who demonstrate exceptional financial need. Eligibility requirements are established by the Student Financial Aid Office, and the University becomes the student's lender. Repayment begins 9 months after a student graduates, leaves school, or drops below half-time status. Award amounts for fulltime students at U of L are determined annually.

The aggregate total that a graduate may borrow cannot exceed \$40,000 including any Perkins borrowed as an undergraduate.

### **Federal Stafford Loan Program (*subsidized and unsubsidized*)**

Federal Stafford Loans are low-interest loans



made to students by lenders such as banks, credit unions, and savings and loan companies to help students pay for the cost of postsecondary education. Any degree-seeking student attending U of L at least half-time may borrow through this program. Students may qualify for a need-based, subsidized Stafford Loan, a non-need based, unsubsidized Stafford Loan, or a combination of both. Need-based loans are called subsidized because the federal government pays the interest during in-school and deferment periods. Loan amounts are determined by a student's grade level, financial need, and cost of attendance. Graduate students may borrow up to \$8,500 per year in the subsidized Stafford Loan program, and up to an additional \$10,000 per year in the unsubsidized Stafford Loan program. Graduate students may not borrow more than \$138,500 (\$65,500 in the subsidized program, and \$73,000 in unsubsidized loans). The graduate debt limit includes loans received as an undergraduate. The interest rate for Stafford Loans is variable with a cap of 8.25%. The rate changes every July 1. Repayment of Stafford Loans begins six months after a student graduates, leaves school, or drops below half-time. Subsidized Stafford Loan borrowers will not have to pay any principal or interest during the six month "grace" period; unsubsidized Stafford Loan borrowers will be responsible for the interest during the deferment and grace periods.

All Stafford Loans at U of L are processed electronically through Kentucky Higher Education Assistance Authority (KHEAA).

### **Graduate Training Assistantships**

Graduate teaching, research, and service assistantships are available to qualified students in most graduate programs. These assistantships provide tuition remission, health insurance, and a stipend that is adequate to cover basic living expenses. Applicants who are interested in being considered for assistantships, should write to the chair or graduate advisor of the department to which they are applying for admission, stating their desire to be appointed as a graduate assistant.

The award of an assistantship is competitive; students who hope to be considered should present credentials that are well above the minimum required for admission.

The purpose of a graduate assistantship is to provide experience and training that augment a student's academic program. The department chair or graduate advisor will attempt to place a student in an assistantship believed to best serve the career training objective of the student.

Although a student is free to make known a preference for a particular placement, the final decision is the prerogative of the department in which the student is enrolled.

The distribution of assistantships across departments may differ from year to year. Moreover, some departmental policies require that a student complete 9-18 graduate credit hours in the program before being eligible for an assistantship.

### **Minority Student Assistantships/ Scholarships**

The Graduate School is committed to providing financial support for the recruitment and retention of qualified, under represented ethnic minority students. An award candidate must be currently enrolled or have been admitted to the degree program (M.S. or Ph.D.) and be nominated by the Department Chair and Dean.

These assistantships include a monthly stipend, tuition remission and health insurance.

### **Resigning Appointments**

As a member of the Council of Graduate Schools in the United States, the University of Louisville subscribes to the Resolution Regarding Scholars, Fellows, Trainees, and Graduate Assistants:

Acceptance of an offer of financial support (such as a graduate scholarship, fellowship, traineeship, or assistantship) for the next academic year by a prospective or enrolled graduate student completes an agreement that both student and graduate school expect to honor. In that context, the conditions affecting such offers and their acceptance must be defined carefully and understood by all parties.

Students are under no obligation to respond to offers of financial support prior to April 15; earlier deadlines for acceptance of such offers violate

the intent of this Resolution. In those instances in which a student accepts an offer before April 15, and subsequently desires to withdraw that acceptance, the student may submit in writing a resignation of the appointment at any time through April 15. However, an acceptance given or left in force after April 15 commits the student not to accept another appointment without first obtaining a written release from any previously accepted offer. It is further agreed by the institutions and organizations subscribing to the above Resolution that a copy of the Resolution should accompany every scholarship, fellowship, traineeship, and assistantship offer.

### **University Fellowships**

A limited number of University fellowships may be awarded to outstanding students in the doctoral programs. These carry a generous stipend, health insurance, and full tuition remission. Nominations are made each spring to the Dean of the Graduate School by the chairs of departments granting the doctorates. Students do not directly apply to the Graduate School for these awards.

Students who wish to be considered for fellowships should submit all credentials by January 15.

## **Residency Policy and Fees**

13 KAR 2:045. Determination of residency status for admission and tuition assessment purposes.

RELATES TO: KRS Chapter 13B, 164.020, 164.030, 164A.330(6) STATUTORY  
AUTHORITY: KRS 164.020(8)

### **NECESSITY, FUNCTION, AND CONFORMITY:**

KRS 164.020(8) requires the Council on Postsecondary Education to determine tuition and approve the minimum qualifications for admission to a state-supported postsecondary education institution and authorizes the Council to set different tuition amounts for residents of Kentucky and for nonresidents. This administrative regulation establishes the procedure and guidelines for determining the residency status of a student who is seeking admission to, or who is enrolled at, a state-supported postsecondary education institution.

### **Section 1. Definitions**

(1) "Academic term" means a division of the school year during which a course of studies is

offered, and includes a semester, quarter, or single consolidated summer term as defined by the institution.

(2) "Continuous enrollment" means enrollment in a state-supported postsecondary education institution at the same degree level for consecutive terms, excluding summer term, since the beginning of the period for which continuous enrollment is claimed unless a sequence of continuous enrollment is broken due to extenuating circumstances beyond the student's control, including serious personal illness or injury, or illness or death of a parent.

(3) "Degree level" means enrollment in a course or program which could result in the award of a: (a) Certificate, diploma or other program award at an institution;

(b) Baccalaureate degree or lower including enrollment in a course by a non-degree-seeking post baccalaureate student;

(c) Graduate degree or graduate certification other than a first-professional degree in law, medicine, dentistry or "Pharm. D"; or

(d) Professional degree in law, medicine, dentistry, or "Pharm. D".

(4) "Demonstration of Kentucky domicile and residency" means the presentation of documented information and evidence sufficient to prove by a preponderance of the evidence that a person is domiciled in Kentucky and is a resident of Kentucky.

(5) "Dependent person" means a person who cannot demonstrate financial independence from parents or persons other than a spouse and who does not meet the criteria established in Section 5 of this administrative regulation.

(6) "Determination of residency status" means the decision of a postsecondary education institution that may include a formal hearing that results in the classification of a person as a Kentucky resident or as a nonresident for admission and tuition assessment purposes.

(7) "Domicile" means a person's true, fixed, and permanent home and is the place where the person intends to remain, and to which the person expects to return if absent without intending to establish a new domicile elsewhere.

(8) "Full-time employment" means continuous employment for at least forty-eight (48) weeks at an average of at least thirty (30) hours per week.

(9) "Independent person" means a person who demonstrates financial independence from parents or persons other than a spouse and who can meet the criteria established in Section 5 of this administrative regulation.

(10) "Institution" means an entity defined in KRS

164.001(11) if the type of institution is not expressly stated and includes the Kentucky Virtual University, the Council on Postsecondary Education, and the Kentucky Higher Education Assistance Authority.

(11) "Kentucky resident" means a determination by an institution that a person is domiciled in and is a resident of Kentucky as determined by this administrative regulation.

(12) "Nonresident" means a person who is domiciled outside of Kentucky or who currently maintains legal residence outside Kentucky or who is not a Kentucky resident within the meaning of this administrative regulation.

(13) "Parent" means one (1) of the following:

(a) A person's father or mother; or

(b) A court-appointed legal guardian if:

1. The guardianship is recognized by an appropriate court within the United States;
2. There was a relinquishment of the rights of the parents; and
3. The guardianship was not established primarily to confer Kentucky residency on the person.

(14) "Preponderance of the evidence" means the greater weight of evidence, or evidence which is more credible and convincing to the mind.

(15) "Residence" means the place of abode of a person and the place where the person is physically present most of the time for a non-educational purpose in accordance with Section 3 of this administrative regulation.

(16) "Student financial aid" means all forms of payments to a student if one (1) condition of receiving the payment is the enrollment of the student at an institution.

(17) "Sustenance" means living expenses including room, board, maintenance, transportation, and also may include educational expenses including tuition, fees, books, and supplies.

## **Section 2. Scope**

(1) State-supported postsecondary education institutions were established and are maintained by the Commonwealth of Kentucky primarily for the benefit of qualified residents of Kentucky. The substantial commitment of public resources to postsecondary education is predicated on the proposition that the state benefits significantly from the existence of an educated citizenry. As a matter of policy, access to postsecondary education shall be provided so far as feasible at reasonable cost to an individual who is

domiciled in Kentucky and who is a resident of Kentucky.

(2) The Council on Postsecondary Education may require a student who is neither domiciled in nor a resident of Kentucky to meet higher admission standards and to pay a higher level of tuition than resident students.

(3) This administrative regulation applies to all student residency determinations regardless of circumstances, including residency determinations made by the state-supported institutions for prospective and currently-enrolled students; the Southern Regional Education Board contract spaces; reciprocity agreements, where appropriate; the Kentucky Virtual University; academic common market programs; the Kentucky Educational Excellence Scholarship Program; and other state student financial aid programs, as appropriate.

## **Section 3. Determination of Residency Status; General Rules**

(1) A determination of residency shall include:

(a) An initial determination of residency status by an institution during the admission process or upon enrollment in an institution for a specific academic term or for admission into a specific academic program;

(b) A reconsideration of a determination of residency status by an institution based upon a changed circumstance; and

(c) A formal hearing conducted by an institution upon request of a student after other administrative procedures have been completed.

(2) An initial determination of residency status shall be based upon:

(a) The facts in existence when the credentials established by an institution for admission for a specific academic term have been received and during the period of review by the institution;

(b) Information derived from admissions materials;

(c) Other materials required by an institution and which are consistent with this administrative regulation; or

(d) Other information available to the institution from any source.

(3) An individual seeking a determination of Kentucky residency status shall demonstrate that status by a preponderance of the evidence.

(4) A determination of residency status shall be based upon verifiable circumstances or actions.

(5) Evidence and information cited as the basis for Kentucky domicile and residency shall accompany the application for a determination of residency status.

- (6) A student classified as a nonresident shall retain that status until the student is officially reclassified by an institution.
- (7) A student may apply for a review of a determination of residency status once for each academic term.
- (8) If an institution has information that a student's residency status may be incorrect, the institution shall review and determine the student's correct residency status.
- (9) If the Council on Postsecondary Education has information that an institution's determination of residency status for a student may be incorrect, it may require the institution to review the circumstances and report the results of that review.
- (10) An institution shall impose a penalty or sanction against a student who gives incorrect or misleading information to an institutional official, including payment of nonresident tuition for each academic term for which resident tuition was assessed based on an improper determination of residency status. The penalty may also include:
- (a) Student discipline by the institution through a policy written and disseminated to students; or
  - (b) Criminal prosecution.

#### **Section 4. Presumptions Regarding Residency Status**

- (1) In making a determination of residency status, it shall be presumed that a person is a nonresident if:
- (a) A person is, or seeks to be, an undergraduate student and admissions records show the student to be a graduate of an out-of-state high school within five (5) years prior to a request for a determination of residency status;
  - (b) A person's admissions records indicate the student's residence to be outside of Kentucky at the time of application for admission;
  - (c) A person moves to Kentucky primarily for the purpose of enrollment in an institution;
  - (d) A person moves to Kentucky and within twelve (12) months enrolls at an institution more than half time; or
  - (e) A person has a continuous absence of one (1) year from Kentucky.
- (2) A presumption arising from subsection (1) of this section shall be overcome by presentation of evidence that is sufficient to demonstrate that a person is domiciled in and is a resident of Kentucky.

#### **Section 5. Determination of Whether a Student is Dependent or Independent**

- (1) In a determination of residency status, an

institution shall first determine whether a student is dependent or independent. This provision is predicated on the assumption that a dependent person lacks the financial ability to live independently of the person upon whom the student is dependent and therefore lacks the ability to form the requisite intent to establish domicile.

(2) In determining the dependent or independent status of a person, the following information shall be considered as well as other relevant information available at the time the determination is made:

- (a) 1. Whether the person has been claimed as a dependent on the federal or state tax returns of a parent or other person for the year preceding the date of application for a determination of residency status; or
  - 2. Whether the person is no longer claimed by a parent or other person as a dependent or as an exemption for federal and state tax purposes; and
  - (b) Whether the person has financial earnings and resources independent of a person other than an independent spouse necessary to provide for the person's own sustenance.
- (3) An individual who enrolls at an institution immediately following graduation from high school and remains enrolled shall be presumed to be a dependent person unless the contrary is evident from the information submitted.
- (4) Domicile may be inferred from the student's permanent address, parent's mailing address, or location of high school of graduation.
- (5) Marriage to an independent person domiciled in and who is a resident of Kentucky shall be a factor considered by an institution in determining whether a student is dependent or independent.
- (6) Financial assistance from or a loan made by a parent or family member other than an independent spouse, if used for sustenance of the student:
- (a) Shall not be considered in establishing a student as independent; and
  - (b) Shall be a factor in establishing that a student is dependent.

#### **Section 6. Effect of a Determination of Dependent Status on a Determination of Residency Status**

- (1) The effect of a determination that a person is dependent shall be:
- (a) The domicile and residency of a dependent person shall be the same as either parent. The domicile and residency of the parent shall be determined in the same manner as the domicile

and residency of an independent person.

(b) The domicile and residency of a dependent person whose parents are divorced, separated, or otherwise living apart shall be Kentucky if either parent is domiciled in and is a resident of Kentucky regardless of which parent has legal custody or is entitled to claim that person as a dependent pursuant to federal or Kentucky income tax provisions.

(2)(a) If the parent or parents of a dependent person are Kentucky residents and are domiciled in Kentucky but subsequently move from the state, the dependent person shall be considered a resident of Kentucky while in continuous enrollment at the degree level in which currently enrolled.

(b) If continuous enrollment is broken or the current degree level is completed, the dependent person's residency status shall be reassessed when the circumstances detailed in subparagraph 1 of this paragraph are present.

#### **Section 7. Member of Armed Forces of the United States, Spouse and Dependents; Effect on a Determination of Residency Status**

(1) A member, spouse, or dependent of a member whose domicile and residency was Kentucky at the time of induction into the Armed Forces of the United States, and who maintains Kentucky as home of record and permanent address, shall be entitled to Kentucky residency status:

(a) During the time of active service; or

(b) If the member, spouse, or dependent returns to this state within six (6) months of the date of the member's discharge from active duty.

(2)(a) A member, spouse or dependent of a member of the Armed Forces of the United States stationed in Kentucky on active military orders shall be considered a Kentucky resident while the member is on active duty in this state pursuant to those orders if the member is not:

1. Stationed in Kentucky for the purpose of enrollment at an institution; or
2. On temporary assignment of less than one (1) year.

(b) A member, spouse or dependent of a member, shall not lose Kentucky residency status if the member is thereafter transferred on military orders while the member, spouse or dependent requesting the status is in continuous enrollment at the degree level in which currently enrolled.

(3) Membership in the National Guard or civilian employment at a military base alone shall not

qualify a person for Kentucky residency status under the provisions of subsections (1) and (2) of this section.

(4) A person's residency status established pursuant to this section shall be reassessed if the qualifying condition is terminated.

#### **Section 8. Status of Nonresident Aliens; Visas and Immigration**

(1)(a) A person holding a permanent residency visa or classified as a political refugee shall establish domicile and residency in the same manner as another person.

(b) Time spent in Kentucky and progress made in fulfilling the conditions of domicile and residency prior to obtaining permanent residency status shall be considered in establishing Kentucky domicile and residency.

(2) A person holding a nonimmigrant visa with designation A, E, G, H-1, H-4 if accompanying a person with an H-1 visa, I, K, L, N, R, shall establish domicile and residency the same as another person.

(3)(a) An independent person holding a nonimmigrant visa with designation B, C, D, F, H-2, H-3, H-4 if accompanying a person with an H-2 or H-3 visa, J, M, O, P, Q, S, TD or TN shall not be classified as a Kentucky resident, because that person does not have the capacity to remain in Kentucky indefinitely and therefore cannot form the requisite intent necessary to establish domicile within the meaning of this administrative regulation.

(b) A dependent person holding a visa as described in paragraph (a) of this subsection, but who is a dependent of a parent holding a visa as described in subsection (2) of this section, shall be considered as holding the visa of the parent.

(c) A dependent person holding a visa described in subsection (2) of this section or paragraph (a) of this subsection, if a parent is a citizen of the United States and is a resident of and domiciled in Kentucky, shall be a resident of Kentucky for the purposes of this administrative regulation.

(4) A person shall be a Kentucky resident for the purpose of this administrative regulation if the person graduated from a Kentucky high school and:

(a) Is an undocumented alien;

(b) Holds a visa listed in subsections (2) or (3)(a) of this section; or

(c) Is a dependent of a person who holds a visa listed in subsections (2) or (3)(a) of this section.

(5)(a) Except as provided in paragraph (b) of this

subsection, a person who has petitioned the federal government to reclassify visa status shall continue to be ineligible until the petition has been decided by the federal government.

(b) A person who has petitioned the federal government to reclassify visa status based on a marriage to a Kentucky resident and who can demonstrate that the petition has been filed and acknowledged by the federal government, may establish Kentucky domicile and residency at that time.

### **Section 9. Beneficiaries of a Kentucky Educational Savings Plan Trust**

A beneficiary of a Kentucky Educational Savings Plan Trust shall be granted residency status if the beneficiary meets the requirements of KRS 164A.330(6).

### **Section 10. Criteria Used in a Determination of Residency Status**

(1) A determination of Kentucky domicile and residency shall be based upon verifiable circumstances or actions. A single fact shall not be paramount, and each situation shall be evaluated to identify those facts essential to the determination of domicile and residency.

(2) The following facts, although not conclusive, shall have probative value in their entirety and shall be individually weighted, appropriate to the facts and circumstances in each determination of residency:

(a) Acceptance of an offer of full-time employment or transfer to an employer in Kentucky or contiguous area while maintaining residence and domicile in Kentucky;

(b) Continuous physical presence in Kentucky while in a non-student status for the twelve (12) months immediately preceding the start of the academic term for which a classification of Kentucky residency is sought;

(c) 1. Filing of Kentucky resident income tax return for the calendar year preceding the date of application for a change in residency status; or

2. Payment of Kentucky withholding taxes while employed during the calendar year for which a change in classification is sought;

(d) Full-time employment of at least one (1) year while living in Kentucky;

(e) Attendance as a full-time, nonresident student at an out-of-state institution based on a determination by that school that the person is a resident of Kentucky;

(f) Abandonment of a former domicile or residence and establishing domicile and

residency in Kentucky with application to or attendance at an institution following and incidental to the change in domicile and residency;

(g) Obtaining licensing or certification for a professional and occupational purpose in Kentucky;

(h) Payment of real property taxes in Kentucky;

(i) Ownership of real property in Kentucky, if the property was used by the student as a residence preceding the date of application for a determination of residency status;

(j) Long-term lease of at least twelve (12) consecutive months of non-collegiate housing;

(k) Marriage of an independent student to a person who was domiciled in and a resident of Kentucky prior to the marriage;

(l) Continued presence in Kentucky during academic breaks; and

(m) The extent to which a student is dependent on student financial aid in order to provide basic sustenance.

(3) Except as provided in subsection (4) of this section, the following facts, because of the ease and convenience in completing them, shall have limited probative value in a determination that a person is domiciled in and is a resident of Kentucky:

(a) Kentucky automobile registration;

(b) Kentucky driver's license; and

(c) Registration as a Kentucky voter.

(4) The absence of a fact contained in subsection

(3) of this section shall have significant probative value in determining that a student is not domiciled

in or is not a resident of Kentucky.

(5) A person shall not be determined to be a Kentucky resident by the performance of an act which is incidental to fulfilling an educational purpose or by an act performed as a matter of convenience.

Mere physical presence in Kentucky, including living with a relative or friend, shall not be sufficient evidence of domicile and residency.

A person shall respond to all information requested by an institution.

### **Section 11. Effect of a Change in Circumstances on Residency Status**

(1) If a person becomes independent or if the residency status of a parent or parents of a dependent person changes, an institution shall

reassess residency either upon a request by the student or a review initiated by the institution.

(2) Upon transfer to a Kentucky institution, a student's residency status shall be assessed by the receiving institution.

(3) A reconsideration of a determination of residency status for a dependent person shall be subject to the provisions for continuous enrollment, if applicable.

### **Section 12. Student Responsibilities**

(1) A student shall report under the proper residency classification which includes the following actions:

(a) Raising a question in a timely manner concerning residency classification;

(b) Making application for change of residency classification in a timely manner with the designated office or person at the institution; and

(c) Notifying the designated office or person at the institution immediately upon a change in residency.

(2) If a student fails to notify an institutional official of a change in residency, an institutional official may investigate and evaluate the student's residency status.

(3)(a) If a student fails to provide, by the date specified by the institution, information required by an institution in a determination of residency status, the student shall be notified by the institution that the review has been canceled and that a determination has been made.

(b) Notification shall be made by registered mail, return receipt requested.

(c) Notification shall be made within ten (10) calendar days after the deadline for receipt of materials has passed.

(4) A student shall not be entitled to appeal a determination of residency status if the determination made by an institution is because a student has failed to meet published deadlines for the submission of information as set forth in subsection

(3) of this section. A student may request a review of a determination of residency status in a subsequent academic term.

### **Section 13. Institutional Responsibilities.**

Each institution shall:

(1) Provide for an administrative appeals process that includes a residency appeals officer to consider student appeals of an initial residency determination and which shall include a provision of fourteen (14) days for the student

to appeal the residency appeals officer's determination;

(2) Establish a residency review committee to consider appeals of residency determinations by the residency appeals officer. The residency review committee shall make a determination of student residency status and notify the student in writing within forty-five (45) days after receipt of the student appeal;

(3) Establish a formal hearing process as described in Section 14 of this administrative regulation; and

(4) Establish written policies and procedures for administering the responsibilities established in subsections (1), (2), and (3) of this section and that are:

(a) Approved by the institution's governing board;

(b) Made available to all students; and

(c) Filed with the council.

### **Section 14. Formal Institutional Hearing**

(1) A student who appeals a determination of residency by a residency review committee shall be granted a formal hearing by an institution if the request is made by a student in writing within fourteen (14) calendar days after notification of a determination by a residency review committee.

(2) If a request for a formal hearing is received, an institution shall appoint a hearing officer to conduct a formal hearing. The hearing officer:

(a) Shall be a person not involved in determinations of residency at an institution except for formal hearings; and

(b) Shall not be an employee in the same organizational unit as the residency appeals officer.

(3) An institution shall have written procedures for the conduct of a formal hearing that have been adopted by the board of trustees or regents, as appropriate, and that provide for:

(a) A hearing officer to make a recommendation on a residency appeal;

(b) Guarantees of due process to a student that include:

1. The right of a student to be represented by legal counsel; and

2. The right of a student to present information and to present testimony and information in support of a claim of Kentucky residency; and

(c) A recommendation to be issued by the hearing officer.

(4) An institution's formal hearing procedures shall be filed with the Council on Postsecondary Education and shall be available to a student requesting a formal hearing.

### **Section 15. Cost of Formal Hearings**

(1) An institution shall pay the cost for all residency determinations including the cost of a formal hearing.

(2) A student shall pay for the cost of all legal representation in support of the student's claim of residency. (17 Ky.R. 2557; eff. 4-5-91; Am. 22 Ky.R. 1656; 1988; eff. 5-16-96; 23 Ky.R. 3380; 3797; 4099; eff. 6-16-97; 24 Ky.R. 2136; 2705; 25 Ky.R. 51; eff. 7-13-98; 25 Ky.R. 2177; 2577; 2827; eff. 6-7-99; 749; 1238; eff. 11-12-2002.)

### **Deadline for Filing Residency Appeals**

An application for a review of a determination of residency status shall be filed in the Office of Student Services no later than 30 days after the first day of classes of the term for which a determination of residency status is requested.

Academic calendars are available in the Schedule of Courses, the University web site, and Offices of Admission. Pursuant to 13 KAR 2:045, Determination of Residency Status for Admission and Tuition Assessment Purposes, an institution may set other deadlines for submission of other information required by the Institution in a determination of residency status. For specific information regarding the filing of an application, please refer to the Council on Postsecondary Education document 13 KAR 2:045, Determination of Residency Status for Admission and Tuition Assessment Purposes.

Copies of the policy document are available in the Office of Student Services and Offices of Admission.

Submit the completed, signed, and notarized affidavit/ application and ALL accompanying documentation to:

**Office of Enrollment Management  
Houchens Building, Room 160  
University of Louisville  
Louisville, KY 40292  
Phone (502) 852-5813/6528  
Fax (502) 852-3146**



# **Business Professional**

Accountancy - MAC

Business Administration - MBA

# Master of Accountancy

**Major:** ACCY

**Degree Awarded:** MAC

**Unit:** GB

**Program Webpage:** <http://business.louisville.edu/content/view/372/536/>

## Program Information

Master of Accountancy (MAC) provides candidates with the necessary skills and knowledge to begin successful careers as **certified public accountants** (CPA). The program includes 18 graduate hours in accounting, 3 graduate hours in commercial law, and 9 graduate hours in a professional area of interest. The professional area of interest courses may be chosen from any 600-level course offered by the College of Business.

The Master of Accountancy (MAC) Program covers topics on mergers and acquisitions, capital investment, cost and risk management decisions, and increasingly complex business transactions require a thorough examination and understanding of the effect on a company's balance sheet, income statement, and cash flow.

The objective of the Master of Accountancy (MAC) Program is to provide candidates with the necessary skills and knowledge to begin successful careers as certified public accountants. The objective of the B.S.B.A. program in the School of Accountancy is to provide varied learning experiences that enable our students to succeed in their careers. The SOA supports other programs by providing enrolled students with accounting foundation knowledge.

## Curriculum

### Curriculum Requirements

The following curriculum requirements apply to all MAC degree students.

- Strict compliance with prerequisites is required. Check course descriptions which are listed in this catalog.
- Business elective courses are not accepted unless special permission has been given by the MAC counselor. NO BUSINESS COURSE MAY BE TAKEN PASS/FAIL.
- All graduate students are expected to make steady and satisfactory progress toward their degrees. Students who fail to maintain enrollment for a period of more than 24 months will be considered to have withdrawn from the program. Students who seek to return after such a period of time (or longer) are required to contact the MAC counselor for readmission. Based on the request of the School, the COB Associate Dean will consider the student for readmission.

### Degree Requirements

Candidates for the MAC degree must:

- Earn a minimum of twenty-four of the thirty graduate credits in residence at the University of Louisville.
- Complete degree course requirements within six years of the semester admitted to the MAC degree program.
- Make steady and satisfactory progress towards their degrees. Students who fail to maintain enrollment for a period of more than 24 months will be considered to have withdrawn from the program. Students who seek to return after such a period of time (or longer) are required to contact the MAC counselor for readmission. Based on the request of the School, the COB Associate Dean will consider the student for readmission.

## Master of Accountancy Course Requirements

The Master of Accountancy program consists of 19 graduate hours in accounting courses, 3 graduate hours in commercial law and 9 graduate hours of electives.

Electives may be chosen from any 600-level course offered by the College of Business. Electives outside the College of Business may be taken with permission of the Director of the School of Accountancy.

CCT 611 Cost & Operations Mgmt	3
ACCT 615 Advanced Financial and Governmental Accounting	3
ACCT 631 Federal Taxation	3
ACCT 641 Financial Accounting & Professionalism	3
ACCT 651 Auditing & Systems	3
CLAW 610 Commercial Law for Professional Accountants	3
Professional Interest Area Electives	9
<b>Minimum Total</b>	<b>30</b>

## Departmental Faculty

Adams, Arthur  
Ahuja, Manju

Attaway, Alan  
Barker, Robert  
Barone, Michael  
Baucus, Melissa  
Baxendale, Sidney  
Bergmeister, Suzanne

Blum, Lisa

Boyd, Lynn  
Brandi, Jay  
Brown, Betty  
Bruce, Reginald  
Burge, Christy

Capps, Timothy  
Carter, Robert  
Cataife, Guido  
Chandra, Satish  
Chou, Nan-Ting  
Christie-David, Rohan

Clouse, Van  
Coomes, Paul  
Coppage, Richard  
Davis-Sramek, Beth  
Dos Santos, Brian  
Dubofsky, David

Elhaj, Imad  
Faircloth, Archie  
Faulds, David  
Fernandez, Jose  
Fiet, James  
Foster, Benjamin

Fredriksson, Per  
Germain, Richard  
Gohmann, Stephan  
Goldstein, Jane  
Guan, Jian  
Gupta, Mahesh

Hancock, Terence  
Haworth, Barry  
Hinton-Hudson, Veronica  
Irvin, II, Nat  
Izyumov, Alexei  
Johnson, Hazel

Johnston, Sheila  
Jones, Wayne  
Karcher, Julia  
Kemelgor, Bruce  
Kendra, Stephen  
Kerrick, Sharon

Kline, Audrey  
Kuhn, Jr., John  
Kunene, K. Niki  
Kuzmits, Frank  
LaForge, Raymond  
Levitan, Alan

Lonial, Subhash  
Losey, Robert  
McCabe, James

McDowell, Wyatt  
Menezes, Dennis  
Moyer, R.

Myers, Robert  
Nahata, Babu  
Nelson, John  
Nixon, Robert  
Payne, Elizabeth  
Pinkston, Joshua

Preece, Dianna  
Raho, Louis  
Raju, P.S.  
Ray, Russ  
Robinson, Elaine  
Sharp, Charles

Shastri, Trimbak  
Siegel, Frederick  
Smith, Mark  
Srinivasan, S.  
Stout, William  
Strickland, Ted

Sussman, Lyle  
Taylor, Robert  
Thatcher, Matt  
Thatcher, Sherry  
Vahaly, John  
van der Pol, Paul

Wilcke, Richard  
Wright, Andrew  
Zurada, Jozef

# Master of Business Administration

**Major:** ACCY

**Degree Awarded:** MBA

**Unit:** GB

**Program Webpage:** <http://business.louisville.edu/content/view/734/975/>

## Program Information

The University of Louisville Professional MBA program produces the next generation of business leaders through an interactive learning process that meets the needs of today's students and provides them with the specific skills necessary to succeed in tomorrow's business world.

### Program Advantages

1. Nationally and internationally recognized university with highly ranked, award-winning programs in graduate business education
2. Two schedule options that fit your lifestyle: two evenings per week from 6-9 pm or 38 Saturdays per year from 9 am to 5 pm with lunch provided
3. No prerequisites required
4. World-class faculty of teacher/scholars with significant real-world experience
5. International learning experience overseas is included in the program cost
6. Advanced resources of the Ulmer Career Management Center
7. Extensive array of elective courses
8. No tuition increases for students who complete the program with their original cohort
9. Innovative program designed for students with backgrounds in all disciplines
10. Cohort-based format that mirrors the real business world as students learn and progress as a team
11. Talented student body sharing diverse backgrounds of business and cultural experiences
12. Access our network of successful alumni

## Curriculum

### First Year Curriculum

Strategic Analysis

Decision Analysis

Organizational Behavior

Economics 1

Financial Accounting

Economics 2

Managerial Accounting 1

Technology Management

Finance 1

Managerial Accounting 2

Finance 2

Operations  
Management

Marketing 1

Finance 3

**Second Year Curriculum**

Marketing 2

Project Management

Leadership

Global Learning

Global Business

Capstone Project 1

Capstone Project 2

Electives (5)

**Saturday Professional Development session topics may include:**

Negotiation & Conflict Resolution  
Communications  
Creativity  
Team-Building  
Governance  
Regional Industries

Ethics  
Selling  
Career Management  
Business Planning  
Risk Management  
Business Etiquette

**Departmental  
Faculty**

Adams, Arthur  
Ahuja, Manju

Attaway, Alan  
Barker, Robert  
Barone, Michael  
Baucus, Melissa  
Baxendale, Sidney  
Bergmeister, Suzanne

Blum, Lisa  
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Brown, Betty  
Bruce, Reginald  
Burge, Christy

Capps, Timothy

Carter, Robert  
Cataife, Guido  
Chandra, Satish  
Chou, Nan-Ting  
Christie-David, Rohan

Clouse, Van  
Coomes, Paul  
Coppage, Richard  
Davis-Sramek, Beth  
Dos Santos, Brian  
Dubofsky, David

Elhaj, Imad  
Faircloth, Archie  
Faulds, David  
Fernandez, Jose  
Fiet, James  
Foster, Benjamin

Fredriksson, Per  
Germain, Richard  
Gohmann, Stephan  
Goldstein, Jane  
Guan, Jian  
Gupta, Mahesh

Hancock, Terence  
Haworth, Barry  
Hinton-Hudson, Veronica  
Irvin, II, Nat  
Izyumov, Alexei  
Johnson, Hazel

Johnston, Sheila  
Jones, Wayne  
Karcher, Julia  
Kemelgor, Bruce  
Kendra, Stephen  
Kerrick, Sharon

Kline, Audrey  
Kuhn, Jr., John  
Kunene, K. Niki  
Kuzmits, Frank  
LaForge, Raymond  
Levitan, Alan

Lonial, Subhash  
Losey, Robert  
McCabe, James  
McDowell, Wyatt  
Menezes, Dennis  
Moyer, R.

Myers, Robert  
Nahata, Babu  
Nelson, John



Nixon, Robert  
Payne, Elizabeth  
Pinkston, Joshua

Preece, Dianna  
Raho, Louis  
Raju, P.S.  
Ray, Russ  
Robinson, Elaine  
Sharp, Charles

Shastri, Trimbak  
Siegel, Frederick  
Smith, Mark  
Srinivasan, S.  
Stout, William  
Strickland, Ted

Sussman, Lyle  
Taylor, Robert  
Thatcher, Matt  
Thatcher, Sherry  
Vahaly, John  
van der Pol, Paul

Wilcke, Richard  
Wright, Andrew  
Zurada, Jozef

# College of Arts and Sciences

**J. Blaine Hudson, Ed.D., Dean, The following graduate programs are offered by the College of Arts and Sciences:**

Art (Creative) and Art History - MA

Art History - Ph.D.

Biology - MS

Biology - Ph.D.

Chemistry - MS

Chemistry - Ph.D.

Communication - MA

English - MA

English Rhetoric and Composition - Ph.D.

French, Language and Literature - MA

History - MA

Humanities - MA

Humanities - Ph.D.

Justice, Administration of - MS

Mathematics - MA

Mathematics - Ph.D.

Pan-African Studies - MA

Physics - MS

Physics - Ph.D.

Political Science - MA

Psychology - Clinical - Ph.D.

Psychology - Experimental - Ph.D.

Public Administration - MPA

Sociology - MA

Spanish - MA

Theatre Arts - MFA

Urban and Public Affairs - Ph.D.

Urban Planning - MUP

Women's and Gender Studies - MA

# Master of Arts in Art (Creative) and Art History

**Major:** ART

**Degree Awarded:** MA

**Unit:** GE

**Program Webpage:** <http://art.louisville.edu>

## Program Information

To be considered for admission to the M.A. program, students must submit the following credentials:

- Application to Graduate School
- Application Fee
- Transcripts of all colleges attended (undergraduate or graduate)
- Two letters of recommendation specific to the program
- Graduate Record Examination scores

Students may receive a Master of Arts degree in the Department of Fine Arts by completing thirty-one (31) hours of graduate study divided between work in the Core Curriculum and work in one of the following three tracks of study: Art History, Critical and Curatorial Studies, or Studio Art.

## Curriculum

### Master of Arts in Art (Creative) and Art History Core Curriculum Hours

ARTH 541: Modern Perspectives in the Visual Arts	3
Art History Elective (500 or 600 level)	3
Elective - Outside the Department of Fine Arts (500 or 600 level) ( <i>with approval of advisor</i> )	3
Fine Arts Elective (500 or 600 level) ( <i>outside the chosen Fine Arts Track</i> )	3
Thesis Guidance	3
Graduate Seminar	1

### **Concentration in Art History**

Applicants for admission to the Master's Program in this track are expected to demonstrate competence in the history of art, equivalent to an undergraduate major.

Reading knowledge of one foreign language is required for the completion of the Master's degree in the art history track. This requirement should be met during the first year in the program, but must be met before enrolling for Thesis Guidance (ARTH 645/646). Proficiency can be demonstrated in one of two ways: 1) taking an examination administered by the department, scheduled in the fall and spring semesters; 2) completing the intermediate level of the language at the University of Louisville with a grade of B or better.

Each student must complete a core curriculum (16 hours) consisting of Art History 541 ("Modern Perspective in the Visual Arts"), six (6) hours of 500 or 600-level electives in the Department of Fine Arts, three (3) hours of 500 or 600-level electives outside the Department, three (3) hours of thesis guidance, and a one (1) hour graduate seminar.

The concentration in Art History will require fifteen (15) hours of 500 or 600-level courses in art history with a minimum of one course in each of the following areas: Ancient/Medieval; Renaissance/Baroque; Modern/Contemporary; Asian/Non-Western; and Independent Study (ARTH 643/644) (students are permitted one independent study course) concluding with a written thesis. The thesis consists of a research paper demonstrating critical knowledge of relevant sources, skill in analysis and interpretation, and ability to present the results in a well-organized and intelligent manner. The thesis must be defended in an oral examination. A reading knowledge of one foreign language is required (see above). A minimum of 12 hours (exclusive of Thesis Guidance) must be at the 600-level, of which at least 9 hours must be in art history.

### **Concentration in Critical and Curatorial Studies**

Applicants for admission to the Master's Program in this track are expected to demonstrate competence in the history of art, studio art or arts management equivalent to an undergraduate major and an interest in museum theory and work.

Each student must complete a core curriculum (16 hours) consisting of Art History 541 ("Modern Perspectives in the Visual Arts"), six (6) hours of 500 or 600-level electives in the Department of Fine Arts, three (3) hours of 500 or 600-level electives outside the Department, three (3) hours of thesis guidance, and a one (1) hour graduate seminar (ART/ARTH 600).

The concentration in Critical and Curatorial Studies will require fifteen (15) hours of coursework consisting of ARTH 542: Special Topics (or ARTH 591/691); ARTH 547/647: Museum Methods I; ARTH 648 Curatorial Methods; a 600-level Public Administration arts management course (selected from PADM 600, 603, 609, or 612); ARTH 649 Curatorial Internship; and concluding with a thesis exhibition or curatorial project. The exhibition or curatorial project may be produced in cooperation with the University's Galleries, the Speed Art Museum, or other appropriate institutions authorized by the Department, and should be a culminating experience occurring in the final year of study. To fulfill this requirement, the candidate must submit a prefatory project proposal with the approval of their graduate advisor, produce or implement the thesis practicum proposed and appropriately document the exhibit or project. This documentation will include exhibition or project materials such as press releases, announcements, wall texts, brochures and/or catalog, and digital and/or photographic documentation of the exhibition or project as well as other corollary documentary materials. The thesis project will also include a written portion, in addition to the practicum and documentation, that will provide a narrative basis in critical theory and current professional curatorial practice detailing the planning, implementation and documentation of the project. The written thesis will be submitted in conformity with the regulations governing the form and presentation of the written master's thesis. (Note: 12 hours, exclusive of Thesis Guidance, must be at the 600 level)

### **Concentration**

ARTH 547/647: Museum Methods I	3
ARTH 648: Curatorial Methods	3
600-level Public Administration Management Course (PADM 600, 603, 609, or 612)	3
ARTH 649: Curatorial Internship	3
Written Thesis with Exhibition or Curatorial Project	
<b>Total</b>	<b>15</b>

### **Concentration in Studio Art**

Applicants for admission to the Master's Program in this track are expected to have completed training equivalent to an undergraduate major. To demonstrate his/her ability to pursue study at the graduate level, a student must submit examples of his/her work to the department by October 15 for spring semester admission and January 15 for fall semester admission. Contact the department for complete portfolio requirements.

Each student must complete a core curriculum (16 hours) consisting of Art History 541 ("Modern Perspectives in the Visual Arts"), six (6) hours of 500 or 600-level electives in the Department of Fine Arts, three (3) hours of 500 or 600-level electives outside the department, three (3) hours of thesis guidance, and a one (1) hour graduate seminar.

The concentration in Studio Arts will consist of fifteen (15) hours of 500 or 600-level courses taken in 2-D Studios, and/or 3-D Studios concluding with a thesis exhibition (12 hours, exclusive of Thesis Guidance, must be at the 600 level). The thesis exhibition, which must be authorized by the Department, should take place during the candidate's last semester of study. To accompany this exhibition, the candidate must submit a catalog containing a prefatory statement written by the candidate, a properly documented list of works in the exhibition, photographic reproductions of the work in one of the following forms: black and white photographs, color photographs, or slides placed in plastic sleeves to be bound into the thesis. The catalog will be submitted in conformity with the regulations governing the form and presentation of the written master's thesis.

### **Concentration Courses**

15 hours of Studio courses (500 or 600 level) to be selected in consultation with advisor.

Thesis Exhibition with Thesis Statement.

Total of 15 hours.

**Total Program = 31 hours**

## **Departmental Faculty**

### **Chair**

James Grubola, Professor

### **Professors**

Ying Kit Chan

Lida G. Gordon

Steven Skaggs  
John Whitesell

## **Associate Professors**

R. Todd Burns  
Mary Carothers  
Mitch Eckert  
Christopher B. Fulton  
Linda M. Gigante  
Barbara L. Hanger  
Benjamin Hufbauer  
Scott Massey  
Mark A. Priest

## **Assistant Professors**

Karen Britt  
Susan Jarosi  
Delin Lai  
Gabrielle Mayer  
Che Rhodes

## **Adjunct Professors**

John Begley  
Peter Morrin

## **Emeritus/Emerita**

Donald Anderson  
Thomas Buser  
Henry Chodkowski, Jr.  
Dario A. Covi  
Robert L. Douglas, Sr.  
Jay M. Kloner  
Stephanie J. Maloney  
Suzanne Mitchell  
William D. Morgan

# Doctor of Philosophy in Art History

**Major:** ARTH

**Degree Awarded:** Ph.D.

**Unit:** GE

**Program Webpage:** <http://art.louisville.edu>

## Program Information

To be considered for admission to the Ph.D. program, students must submit the following credentials:

Application to Graduate School

1. Application Fee
2. Transcripts of all colleges attended (undergraduate or graduate)
3. Three letters of recommendation
4. Graduate Record Examination scores

Coursework required for the Ph.D. in Art History includes completion of the M.A. plus 15 hours ARTH 500-level electives, 15 hours ARTH 600-level electives, 6 hours of Dissertation Research, and 6 hours of graduate level electives outside the Art History Program, for a total of 72 hours. Additional 600-level courses may be substituted for 500-level.

Up to a total of 15 hours of 500 or 600 level electives outside Art History may be substituted for Art History electives of similar level provided they are appropriate and are approved in advance by the student's advisor.

Students are required to demonstrate facility in two foreign languages, one of which must be relevant to the field of dissertation research (for example, Latin or Greek for ancient art). Some areas of Art History require that students have a mastery of epigraphy and paleography. Students in any field in which extensive language study is necessary in order to conduct research must concentrate on the relevant language or languages before taking their comprehensive exams.

Language proficiency is demonstrated in one of two ways: 1) Taking a proficiency examination administered by the department, scheduled in the fall and spring semesters. The proficiency exam is a one hour translation examination with the use of a dictionary. Students are required to demonstrate intermediate level facility in the language. 2) Completing the intermediate level of the language course at the University of Louisville with a grade of B or better.

Through course work, independent study, and directed readings, each student must prepare her/himself to pass written comprehensive exams in two areas (major, minor) before admission to candidacy. Language requirements must have been met and all course work completed before a student may take either exam.

After being admitted to candidacy, the student must write a dissertation and defend it in a final oral examination.

## Curriculum

**General Requirements:**



Minimum 30 credit hours of coursework at the 500 and 500 level (exclusive of course work earned for the M.A. degree).

ARTH 743 and 744: Directed Readings for Comprehensive Exams (3 credit hours maximum for each).

ARTH 745: Dissertation Research (12 credit hours maximum).

Comprehensive exams (upon completion of coursework and before beginning the dissertation).

Dissertation and defense.

### **Course Requirements:**

500-level electives: 15 credits (maximum for application to degree requirements). In addition, if an equivalent course was not taken at the M.A. level, Ph.D. students must also take ARTH 541: Modern Perspectives of the Visual Arts.

600-level electives: 15 credits (minimum) (note: 600-level courses may be substituted for 500-level courses, with the exception of ARTH 541).

Independent Study (ARTH 643/644) may be used to fulfill the 600 level electives above (students are permitted two independent study courses).

500 or 600-level electives: 6 credits outside Art History, preferably courses related to the dissertation.

ARTH 743 and 744: Directed Readings for Comprehensive Exams (3 credit hours maximum for each).

ARTH 745: Dissertation Research (12 credit hours maximum). To be taken only by Ph.D. candidates actively engaged in dissertation research.

Notes:

- Students are expected to take any courses necessary in preparation for scholarly research.
- A final grade for Dissertation Research is given upon completion of the dissertation and its submission to the Graduate School.

Students must continue to enroll for credit each Fall and Spring, including any semesters after coursework has been completed and before graduation. After completing minimum course requirements for the program, doctoral students must maintain continuous registration until the completion of the degree.

A minimum gpa of 3.5 must be maintained in the Ph.D. program.

The Art History faculty periodically review Ph.D. students who have not yet advanced to candidacy and will discourage from further work those students whose progress and performance are deemed unsatisfactory.

## **Departmental Faculty**

### **Chair**

James Grubola, Professor

### **Professors**

Ying Kit Chan  
Lida G. Gordon  
Steven Skaggs  
John Whitesell

## **Associate Professors**

R. Todd Burns  
Mary Carothers  
Mitch Eckert  
Christopher B. Fulton  
Linda M. Gigante  
Barbara L. Hanger  
Benjamin Hufbauer  
Scott Massey  
Mark A. Priest

## **Assistant Professors**

Karen Britt  
Susan Jarosi  
Delin Lai  
Gabrielle Mayer  
Che Rhodes

## **Adjunct Professors**

John Begley  
Peter Morrin

## **Emeritus/Emerita**

Donald Anderson  
Thomas Buser  
Henry Chodkowski, Jr.  
Dario A. Covi  
Robert L. Douglas, Sr.  
Jay M. Kloner  
Stephanie J. Maloney  
Suzanne Mitchell  
William D. Morgan

# Master of Science in Biology

**Major:** BIOL

**Degree Awarded:** MS

**Unit:** GE

**Program Webpage:** <http://louisville.edu/a-s/biology/>

## Program Information

The degree program is available to qualified individuals possessing a bachelor's degree from an accredited college or university.

A biology undergraduate major is preferred. However, other majors containing sufficient biology, chemistry and math may be acceptable.

The Department of Biology offers master's degrees with programs of study tailored to the needs and interests of a diverse student population. Students may enroll on a full or part-time basis. The Department of Biology offers both thesis and non-thesis options.

The thesis option is generally chosen by students with career goals which include a research emphasis. Students choosing this option take course work and carry out an intensive independent research project under the supervision of a member of the Graduate Faculty, culminating in a written thesis based upon the research project.

The non-thesis option is usually chosen by those who wish to advance their knowledge of biology but are not sure of a specific career goal or do not anticipate a research emphasis in their future.

Students who wish to pursue an accelerated non-thesis Master's Degree in Biology (BA-BS/MS) will be allowed to apply up to nine (9) hours of coursework taken for graduate credit while enrolled as an undergraduate. An additional twenty-four (24) hours of graduate coursework will constitute the minimum number of credit hours for obtaining the non-thesis master's in the accelerated program.

Program admission requirements and application requirements can be viewed on the Department of Biology web site at [www.louisville.edu/a-s/biology](http://www.louisville.edu/a-s/biology). Questions can be addressed to or further information obtained from the Director of Graduate Studies, Dr. Joseph M. Steffen, at (502) 852-7209 or [joe.steffen@louisville.edu](mailto:joe.steffen@louisville.edu).

## Curriculum

### Requirements for the M.S. degree in Biology and for the Accelerated BA-BS/MS in Biology

One course to be selected from each of two (thesis option) or three (non-thesis option) of the following four categories of General Background courses:

	<b>Thesis Non-Thesis</b>	
<b>General Background Courses (500 or 600 level)</b>		
1. Cellular/Physiology	3 - 4	3 - 4
2. Subcellular/Genetics	3 - 4	3 - 4

3. Evolution or Systematics	3 - 4	3 - 4
4. Population, Community, or Ecosystem Ecology	3 - 4	3 - 4
Total	6 - 8	9 - 12

### **Other Coursework**

Statistics (Biology 650)	4	4
Electives	11 - 14	13 - 17
Thesis Research (600 level)	6	0
Research Experience (Biology 516, 608, 664 or 691)	0	3 - 4
<b>Minimum Total</b>	<b>30</b>	<b>33</b>

NOTE: A minimum of 12 (thesis option) or 17 (non-thesis option) semester hours, exclusive of thesis credit, must be in courses at the 600 level. Students intending to seek a Ph.D. degree later are advised to take as many of their courses as possible at the 600 level or above.

## **Departmental Faculty**

### **Ronald D. Fell, Chair**

*Professor*

### **Ronald M. Atlas**

*Professor*

### **Gary A. Cobbs**

*Professor*

### **Lee A. Dugatkin**

*Professor*

### **Sarah Emery**

*Assistant Professor*

### **Paul W. Ewald**

*Professor*

### **William D. Pearson**

*Professor*

### **Michael H. Perlin**

*Professor*

### **Margaret M. Carreiro**

*Associate Professor*

### **Perri K. Eason**

*Professor*

### **Hwa Seong Jin**

*Assistant Professor*

### **Arnold J. Karpoff**

*Associate Professor*

### **Martin G. Klotz**

*Associate Professor*

### **Joseph M. Steffen**

*Associate Professor*

**James E. Alexander**

*Assistant Professor*

**Cynthia Corbitt**

*Associate Professor*

**Awdesh Kalia**

*Assistant Professor*

**Jennifer Mansfield-Jones**

*Assistant Professor*

**Susanna K. Remold**

*Assistant Professor*

**David J. Schultz**

*Associate Professor*

**Micah Worley**

*Assistant Professor*

**Charles V. Covell, Jr.**

*Emeritus*

**William S. Davis**

*Emeritus*

**Roger G. Lambert**

*Emeritus*

**Varley E. Wiedeman**

*Emeritus*

# Doctor of Philosophy in Biology

**Major:** BIOL

**Degree Awarded:** Ph.D.

**Unit:** GE

**Program Webpage:** <http://louisville.edu/a-s/biology/>

## Program Information

A broad range of courses are taught in most biological disciplines, although the department is focused in two major directions. The Divisions of Molecular, Cellular, and Developmental Biology (MCD) and Evolution, Ecology and Behavioral Biology (EEB) incorporate current areas of special interest in environmental microbiology, population and microbial genetics, developmental biology, plant and animal physiology, metabolism, phycology, plant and animal ecology, behavioral ecology, invertebrate zoology, and community and ecosystem ecology of large rivers, small streams, and wetlands.

Students seeking the Ph.D. Degree in Biology traditionally have a master's degree or its equivalent; however, students may enter the program with only the baccalaureate degree. Generally, the first year or two is spent in course work, research is begun by the second year, and the thesis/dissertation completed in the final year.

### Program Admission Procedure

The following requirements must be met in order to be admitted to the Ph.D. program in the Department of Biology.

1. The applicant must have a baccalaureate degree with a major in biology or an acceptable sub-discipline of biology.
2. The applicant must meet the following admissions standards:
  - an undergraduate GPA of 3.0 or higher;
  - a composite score of at least 1100 on the general test section (verbal + quantitative) and 3.5 on the analytical writing section of the GRE. A composite MCAT score of 24 (at least 8 in each category) or a DAT score of 51 (at least 17 in each category) are acceptable alternatives.
  - For foreign students, a TOEFL score of 535 or higher (paper exam), 235 or higher (computer exam) or 83 (internet exam) is required. Students holding a baccalaureate or advanced degree from an accredited institution in the United States are exempt from this requirement.
3. All applicants must review the research specialties of the departmental faculty to ensure that an area compatible with the student's interest is available. Applicants for the Ph.D. program must communicate with a member of the biology faculty prior to admission and receive agreement that the faculty member will serve as the major professor. No formal admission to the program can occur without the preliminary acceptance of a mentor. Faculty contact information is available at <http://louisville.edu/a-s/biology>.

Your application will be complete when we have all of the following (final action on an application cannot be taken until all items have been received):

Send to the Office of Graduate Admissions, University of Louisville, Louisville, KY 40292:

1. a completed application form and application fee;
2. one official transcript of all previous undergraduate and graduate coursework;
3. official GRE, MCAT or DAT scores;

4. two or more letters of recommendation from persons familiar with your academic performance; and

5. for foreign students, official TOEFL scores.

Send to the Director of Graduate Studies, Department of Biology, University of Louisville, Louisville, KY 40292:

1. a completed departmental application (Information Form), found at <http://louisville.edu/a-s/biology>

**Deadline for completed applications to be reviewed are:**

**July 15 for Fall admission, December 1 for Spring admission, and April 15 for Summer admission.**

## **Graduate Assistantships**

Graduate Teaching Assistantships (GTA) are awarded by the Graduate Committee of the Department of Biology to meet the instructional needs of the Department and enhance and broaden the educational experience of doctoral students. All newly admitted students are automatically considered for this type of annual support, which includes a monthly stipend, tuition remission, and health insurance.

Another source of financial support may be available from individual faculty members who have intramural or extramural research funding that provides support for graduate students as a Graduate Research Assistant (GRA). The individual faculty member holding this support selects students to fill these positions.

A small number of the most highly qualified accepted applicants will be nominated by the Department for University Fellowship awards, which carry a monthly stipend, tuition remission and health insurance benefits. These students must meet qualifications set by the Graduate School.

## **Curriculum**

### **Requirements for the Ph.D. degree in Biology**

#### **Foundations in Biology**

#### **Hours Total**

**One course to be selected by the student's committee from each category:**

- |   |   |          |
|---|---|----------|
| 1. Biostatistics  | 4 |          |
| 2. Evolutionary Biology (courses that cover the evolutionary history and/or phylogenetic relationships of molecules or organisms) | 4 | <b>8</b> |

**Two courses to be selected from within an Area of Focus:**

*A. Ecology, Evolution and Behavioral (EEB) Biology Focus Area:*

- |                                     |   |           |
|-------------------------------------|---|-----------|
| 1. Population and Community Ecology | 4 |           |
| 2. Ecosystem Ecology or Behavior    | 4 | <b>16</b> |

*B. Molecular, Cellular and Developmental (MCD) Biology Focus Area:*

- |  |   |           |
|--|---|-----------|
| 1. Genetics/Cellular (courses that discuss the biochemistry and molecular genetics of life or describe the cell as the structural and functional unit of life) | 4 |           |
| 2. Physiology (courses that discuss life processes at the level of the organism)   | 4 | <b>16</b> |

**Advanced Biology Electives**

16 **32**

## Departmental Faculty

**Ronald D. Fell, Chair**

*Professor*

**Ronald M. Atlas**

*Professor*

**Gary A. Cobbs**

*Professor*

**Lee A. Dugatkin**

*Professor*

**Sarah Emery**

*Assistant Professor*

**Paul W. Ewald**

*Professor*

**William D. Pearson**

*Professor*

**Michael H. Perlin**

*Professor*

**Margaret M. Carreiro**

*Associate Professor*

**Perri K. Eason**

*Professor*

**Hwa Seong Jin**

*Assistant Professor*

**Arnold J. Karpoff**

*Associate Professor*

**Martin G. Klotz**

*Associate Professor*

**Joseph M. Steffen**

*Associate Professor*

**James E. Alexander**

*Assistant Professor*

**Cynthia Corbitt**

*Associate Professor*

**Awdhesh Kalia**

*Assistant Professor*

**Jennifer Mansfield-Jones**

*Assistant Professor*

**Susanna K. Remold**

*Assistant Professor*

**Micah Worley**

*Assistant Professor*

**David J. Schultz**

*Associate Professor*

**Charles V. Covell, Jr.**

*Emeritus*



**William S. Davis**

*Emeritus*

**Roger G. Lambert**

*Emeritus*

**Varley E. Wiedeman**

*Emeritus*

# Master of Science in Chemistry

**Major:** CHEM

**Degree Awarded:** MS

**Unit:** GA

**Program Webpage:** <http://www.louisville.edu/a-s/chemistry/>

## Program Information

The Department of Chemistry, in the College of Arts and Sciences, offers graduate programs leading to the M.S. and Ph.D. degrees in chemistry with options in analytical chemistry, biochemistry, biomolecular structure and engineering, inorganic chemistry, organic chemistry, physical chemistry, and chemical physics.

The general requirements for admission to the Graduate School, for admission to candidacy, and for the master's degree are stated in the General Information section of this catalogue. The following additional provisions apply to the program leading to the Master of Science in Chemistry.

### Program Admission Procedure

Students seeking a graduate degree in chemistry should meet the following requirements:

1. A B.A. or B.S. degree in chemistry or in a related field such as physics, engineering, or mathematics. It is expected that students will have obtained a background in chemistry equivalent to 36 hours of undergraduate coursework. Students planning to pursue graduate study in chemical physics may substitute some of the chemistry hours with advanced courses in physics or mathematics beyond those required for a B.A. or B.S. in chemistry. Students with inadequate preparation will be required to register for specific courses in the area of deficiency. Some of these courses, subject to approval by the department, may be accepted for graduate credit. Admission to graduate study in chemical physics is made on the recommendation of the entrance committee for that option.
2. A minimum quality point standing of 3.0 on a 4.0 scale.
3. Submission of Graduate Record Examination scores (quantitative and verbal scores totaling at least 1000 with an analytical score of 2.5 or totaling at least 900 with an analytical score of 3.0).

In individual cases, the conditional admission of a student who does not satisfactorily meet the above requirements may be recommended by the department to the Graduate School. If admission is granted, that student will be subject to those conditions specified by the department or Graduate School as being necessary to remedy the conditional admission.

### Program Requirements

The requirements for the Master of Science Degree in chemistry are as follows:

1. The general requirements as stated in the General Information section of this catalogue.
2. Completion of course curriculum as described in the section on Candidacy for the Ph.D. degree.
3. Students with a native language other than English must show a proficiency in English. This requirement may be met with a grade of "B" in Eng. 101 (or equivalent) or an acceptable score on a standardized test (such as the TOEFL or Michigan test).
4. Acceptable presentation of a one-hour literature seminar on a topic of current chemical interest. This seminar must be presented no later than the fifth semester of graduate studies.

### Early Start Program

The Master of Arts in Teaching program in conjunction with the undergraduate programs in Chemistry, Biology, and Mathematics offers a comprehensive and professionally-focused program leading to the degree of MAT Middle or Secondary Education. This early start program enables superior students to receive two degrees within five years. A total

of 150 credits are required for the dual degrees: 123 credits of course work devoted toward the baccalaureate degree and 36 credits toward the MAT (nine hours are double counted). This program will be available for students who are entering their junior year. They may take graduate level courses in the College of Education and Human Development (CEHD) in their 4th year.

The current qualifications for the joint degree program have been agreed upon by discipline faculty from the Colleges of Arts and Sciences and Education and Human Development. The criteria vary by discipline.

## Chemistry

1. Students must have at least 23 credit hours of chemistry (through CHEM 441 and CHEM 470) with a cumulative GPA of 3.0 in those courses.
2. Applications will be reviewed by the Graduate Committee of the Chemistry Department and the Secondary MAT Screening Committee, the applicant must be approved by both committees.
3. Once approved, the student may take a maximum of nine (9) hours for graduate credit while in undergraduate status, which can also apply to the requirements for the BA in Chemistry. All graduate coursework must be approved by the student's MAT faculty advisor.
4. Students enrolling in the accelerated program will be non-thesis students and must adhere to all policies pertaining to Graduate Students.
5. All students must submit an application to the College of Education and Human Development (CEHD) MAT program and meet the admission criteria.

# Curriculum

## General Requirements - Graduate School

A minimum of 30 semester hours of graduate credit is required. At least 15 semester hours must be in chemistry courses. An overall GPA of 3.0 must be maintained. Details are given in the current "Graduate School Bulletin".

## Chemistry Requirements

1. Students must pass at least four graduate courses from at least three of six divisions (or research areas) with a minimum grade of 'C' in any one course. A 'C-' grade is considered unacceptable. The areas are: Analytical Chemistry, Biochemistry, Inorganic Chemistry, Organic Chemistry, Physical Chemistry, and Physics. An overall GPA of 3.0 or greater is required by the Graduate School.
2. Students with a native language other than English must show a proficiency in English. This requirement may be met with a grade of 'B' in Eng. 101 (or equivalent) or an acceptable score on a standardized test (such as the "Michigan test"). A 'B-' in Eng. 101 is considered unacceptable.
3. A one-hour literature seminar on a topic in chemistry of current interest (Chem 695). **The student must present this seminar in the second or third semester of his/her program** (excluding summer).
4. Research: Chem 691-692. A research advisor should be selected by the end of the first semester in the graduate program.
5. Scientific publication is an important element of graduate education and research. Therefore, it is normally expected that a manuscript based on the student's research would have been submitted to a peer-reviewed journal by the time of his/her thesis defense. The student's contribution must be significant to both the scientific content and the manuscript drafting.

6. A written thesis describing the research program is submitted a minimum of seven days before the defense. The defense consists of a one-hour seminar on the thesis project followed by an oral examination with the Faculty Reading Committee.

*Note: Students in the Ph.D. program will be awarded an MS degree after successful completion of the Research Seminar and other previous requirements*

## **Departmental Faculty**

**George R. Pack**

*Professor*

Chair

**Richard P. Baldwin**

*Professor*

**Robert M. Buchanan**

*Professor*

**Donald B. DuPré**

*Professor*

**Dorothy H. Gibson**

*Professor*

**Gerald B. Hammond**

*Professor*

**Michael H. Nantz**

*Professor*

**Mark E. Noble**

*Professor*

**Richard J. Wittebort**

*Professor*

**John L. Wong**

*Professor*

**M. Cecilia Yappert**

*Professor*

**Teresa W. M. Fan**

*Associate Professor*

**Craig A. Grapperhaus**

*Associate Professor*

**Richard M. Higashi**

*Associate Professor*

**Pawel M. Kozlowski**

*Associate Professor*

**Frederick Luzzio**

*Associate Professor*

**Muriel C. Maurer**

*Associate Professor*

**Sergio B. Mendes**

*Associate Professor*

**John F. Richardson**

*Associate Professor*

**John G. Arnez**  
*Assistant Professor*

**Aleeta M. Powe**  
*Assistant Professor*

**Christine V. Rich**  
*Assistant Professor*

**Heather A. Rypkema**  
*Assistant Professor*

**Francis P. Zamborini**  
*Assistant Professor*

**John W. Brown**  
*Emeritus*

**Thomas H. Crawford**  
*Emeritus*

**N. Thornton Lipscomb**  
*Emeritus*

**Gradus L. Shoemaker**  
*Emeritus*

**K. Grant Taylor**  
*Emeritus*

**Charles A. Trapp**  
*Emeritus*

# Doctor of Philosophy in Chemistry

**Major:** CHEM

**Degree Awarded:** Ph.D.

**Unit:** GA

**Program Webpage:** <http://louisville.edu/a-s/chemistry/>

## Program Information

The Department of Chemistry, in the College of Arts and Sciences, offers graduate programs leading to the M.S. and Ph.D. degrees in chemistry with options in analytical chemistry, biochemistry, biomolecular structure and engineering, inorganic chemistry, organic chemistry, physical chemistry, and chemical physics.

The general requirements for admission to the Graduate School, for admission to candidacy, and for the doctoral degree are stated in the General Information section of this catalogue. The following additional provisions apply to the programs leading to the Doctor of Philosophy in Chemistry.

### Program Admission Procedure

Students seeking a graduate degree in chemistry should meet the following requirements:

1. A B.A. or B.S. degree in chemistry or in a related field such as physics, engineering, or mathematics. It is expected that students will have obtained a background in chemistry equivalent to 36 hours of undergraduate coursework. Students planning to pursue graduate study in chemical physics may substitute some of the chemistry hours with advanced courses in physics or mathematics beyond those required for a B.A. or B.S. in chemistry. Students with inadequate preparation will be required to register for specific courses in the area of deficiency. Some of these courses, subject to approval by the department, may be accepted for graduate credit. Admission to graduate study in chemical physics is made on the recommendation of the entrance committee for that option.
2. A minimum quality point standing of 3.0/4.0.
3. Submission of Graduate Record Examination scores (quantitative and verbal scores totaling at least 1000 with an analytical score of 2.5 or totaling at least 900 with an analytical score of 3.0).

In individual cases, the conditional admission of a student who does not satisfactorily meet the above requirements may be recommended by the department to the Graduate School. If admission is granted, that student will be subject to those conditions specified by the department or Graduate School as being necessary to remedy the conditional admission.

## Curriculum

### General Requirements - Graduate School

A minimum of 30 semester hours of graduate credit is required. At least 15 semester hours must be in chemistry courses. An overall GPA of 3.0 must be maintained. Details are given in the current "Graduate School Bulletin".

### Chemistry Requirements

1. Students must pass at least six graduate courses from at least three of six divisions (or research areas) with a minimum grade of 'C' in any one course. A 'C-' grade is considered unacceptable. The areas are: Analytical Chemistry, Biochemistry, Inorganic Chemistry, Organic Chemistry, Physical Chemistry, and Physics. An overall GPA of 3.0 or greater is required by the graduate school.
2. Students with a native language other than English must show a proficiency in English. This requirement may be met with a grade of 'B' in Eng. 101 (or equivalent) or an acceptable score on a standardized test (such as the "Michigan test"). A grade of 'B-' in Eng. 101 is considered unacceptable.
3. A series of written examinations designed to show a student's in-depth knowledge of the chosen area of concentration. Masters students considering transfer to the Ph.D. program may also take the exams. Students must begin with the first exam of their second semester. Exams will be given the second week of January, March, May, September, and November. Each division with students actively taking cumulative exams, will write its own exam. Student's may take any available exam, but may only take one exam in a given month. Exams are scored as 0, 1, 2, or 3 points. Students must accumulate 12 points by the end of the 10<sup>th</sup> consecutive exam to qualify for the Ph.D. program. Students who fail to accumulate 12 points by the end of the 10<sup>th</sup> exam will be placed in the Masters program.
4. The research proposal (RP) is intended to demonstrate the student's ability to develop, explain, and defend research ideas. The proposal may present preliminary results from the student's research and it describes possible future directions. This is not necessarily the work the student intends to complete for their dissertation. Students are encouraged to show their originality and innovation. The research proposal must be completed prior to **the beginning of the 4<sup>th</sup> year**. Evaluation of the RP is made by the student's graduate advisory committee, which is chaired by the research director.  
  
The RP consists of a written proposal, an oral presentation, and oral examination. The written portion is to be submitted to the committee at least one week prior to the oral portion. The committee may return unsatisfactory written proposals to the student and delay the oral portion until at least one week after an acceptable rewrite is received. A student failing the oral portion may repeat it only one time, at the discretion of the student's graduate advisory committee.
5. A one-hour literature seminar on a topic in chemistry of current interest (Chem 695). **The student must present this seminar in the second or third semester of his/her program** (excluding summer).
6. Scientific publication is an important element of graduate education and research. Therefore, it is normally expected that prior to the Research Seminar, a manuscript based on the student's research would have been submitted to a peer-reviewed journal. The student's contribution must be substantial to both the scientific content and the drafting of the manuscript. Before completion of the Ph.D. program, a published article and a manuscript submitted to peer-reviewed journals are expected. It is highly recommended that the student distribute the submitted manuscript (s) to the members of her/his Research Committee.
7. A one-hour seminar on the student's dissertation research project is to be **given before the end of the fourth year in the program**. This seminar is intended to help the student organize his/her research efforts, provide the opportunity to present preliminary results on work completed, and to allow the student's research committee a formal setting to evaluate progress and make recommendations. The MS degree will be awarded upon successful completion of the research seminar.
8. Research: Chem 691-692. A research advisor must be selected in the first semester in the graduate program.

## Departmental Faculty

**George R. Pack**  
*Professor*  
Chair

**Richard P. Baldwin**

*Professor*

**Robert M. Buchanan**

*Professor*

**Donald B. DuPré**

*Professor*

**Dorothy H. Gibson**

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**Richard M. Higashi**

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**Pawel M. Kozlowski**

*Associate Professor*

**Frederick Luzzio**

*Associate Professor*

**Muriel C. Maurer**

*Associate Professor*

**Sergio B. Mendes**

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*Emeritus*

**Thomas H. Crawford**

*Emeritus*



**N. Thornton Lipscomb**

*Emeritus*

**Gradus L. Shoemaker**

*Emeritus*

**K. Grant Taylor**

*Emeritus*

**Charles A. Trapp**

*Emeritus*

# Master of Arts in Communication

**Major:** COMM

**Degree Awarded:** MA

**Unit:** GA

**Program Webpage:** <http://comm.louisville.edu/>

## Program Information

The Master of Arts in Communication is a 37-hour program. It includes 22 hours of foundation and core courses, nine hours of electives, and a six-hour thesis or non-thesis option. The non-thesis option includes a three-hour practicum, with a limit of six hours of practicum credit. At least 19 of the 37 hours must be in courses at the 600 level.

Upon admission to the program, the student will work with the Director of Graduate Studies to establish a plan of study. After the second semester, students choosing the thesis option will select a mentor who will provide guidance for the thesis and selecting two additional faculty to serve on the thesis committee. Students choosing the non-thesis option will select a mentor who will provide guidance concerning the practicum and course selection. Students choosing the non-thesis option will take a written exam administered by the Communication Department faculty.

Applicants need an undergraduate degree in Communication or a related discipline, a 3.0 GPA on a four-point scale, and a 900 on the GRE. Provisional admission is possible for students with lower scores. Other application materials include a copy of university transcripts, a writing sample, a personal statement, three letters of recommendation, an application, and the application fee.

## Curriculum

### Foundations: (Required of all students)

506 Ethical Problems in Communication

516 Qualitative Communication Research

517 Quantitative Methods in Communication

601 Communication Pro-Seminar (1 hour)

605 Communication Theory & Practice

13  
hours

### Area 1: Interactional Communication (One course)

580 Interpersonal Communication

590 Health Communication

620 Organizational Communication

625 Personality and Communication

650 Corporate Communication

675 Risk Communication

3  
hours

**Area 2: Integrated Communication (One course)**

520 Computer-Mediated Communication	3
652 Computer-Mediated Communication in Organizations	hours
653 Integrated Marketing Communication Campaigns	
654 Public Relations and Crisis Management	

**Area 3: Social Advocacy (One course)**

555 Persuasive Movements	
610 Problems of Public Discourse	3
630 Communication and Multiculturalism	hours
640 Communication in Social Service	
651 Conflict Management	

**Electives:** Students may concentrate in an area by taking additional area courses as electives. Electives include 510: Special Topics in Speech; 530: Science Communication; 540: Public Communication Campaigns; 660: Selected Topics in Mass Media; 690: Special Topics. Three hours of Practicum or Directed Reading may be taken beyond the courses taken for a non-thesis option. Three hours may be taken outside of the Communication Department with the consent of the Faculty Mentor. Additional electives may be outside of Communication with consent of the Graduate Director. 9 hours

**Thesis (includes oral defense)**

698 Thesis	6
	hours

**Non-Thesis Option**

600 Practicum	
5xx or 6xx elective	

**Total** 37 hours

Pending approval of the department program coordinator, and approval by the Graduate School, a student may transfer up to six hours graduate credit from another institution.

Non-thesis option: Students electing a non-thesis option will complete the 37 hours specified above, with two differences. Students who select the non-thesis option will substitute one 600-level practicum and one elective for the six thesis hours. The non-thesis option also will include a Comprehensive Examination administered by Department Faculty.

**Experiential Component**

The Master of Arts does not require an experiential component. However, students may choose to do a practicum in a private business, community organization, or government agency that deals with communication. Students may complete the practicum in two ways. A student may turn current work or volunteer experience into a research project, or a student not previously affiliated with the practicum site may develop a project useful to the organization. In both cases, the student will work with a Communication Department faculty member to shape the project and will write a formal paper dealing with the project. Students who choose the practicum will be applying knowledge acquired in Communication coursework directly to area needs, thus serving the community and helping to build stronger university/community ties.

**Departmental Faculty**

**Julie Berman**

**Michael Cunningham**

**Vanessa Cunningham**

**Lindsay Della**

**Margaret D'Silva**

**Stuart Esrock**

**John Ferré**

**Allan Futrell, Chair**

**Jennifer Gregg, Director of Graduate Studies**

**Joy Hart**

**Greg Leichty**

**Selene Phillips**

**Steve Sohn**

**Robert St. Clair**

**William Thompson**

**Kandi Walker**

**Ede Warner**

**Charles Willard**

**Shirley Willihnganz**

# Master of Arts in English

**Major:** ENGL

**Degree Awarded:** MA

**Unit:** GA

**Program Webpage:** <http://louisville.edu/english/>

## Program Information

### Mission Statement

The M.A. in English provides graduate training in literatures written in English, linguistics, creative writing, and rhetoric and composition. Goals for the M.A. are that students will 1) gain advanced knowledge of British and American literary traditions, and 2) write a thesis or culminating project in which they initiate and complete specialized research addressing a significant question in literature or rhetoric and composition, or produce a significant body of creative work.

### Admission to the M.A. Program

#### DEADLINES:

M.A. admission with graduate teaching assistantship: Jan. 5

M.A. admission without funding: rolling admission. Applicants should submit all materials at least one month prior to the term during which they wish to enroll.

All M.A. degree applicants should present the following documents:

1. Complete transcripts of previous undergraduate and graduate work;
2. Two academic letters of recommendation (that is, letters from faculty members who can address the applicant's academic performance and potential);
3. Score reports on the Graduate Record Examination General Test;
4. A sample of critical writing (at least ten pages);
5. Applicants who plan to focus on creative writing may submit a sample of their creative work in addition to the required critical essay;
6. International students must also submit reports of the TOEFL examination;
7. Any applicant who wishes to be considered for a Graduate Teaching Assistantship must also submit a GTA application (available at <http://louisville.edu/english/graduate>). This application should be sent directly to the Department of English. All other application materials should be sent to the Graduate Admissions Office in the Houchens Bldg, Suite 105, Louisville, KY 40292.

Successful applicants for M.A. admission typically present the following credentials, though meeting these minimal requirements is no guarantee of admission:

1. A "B" or better average in the major from an accredited college or university;
2. A "B" or better average overall from an accredited college or university;
3. A score in the 50th percentile or better on the GRE Verbal section;
4. Letters of recommendation that give promise of success in the program;
5. A writing sample that promises success in the program;
6. International students must also present scores of at least 600 on the TOEFL Examination (paper test) or at least 210 on the TOEFL Exam (computer test).

The Director of Graduate Studies in English reviews all applications and, in consultation with the English Graduate

Committee, makes all admission decisions. Complete applications to the Master's program are considered throughout the academic year, though applicants who wish to be considered for graduate teaching assistantships must present all credentials, including the GTA application, by January 5. Applicants with a B.A. in a field other than English, or with fewer than 24 credit hours for an English major, may be eligible for admission to the M.A., but the Graduate Committee may require that such students make up deficiencies on an individual basis.

In extraordinary circumstances, an applicant with incomplete credentials may petition the English Graduate Committee for admission in provisional status. Admission in non-degree status is at the discretion of the English Department Director of Graduate Studies as governed by Graduate School policies.

All applicants must fulfill the general requirements of the Graduate School.

## Curriculum

The Master of Arts in English requires 30 hours of academic work at the graduate level. In addition to fulfilling the core requirements, students may take additional work in literary studies, creative writing, or rhetoric and composition.

### **Required Courses– 15 hours:**

1. English 601: Introduction to English Studies
2. English 691: Contemporary Theories of Interpretation or English 692: Topics in Interpretive Theory
3. Two courses in Pre-1800 literature
4. One course in Post-1800 literature

### **Electives – 9-15 hours:**

Students may take no more than three 500-level courses. Creative writing courses (including up to six hours of thesis guidance) may total no more than 15 hours.

Students may petition the Graduate Committee to take courses outside the Department of English that are relevant to their individual programs.

### **Foreign Language Requirement**

The student must demonstrate proficiency in an approved foreign language. The foreign language requirement must be satisfied before the thesis can be defended. (See the Graduate Program guidelines for more information.)

### **Admission to Candidacy**

Students are admitted to candidacy for the M.A. after they have completed coursework and met the foreign language requirement; they remain master's degree candidates until they complete a thesis or culminating project.

### **Thesis Option: 24 hours of coursework + 6 hours of Thesis Guidance.**

Students who choose this option will be expected to write a critical or creative thesis that is a genuine contribution to the field, show an awareness of current academic practice, and employs methods appropriate to an extended academic project. Students must submit a prospectus and have it approved at least three months before the thesis oral examination is held. Guidelines for writing a prospectus are in the English Department's Graduate Program Guidelines.

### **Non-Thesis Option: 30 hours of coursework + a culminating project**

Students who choose this option may, as a culminating project, select one of their strongest seminar papers or creative writing projects to revise; the purpose of the project is to give students the opportunity to revise a seminar paper with publication in mind. To this end, students will write a brief prospectus (2-3 pages plus bibliography) detailing the types of revisions they will make to the paper. A screening committee will evaluate the prospectus and, upon its approval, the student will make the necessary revisions under the guidance of a faculty advisor.

### **Time Limit and Residency for Masters**

All work for the M.A. must be completed within six years of admission to the program. The student must complete a minimum of 24 hours at the University of Louisville.

# Departmental Faculty

## *Chair*

**Susan Griffin**, Professor

## *Professors*

**Dale B. Billingsley**, Associate University Provost

**Beth Boehm**, Vice Chair

**Thomas B. Byers**

**Geoffrey A. Cross**

**Julia C. Dietrich**

**Alan C. Golding**

**Dennis R. Hall**

**Suzette A. Henke**, Thruston B. Morton, Sr. Professor

**Bruce Horner**, Endowed Chair of Rhetoric and Composition

**Debra Journet**

**Min-Zhan Lu**

**Estella C. Majozo**

**Carol Mattingly**

**Sena J. Naslund**

**Jeffrey T. Skinner**

## *Associate Professors*

**David Anderson**

**Matthew Biberman**

**Karen Chandler**

**Paul F. Griner**, Director of Creative Writing

**Karen Hadley**

**Aaron Jaffe**

**Karen Kopelson**

**Karen A. Mullen**

**Glynis Ridley**

**Mary I. Rosner**, Director of the Writing Center

**Susan Ryan**, Director of Graduate Studies

**Ann Elizabeth Willey**, Director of Undergraduate Studies

**Bronwyn Williams**, Director of Composition

**Joanna Wolfe**

***Assistant Professors***

**Brian Leung**

**Gabriela Nuñez**

**Annette Powell**

**Andrew Rabin**

***Instructor***

**Elaine Wise**, Chair of Humanities

***Emeritus/Emerita***

**Lucy M. Freibert**

**Robert Miller**

**Harold E. Richardson**

**Mary Ellen Rickey**

**Thomas A. Van**



# Doctor of Philosophy in English Rhetoric and Composition

**Major:** ERC

**Degree Awarded:** Ph.D.

**Unit:** GA

**Program Webpage:** <http://louisville.edu/english/>

## Program Information

### Mission Statement

The Ph.D. in Rhetoric and Composition provides graduate training in the history and theory of rhetoric; theory and empirical research in composition; an area of British or American literature; linguistics; and the relation of rhetoric and composition to allied fields (e.g., critical theory, cultural studies, cognitive psychology, educational research). Goals for the Ph.D. are that students will 1) gain specialized and current disciplinary knowledge; 2) write a dissertation in which they initiate and complete specialized research that addresses an original and significant question in rhetoric and composition; 3) acquire experience and expertise as writing teachers.

### Admission to the Ph.D.

Openings in the doctoral program are limited; therefore, admission is competitive. All doctoral degree applicants should present the following documents:

1. Complete transcripts of previous undergraduate and graduate work;
2. Three academic letters of recommendation that speak to the applicant's potential for success in a doctoral program; at least one of these should address the applicant's teaching abilities and/or potential;
3. A written statement of no more than a thousand words detailing the applicant's professional goals in the field of rhetoric and composition;
4. Scores on the Graduate Record Examination General Test;
5. A sample of scholarly, critical writing (15-20 pages);
6. International students must also present scores of at least 600 on the TOEFL Examination (paper test) or at least 210 on the TOEFL Exam (computer test);
7. Application for Graduate Teaching Assistantship, available at <http://coldfusion.louisville.edu/webs/a-s/english/gtaapplication.pdf>. This application should be sent directly to the Department of English. All other materials should be sent to the Graduate Admissions Office in Houchens Building.

The English Graduate Committee reviews applications for the doctoral program in rhetoric and composition and makes all admission decisions. Applicants must have a Master's degree at the time of matriculation. Completed applications are due no later than January 5th for Fall admission only.

All applicants must fulfill the general requirements of the Graduate School.

## Curriculum

All doctoral students are expected to complete a minimum of 51 graduate hours, distributed as follows:

	<b>Semester Hours</b>	<b>Total</b>
<b>Required (12 hours):</b>		
ENGL 602, Teaching College Composition	3	
ENGL 620, Research in the Composing Process	3	
ENGL 689, Directed Reading for Comprehensive Preliminary Exams	3	
ENGL 691, Contemporary Theories of Interpretation or ENGL 692, Topics in Interpretive Theory	3	12
<b>Additional Requirements (15 hours from the following categories):</b>		
Pedagogy and Program Administration	3	
Rhetoric	3	
Literature (one creative writing course may be used to fulfill the literature requirement; students may also take a second theory course--in addition to the required course listed above--in partial fulfillment of the literature requirement)	9	15
<b>Electives (12 hours):</b>		
Choose from offerings in <b>Rhetoric and Composition</b> . One elective may be taken outside these offerings, including a course outside the department		12
Dissertation (690)	12	12
<b>Minimum Total</b>		<b>51</b>

### **Ph.D. Language Requirement**

Each doctoral student must demonstrate proficiency in one foreign language and either a second foreign language, an advanced level of proficiency in the first foreign language, or a research or retrieval skill (ordinarily statistics or a computer language) approved by the Graduate Director.

### **Time Limit and Residency for Ph.D.**

All work for the Ph.D. must be completed within six years of admission to the program.

A year of full-time residency in the English doctoral program consists of the completion of two consecutive semesters of

nine hours each.

For students holding Graduate Teaching Assistantships, a year of full-time residency in the English doctoral program is eighteen semester hours within a single academic year. Students ordinarily take nine hours of course work and teach six hours in the fall and spring terms, though some choose to take two seminars plus three dissertation hours during some semesters.

### **Professional Requirements**

Sometime during their tenure in the doctoral program, students must participate in a year-long supervised teaching-intern program. Intern experience may include teaching in regular first-year and advanced writing courses and tutoring in the Writing Center. Students who wish to complete their intern experience at another institution must make specific arrangements to do so with the Director of Graduate Studies in English. Such arrangements require the approval of the English Graduate Committee.

Graduate Teaching Assistants automatically fulfill the professional requirement once they have completed one successful year as a Graduate Teaching Assistant.

### **Comprehensive Preliminary Examination**

When students have completed coursework, satisfied foreign language requirements, and received the approval of the Graduate Committee, they may sit for the Comprehensive Preliminary Examinations. (See the Graduate Program Guidelines for a detailed explanation of these examinations.)

### **Admission to Candidacy**

Students will be admitted to candidacy for the Ph.D. after they have completed coursework, met the foreign language and professional requirements, and passed the comprehensive preliminary examinations; they remain doctoral degree candidates until they complete the dissertation.

### **Dissertation**

The doctoral dissertation requires the equivalent of a full year of graduate work and involves registration in at least 12 credit hours in English 690.

The Dean of the Graduate School, upon the recommendation of the Director of Graduate Studies in English, in consultation with the student, will appoint the dissertation director and reading committee. Proof that the prospectus has been approved must be submitted to the Graduate School at least nine months before the final dissertation oral examination.

Guidelines for writing the dissertation prospectus are included in the English Department's Graduate Program Guidelines. The dissertation will be submitted, in the form prescribed by the Graduate School (see <http://graduate.louisville.edu/pubs/theses-dissertations/> for the current guidelines), not less than six weeks before the end of the term in which the doctoral degree is to be conferred.

### **Final Oral Examination**

The defense of the dissertation will be scheduled at least three weeks before the end of the term. The dissertation will then be revised according to the dissertation committee's recommendations. One copy shall be submitted to the Graduate School and one bound copy to the Department of English. Along with the dissertation, the candidate shall submit an abstract for publication in Dissertation Abstracts.

## **Departmental Faculty**

### ***Chair***

**Susan Griffin**

Professor

### ***Professors***

**Dale B. Billingsley**

Vice Provost

**Beth Boehm**

Vice Chair

**Thomas B. Byers**

**Geoffrey A. Cross**

**Julia C. Dietrich**

**Alan C. Golding**

**Dennis R. Hall**

**Suzette A. Henke**

Thruston B. Morton, Sr. Professor

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**Glynis Ridley**

**Mary I. Rosner**

Director of the Writing Center

**Susan Ryan**

Director of Graduate Studies

**Ann Elizabeth Willey**

Director of Undergraduate Studies

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Director of Composition

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**Annette Powell**

**Andrew Rabin**

**Elaine Wise**  
Chair of Humanities

*Emeritus/Emerita*

**Lucy M. Freibert**

**Robert Miller**

**Harold E. Richardson**

**Mary Ellen Rickey**

**Thomas A. Van**

# Master of Arts in French, Language and Literature

**Major:** FREN

**Degree Awarded:** MA

**Unit:** GA

**Program Webpage:** <http://modernlanguages.louisville.edu>

## Program Information

### Mission Statement

French faculty seek to give graduate students a working knowledge of French and knowledge of the place of French in the world.

### Program Information

The Master of Arts in French, Language and Literature requires 30 hours of academic work at the graduate level.

It is possible to complete this program as part of a joint B.A./M.A. program in French. Students may consult with the French advisor to take courses in place of the required courses listed below. Students must complete a minimum of 24 hours at the University of Louisville. It is recommended that students take FRE 611 during their first semester in the program and FRE 699 during their last semester in the program.

As part of their graduate program, students are required to spend at least one month in a French-speaking country. Thanks to the Modern Languages Fund, it is possible for the Department of Classical and Modern Languages to assist students financially so as to make a one-month stay in a French-speaking country a reality. The University of Louisville has a long-standing Work-Exchange Program with the city of Montpellier, France, where students spend a month each summer. As with any requirement, after consultation with the French advisor, it may be possible to find an appropriate substitution for this requirement.

### Admission Procedures

Admission is on a rotating basis. Students must submit the following: application to graduate school and application fee, transcripts from all colleges/universities where undergraduate and/or graduate credit was earned, two letters of recommendation and GRE exam scores.

Students may begin the program in Fall (preferably), Spring or Summer.

## Curriculum

	<b>Semester Hours</b>	<b>Total</b>
FRE523    Advanced Communication Skills	3	
FRE524    Practice and Theory of Translation	3	

FRE531	Special Topics in Literature and Cultural Studies (taught during the summer by a visiting Modern Languages Fund professor)	3
FRE552	French Work Exchange Research or approved substitute	3
FRE601	Studies in French Linguistics	3
FRE602	Studies in French Culture	3
FRE603	Studies in French Media	3
FRE604	Studies in French Literature	3
FRE611	Teaching and Research Methods in French	3
FRE699	Independent Research. This course is envisaged as a capstone course for this program, with opportunities for the professor to evaluate the language skills and information base of individual students.	3

**Total Credit Hours**

**30**

### **Accelerated BA/MA Program**

Students who wish to pursue an accelerated non-thesis Master's Degree will be allowed to apply up to nine (9) hours of undergraduate coursework taken for graduate credit. An additional twenty-one (21) hours of graduate coursework taken in addition will constitute the minimum number of credit hours for obtaining the non-thesis Master's in the accelerated program. The guidelines for this combined program are as follows:

1. Application forms are available in the Department of Classical and Modern Languages office (Humanities 326) or from the French Advisor. It is strongly recommended that at least one of the supporting letters submitted with the application be from a French faculty member.
2. Students must (A) apply for admission to this program no later than the end of the Junior year (a total of 90 degree applicable hours) and, (B) must have completed French 320, 321, 322 with grades of "B" or better.
3. Application will be reviewed by the French faculty. A 3.35 overall grade point average and acceptable test scores on the GRE will be required for admission to the program.
4. Students may take a maximum of nine (9) hours for graduate credit, which will also apply to the requirements for the baccalaureate degree in French. The nine hours must be from the following list: FRE 523, 524, 531, and 552.
5. Students who enroll in the accelerated program will be non-thesis students and must adhere to all policies pertaining to Graduate Students in the Department of Classical and Modern Languages.

### **Departmental Faculty**

Wendy Pfeffer  
*Professor*  
Coordinator, Graduate Education for A&S

Rhonda Buchanan  
*Professor*  
Director, Latin American Studies

William L. Cunningham  
*Professor*

Alan C. Leidner  
*Professor*

Frank Nuessel  
*Professor*

Sydney Schultze  
*Professor Emerita*

Aristofanes Cedeño  
*Associate Professor*  
Academic Dean, Governor's Scholars Program

Gregory Hutcheson  
*Associate Professor*

Mary Makris  
*Associate Professor*

Manuel Medina  
*Associate Professor*

Regina Roebuck  
*Associate Professor*

Lisa Wagner  
*Associate Professor*

Matthieu Dalle  
*Assistant Professor*

John Greene  
*Professor*

Clare Sullivan  
*Assistant Professor*

Roy L. Ackerman  
*Professor Emeritus*

Wendy Yoder  
*Visiting Assistant Professor*

David R. Hume  
*Professor Emeritus*

Carmen Cedeño  
*Visiting Assistant Professor*

Hans Peterson  
*Professor Emeritus*

Marilyn Schuler  
*Professor Emerita*



# Master of Arts in History

**Major:** HIST

**Degree Awarded:** MA

**Unit:** GE

**Program Webpage:** <http://www.louisville.edu/a-s/history/>

## Program Information

### General Information

The Master of Arts program in history provides advanced training in historical theory, investigation, and writing. Among other things, it prepares students for further graduate studies in history, employment in educational institutions or in public history, and careers in law and government.

The varied specialties of our faculty, combined with the structure of the program, allow our students to acquire a worldwide vision of history. All students must focus their studies in any two of the following areas of emphasis, one as their major and the other as their minor concentration: Greater Atlantic World, Greater Mediterranean Basin, Asia-Pacific Rim, and Western Pacific and Indian Ocean World. This both allows students flexibility in course scheduling, and encourages cross-cultural and interdisciplinary scholarship.

### Program Admission

Normally, applicants to the MA program in history must have:

- a minimum undergraduate GPA of 3.0 on a 4.0 point scale (a GPA based on a 3.0 scale will be converted to a 4.0 scale)
- 21 undergraduate credit hours in history, with a minimum GPA of 3.0
- a combined score of at least 1000 on the Verbal and Quantitative sections of the Graduate Records Examination (GRE)

Students with an undergraduate GPA of between 2.5 and 2.99 may be accepted conditionally into the program at the discretion of the Director of Graduate Studies, provided they meet all other requirements for admission. Conditional admittance requires that the student maintain a GPA of 3.0 in the first 6 hours of graduate coursework.

Students with fewer than 21 undergraduate hours in history will be required to take post-baccalaureate undergraduate courses to bring their total undergraduate hours in history to 21.

At the discretion of the Director of Graduate Studies, non-degree students may be admitted to pursue graduate coursework.

### Program Admission Procedures

Applicants must submit the following materials to the University of Louisville Office of Graduate Admissions:

- a completed graduate application (available on line at <http://graduate.louisville.edu/app/>); there is an application fee of \$50
- official transcripts verifying the receipt of a BA from an accredited institution
- scores from the Graduate Records Examination

- at least two letters of recommendation from individuals familiar with the applicant's academic and/or professional capabilities and potential
- a statement, not exceeding 500 words in length, addressing the question "Why are you pursuing an MA in history?"

All application materials should arrive in the Office of Graduate Admissions and the Department no later than thirty days before the first day of classes of the semester in which the applicant plans to begin graduate studies.

For a list of the graduate assistantships, scholarships, fellowships and internships, see <http://www.louisville.edu/a-s/history/scholarship.html>. Applications for these awards are normally due on April 1.

## Curriculum

### Program Requirements

Graduate students in this Department normally take 9 hours of coursework per semester (three courses). With the approval of the Director of Graduate Studies, a student may take up to 12 hours (four courses) in a semester. During a student's graduate program, a total of 6 hours of coursework may be taken outside the Department of History, provided it is directly relevant to the student's academic program and has been approved by the Director of Graduate Studies. Except with the approval of the Director of Graduate Studies, no more than 6 hours of directed studies or independent studies (HIST 501, 502, 601, 602) may be applied to an MA in History. No pass-fail courses may be applied to an MA.

If a student's cumulative GPA falls below 3.0, he or she is considered on academic probation, and may be dismissed from the MA program. A non-degree student who fails to maintain an average of 2.0 will not be allowed to continue taking graduate courses.

For MA-level work in certain areas, knowledge of foreign languages or knowledge of other specialized research tools may be required.

Students will be allowed to transfer up to 6 hours of appropriate coursework from outside the University.

In consultation with the Director of Graduate Studies, each candidate for the MA in History will select areas of major and secondary emphasis. The program of study must be approved by the Director, normally before the student enrolls for the second semester of work. The areas of emphasis are:

- Greater Atlantic World, including Europe, Africa, and the Americas.
- Greater Mediterranean Basin, including Europe, Africa, and the Middle East.
- Asia-Pacific Rim, including South Asia, East Asia, Pacific, and the Americas.
- Western Pacific and Indian Ocean World, including East Asia, South Asia, Africa, and the Middle East.

Students may choose to complete the MA by thesis, by research papers, or by examinations.

**Thesis option:** Completion of 24 credit hours of coursework and a thesis. 15-18 hours of coursework must be in the major area of emphasis, and 6-9 hours in the secondary area; one-six hours may be electives. At least 12 hours of coursework must be at the 600 level, with at least nine of these hours in the major area of emphasis. The thesis must be in the major area of emphasis. Following an oral defense, it must be approved by a thesis committee, which consists of the thesis director and at least two other faculty members, one of them from another department. The committee must be approved by the Director of Graduate Studies and the Graduate School.

**Research paper option:** Completion of 33 credit hours of course work and two research papers, each 25-35 pages. 18-21 hours of coursework must be in the major area of emphasis, and 9-12 hours in the secondary area; one-six hours may be electives. At least 18 hours of coursework must be at the 600 level, with at least 15 of these hours in the major area of emphasis. One research paper will normally be in the major area of emphasis, and one in the minor area. A committee will evaluate the written work and conduct an oral examination on the two papers and the relevant areas of history. The committee will consist of three faculty members, normally the two faculty members who directed the research papers and

a third faculty member who is usually in the Department of History. The committee must be approved by the Director of Graduate Studies.

**Examination option:** Completion of 33 credit hours of course work and two written examinations. 18-21 hours of coursework must be in the major area of emphasis, and 9-12 in the secondary area; one-six hours may be electives. At least 18 hours of coursework must be at the 600 level, with at least 15 of these hours in the major area of emphasis. One examination will be in the major area of emphasis, and one in the minor area. A committee will evaluate the written examinations, and conduct an oral examination on their content and the relevant areas of history. The committee will consist of three faculty members, normally the two faculty members who administered the examinations and a **third faculty member who is usually in the Department of History. The committee must be approved by the Director of Graduate Studies.**

## **Accelerated BA/MA**

This program allows a history major to use a maximum of six hours of graduate course work towards both a BA and an MA. After completing the undergraduate program and receiving a BA, the student will enter the graduate program and complete the remaining requirements for an MA.

To be considered for admission to the accelerated program, students must:

- have a minimum overall grade point average (GPA) of 3.0 and a GPA of 3.35 in history
- complete an application for admission to the graduate program (including Graduate Record Examination scores (GRE) and two recommendations) no later than the end of the junior year (application details are described below)

In addition, students must retain a GPA of 3.35 in history (have a B+ in graduate history courses) during their senior year to remain in the program.

## **Departmental Faculty**

**Ann T. Allen**

*Professor*

**Blake R. Beattie**

*Associate Professor*

**Mark E. Blum**

*Professor*

**John T. Cumbler, Jr.**

*Professor*

**Christine T. Ehrick**

*Associate Professor*

**Benjamin T. Harrison**

*Professor*

**Robert B. Kebric**

*Professor*

**Daniel Krebs**

*Assistant Professor*

**Tracy E. K'Meyer**

*Associate Professor*

*Vice-Chair*

**Yuxin Ma**

*Assistant Professor*

**Thomas C. Mackey**

*Professor*

**Justin A. McCarthy**

*Professor*

**Edward C. McInnis**

*Visiting Assistant Professor*

**John E. McLeod**

*Associate Professor Chair*

**Raphael C. Njoku**

*Assistant Professor*

**Bruce M. Tyler**

*Associate Professor*

**Lee Shai Weissbach**

*Professor*

# Master of Arts in Humanities

**Major:** HUM

**Degree Awarded:** MA

**Unit:** GA

**Program Webpage:** <http://louisville.edu/a-s/humanities/>

## Program Information

The Humanities Division of the College of Arts and Sciences offers three concentrations leading to the degree of Master of Arts. Procedures and standards of admission to the degree program are given in the General Information section of this catalogue.

For the traditional concentration, the applicant will be expected to have an undergraduate background of some depth in at least two of the following disciplines: art history, literature, classical and modern languages, linguistics, music history, philosophy, theatre arts, and religious studies, or in one of the following interdisciplinary cultural studies periods: ancient, medieval-renaissance, early modern (17th and 18th centuries) or modern. Those who do not meet this requirement will be required to take undergraduate courses before admission is granted.

For the concentration in Humanities and Civic Leadership, the applicant will be expected to have worked in a profession for five years (unless the applicant has completed another graduate or professional degree program or is enrolled in the Joint JD/MAHUM program). Scores from the GMAT, LSAT, MCAT, or other professional examinations may be substituted for the GRE General Test. A 1000-word Statement of Intent must be submitted to the Humanities Graduate Advisor before the applicant will be considered for admission.

For the concentration in Linguistics and the Humanities, which is a non-thesis option with a focus on the study of language, the applicant should have an undergraduate background which includes courses in linguistics. The second discipline or area of emphasis will be approved by the Graduate Advisor.

## Curriculum

### Traditional M.A. concentration (thesis or non-thesis option):

1. A total minimum of 30 semester hours as follows:
  - 12-15 semester hours in one of the following areas:  
art history, literature, classical and modern languages, music history, philosophy, theatre arts, religious studies, ancient studies, medieval-renaissance studies, early modern (17th and 18th century) studies, or modern studies;
  - 3 semester hours in methodology (HUM 609 or 610 or appropriate substitute approved by the chair);
  - 6 semester hours in Thesis Guidance (HUM 645 A-F) *or* three semester hours in directed study project;
  - 9-12 semester hours in second discipline/area.
2. A minimum of 15 semester hours must be in courses at the 600 level, excluding thesis or directed study hours.
3. Students who do not have one of the Humanities 591-596 sequence in their undergraduate record will be required to take one of these as part of their electives.
4. Pass a competency exam in French, German, Spanish, or an approved alternate foreign language.

5. An oral examination covering the content of the thesis.

**Traditional MA with Thesis**

(minimum of 30 hours)

12-15 hours in 1 discipline/area

9-12 hours in 2nd discipline/area

3 hours in Methods

6 hours in Thesis

Foreign Language Competency\*\*

**Traditional MA: Non Thesis**

(minimum of 30 hours)

12-15 hours in 1 discipline/area

9-12 hours in 2nd discipline/area

3 hours in Methods

3 hours of Directed Study Project

Foreign Language Competency\*\*

***Example:***

12 hours in Philosophy

9 hours in Art History

3 hours of HUM 510/610

6 hours of thesis

Foreign Language Competency\*\*

***Example:***

15 hours in Philosophy

9 hours in Literature

3 hours of HUM 609

3 hours of Directed Study Project

Foreign Language Competency\*\*

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**Concentration in Humanities and Civic Leadership: non-thesis\*  
(minimum of 30 hours):**

1. 12 hours in one discipline/area
2. 3 hours in Methods (609 or 610)
3. 3 hours in second discipline/area
4. 6 hours in Internship (650)
5. 3 hours Direct Study Project (655)
6. 3 hours in Interdisciplinary Seminar in Humanities and Civic Leadership (636)
7. No foreign language requirement.
8. Demonstrated writing proficiency is required for admission.

***\*This program is also offered for a dual degree with the Law School (JD/MAHUM). See the catalog of the Brandeis School of Law for details.***

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**Concentration in Linguistics and the Humanities: non-thesis  
(minimum of 30 hours)**

1. 15 credit hours of Linguistic coursework, three hours in each of the 5 areas:
  - **Introduction to Linguistics: Required**  
LING 518 Foundations of Language
  - **Language and Culture: Choose 1**  
ENG 523 History of the English Language  
LING 621 Sociolinguistics  
LING 623 Culture as the Basis of Foreign Language Teaching  
LING 630 Language and Culture
  - **Language and Structure**  
ENG 522 Structure of Modern American English  
LING 535 Applied Linguistics for English Teachers  
LING 603 Syntax  
LING 606 Historical and Comparative Linguistics  
LING 610 Phonetics and Phonology
  - **Language and Cognition: Choose 1**  
LING 524 Psycholinguistics  
LING 622 Psychology of Second Language Learning and Teaching  
LING 624 Language and Cognition  
LING 641 Recent Philosophy of Language
  - **Any 500-600 level elective course in Linguistics, not already chosen: Choose 1**  
LING 521 Teaching Techniques in Foreign Language  
LING 590 Special Topics in Linguistics  
LING 600 Independent Study  
LING 605 Summer Workshop for Foreign Language Teachers  
LING 620 Special Topics in Foreign Language Education  
LING 625 The Teaching of English as a Second Language  
LING 690 Seminar in Linguistics
2. 9 credit hours in a second humanities discipline or area
3. 3 credit hours in methodology: Humanities 609 or 610
4. 3 credit hours in Directed Study Project: Humanities 655
5. Foreign Language Competency
6. An Oral Examination will cover the contents of the Directed Study Project
7. A minimum of 15 semester hours must be in courses at the 600 level, excluding HUM 655, The Directed Study Project.

For students who are pursuing an ESL (English as a Second Language) Endorsement, the above MA Concentration allows ESL endorsement coursework to count toward the degree. For more information on the ESL endorsement requirements, see [www.louisville.edu/a-s/iesl/Endorsement](http://www.louisville.edu/a-s/iesl/Endorsement)

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**Accelerated BA/MA in Humanities**

Students who wish to pursue an accelerated Masters degree, will be allowed to apply to the Baccalaureate degree up to 9 hours of coursework taken for graduate credit. Twenty-one (21) hours of graduate coursework in addition will constitute the minimum number of credit hours for obtaining the MA. The guidelines for the Accelerated (BA/MA in Humanities) are as follows:

1. Students must apply no later than the end of the junior year for admission to the accelerated program.
2. A minimum overall grade point average and major grade point average of 3.35 will be required for admission to and for retention in the program.
3. Student must complete the GRE and fill out the Humanities Division application for the accelerated BA/MA in Humanities.

4. Student may take a maximum of 9 hours for graduate credit, which will also apply to the requirements for the baccalaureate degree in Humanities.
5. The accelerated BA/MA in Humanities will be offered for the Traditional Concentration and for the Linguistics Concentration, but not for the Concentration in Humanities and Civic Leadership.
6. Students who enroll in the accelerated BA/MA in Humanities may elect the thesis or non-thesis option, which ever is appropriate to the concentration and course of study.
7. All students in the program will take either HUM 609 or HUM 610 to fulfill the "theory requirement".
8. All requirements remain the same, including the foreign language requirement.

## **Departmental Faculty**

### **FACULTY:**

*All Division of Humanities faculty members who hold Graduate Faculty appointments*

#### **Elaine O. Wise**

*Assistant Professor and Chair of Humanites  
Traditional MA Concentration  
Advisor*

#### **Annette Allen**

*Associate Professor  
Director of Humanities Ph.D and  
Humanities & Civic Leadership MA  
Concentration Advisor*

#### **Mary Ann Stenger**

*Professor  
Religious Studies Graduate Advisor*

#### **Tatjana Soldat-Jaffe**

*Assistant Professor  
Linguistics and Humanities MA  
Concentration Advisor*

#### **Arthur J. Slavin**

*Professor Emeritus*



# Doctor of Philosophy in Humanities

**Major:** HUM

**Degree Awarded:** Ph.D.

**Unit:** GA

**Program Webpage:** <http://louisville.edu/a-s/humanities/PHD/>

## Program Information

### Admission to the Ph.D. Program:

1. Completion of a Master's degree or an equivalent number of graduate credits (30) prior to admission.
2. Complete transcripts of undergraduate and graduate work.
3. Reports on the Graduate Record Examination (GRE) are required.
4. Submission of three letters of recommendation about the applicant's potential success in a doctoral program.
5. A written statement of intent of no more than a thousand words detailing the applicant's professional goals.
6. All applicants must fulfill the general requirements of the Graduate School.

## Curriculum

All doctoral students are expected to complete a minimum of 48 hours beyond the Masters degree distributed as follows:

### Core Required Courses

Total credit hours: 21

### Chronological Sequence:

Credit Hours: 6

\*HUM 661: Humanistic Studies I 3

\*HUM 662: Humanistic Studies II 3

### Theory and Methods:

Credit Hours: 3

\*HUM 609: Interdisciplinary Theory: Arts and Humanities

**Interdisciplinary Topics Seminars:** Credit Hours: 6

\*HUM 671: Interdisciplinary Seminar 3

\*HUM 672: Interdisciplinary Seminar 3

**Internships:** Credit Hours: 3

\*HUM 690: Doctoral Internship

**Capstone Course:** Credit Hours: 3

\*HUM 699: Interdisciplinary Symposium

## **AREAS OF CONCENTRATIONS Total credit hours: 18**

1. Aesthetics and Creativity - Hum. 681 Topics in Aesthetics and Creativity
2. Studies in Culture - Hum. 682 Topics in Studies in Culture

Graduate courses housed within departments in the Humanities Division meet the area concentration requirements in the primary and secondary areas of concentration: (1) Aesthetics and Creativity; and (2) Studies in Culture.

A student in consultation with his/her Supervisory Committee will select courses appropriate to his/her course of study. No more than 12 hours of the 18 hours required in primary and secondary areas of concentration may be taken in one discipline.

**Primary Area** Credit hours: 12

Creativity and Aesthetics OR Studies in Culture

**Secondary Area** Credit hours: 6

Creativity and Aesthetics OR Studies in Culture

**Dissertation Research:** Credit hours: 9

- \*HUM 700

Complete program credit hours: 48

Students may supplement the minimum of 48 hours with additional coursework in a specific discipline or additional hours for the dissertation.

# Departmental Faculty

## FACULTY:

*All Division of Humanities faculty  
members who hold Graduate Faculty  
appointments*

### **Elaine O. Wise**

*Assistant Professor and Chair of  
Humanities  
Traditional MA Concentration  
Advisor*

### **Annette Allen**

*Associate Professor  
Director of Humanities Ph.D and  
Humanities & Civic Leadership MA  
Concentration Advisor*

### **Mary Ann Stenger**

*Professor  
Religious Studies Graduate Advisor*

### **Tatjana Soldat-Jaffe**

*Assistant Professor  
Linguistics and Humanities MA  
Concentration Advisor*

### **Arthur J. Slavin**

*Professor Emeritus*

# Master of Science in Administration of Justice

**Major:** ADJ

**Degree Awarded:** MS

**Unit:** GA

**Program Webpage:** <http://www.louisville.edu/justiceadministration/>

## Program Information

The goals of the Department of Justice Administration are for students to achieve a sound liberal arts education and a specialized understanding of the criminal justice system, criminal behavior, legal processes and the relationship of these phenomena to society.

Graduate studies in the Department of Justice Administration provide students with advanced social and behavioral science skills as well as a detailed and thorough understanding of crime, criminal justice and related processes. Graduates of this program are prepared to continue advanced studies in criminal justice or other social sciences and to assume mid and upper-level leadership positions within criminal justice programs and agencies.

The interdisciplinary nature of the program maintains the dynamic posture that allowed this crime-related discipline to emerge and to mature quickly and successfully. Graduate students are given latitude in choosing elective courses in the Master of Science in the Administration of Justice. Elective courses related to the student's program of study are selected from the resources of the entire University. Courses in social work, public administration, law, business, and the various departments of the College of Arts and Sciences are possible electives that the student and his or her advisor may consider. With proper selection, the electives can complement the core criminal justice courses and produce a balanced, interdisciplinary program which is tailored to meet specific professional and career goals.

The combination of three elements, the degree programs, the Southern Police Institute and the National Crime Prevention Institute, makes the program in Justice Administration a unique blend of theory and practice.

- The Southern Police Institute, one of the oldest, most respected police management and administration educational programs in the United States.
- The National Crime Prevention Institute, the only center in the country devoted exclusively to training and educating crime prevention and loss prevention specialists and managers.

Our programs are offered in two formats:

- evening courses on campus, and
- on-line via the internet

## Admissions

Anyone seeking admission to the Graduate School, University of Louisville, for purposes of pursuing the Master of Science in the Administration of Justice must provide the following:

- Transcripts of all undergraduate and graduate work completed. The minimum requirement for admission is the Baccalaureate degree or its equivalent.
- Two letters of recommendation from individuals who can speak to the applicant's academic or professional capabilities.
- Scores on the General Test Section of the Graduate Record Examination (GRE).
- An original essay identifying the applicant's background, professional interests and goals. The essay should be 300-500 words and should allow the faculty to better understand the applicant's motivation and potential for graduate work.
- Completed application for admission to the Graduate School, University of Louisville at

<http://graduate.louisville.edu/apply/>.

- \$50.00 application fee, check or money order made payable to the University of Louisville.

The faculty in Justice Administration consider applications and supporting materials and recommend a disposition. The minimum requirements for admission to degree status are a grade point average of at least 2.75 on a 4-point scale in senior-college courses and at least 900 on the combined verbal and quantitative scores of the GRE as well as a positive evaluation of the letters of recommendation and the essay.

### **General Requirements**

The general requirements for the Master of Science degree in the Administration of Justice are the completion of at least 36 graduate credit hours. The completion of these credit hours may include either thesis or non-thesis option. The thesis option requires the completion of 30 semester hours of graduate level courses and a thesis for a total of 36 credit hours. The non-thesis professional paper option requires the completion of 33 semester hours of graduate courses plus a professional paper for a total of 36 credit hours. At least a 3.0 grade average must be maintained for all graduate coursework. Core or specific courses required for graduation total 15 semester hours with the remaining courses being electives. The composition of the list of elective courses will vary from student to student depending on the student's undergraduate major, aspirations and background.

The degree is offered in two formats, our traditional on campus classes and also via the internet, see department web-page for more information. Students may choose either format or a combination of both methods of delivery.

## **Curriculum**

<b>Core Courses</b>	<b>Semester Hours Thesis Option</b>	<b>Semester Hours Professional Paper Option</b>
JA 621, The Criminal Justice System	3	3
JA 625, Legal Aspects of Criminal Justice Management	3	3
JA 643, Theories of Crime and Delinquency	3	3
JA 649, Applied Statistics in Criminal Justice	3	3
JA 650, Research Methods in Criminal Justice	3	3
Electives (to be approved by advisor)	15	18
Thesis	6	
Professional Paper		3

## Departmental Faculty

**Deborah G. Keeling***Professor*

Chair

**Gennaro F. Vito***Professor*

Vice-Chair &amp; Graduate Coordinator

**J. Price Foster***Professor***Richard A. Tewksbury***Professor***William F. Walsh***Professor*

Director, Southern Police Institute

**Terry D. Edwards***Associate Professor***Elizabeth L. Grossi***Associate Professor***George E. Higgins***Associate Professor***Thomas W. Hughes***Associate Professor***Viviana Andreescu***Assistant Professor***George E. Higgins***Assistant Professor***Wesley G. Jennings***Assistant Professor***John E. Shutt***Assistant Professor***Geetha Suresh***Assistant Professor***Theresa C. Hayden***Lecturer***Alex Ferguson***Lecturer***B. Edward Campbell***Emeritus***Ronald M. Holmes***Emeritus***John C. Klotter***Emeritus*

# Master of Arts in Mathematics

**Major:** MATH

**Degree Awarded:** Ph.D.

**Unit:** GA

**Program Webpage:** <http://www.math.louisville.edu/graduate/index.html>

## Program Information

Appropriate preparation for an Master of Arts in Mathematics is undergraduate coursework equivalent to a major in mathematics from an accredited university. This should include a one-year course in either analysis or abstract algebra, equivalent to Mathematics 501-502 and 521-522 at the University of Louisville. Candidates who have not taken both must complete them in the second year of their M.A. program.

## Curriculum

### Degree Requirements:

1. Candidates must complete a program of study approved by the department. All courses (maximum of 12 credit hours total) taken outside the Department of Mathematics must have prior departmental approval.
2. All students must complete a minimum of 30 credit hours of non-thesis graduate credit, including at least 15 credit hours in the Department of Mathematics, with one full-year sequence in courses numbered 601 through 689.
3. Students must satisfy **one** of the following three requirements:
  - Master's Level Examination Option: Pass written examination in three areas of mathematics chosen from a list prepared by the department. At most, two attempts are allowed. Examinations will be approved and administered by the departmental Graduate Studies Committee.
  - Thesis Option: Write a thesis on an advanced topic in the mathematical sciences. A total of two full-year sequences among courses numbered 601 through 689 must be completed.
  - Ph.D. Qualifier Option: Pass two qualifier examinations for the departmental Ph.D. Program. These examinations need not be taken together and each may be attempted at most twice.
4. Students choosing the Thesis Option must pass a final oral examination described under "Requirements for the Master's Degree" in the General Information section of the Graduate School Catalogue.

### Early Start Program

The Master of Arts in Teaching program in conjunction with the undergraduate programs in Chemistry, Biology, and Mathematics offers a comprehensive and professionally-focused program leading to an additional degree of MAT Middle or Secondary Education. This early start program enables superior students to receive two degrees within five years. A total of 150 credits are required for the dual degrees: 123 credits of course work devoted toward the baccalaureate degree and 36 credits toward the MAT (nine hours are double counted). This program will be available for students who are entering their junior year. They may take graduate level courses in the College of Education and Human Development (CEHD) in their 4th year.

The current qualifications for the joint degree program have been agreed upon by discipline faculty from the Colleges of Arts and Sciences and Education and Human Development. The criteria vary by discipline.

## **Mathematics**

1. Students must have at least 21 credit hours of mathematics required for the BA with a cumulative GPA of 3.0 in those courses.
2. Applications will be reviewed by the Graduate Committee of the Mathematics Department and the Secondary MAT Screening Committee, and the applicant must be approved by both committees.
3. Once approved, the student may take a maximum of nine (9) hours for graduate credit while in undergraduate status, which can also apply to the requirements for the BA in Mathematics. All graduate coursework must be approved by the student's MAT faculty advisor.
4. Students enrolling in the accelerated program will be non-thesis students and must adhere to all policies pertaining to Graduate Students.
5. All students must submit an application to the College of Education and Human Development (CEHD) MAT program and meet the admission criteria.

### **Accelerated M.A. Option in Mathematics**

Students must apply for admission to the program no later than the end of the junior year and must have completed MATH 205, 206, 301, and 325, or equivalent courses, prior to application.

Applicants must have a minimum overall GPA of 3.5, and minimum GPA of 3.66 in mathematics courses. As part of the combined degree, students must complete MATH 405 and at least four (4) of the following: MATH 501, 502, 521, 522, 561, 562, or 581, including at least one sequence from among these courses.

The student may take a maximum of nine (9) hours for graduate credit, which will also apply to the requirements for the baccalaureate degree in Mathematics. All 600-level courses numbered 689 or below qualify, as do 500-level courses, when completed in accord with the stipulations for graduate credit outlined in the syllabus.

## **Departmental Faculty**

### ***Chair***

Thomas Riedel, Professor

### ***Director of Graduate Studies***

Prasanna Sahoo, Professor

### ***Graduate Advisor***

Andre Kezdy

### ***Professors***

Patricia B. Cerrito

Udayan B. Darji

Ewa Kubicka

Grzegorz Kubicki

Lee Larson

Robert Powers

Gregory Rempala

W. Wiley Williams

Yongzhi Steve Xu

### ***Associate Professors***



Mary E. Bradley  
Manabendra Das  
Bingtuan Li  
Steven Seif

Wei-Bin Zeng

***Assistant Professors***

Lee Gibson  
Ryan S. Gill  
Changbing Hu  
Jon-Lark Kim  
Hamid Kulsoman  
Kiseop Lee  
Jiaxu Li  
Alica Miller  
David Swanson

David J. Wildstrom

***Adjunct Professors***

Chakram S. Jayanthi

Shi-Yu Wu

***Emeritus/Emerita***

George R. Barnes  
Richard M. Davitt  
Roger H. Geeslin  
Thomas M. Jenkins  
Lael F. Kinch  
Robert B. McFadden  
Lois K. Pedigo  
Leland L. Scott  
William H. Spragens

# Doctor of Philosophy in Applied and Industrial Mathematics

**Major:** MATH

**Degree Awarded:** Ph.D.

**Unit:** GA

**Program Webpage:** <http://www.math.louisville.edu/graduate/index.html>

## Program Information

### Prerequisites:

Undergraduate coursework equivalent to a major in mathematics from an accredited university. This should include at least a one-year course in either analysis or abstract algebra, equivalent to Mathematics 501-502 and 521-522 at the University of Louisville. Candidates who have not taken both must complete the second in their program.

## Curriculum

All students admitted to the program must complete the following or their equivalent:

### A. Core Courses - 24 semester hours

1. Two sequences, each of six (6) semester hours, chosen from:
  - Algebra MATH 621-622
  - Combinatorics MATH 681-682
  - Real Analysis MATH 601-602
2. Two sequences, each of six (6) semester hours, chosen from:
  - Applied Statistics MATH 665-667
  - Mathematical Modeling MATH 635-636
  - Probability & Mathematical Statistics MATH 660-662

### B. Additional Topics and Area of Specialization - 18 semester hours

In addition to the core, an application area of 18 hours will be required. The courses may be in a department outside Mathematics. They will be chosen in consultation with the student's advisory committee.

### C. Qualifying Examinations

Students must pass three written examinations. Two of these will be chosen from the areas of Algebra, Combinatorics and Real Analysis. The third will be chosen from the areas of Applied Statistics, Mathematical Modeling and Probability & Mathematical Statistics. Normally, these will be taken within a year of completion of the core coursework. These examinations need not be taken together and each may be attempted at most twice.

### D. Industrial Internship – six (6) semester hours

Each student, with prior approval of the Graduate Studies Director and the Industrial Internship Director, has to complete at least six (6) hours of an internship in an appropriate industrial or governmental setting, or have equivalent experience.

**Computing Project:** Each student must complete an approved computer project related to the student's area of concentration.

**Candidacy Examination:** Each student must pass an oral examination in the chosen area of concentration. Usually, at most two attempts at passing this examination will be permitted. Students who wish to make a third attempt must petition the Graduate Studies Committee of the department for permissions to do so.

**Dissertation – 18 to 24 semester hours:** A doctoral dissertation is required of each student.

## **Dual Degree Program in Applied and Industrial Mathematics and Biostatistics - Decision Science**

Dual degrees in Biostatistics-Decision Science and Applied and Industrial Mathematics are offered by the College of Arts and Sciences and the School of Public Health and Information Sciences. Upon completion of the program, students will receive a Ph.D. in Applied and Industrial Mathematics and an M.S.P.H. in Biostatistics-Decision Science.

### **Application Procedure**

To be admitted to the program, the student is required to apply to and be accepted by both the Department of Mathematics and the Biostatistics-Decision Science Program. A student seeking admission into this program must submit letters to both the Department of Mathematics and the Department of Bioinformatics and Biostatistics stating the intent to take advantage of the dual degree program, and stating whether the student is interested in the Biostatistics or the Decision Science concentration. Students must submit two (2) recent letters of recommendation with their letter of intent. Applicants will receive written notification stating whether their admission request has been approved or disapproved.

### **Degree Requirements**

#### ***Required Courses***

The required courses for the dual degree program consist of all non-overlapping core courses for both the Ph.D. in Applied and Industrial Mathematics and the M.S. in Biostatistics - Decision Science, as well as the requirements for either the Decision Science or Biostatistics concentration within the Biostatistics-Decision Science program.

- **Core course requirements for the Ph.D. in Applied and Industrial Mathematics** (24 semester hours).
  - Two sequences, each of six (6) semester hours, chosen from:
    - Algebra - Mathematics 621 and 622
    - Combinatorics - Mathematics 681 and 682
    - Real Analysis - Mathematics 601 and 602
  - Two sequences, each of six (6) semester hours, chosen from:
    - Mathematical Modeling - Mathematics 635 and 636
    - Applied Statistics - Mathematics 665 and 667
    - Probability and Mathematical Statistics - Mathematics 660 and 662
  - Courses taken in requirement of the mathematics component of the dual degree program can be used to satisfy the 6 to 9 semester hours of electives required for the M.S. in Biostatistics-Decision Science.
- **Core course requirements derived from the M.S. in Biostatistics-Decision Science** (12 to 18 semester hours).
  - The following courses are required for both tracks:
    - Introduction to Public Health and Epidemiology - PHEP 511 (3 semester hours)
    - Social and Behavioral Sciences in Health Care - PHCI 631 (2 semester hours)
    - Introduction to Environmental Health
    - Health Economics
    - Biostatistics-Decision Science Seminar - PHDA 602 (4 semester hours)
    - Probability and Mathematical Statistics - PHST 661 and 662 (6 semester hours)\*

*\* This requirement is waived if the student takes the Mathematics 660, 662 sequence listed above.*

- Requirements from one of the two possible concentrations for the M.S. in Biostatistics - Decision Science. (5

to 6 semester hours)

- Biostatistics Concentration Requirements:
  - Biostatistical Methods I and II - PHDA 680 and 681 (6 semester hours)
- Decision Science Concentration Requirements:
  - Ethical Issues in Decision Making - PHDA 605 (2 semester hours)
  - Decision Analysis - PHDA 663 (3 semester hours)

Courses taken to satisfy the Biostatistics-Decision Science component of the dual degree program can be applied to the 18 semester hours of electives which are required for the Ph.D. in Applied and Industrial Mathematics.

### **Combined Industrial Internship, Practicum and Masters Thesis. (6-8 semester hours)**

The Industrial Internship required by the Department of Mathematics and the Public Health Practicum and Masters thesis required for the M.S. can be satisfied by a single internship and technical report which simultaneously satisfies the requirements for both degrees. Specifically, the internship must both focus on public health so that it satisfies the Public Health Practicum (PHDA 603 and PHDA 604), and contain advanced mathematical content, so that it satisfies the Ph.D.-level Industrial Internship (Math 694). Likewise, the technical report must meet two requirements: it must satisfy the requirements for a Master's thesis for the M.S. degree (PHDA 666) and it must be written at an advanced mathematical level expected for the Ph.D.-level Industrial Internship. The six (6) to eight (8) semester hours of the internship will be divided evenly between the Department of Mathematics and the Biostatistics-Decision Science Program.

### **Dissertation and Qualifying Examinations**

In order for the student to fulfill the Ph.D. requirements, the student must satisfy both the qualifying examination and dissertation requirements for the Ph.D. in Applied and Industrial Mathematics. Failure to complete these requirements will not jeopardize the M.S. degree, if all its requirements have been satisfactorily completed.

### **Special Considerations: Students who have already completed a Master's degree in the Department of Mathematics**

To preserve the spirit of a dual degree, such students need to complete 36 semester hours of courses as required for the M.S. in Biostatistics-Decision Science. Six (6) semester hours from the previous Master's degree coursework can be applied to this requirement. The remaining semester hours must be chosen from the list of not covered by core courses approved electives for the Department of Bioinformatics and Biostatistics, with preference given to courses in the Departments of Mathematics and Bioinformatics and Biostatistics. Combined Industrial Internship, Practicum and Masters Thesis cannot be replaced by a previous Master's thesis. This requirement must be satisfied as previously described, meeting the specifications of both departments.

## **Departmental Faculty**

### ***Chair***

Thomas Riedel,  
Professor

### ***Director of Graduate Studies***

Prasanna Sahoo,  
Professor

### ***Professors***

Patricia B. Cerrito  
Udayan B. Darji

Andre Kezdy,  
Graduate Advisor  
Ewa Kubicka  
Grzegorz Kubicki  
Lee Larson  
Robert Powers  
Grzegorz Rempala  
W. Wiley Williams

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David Swanson

David J. Wildstrom

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Professors***

Chakram S. Jayanthi

Shi-Yu Wu

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Thomas M. Jenkins  
Lael F. Kinch  
Robert B. McFadden  
Lois K. Pedigo  
Leland L. Scott  
William H. Spragens

# Master of Arts in Pan-African Studies

**Major:** PAS

**Degree Awarded:** MA

**Unit:** GA

**Program Webpage:** <http://www.louisville.edu/a-s/pas/>

## Program Information

The Pan-African Studies Department offers courses that may be applied toward graduate degrees in other areas. Students must obtain their program advisor's permission before enrolling in these courses. Students who are interested in more information on these courses should contact the Chair of the Department.

### Program Admission Information

Students applying for admission to the Master of Arts in Pan-African Studies program must meet the following standards:

- a minimum 2.75 undergraduate cumulative grade point average;
- the submission of an official transcript reflecting previous degree earned;
- at least two letters of recommendation;
- a combined score of a least 900 on the Graduate Record Examination; and
- the submission of a personal statement and CV.

## Curriculum

### Thesis Option

#### Core Courses 15

- PAS 601: Graduate Research Methods
- PAS 602: Theories and Issues in Pan-African Studies
- Nine (9) credit hours of PAS courses for graduate credit distributed as follows:
  - Three (3) credit hours in Historical Studies;
  - Three (3) credit hours in Cultural Studies; and
  - Three (3) credit hours in Social Studies.

#### Concentration Areas:

##### *African American Studies 12*

- Nine (9) credit hours of PAS courses for graduate credit focusing on African Americans distributed as follows:
  - Three (3) credit hours in Historical Studies;
  - Three (3) credit hours in Cultural Studies; and
  - Three (3) credit hours in Social Studies.
  - Three (3) credit hours in any PAS area focusing on African Americans.

Or

## *African and Diaspora Studies 12*

- Nine (9) credit hours of PAS courses for graduate credit focusing on Africa and/or the Diaspora, distributed as follows:
  - Three (3) credit hours in Historical Studies;
  - Three (3) credit hours in Cultural Studies; and
  - Three (3) credit hours in Social Studies.
  - Three (3) credit hours in any PAS area focusing on Africa and/or the Diaspora.

Thesis: PAS 604 3

Elective in Related Field (with advisor's approval) 3

**Minimum Total 33**

## **Examination Option**

### **Core Courses 15**

- PAS 601: Graduate Research Methods
- PAS 602: Theories and Issues in Pan-African Studies
- Nine (9) credit hours of PAS courses for graduate credit distributed as follows:
  - Three (3) credit hours in Historical Studies;
  - Three (3) credit hours in Cultural Studies; and
  - Three (3) credit hours in Social Studies.

### **Concentration Areas:**

#### *African American Studies 12*

- Nine (9) credit hours of PAS courses for graduate credit focusing on African Americans distributed as follows:
  - Three (3) credit hours in Historical Studies;
  - Three (3) credit hours in Cultural Studies; and
  - Three (3) credit hours in Social Studies.
  - Three (3) credit hours in any PAS area focusing on African Americans.

Or

#### *African and Diaspora Studies 12*

- Nine (9) credit hours of PAS courses for graduate credit focusing on Africa and/or the Diaspora, distributed as follows:
  - Three (3) credit hours in Historical Studies;
  - Three (3) credit hours in Cultural Studies; and
  - Three (3) credit hours in Social Studies.
  - Three (3) credit hours in any PAS area focusing on Africa and/or the Diaspora.

Electives in Related Fields (with advisor's approval) 6

**Minimum Total 33**

Note: Satisfactory completion of a comprehensive examination will be required of all students who do not complete a thesis.

## **Departmental Faculty**

**Ricky L. Jones**  
*Associate Professor*  
Chair

**J. Blaine Hudson**  
*Professor*  
Dean, College of Arts and Sciences

**Robert L. Douglas**  
*Professor*

**Lateef O. Badru**  
*Associate Professor*

**Mary E. Bani**  
*Associate Professor*

**Joy G. Carew**  
*Associate Professor*

**Yvonne V. Jones**  
*Associate Professor*

**Theresa A. Rajack-Talley**  
*Associate Professor*  
Director of Graduate Studies

**Tomarra Adams**  
*Assistant Professor*

**Denise Martin**  
*Assistant Professor*

**Raphael Njoku**  
*Assistant Professor*

**William Tkweme**  
*Assistant Professor*



# Graduate Certificate in Pan-African Studies

**Major:** PAS

**Degree Awarded:** CERT

**Unit:** GA

**Program Webpage:** <http://louisville.edu/a-s/pas/gprograms.html>

## Program Information

### Admission

Admission to the graduate certificate in Pan-African Studies is open, potentially, to any student who has completed at a minimum baccalaureate degree. Post-baccalaureate students wishing to pursue the certificate outside the framework of a graduate degree program must apply for admission through and meet the general requirements for admission to the Graduate School. These requirements include the submission of:

- an official transcript reflecting previous degrees earned;
- at least two letters of recommendation; and
- scores on the General Test Section of the Graduate Record Examination.

If resource limitations necessitate the imposition of restrictions, the PAS Graduate Programs Committee will select students based on the following criteria: 1) undergraduate record; 2) letters of recommendation; 3) personal interview; and 4) GRE scores.

Graduate students wishing to pursue the certificate program in Pan-African Studies in conjunction with a graduate degree must meet the requirements for admission to that degree program and should then apply for the certificate program by consulting the PAS Director of Graduate Studies after admission. Depending on the structure of the degree program, coursework toward the certificate may be either additional hours beyond those required for the degree or elective hours toward the degree, or a combination of the two. The PAS Director of Graduate Studies shall then inform the student's degree program chair and work to coordinate the completion of degree and graduate certificate program requirements.

### Exceptions

Exceptions to these standards are not anticipated. However, a "Graduate Programs Committee" (comprised of three PAS faculty, one representative from the College of Education and Human Development and one from another Arts and Sciences department) will be responsible for dealing with exceptional cases as they arise.

### Responsibility

The Department of Pan-African Studies Director of Graduate Studies will review and evaluate each applicant's qualifications for admission and make recommendations to the Chair. The Graduate Programs Committee referenced above will be convened only to review exceptional cases.

## Curriculum

### Requirements for the Graduate Certificate in Pan-African Studies

- A total of fifteen (15) hours in courses approved for graduate credit in accordance with the policies of the Graduate School.

- Nine (9) credit hours must be chosen from the list of "Approved PAS Courses" (available in the Department of Pan-African Studies): three (3) credit hours from the "Historical Studies" area; three (3) credit hours from the "Cultural Studies" area; and three (3) credit hours from the "Social Studies" area. Substitutions must be approved by the Director of Graduate Studies.
- Six (6) credit hours must be chosen from the list of "Approved Electives" (available in the Department of Pan-African Studies"). For students pursuing graduate degrees, at least one course must be outside of the department in which the student is pursuing the degree. Substitutions must be approved by the Director of Graduate Studies.
- At least three hours must be at the 600 level.
- A single course may satisfy more than one of these requirements.

Course work toward the graduate certificate in Pan-African Studies may also count toward the student's graduate degree.

Note: Students may not apply 500-level courses taken for undergraduate credit.

## Departmental Faculty

### **Ricky L. Jones**

*Associate Professor*  
Chair

### **J. Blaine Hudson**

*Professor*  
Dean, College of Arts and Sciences

### **Robert L. Douglas**

*Professor*

### **Lateef O. Badru**

*Associate Professor*

### **Mary E. Bani**

*Associate Professor*

### **Joy G. Carew**

*Associate Professor*

### **Yvonne V. Jones**

*Associate Professor*

### **Theresa A. Rajack-Talley**

*Associate Professor*  
Director of Graduate Studies

### **Tomarra Adams**

*Assistant Professor*

### **Denise Martin**

*Assistant Professor*

### **Raphael Njoku**

*Assistant Professor*

**William Tweme**  
*Assistant Professor*

# Master of Science in Physics

**Major:** PHYS

**Degree Awarded:** MS

**Unit:** GA

**Program Webpage:** <http://www.physics.louisville.edu/>

## Program Information

### Mission Statement

The Master of Science degree in Physics will prepare students for Ph.D.-level graduate work in Physics or a related field, or for a science-related career.

### General Information

The MS is a two-year degree program available to qualified individuals possessing a bachelor's degree in Physics from an accredited college or university. Students with a bachelor's degree in other related subjects, e.g. Mathematics, will also be considered. Ph.D. opportunities are available through co-operative programs with the Chemistry and Mathematics departments and the University of Kentucky Physics department (see below for further details).

Qualified students will be considered for Graduate Teaching Assistantships (GTAs). As part of the educational experience, GTAs perform certain undergraduate teaching responsibilities in exchange for a stipend and full tuition remission.

The MS can be earned via a thesis or non-thesis option. The thesis option requires at least six credit hours of research leading to submission of the thesis. Non-thesis students are also encouraged to become involved in research. The details for each option are described below.

### Program Admission

Departmental requirements for admission are as follows:

- A baccalaureate degree with at least 24 hours in physics, or the equivalent.
- A minimum quality-point standing of 3.0 (base 4.0) in physics courses.
- Mathematics course work through differential equations. (MATH 405 or equivalent).
- Submission of the Graduate Record Examination scores.

For general information concerning admission to the Graduate School of the University of Louisville consult the application directions at <http://graduate.louisville.edu/students/apply.html>.

### Program admission procedure:

Admission into the Physics MS program is competitive. The application procedure is as follows:

- Submit a completed graduate application to the University of Louisville Office of Graduate Admissions together with the \$50.00 application fee. Applications may be submitted on-line at <http://graduate.louisville.edu/students/apply.html>. Admissions are most commonly accepted to begin their program of studies in the Fall semester (which starts in late August). However, programs beginning in the Spring semester (which begins in early January) can be arranged. There is no formal application deadline, but early applicants will be given priority. International applicants should allow sufficient time to satisfy visa and immigration formalities.
- Official transcripts from each university or college attended must be submitted to the Office of Graduate Admissions.

- Take the general section of the Graduate Record Examination and arrange for the official score to be sent to the Office of Graduate Admissions.
- Arrange for at least two letters of recommendation to be sent to the Office of Graduate Admissions. These letters should be written by persons familiar with the applicant's academic work. Please use the recommendation form found at <http://graduate.louisville.edu/students/apply.html>.
- All applicants, whose native language is not English, are required to achieve a ToEFL score greater than 213 on the computer-based test, greater than 79 on the internet-based test or greater than 550 on the paper-based test. Students holding a bachelor's degree from an accredited institution in the United States are exempt from this requirement.

In individual cases, the conditional admission of a student who does not satisfactorily meet the above requirements may be recommended by the department to the Graduate School. If admission is granted, that student will be subject to those conditions specified by the department or Graduate School as being necessary to remedy the conditional admission.

## **BS/MS Five-Year Accelerated Program**

The Department of Physics, in the College of Arts and Sciences, offers a five-year accelerated program leading to a Bachelor of Science degree and Master of Science degree in Physics.

### **Requirements for admission:**

- Applicant will apply for admission to the five-year accelerated program in the second semester of the junior year.
- Applicant will have completed at least 21 credit hours in Physics before applying to the program.
- Applicant will have maintained at least a 3.0 GPA in Physics courses and a 3.35 GPA overall.

Once accepted, the student must meet the following requirements:

- Submit a GRE General test score consistent with Graduate School guidelines.
- Take at least nine (9) credit hours in 500-level physics courses for graduate credit. Two of the courses must be PHYS 542 and PHYS 556. Preferably these courses will be taken during the same semester in the student's senior year.
- Maintain a 3.0 GPA.

## **Curriculum**

General requirements for the M.S. degree are set forth in the General Information section of the graduate catalog. Specific requirements for the M.S. degree in physics are as follows:

### **Thesis option: (30)**

1. Required courses in physics (12 hours):
  - Theoretical Mechanics PHYS 605 (3)
  - Electromagnetic Theory PHYS 611 (3)
  - Quantum Mechanics I & II PHYS 621-622 (6)
2. Physics electives (six-nine hours): courses numbered 500 and above. Courses at 500 level or above which are required for the BA/BS degree will not normally satisfy this requirement.
3. Courses in one minor field (3-9 hours): Mathematics is the usual minor, but another field may be chosen with the approval of the department.
4. Graduate Research and Thesis PHYS 699 (6 hours).
5. At least 21 credit hours at the 600 level or above.

### **Non-thesis option: (33)**

1. Required courses in physics (12 hours):
  - Theoretical Mechanics PHYS 605 (3)
  - Electromagnetic Theory PHYS 611 (3)
  - Quantum Mechanics I & II PHYS 621-622 (6)
2. Physics electives (12 hours): courses numbered 500 and above. Courses at 500 level or above which are required for the BA/BS degree will not normally satisfy this requirement.
3. Courses in one minor field (3-9 hours): Mathematics is the usual minor, but another field may be chosen with the approval of the department.
4. Graduate Research PHYS 699 (0-3 hours).
5. At least 17 credit hours at the 600 level or above.

**BS/MS accelerated program:**

The non-physics undergraduate requirements of this degree are identical to the standard BS in physics.

Undergraduate physics requirements are as follows:

<b>Course</b>	<b>Credit hours</b>
PHYS 298 or 298H	4
PHYS 299 or 299H	4
PHYS 295 or 295H	1
PHYS 296 or 296H	1
PHYS 300	3
PHYS 301	1
PHYS 390 and 450	6
PHYS 460, 541 and 555	9
PHYS 498	3
<b>Total</b>	<b>34</b>

Graduate requirements for the five-year BS/MS program are identical to the standard MS program (thesis and non-thesis option) except that the physics electives **must include** PHYS 542 and PHYS 556.

**Departmental Faculty**

**Chris L. Davis**

*Professor, High Energy Experiment  
Graduate Program Director*

**Peter W. France**

*Professor, Experimental Chemical Physics*

**Chakram S. Jayanthi**

*Professor, Condensed Matter Theory*

**John F. Kielkopf**

*Professor, Astrophysics, Atomic and Molecular*

**Shi-Yu Wu**

*Professor, Condensed Matter Theory*

**David N. Brown**

*Associate Professor, High Energy Experiment  
Chair*

**Timothy E. Dowling**

*Associate Professor, Atmospheric Physics*

**Shudun Liu**

*Associate Professor, Condensed Matter Theory*

**Sergio Mendes**

*Associate Professor, Optical Material Science*

**John C. Morrison**

*Associate Professor, Atomic and Molecular Theory*

**Gamini Sumanasekera**

*Associate Professor, Condensed Matter Experiment*

**Gerard M. Williger**

*Associate Professor, Astrophysics*

**William Hoston**

*Assistant Professor, Theoretical Physics  
Undergraduate Program Director*

**James T. Lauroesch**

*Assistant Professor, Astrophysics*

**Ming Yu**

*Assistant Professor, Condensed Matter Theory*

**Xiaoping Tang**

*Assistant Professor, Condensed Matter Experiment*

**Victor K. Henner**

*Adjunct Professor, High Energy Theory  
Professor, Perm State University (Russia)*

**Joseph S. Chalmers**

*Emeritus Professor*

**Joel A. Gwinn**

*Emeritus Professor*

**Wei-Feng Huang**  
*Emeritus Professor*

**Roger E. Mills**  
*Emeritus Professor*

**P. J. Ouseph**  
*Emeritus Professor*

**John J. Sinai**  
*Emeritus Professor*



# Doctor of Philosophy in Physics

**Major:** PHYS

**Degree Awarded:** Ph.D.

**Unit:** GA

**Program Webpage:** <http://www.physics.louisville.edu>

## Program Information

### Mission Statement

The Doctor of Philosophy degree in Physics will prepare students for research-oriented careers in government, industry, and academia.

### General Information

The PhD is typically a five-year degree program available to qualified individuals possessing a bachelor's degree in Physics from an accredited college or university. Students with a bachelor's degree in other related subjects, e.g. Mathematics, will also be considered. The first two years of the program are very similar to the non-thesis MS program. Under normal circumstances PhD students will meet the requirements for the MS degree after two years of study. The remaining three years will be dedicated primarily to research leading to the required dissertation.

For the first two years of the program, qualified students will be considered for Graduate Teaching Assistantships (GTAs). As part of the educational experience, GTAs perform certain undergraduate teaching responsibilities in exchange for a stipend and full tuition remission. In most cases, support for the remaining three years of study is via Graduate Research Assistantships (GRAs) provided by extramural faculty research funding.

### Program Admission

Departmental requirements for admission are as follows:

- A baccalaureate degree with at least 24 hours in physics, or the equivalent.
- A minimum quality-point standing of 3.0 (base 4.0) in physics courses.
- Mathematics course work through differential equations. (MATH 405 or equivalent).
- Submission of the Graduate Record Examination scores.

For general information concerning admission to graduate programs at the University of Louisville consult the application directions at <http://graduate.louisville.edu/students/apply/apply.html/>.

### Program admission procedure:

Admission into the Physics PhD program is competitive. The application procedure is as follows:

- Submit a completed graduate application to the University of Louisville Office of Graduate Admissions together with the application fee. Applications may be submitted on-line at <http://graduate.louisville.edu/students/apply/apply.html/>. Admittees are most commonly accepted to begin their program of studies in the Fall semester (which starts in late August). However, programs beginning in the Spring semester (which begins in early January) can be arranged. There is no formal application deadline, but early applicants will be given priority. International applicants should allow sufficient time to satisfy visa and immigration formalities.
- Official transcripts from each university or college attended must be submitted to the Office of Graduate Admissions.
- Take the general section of the Graduate Record Examination and arrange for the official score to be sent to the Office of Graduate Admissions.

- Arrange for at least two letters of recommendation to be sent to the Office of Graduate Admissions. Persons familiar with the applicant's academic work should write these letters. Please use the recommendation form found at <http://graduate.louisville.edu/students/apply/apply.html/>.
- All applicants whose native language is not English are required to achieve a ToEFL score greater than 213 on the computer-based test, greater than 550 on the paper-based test or greater than 80 on the internet-based test. Students holding a bachelor's degree from an accredited institution in the United States are exempt from this requirement.

In individual cases, the department may recommend conditional admission of a student who does not satisfactorily meet the above requirements. If admission is granted, that student will be subject to those conditions specified by the department or the College of Arts and Sciences as being necessary to remedy the conditional admission.

## Curriculum

General requirements for the Ph.D degree are set forth in the General Information section of the graduate catalog. Specific requirements for the Ph.D degree in physics are as follows:

### **A. Core Courses – 21 semester hours, comprising the seven 3 semester hour courses below:**

- PHYS 561 – Mathematical Methods I
- PHYS 605 – Classical Mechanics
- PHYS 611 – Classical Electrodynamics
- PHYS 621 – Quantum Mechanics I
- PHYS 622 – Quantum Mechanics II
- PHYS 625 – Statistical Mechanics
- PHYS 650 – Research Methods for Physics and Astronomy

### **B. Elective Courses – 9-18 semester hours**

Each student will be required to take at least 2 additional topical courses outside of his or her field of specialization and at least 1, but no more than 4, courses in his or her research specialization, as specified by the Graduate Program Director and thesis advisor. Courses outside the department can be substituted with the approval of the thesis advisor and Graduate Program Director.

### **C. Research Training – Minimum of 6 semester hours**

Each student must earn a minimum of 6 semester hours of Physics Research – PHYS 699

### **D. Qualifying Examination**

In order to demonstrate proficiency in knowledge of Physics and the ability to apply that knowledge, students will be required to pass a qualifying exam. The qualifying exam will have a written and oral component.

#### 1. Written Component

To satisfy the written component, the student will take the Graduate Record Examination (GRE) Advanced subject test in Physics and pass the test at or above the 50<sup>th</sup> percentile of examinees. Students who pass the GRE Advanced Physics exam at or above the 50% level before entering the Ph.D. program will be considered qualified for the written component

on entry for Ph.D. study. Students who are not qualified on entry to the program will normally be required to fulfill the GRE requirement by the end of their fourth semester, or by the end of the first semester after completing their last class numbered lower than Phys 699.

### 1. Oral Component

To satisfy the oral component the student must to pass an oral exam, in the form of a presentation to the Ph.D. committee of his or her proposed research. This exam must be passed before the student can move into candidacy status. The student is expected to take the exam before the end of their fifth semester as a graduate student. The test may be taken at most two times, and must be passed by the end of the sixth semester.

### **E. Candidacy**

Having passed the qualifying examination the student will register for degree candidacy and continue with their dissertation research.

### **F. Dissertation**

A doctoral dissertation is required of each student.

## **Departmental Faculty**

### **Professors**

David N. Brown

Chris L. Davis

Peter W. France

C.S. Jayanthi

John F. Kielkopf

Shi-Yu Wu

### **Associate Professors**

Timothy Dowling

Shudun Liu

Sergio B. Mendes

John C. Morrison

Gamini Sumanasekera

Gerard M. Williger

## **Assistant Professors**

William Hoston

Ben MacCall

James Lauroesch

Xiaoping Tang

Ming Yu

## **Adjunct and Visiting Professors**

Victor Henner

William Komp

## **Emeriti**

Joseph S. Chalmers

Joel A. Gwinn

Wei-Fei Huang

Roger E. Mills

P.J. Ouseph

John J. Sinai

# Master of Arts in Political Science

**Major:** POLS

**Degree Awarded:** MA

**Unit:** GA

**Program Webpage:** <http://www.louisville.edu/a-s/polsci/>

## Program Information

The Department of Political Science, in the College of Arts and Sciences, offers graduate training leading to the Master of Arts degree. In addition, the Department participates in a joint degree program with the Brandeis School of Law.

The MA is designed to allow a student to pursue a degree either full or part time. Most graduate-level courses are offered in the evening. The MA is oriented toward those who wish to pursue advanced training in political science or a position in the public, private, or non-profit sector.

The Department of Political Science offers a joint MA/JD program in partnership with the Brandeis School of Law. This program allows the student to obtain the MA and JD degrees in a four-year course of study. For additional information, see the law school website.

The Department of Political Science also offers its undergraduate majors an opportunity to earn both a BA (or BS) degree and an MA degree in five years of study. This program allows students to earn an MA degree at an accelerated pace (approximately one calendar year).

Applicants must meet the general requirements for admission to the Graduate School and must submit an application to the Department of Political Science. Applicants should have an undergraduate major or minor in a social science or have sufficient alternative preparation in the social sciences.

### Program admission procedure:

Admission into the MA program is competitive. The procedures for admission into the MA program are as follows:

1. Submit a completed graduate application to the Office of Graduate Admissions. There is a \$50 application fee. Program candidates are admitted for the Fall semester (which begins in late August), the Spring semester (which begins in mid-January), or the Summer session (which usually begins in early July). The application deadline (and submission of all application materials) for these terms is 30 days prior to the beginning of the semester. If circumstances prevent an applicant from meeting the deadline, the applicant must contact the graduate advisor in the Department of Political Science.
2. Forward official transcripts verifying the receipt of a baccalaureate degree from an accredited institution to the Office of Graduate Admissions. An applicant must hold a BA or BS (or foreign equivalent) before admission to the program can be granted. Applicants selected for the program have generally earned a 3.0 undergraduate GPA overall or a 3.2 undergraduate GPA in the last 60 semester hours or the equivalent.
3. Send scores from the Graduate Records Examination (GRE) to the Office of Graduate Admissions. The GRE is designed to measure general aptitude for graduate study. Applicants selected for the program generally present a combined GRE score of 1000 (Verbal + Quantitative).
4. Provide two letters of recommendation from individuals familiar with the applicant's academic performance. Professional letters from employers are acceptable only when substantial time has elapsed since the applicant has attended an academic institution.
5. A written personal statement is required. This statement should detail the applicant's educational and professional experiences and goals and relate these goals to the pursuit of graduate study in political science at the University of Louisville. The statement should be approximately 400-500 words in length.
6. International applicants are required to take the TOEFL examination if English is not the native language.

Applicants who have not scored 550 or higher on the TOEFL may choose to apply to the Intensive English as a Second Language (IESL) Program. Successful completion of this program or passing the Exit Examination in the advanced level of IESL will be considered adequate proof of the English proficiency required for course work in the MA program. Acceptance to the Intensive English Program does not constitute acceptance to the MA program. For information and application forms, write to IESL, University of Louisville, Louisville, KY 40292.

The Department may accept applicants who do not meet these requirements on a conditional basis if sufficient additional evidence of promise of success in the graduate program can be shown. No student will be admitted unconditionally until all materials listed above have been received.

You may apply to the graduate admission's office at the university on-line at <http://graduate.louisville.edu/apply/>.

## Curriculum

Students are encouraged to take advantage of the unique strengths of the Department of Political Science when planning their course of study. In particular, the Department enjoys strong complements of faculty in two broad areas: International Studies and American Politics.

The International Studies field includes the comparative study of various regions and nations throughout the world as well as the study of relations among nations and other global actors. Areas of faculty expertise include: the politics of Africa, Latin America, the Middle East, East Asia, Europe, and the former Soviet Union, development, political economy, revolution, leadership, environment, civil-military relations, foreign policy, defense and security, international organizations, and international law.

The American Politics field includes the study of the American governmental institutions that formulate public policy and the study of the administration of public policy. Areas of faculty expertise include: the presidency, Congress, the judiciary, federalism, public administration, public law, the electoral process, social policy, housing policy, urban policy, environmental policy, and economic development policy.

There are two options for earning an MA in Political Science: Thesis (30 hours) and Non-thesis (36 hours).

### Thesis Option

### Hours

Core Courses (6 hours total):

Scope of Political Science (POLS670) 3

Methods of Political Research (POLS671) 3

Three of the following five courses (9 hours total):

Seminar in Public Policy (POLS619) 3

Seminar in Public Administration (POLS625) 3

Seminar in American Politics (POLS629) 3

Seminar in International Relations (POLS639)	3
Seminar in Comparative Politics (POLS649)	3
Electives* (9 hours total, from Political Science or other departments)	9
Thesis ( POLS 699)	6

**Non-thesis Option** **Hours**

Core Courses (6 hours total):

Scope of Political Science (POLS670) 3

Methods of Political Research (POLS671) 3

Three of the following five courses (9 hours total):

Seminar in Public Policy (POLS619) 3

Seminar in Public Administration (POLS625) 3

Seminar in American Politics (POLS629) 3

Seminar in International Relations (POLS639) 3

Seminar in Comparative Politics (POLS649) 3

Electives\* (18 hours total):

Political Science electives 6 or more

Electives from other departments Up to 12

Directed Research ( POLS 695) 3

\*Up to nine elective hours may be at the 500-level. Up to six hours may be independent study credit.

# **Departmental Faculty**

**Julie M. Bunck**  
Associate Professor

**Anne I. Caldwell**  
Associate Professor  
Internship Advisor

**Dewey M. Clayton**  
Associate Professor

**Jasmine I. Farrier**  
Associate Professor  
Pre-law Advisor

**Michael R. Fowler**  
Associate Professor

**Jason Gainous**  
Assistant Professor

**Tricia J. Gray**  
Assistant Professor  
Undergraduate Advisor

**Shiping Hua**  
Associate Professor  
Director, Center for Asian Democracy

**David L. Imbroscio**  
Professor

**Allison Martens**  
Assistant Professor

**Susan M. Matarese**  
Professor  
Honors Advisor

**Rodger A. Payne**  
Professor  
Director, Grawemeyer Award Committee

**Laurie A. Rhodebeck**  
Associate Professor  
Graduate Advisor

**Ronald K. Vogel**  
Professor

**Sherri L. Wallace**  
Associate Professor

**Okbazghi Yohannes**  
Professor



Charles E. Ziegler  
Professor  
Director, Institute for Democracy and Development

# Doctor of Philosophy in Psychology - Clinical

**Major:** CPSY

**Degree Awarded:** Ph.D.

**Unit:** GA

**Program Webpage:** <http://www.louisville.edu/a-s/psychology/>

## Program Information

### Mission Statement

The mission of the Clinical Psychology Doctoral Program at the University of Louisville is to produce clinical psychologists who exemplify the scientist-practitioner model in the following ways: (1) they are competent to conduct and to evaluate psychological research; (2) they are current in their knowledge of both the theoretical underpinnings of clinical research and practice and in the empirically-supported applications of these theories; (3) they are competent in implementing research-supported clinical practice; and (4) they are ethical and professional in their relationships with clients, students, and colleagues.

### General Information

The Department of Psychological and Brain Sciences, in the College of Arts and Sciences, offers Ph.D. programs in Experimental Psychology and Clinical Psychology.

The Clinical Psychology Ph.D. program usually requires four years of full-time course work, research, and clinical activities. Each student must also complete a one-year approved internship. Students are required to complete a Master's Research Portfolio. After completion of the Master's portfolio, students write their preliminary examination and then move on to their dissertation work. A dissertation proposal must be defended by September 1 of the year the student is applying for internship.

Financial support for graduate students in the Ph.D. program is available in the form of teaching and research assistantships, University Fellowships, and placements in community service settings.

### Program Admission Procedure

1. The Clinical Psychology Ph.D. Program application deadline is December 1.
2. Completed graduate applications should be submitted to the University of Louisville Office of Graduate Admissions. There is a \$50 application fee (on-line at <http://graduate.louisville.edu/apply/>) or call the Office of Graduate Admissions at 502-852-3101 for more information. Our Ph.D. programs admit students to begin in the Fall semester, with a usual start date of July 1.
3. The Graduate Record Examination General Test is required. Those for whom English is not their native language must also submit TOEFL scores.
4. Transcripts of college records from all schools attended must be submitted to the Office of Graduate Admissions. Students must have earned an undergraduate degree from an accredited college or university.
5. Three letters of recommendation from academic sources are required and must be submitted to the Office of Graduate Admissions.
6. Please contact the Psychological and Brain Sciences for our departmental packet. This packet has information we ask the applicant to complete and return directly to the graduate program assistant, Ms. Carolyn Mask. To request a departmental packet, call 502-852-8272.
7. In addition to Graduate School requirements, each student must meet department requirements including core courses, research, the preliminary examination, a research portfolio, a dissertation, and an approved internship.

# Curriculum

The Clinical Psychology Ph.D. curriculum contains 2 basic sets of core courses: department cores and clinical cores. The curriculum closely follows guidelines for accreditation established and maintained by the American Psychological Association's Office of Program Consultation and Accreditation. Students take a two-course assessment sequence, a three-course intervention sequence, courses in psychopathology, personality, legal and ethical issues, and advanced seminars in specific clinical topics.

In addition to the clinical core curriculum, students take basic psychology core courses including a statistics and research methods sequence, behavioral neuroscience, personality, developmental, cognitive, and social psychology. A course on the history of psychology is required for students who have not had an equivalent undergraduate course. Students also complete research hours for master's and dissertation research. Three topical seminars are also required.

## Department Core:

- 620 Human Learning or 621 Cognitive Processes
- 642 Behavioral Neuroscience
- 670 Advanced Social Psychology
- 661 Advanced Developmental Psychology
- 673 Advanced Personality
- 610 and 611 Advanced Statistics I and II
- 501 History and Systems (waived with an A or B in undergraduate)

## Clinical Core:

- 656 Legal and Ethical
- 679 and 680 Assessment I and II
- 683, 684, 697 Interventions I, II, and III
- 693 Interviewing
- 689 Advanced Clinical Psychopathology
- 685 Clinical Practicum

## Electives:

Topical seminars are offered to augment the curriculum and allow students more detailed exposure to areas of interest. Recent seminars include: Schizophrenia, Geropsychology, Neuropsychology, Anxiety Disorders, and Behavioral Medicine. Students may also, with approval from their mentor and the director of clinical training, take seminars in other departments of the University.

Students entering the program with graduate courses from another program may request that core courses be waived provided the appropriate instructors judge them to be of equivalent content.

# Departmental Faculty

## **Barbara M. Burns**

*Professor*

*Chair*

## **Stephen E. Edgell**

*Professor*

**Edward A. Essock**

*Professor*

**Zijiang He**

*Professor*

**Richard Lewine**

*Professor*

*Undergraduate Honors Coordinator*

**Maureen McCall**

*Professor*

**Suzanne Meeks**

*Professor*

**Carolyn B. Mervis**

*Professor*

**Robert G. Meyer**

*Professor*

**Stanley A. Murrell**

*Professor*

**Heywood M. Petry**

*Professor*

*Director, Ph.D. Program in Experimental Psychology*

**Fred Wightman**

*Professor*

**Janet Woodruff-Borden**

*Professor*

*Director of Clinical Training*

**Paul J. DeMarco**

*Associate Professor*

**Benjamin Mast**

*Associate Professor*

**Tamara Newton**

*Associate Professor*

**John R. Pani**

*Associate Professor*

**Edna Ross**

*Associate Professor*

**Paul G. Salmon**

*Associate Professor*

**Sandra Sephton**

*Associate Professor*

**Barbara Stetson**

*Associate Professor*

**Cara Cashon**

*Assistant Professor*

**Kevin Chapman**

*Assistant Professor*

**Keith Lyle**

*Assistant Professor*

**Patrick Shafto**

*Assistant Professor*

**Pavel Zahorik**

*Assistant Professor*

**Joseph F. Aponte**

*Emeritus*

**John C. Birkimer**

*Emeritus*

**James M. Driscoll**

*Emeritus*

**Samuel Z. Himmelfarb**

*Emeritus*

**Irwin D. Nahinsky**

*Emeritus*

**John A. Robinson**

*Emeritus*

**Richard P. Smith**

*Emeritus*

# Doctor of Philosophy in Psychology - Experimental

**Major:** EPSY

**Degree Awarded:** Ph.D.

**Unit:** GA

**Program Webpage:** <http://www.louisville.edu/a-s/psychology/>

## Program Information

### General Information

The Ph.D. program in Experimental Psychology at the University of Louisville's Department of Psychological and Brain Sciences trains students to be experts in the conduct of research in modern psychology. Training is based on coursework, active and continuous involvement in research, and close cooperation between students and faculty mentors.

The program currently has significant strength in several topic areas of psychology, including basic and applied areas of cognitive science, child development, developmental disabilities, hearing, learning, memory, neuroscience, perception, and vision. More detailed information can be found on the websites of individual members of the faculty <http://www.louisville.edu/a-s/psychology/content/faculty.html>.

The Experimental Psychology Ph.D. program requires four years of full-time training. All students must satisfy course requirements (listed below), turn in a portfolio of written work for the Master of Arts degree, take a Preliminary Examination prior to conduct of the dissertation, and complete the dissertation. Active and continuous involvement in research is essential. To remain in good standing, students must maintain a B average in all courses and demonstrate appropriate progress in research. Equivalence of graduate work in psychology completed at another institution will be evaluated on an individual basis.

Financial support for graduate students in the Experimental Ph.D. program is available in the form of research assistantships, teaching assistantships, and Graduate School University Fellowships. All forms of support are for 12 months with a standard start date of July 1. Support includes stipend, full tuition, and health insurance. Most stipends currently are set at \$22,000 per year.

### Program Admission Procedure

1. Experimental Ph.D. Program Application Deadline – December 1.
2. Submit completed graduate application to the Office of Graduate Admissions. There is a \$50 application fee (on-line at <http://graduate.louisville.edu/apply/>). Call the Office of Graduate Admissions at 502-852-3101 for more information. The Ph.D. program admits students once per year, with a typical enrollment date of July 1.
3. The Graduate Record Examination is required for an application to the Ph.D. program to be reviewed. The Experimental Program requires only the general section of the GRE (Verbal, Quantitative, and Analytical Writing). Those for whom English is not their native language must also submit TOEFL scores.
4. Transcripts of your college records from all of the schools you have attended must be submitted to the Office of Graduate Admissions. Students must have earned an undergraduate degree from an accredited college or university and have a minimum grade point average of 3.0 for all undergraduate and prior graduate work.
5. Three letters of recommendation from academic sources are required and must be submitted to the Office of Graduate Admissions.
6. Contact the Department of Psychological and Brain Sciences for the departmental admissions packet. This packet has information we ask the applicant to fill out and return directly to Ms. Carolyn Mask. To request a departmental packet, call 502-852-8272 or send email to [carolynmask@louisville.edu](mailto:carolynmask@louisville.edu).
7. Although no other material is strictly required, you are strongly encouraged to submit a personal statement outlining interests, background, unique experiences, vita, and other information which might be helpful to persons

- making an admission decision.
8. Only when the application is complete will the Department Review Committee review the application and inform prospective students of its decision. Usually the last information to be received is the reference letters, so ask your letter writers well in advance of the deadline. Since your application will not be sent to the Department Review Committee until completed, it is imperative that you be sure that all materials are received well in advance of the closing date (December 1).
  9. Additional information about department programs and admissions can be obtained from Ms. Carolyn Mask, Graduate Admissions in PBS, Department of Psychological and Brain Sciences, University of Louisville, Louisville KY 40292; 502-852-8272; carolynmask@louisville.edu.

## **Curriculum**

### **Minimum Coursework**

Two graduate courses in statistics:

PSYC 610, Advanced Statistics I

PSYC 611, Advanced Statistics II

At least three out of four core courses:

PSYC 661, Advanced Developmental Psychology

PSYC 621, Cognitive Psychology

PSYC 631, Perception

PSYC 643, Principles of Neuroscience

Five additional graduate courses to be determined jointly by the student and their respective faculty mentor (bringing the total credit hours to 30). The five electives must be lecture courses or seminars. This requirement cannot be satisfied with independent study or thesis credit.

### **Research Hours**

A minimum of three credit hours per semester of research independent study (PSYC 605) with the student's graduate research mentor. These hours are taken every semester, including summer, until the Preliminary Examination is completed.

### **MS Portfolio**

A portfolio of written work reporting the research the student has been involved in. The portfolio should be of sufficient scope and quality to (in conjunction with coursework) earn the Master of Science degree. The portfolio typically is turned in at or shortly after the completion of two years of training and must be approved by a faculty committee. After completion of the MS portfolio and 30 credit hours of graduate study, the student is awarded the Master of Science degree.

### **Preliminary Examination**

An original review and critique of a research area in the field of psychology. The Preliminary Exam is written in consultation with a faculty committee and must be approved by the committee. The Preliminary Examination typically is completed at the end of the third year of training.

# Dissertation

An original research project conducted and described in a report (the doctoral thesis) by the student. The dissertation is conducted in consultation with a faculty committee and must be approved by the committee.

## Departmental Faculty

**Barbara M. Burns** *Professor,*

*Department Chair*

*Experimental Program*

**Cara Cashion** *Assistant Professor*

*Experimental Program*

**Paul J. DeMarco**

*Associate Professor*

*Experimental Program*

**Stephen E. Edgell**

*Professor*

*Experimental Program*

**Edward A. Essock**

*Professor*

*Experimental Program*

**Zijiang He**

*Professor*

*Experimental Program*

**Richard Lewine**

*Professor*

*Clinical Program*

**Keith Lyle**

*Assistant Professor*

*Experimental Program*

**Benjamin Mast**

*Associate Professor*

*Clinical Program*

**Maureen McCall**

*Professor*

*Experimental Program*

**Suzanne Meeks**

*Professor*

*Clinical Program*

**Carolyn B. Mervis**

*Professor*

*Experimental Program*

**Robert G. Meyer**

*Professor*

*Clinical Program*

**Stanley A. Murrell**

*Professor*

*Clinical Program*



**Tamara Newton**

*Associate Professor*

*Clinical Program*

**John R. Pani**

*Associate Professor*

*Experimental Program*

**Heywood M. Petry**

*Professor*

*Experimental Program*

**Edna Ross**

*Assistant Professor*

*Experimental Program*

**Paul G. Salmon**

*Associate Professor*

*Clinical Program*

**Sandra Sephton**

*Associate Professor*

*Experimental Program*

**Patrick Shafto**

*Assistant Professor*

*Experimental Program*

**Barbara Stetson**

*Associate Professor*

*Clinical Program*

**Fred Wightman**

*Professor*

*Experimental Program*

**Janet Woodruff-Borden**

*Professor*

*Clinical Program*

**Pavel Zahorik**

*Assistant Professor*

*Experimental Program*

**Joseph F. Aponte**

*Emeritus*

**John C. Birkimer**

*Emeritus*

**James M. Driscoll**

*Emeritus*

**Samuel Z. Himmelfarb**

*Emeritus*

**Irwin D. Nahinsky**

*Emeritus*

**John A. Robinson**

*Emeritus*

**Richard P. Smith**

*Emeritus*

# Master of Public Administration

**Major:** PADM

**Degree Awarded:** MPA

**Unit:** GA

**Program Webpage:** <http://supa.louisville.edu/>

## Program Information

### General Information

The Master in Public Administration Program at the University of Louisville plays an integral part in the University's urban/metropolitan mission. Through its academic curriculum, the Program will provide students with a solid foundation in public administration and prepare its graduates for career placement and advancement in a wide variety of settings. The Faculty will also advance the state of knowledge in the field of public administration through its theoretical and applied research. The Program is offered by the Department of Urban and Public Affairs in cooperation with the Department of Political Science to achieve broad interdisciplinary preparation.

The Program requires a minimum of 42 credit hours for completion: a core curriculum of 27 hours, including 6 hours of practicum, internship or thesis, and 15 hours from one of the areas of specialization. The core curriculum encompasses studies in organizational theory, budgeting, statistics, public policy, research methods, and human resources management. The MPA program is primarily an evening program. A student can enroll on either a part-time or full-time basis. During the Fall and Spring semesters, courses are typically offered Monday through Thursday, one evening a week, from 5:30 until 8:15 p.m. The program includes faculty from various disciplines and is aimed at providing recent college graduates, public sector practitioners, and persons in related fields with theoretical knowledge as well as practical skills. This mix of theory and applied skills prepares students for careers in the non-profit and public sectors. The degree program is available to qualified individuals possessing a bachelor's degree from an accredited college or university. No specific undergraduate major is required; however, background in political science as well as economics is helpful.

The Master in Public Administration Program offers joint degree programs with the Master in Urban Planning and the Master of Arts in Art (Creative) and Art History (Concentration in Critical and Curatorial Studies). For more information about the two dual programs please go the web page <http://supa.louisville.edu/>.

### Program Admission Procedures

The procedures for admission into the MPA program are as follows:

1. Submit a completed graduate application to the University of Louisville Office of Graduate Admissions. There is a \$50 application fee (See web <http://graduate.louisville.edu/apply/>). Program candidates may be admitted for Fall, Spring or Summer semesters.
2. Official transcripts verifying the receipt of a baccalaureate degree from an accredited institution must be submitted to the Office of Graduate Admissions.
3. The Graduate Record Exam (GRE) is required. An admission decision will not be made without the GRE scores. See web <http://www.gre.org> for further information about the GRE or call 1-800-GRE-CALL (1-800-473-2255).
4. A written personal statement is required. The statement should indicate why the applicant wishes to pursue the MPA degree.
5. Two letters of recommendation are required. Normally, at least one letter should be from someone who can comment about the applicant's academic performance.
6. International applicants are required to take the TOEFL examination if English is not their native language. Applicants who have not scored 550 or higher on the TOEFL (210 or higher on the computer-based version) may choose to apply to the Intensive English as a Second Language (IESL) Program. Successful completion of this

program or passing the Exit Examination in the advanced level of IESL will be constitute proof of English proficiency. For information and application forms, write to IESL, University of Louisville, Louisville, KY 40292.

## Curriculum

### MPA Core Courses

The core consists of eight required courses, or 27 credits. Six credits of the core consist of a practicum/ internship or a thesis.

	<b>Semester Hours Total</b>
PADM 500 Economics for Public Affairs	3
PADM 600 Public Administration and Organizational Theory	3
PADM 601 Statistics for Public Affairs	3
PADM 603 Policy Analysis and Program Evaluation	3
PADM 604 Public Budgeting and Finance	3
PADM 606 Public Policy	3
PADM 642 Human Resources Management	3
PADM 682 Practicum/Internship or PADM 695 Thesis	6
<b>Total from core</b>	<b>27</b>

### Elective Courses

Elective course work includes 15 credits in an area of specialization.

#### ***Public Policy and Administration Specialization***

	<b>Semester Hours Total</b>
PADM 605 Strategic Management and Planning	3

PADM 607 Planning Theory	3	
PADM 608 e-Government	3	
PADM 610 Administrative Law and Process	3	
PADM 611 Financial Management for Public Administration	3	
PADM 620 Intergovernmental Relations	3	
PADM 621 Politics of Urban Development	3	
PADM 623 Comparative Urban Development	3	
PADM 624 Ethics in Public Administration	3	
PADM 625 Advanced Organizational Behavior	3	
PADM 626 Housing and Community Development	3	
PADM 627 Environmental Policy	3	
PADM 640 Urban Economics	3	
PADM 680 Independent Research in Public Administration	1-3	
PADM 683 Topical Seminar in Public Administration	1-3	
PADM 688 Land Use and Planning Law	3	
<b>Total from electives</b>		<b>15</b>

***Labor and Public Management Specialization***

**Semester Hours Total**

PADM 605 Strategic Management and Planning	3
PADM 610 Administrative Law and Process	3

PADM 624 Ethics in Public Administration	3
PADM 640 Urban Economics	3
PADM 644 Collective Bargaining	3
PADM 647 Arbitration	3
PADM 648 Mediation and Dispute Resolution	3
PADM 649 Legal Aspects of Labor Relations	3
PADM 651 Trade Unions	3
PADM 652 Equal Opportunity and the Workplace	3
PADM 654 Special Topics in Worker Management Relations	3
PADM 680 Independent Research in Public Administration	1-3
PADM 683 Topical Seminar in Public Administration	1-3

**Total from electives** **15**

***Non-Profit Management Specialization***

**Semester Hours Total**

PADM 605 Strategic Management and Planning	3
PADM 608 e-Government	3
PADM 609 Introduction to Non-Profit Management	3
PADM 610 Administrative Law and Process	3
PADM 611 Financial Management for Public Administration	3
PADM 612 Non-Profit Grantsmanship	3

PADM 620 Intergovernmental Relations	3
PADM 624 Ethics in Public Administration	3
PADM 625 Advanced Organization Behavior	3
PADM 626 Housing and Community Development	3
PADM 640 Urban Economics	3
PADM 647 Arbitration	3
PADM 648 Mediation and Dispute Resolution	3
PADM 680 Independent Research in Public Administration	1-3
PADM 683 Topical Seminar in Public Administration	1-3
POLS 620 Topics in Public Policy	3
SW 622 Issues in Policy and Service Delivery	3

**Total from electives** **15**

Electives not listed above may be taken with permission of the Director of the MPA Program.

## Departmental Faculty

**Steven G. Koven**

Professor

Director

Carrie Donald

Professor

John I. Gilderbloom

Professor

H.V. Savitch

Professor

Ronald K. Vogel

**Professor**

**Dewey Clayton**  
**Associate Professor**

**Jasmine Farrier**  
**Associate Professor**

**Wyatt McDowell**  
**Associate Professor**

**David Simpson**  
**Associate Professor**

**Sherri Wallace**  
**Associate Professor**

**Leonard Bright**  
**Assistant Professor**

**Frank Goetzke**  
**Assistant Professor**

**Sumei Zhang**  
**Assistant Professor**

# Master of Arts in Sociology

**Major:** SOCI

**Degree Awarded:** MA

**Unit:** GA

**Program Webpage:** <http://www.louisville.edu/a-s/soc/>

## Program Information

Through its use of scientific methods and systematic theory, sociology is the study of diverse social groups as they emerge, persist, and change over time and of human behavior in social settings. Sociologists seek to identify and explain the underlying patterns of social relations. The substantive focus of sociology at the University of Louisville is the study of social dynamics particularly in reference to social diversity.

The faculty of the Department of Sociology at the University of Louisville is committed to being a vibrant, learning-centered faculty that enhances comprehension of social dynamics through creative and inventive research, graduate training, and applied opportunities. The graduate degree in sociology at the University of Louisville prepares students for continued advanced study and for careers in government, nonprofits, and the private sector.

Our mission is to provide master's level graduate education at the highest standards. We will introduce students to the current state of sociological knowledge and methods through high-quality classroom instruction, faculty-student collaboration, and independent student research and practical learning opportunities.

This mission of graduate education in the Department of Sociology further encourages students to develop and apply a "sociological imagination" in the systematic analysis of all things social. The Department advances the use of the sociological approach in interpreting the causes and consequences of human social behavior, facilitating critical appraisal of social structures and cultures, and assessing public policy.

In addition, the Department pledges to conduct this mission in a climate of fairness, sensitivity to the merits of diverse lifestyles, and appreciation for all manners of social research.

The Department of Sociology, in the College of Arts and Sciences, offers graduate training leading to the Master of Arts.

The MA program is designed to allow a student to pursue a degree either full-or part-time. Many courses are offered in the evening so that those employed full-time can also pursue graduate education. Full-time students can normally complete the program in two years; those who are employed full-time typically require three years to complete the program.

The program is designed to fill the needs of students wishing to pursue the Ph.D. in sociology as well as those who are planning careers in the public or nonprofit sectors. The program also provides skills for those seeking employment in private research firms or in the field of information technology and program evaluation.

This program offers both thesis and non-thesis options (practicum or examination). Please contact the Department for specific information.

The areas of specialty of the graduate faculty include: quantitative and qualitative methodology, social theory, criminology/delinquency, education, medical sociology, and work and labor markets.

In addition to the traditional MA in sociology, the Department also offers an MA in sociology with a concentration in Communications, Urban Geography, or Pan-African Studies. These concentrations are offered in conjunction with their respective departments. For further information concerning these programs, contact the Sociology Department and/or the department of concentration interest.

## Program Admission Procedure



Applicants must submit to the Office of Graduate Admissions: a graduate application; official copies of transcripts from all colleges attended; two letters of recommendation, preferably from current or former instructors; Graduate Record Examination (GRE) scores; and TOEFL scores (for international students). Applicants must also submit to the Department of Sociology a “Sociology Department Graduate Admissions Questionnaire” available from the Department or online at <http://www.louisville.edu/a-s/soc/grad%20qstnnaire.html>

Those applying to the MA program must have: a minimum undergraduate GPA of 3.0; a combined verbal/quantitative GRE score of 900; and previous course work in statistics, research methods, and social theory. (Students may be allowed to make up deficiencies in previous course work, but credit for such courses cannot be applied toward graduate degree requirements.) International students should have a quantitative GRE score of 450 and a score of 550 on the paper-based TOEFL or 213 on the computer-based TOEFL.

## Graduate Assistantships

The Sociology Department has available annually a limited number of graduate assistantships. Applicants wishing to compete for one of these must submit all materials for admission, including GRE scores, not later than February 1 for the fall semester and October 1 for the spring semester. Announcement of awards is normally made about six weeks after the deadlines.

## Enrollment and Program Guidance

The Graduate Program Coordinator serves in an advisory capacity to students for enrollment and program planning until such time as an advisor and/or committee chairperson has been formally designated. At this point the thesis advisor and/or committee chair assumes the primary responsibility for guidance of the student.

## Academic Standards

In order to be retained in the program, graduate students must receive a grade of 3.0 or higher in each of the department’s core courses and must maintain an overall average of at least 3.0 in all course work taken for graduate credit. Any student whose cumulative quality point total falls to three fewer than three times the number of credits attempted will receive a warning in writing from the Graduate Program Coordinator. Any student whose quality point total falls to six fewer than three times the number of credits attempted shall not be retained in the program.

## Curriculum

All students enrolled in the MA program in Sociology are required to complete the following core courses:

- SOC 510 Computer Data Analysis 3 credit hours
- SOC 604 Graduate Professional Seminar 1 credit hour
- SOC 610 Seminar in Statistics 3 credit hours
- SOC 615 Seminar in Research Methodology 3 credit hours
- SOC 620 Seminar in Sociological Theory 3 credit hours

In addition to the required core courses, students take the appropriate number of electives corresponding to the completion option chosen. (For students who might want to pursue a Ph.D. or a career in a research-related field, the thesis option is strongly recommended.) The three options have different credit hour requirements.

Option	Core Courses	Elective Hours	Thesis Hours	Practicum Hours	Total Hours

Thesis	13	12	6	-----	31
Practicum	13	18	-----	6	37
Examination	13	24	-----	-----	37

No more than six credit hours of 500-level courses may be applied toward the master's degree. Given that all sociology graduate students must take SOC 510 Computer Data Analysis, students are allowed to count one other 500-level course toward the degree.

Up to six credit hours of course work, with approval from the Sociology Department Graduate Coordinator, may be taken outside the Sociology Department. Students may also elect to take up to three credit hours of independent study (independent readings or research). Additional credits of course work outside the department or of independent study counting toward degree requirements require special permission from the Sociology Department Graduate Coordinator.

### **Accelerated Master's Program**

The program offers motivated and academically superior students the opportunity to earn graduate credit hours during their senior year. As undergraduates, accelerated students may earn between 6-9 graduate credit hours, all of which are applied to the undergraduate degree, as well as the graduate degree, thus allowing students to begin the graduate program in sociology with credits already applied to the graduate degree. NOTE: Students in the accelerated program may only apply their graduate credits earned as an undergraduate toward the graduate degree in sociology at UofL.

Students apply for the program during their junior year and, if accepted, begin the program in their senior year. The graduate courses taken during the student's senior year will depend on what courses the student has remaining to complete his/her undergraduate degree in sociology. The undergraduate advisor works individually with accelerated students regarding their course schedule.

Admission Requirements: 3.35 overall undergraduate GPA at time of application and a combined total GRE score of 900 on the Verbal and Quantitative sections and a 3.5 GRE score on the Analytical Reasoning section. Applicants are also required to submit two letters of recommendation and a completed Graduate Admission Questionnaire. Students must be admitted to the Graduate School.

### **Master of Arts in Sociology with Concentration in Communication, Urban Geography, or Pan-African Studies**

Students pursuing the Master of Arts in Sociology with Concentration in Communication, Urban Geography, or Pan-African Studies complete the core courses required for the M.A. in Sociology as specified above. In addition to the core courses, they take electives in Sociology and in the chosen area of concentration in relationship to the completion option (thesis, practicum, examination).

<b>Option</b>	<b>Core Courses</b>	<b>Sociology Elective Hours</b>	<b>Elective Hours in Concentration (Comm., Geo., or PAS)</b>	<b>Thesis Hours</b>	<b>Practicum Hours</b>	<b>Total Hours</b>
Thesis	13	0	12	6	-----	31
Practicum	13	6	12	-----	6	37
Examination	13	9	15	-----	-----	37

No more than six credit hours of 500-level courses may be applied toward the master's degree. Given that all sociology graduate students must take SOC 510 Computer Data Analysis, students are allowed to count one other 500-level course toward the degree.

Up to six credit hours of course work, with approval from the Sociology Department Graduate Coordinator, may be taken outside the Sociology Department. Students may also elect to take up to three credit hours of independent study (independent readings or research). Additional credits of course work outside the department or of independent study counting toward degree requirements require special permission from the Sociology Department Graduate Coordinator.

## **Departmental Faculty**

**L. Allen Furr**

*Associate Professor*

*Chair*

**Jon H. Rieger**

*Professor*

**Wayne M. Usui**

*Professor*

**J. Allen Whitt**

*Professor*

**D. Mark Austin**

*Associate Professor*

**Lateef O. Badru**

*Associate Professor*

**James K. Beggan**

*Associate Professor*

**John A. Busch**

*Associate Professor*

**Melissa Evans-Andris**

*Associate Professor*

*Coordinator of Graduate Program*

**Patricia Gagne**

*Associate Professor*

**Susan E. Kelly**

*Associate Professor*

**Cynthia Negrey**

*Associate Professor*

**Karen Christopher**

*Associate Professor*

**Clarence Talley**

*Associate Professor*

**Robert M. Carini**

*Assistant Professor*

**Badr El-Din Ali**

*Emeritus/Emerita*

**James E. DeBurger**

*Emeritus/Emerita*

**K. Robert Durig**

*Emeritus/Emerita*

# Master of Arts in Spanish

**Major:** SPAN

**Degree Awarded:** MA

**Unit:** GA

**Program Webpage:** <http://modernlanguages.louisville.edu/spanish/>

## Program Information

### General Information

The Master of Arts in Spanish prepares students for a global economy, a multicultural community, and a changing workplace through the study of language, culture, linguistics, translation, interpretation, and Spanish in the workplace. The program will be immediately useful both to current teachers of Spanish and to professionals who seek to participate more actively in the global workplace or in local multi-ethnic communities. Core courses expose students to culture, linguistics, and translation/interpretation. Electives offer in-depth study of cultural topics as well as practical and pedagogical experience. Study abroad opportunities are available and may be supported by one of several departmental travel grants.

The MA in Spanish requires 30 hours of academic work in Spanish at the graduate level. The program may be completed in four semesters.

### Admission Requirements and Procedure

Applications to the MA program in Spanish are considered throughout the academic year, with start dates in fall and spring. In line with Graduate School regulations, all application materials must be received at least 30 days before the intended start date. A prerequisite for admission is advanced proficiency in Spanish (speaking, aural comprehension, reading, and writing). Applicants who do not hold a BA in Spanish or the equivalent by the program start date may be required to take preparatory coursework to make up for any deficiencies. Upon approval of the Director of Graduate Studies, up to six hours of graduate-level coursework taken at another institution may be applied toward the degree.

#### To be submitted to the Graduate School:

- Graduate School application and application fee.
- Transcripts from all accredited institutions where undergraduate and/or graduate credit was earned. Minimum GPA required for undergraduate work: 3.0 on a four-point scale.
- Two letters of recommendation. Letters must be recent (written no more than a year prior to application date) and should attest to the applicant's proficiency in Spanish and potential to do graduate work.
- GRE scores. Minimum required: a combined score of 900 on the GRE verbal and quantitative sections.
- TOEFL scores (for applicants for whom English is a second language). Minimum required: 550 on the TOEFL Examination (paper test) or at least 210 on the TOEFL Exam (computer test).

NOTE: The Director of Graduate Studies in Spanish may grant provisional admission to students who do not meet individual requirements.

#### To be submitted to the Director of Graduate Studies in Spanish:

- A personal statement of 1-2 pages in Spanish discussing how the MA in Spanish relates to the applicant's professional or personal goals.
- A sample of academic writing of at least five pages, preferably a paper written as part of the requirements for a university-level course. (May be in English or Spanish.)

Mail statement and writing sample directly to the Director of Graduate Studies in Spanish, Department of Classical and Modern Languages, University of Louisville, Louisville, KY, 40292.

## Graduate Teaching Assistantships

The Department of Classical and Modern Languages offers a limited number of graduate teaching assistantships in Spanish. Applications are considered in the spring for start in the following academic year. Spanish MA applicants who wish to be considered must submit all GTA application materials by March 1st. (Details and application form are available at the Classical and Modern Languages webpage.)

## Curriculum

		<b>Semester Hours Total</b>
SPAN 524	Introduction to Hispanic Linguistics	3
SPAN 554	Hispanic Culture through Film and Media	3
SPAN 611	Teaching and Research Methods in Spanish	3
SPAN 624	Studies in Hispanic Linguistics	3
SPAN 634	Spanish for the Workplace and Community	3
SPAN 638	Theory and Practice of Translation	3
SPAN 644	Origins and Development of Hispanic Culture	3
SPAN 648	Contemporary Issues in the Hispanic World	3
SPAN 5XX or SPAN 6XX	Two electives in Spanish	6
	Directed Research Project	No credit
	<b>Total Credit Hours</b>	<b>30</b>

NOTE: At least 18 credit hours must be taken at the 600-level (courses restricted to graduate students). As a culminating experience, all MA candidates are required to complete a Directed Research Project and present it in a public forum.

# Accelerated BA/MA in Spanish

This program allows undergraduate Spanish majors at the University of Louisville to get a head start on the MA in Spanish by taking up to nine hours of 500-level coursework (excluding SPAN 590) for graduate credit. Upon conferral of the BA in Spanish, students enter into masters status and complete the remaining requirements for the MA.

## Eligibility requirements:

- Students must have a minimum overall GPA and Spanish-major GPA of 3.35. (Also required for retention in the program.)
- At the time of application, students must have completed Spanish 321, 322 and 355 with a grade of B or better. It is also recommended that students have completed one course at the 400 level before applying.
- Students may apply no later than the end of their junior year.

## To be submitted to the Graduate School:

- an online Graduate School application.
- two letters of recommendation from individuals (preferably Spanish faculty) who can attest to the applicant's ability to handle graduate-level coursework in Spanish.
- GRE scores (no later than the end of the start semester).

## To be submitted to the Director of Graduate Studies in Spanish:

- A personal statement of 1-2 pages in Spanish discussing how the MA in Spanish relates to the applicant's professional or personal goals.

# Departmental Faculty

## **Rhonda L. Buchanan**

*Professor of Spanish*

Director, Latin American Studies

## **Aristofanes Cedeño**

*Associate Professor of Spanish*

Academic Dean, Governor's Scholars Program

## **William L. Cunningham**

*Professor of German*

## **Matthieu Dalle**

*Assistant Professor of French*

## **John P. Greene**

*Professor of French*

## **Gregory S. Hutcheson**

*Associate Professor of Spanish*

## **Alan Leidner**

*Professor of German*

## **Robert Luginbill**

*Associate Professor of Classics*

## **Mary Makris**

*Associate Professor of Spanish*

## **Augustus A. Mastri**

*Professor of Italian*

**Manuel F. Medina**

*Associate Professor of Spanish*

Acting Director of Brazilian Studies

**Frank Nuessel**

*Professor of Spanish*

**Wendy Pfeffer**

*Professor of French*

A&S Coordinator of Graduate Education

**Regina Roebuck**

*Associate Professor of Spanish*

**Clare Sullivan**

*Assistant Professor*

**Lisa Wagner**

*Associate Professor of Spanish*

**Li Zeng**

*Assistant Professor of Chinese*

Director of Chinese Studies

**Roy Ackerman**

*Professor Emeritus*

**David R. Hume**

*Professor Emeritus*

**Hans Peterson**

*Professor Emeritus*

**Marilyn Schuler**

*Professor Emerita*

**Sydney Schultze**

*Professor Emerita*

# Master of Fine Arts in Theatre Arts

**Major:** TA

**Degree Awarded:** MFA

**Unit:** GA

**Program Webpage:** <http://www.louisville.edu/a-s/tas/>

## Program Information

The Department of Theatre Arts offers a Master of Fine Arts with a concentration in Acting/Performance. A Graduate Certificate in African American Theatre is also offered. The department fosters creativity, collaboration, discipline, and artistry. It embraces the theatre as a means of creative expression, cultural understanding, and social development. The African American Theatre Program, founded in 1993, is integral to the department. All students are exposed to the diversity of multicultural theatre.

## Admission

Prerequisites for admission to the MFA program are a baccalaureate degree from an accredited college or university and admission to the Graduate School. The department requires that a resume of theatrical experience accompany the application.

Unconditional admission requires completion of basic undergraduate course work in each of the following areas: theatre history, dramatic literature, design/technical theatre, acting/directing. To accomplish this purpose, students may be required to take preparatory courses not to be counted toward the degree.

Applicants for admission to the MFA program must demonstrate theatrical skill which indicates their potential for excellence: students planning to concentrate on Acting/Performance must audition in person (no videotaped auditions are accepted). Students are also interviewed to determine their level of preparation and commitment.

Admission to the Graduate Certificate in African American Theatre requires a baccalaureate degree from an accredited college or university and admission to the Graduate School. Applicants to this program must have an interview with the Director of Graduate Studies.

## Curriculum

### Requirements for the MFA in Acting/Performance

Students pursuing the MFA in acting must complete 72 semester hours of graduate work. The three-year curriculum consists of the following courses:

#### *Academic Area (14 credits)*

- Introduction to Graduate Study, Pedagogy 2
- Script Analysis and Interpretation 3
- Performance Theory 3
- Tools for a Global Theatre 3



- Approaching African American Theatre 3

### ***Performance Concentration (42 credits)***

- Graduate Movement I-IV 12
- Graduate Voice I-IV 12
- Graduate Acting I-V 15
- Actors Theatre of Louisville Workshop 3

### ***Project Area (10 hours)***

- MFA Performance Projects 7
- Thesis Guidance (monograph) 3

### ***Electives 3***

### ***Community Service in the Arts (Independent Study 3)***

Please observe that the sequence of graduate movement and voice classes, as well as the theory sequence, alternates years.

## **Academic policies**

Some candidates may enter the program with insufficient knowledge in basic areas that may be important to their future success in the program. These students will be required by their Graduate Advisory Committee to complete additional courses. For example, many students enter without sufficient knowledge of Theatre History and are then required to take Theatre History during their first year of residence.

## **Performance/Production Project Requirements**

All students enrolled in the MFA program are expected to be active in performance or production projects during each semester in which they are enrolled. TA 625 (Performance Project) provides a mechanism for implementing this expectation and for assessing the quality of the projects undertaken. The number of credits granted for TA 624/625 varies depending on the student's concentration and year of study.

## **Departmental Faculty**

### **Russell J. Vandenbroucke**

*Professor*

Chair

### **Garry Brown**

*Associate Professor*

Director of Undergraduate Studies

### **Nefertiti Burton**

*Associate Professor*

Director of Graduate Studies

### **Rinda L. Frye**

*Associate Professor*

### **Zhanna Goldentul**

Instructor

**Albert J. Harris**  
*Professor*

**Michael F. Hottois**  
*Professor*  
Director of Design

**Lundeana Thomas**  
*Associate Professor*  
Director, African American Theatre Program

**James R. Tompkins**  
*Associate Professor*

**Zan Sawyer-Dailey**  
*Adjunct Faculty*

# Graduate Certificate in African American Theatre

**Major:** GCAAT

**Degree Awarded:** CERT

**Unit:** GA

**Program Webpage:** <http://louisville.edu/a-s/ta/AATPcertificate.html>

## Program Information

The first (and only) graduate program in African American Theatre in the region

Requires 15 hours of graduate credit—nine (9) hours in African American Theatre, three (3) hours of theatre-related Community Service, three (3) hours of Electives.

Can be completed as a “stand alone” program or in conjunction with another graduate program (any area).

### **Specially designed for:**

- \*Teachers, Government and Community Agency Professionals
- \*Graduate Students (at U of L or another institution)
- \*Persons preparing for professional careers in the theatre arts
- \*Community Residents

## Curriculum

### **History, Theory, and Literature (6 credits)**

- Advanced African American Theatre History 3
- *One of the following:*
  - Approaching African American Theatre 3
  - Advanced African American Women in Theatre 3
  - Advanced Theatre of the African World 3

### **Performance/Production (3 credits)**

- *One of the following:*
  - Advanced Directing the Black Experience 3
  - Advanced Black Aesthetic on Stage 3
  - Performance Project in an approved play 3
  - Production Project on an approved production 3

### **Electives (3 credits)**

- *One of the following:*
  - Theatre Internship 3
  - Independent Study on an approved topic 3

- Approved courses in Pan African Studies 3
- Community Service in the Arts (3 credits)

## **Independent Study (3 credits)**

**Minimum 15 credits**

# **Departmental Faculty**

## **Russell J. Vandenbroucke**

*Professor*

Chair

## **Garry Brown**

*Associate Professor*

Director of Undergraduate Studies

## **Nefertiti Burton**

*Associate Professor*

Director of Graduate Studies

## **Rinda L. Frye**

*Associate Professor*

## **Zhanna Goldentul**

Instructor

## **Albert J. Harris**

*Professor*

## **Michael F. Hottois**

*Professor*

Director of Design

## **Lundeana Thomas**

*Associate Professor*

Director, African American Theatre Program

## **James R. Tompkins**

*Associate Professor*

## **Zan Sawyer-Dailey**

*Adjunct Faculty*

# Doctor of Philosophy in Urban and Public Affairs

**Major:** UPA

**Degree Awarded:** Ph.D.

**Unit:** GA

**Program Webpage:** <http://supa.louisville.edu>

## Program Information

The Ph.D. program prepares students for careers as professors, researchers, and public servants in the fields of *Urban Policy and Administration* and *Urban Planning and Development*.

Students are required to complete 48 credit hours of study. This requires a sequence of core courses consisting of 18 credit hours. Students must complete 18 credit hours in an area of specialization including three required courses. Two field specializations are offered: *Urban Planning and Development* and *Urban Policy and Administration*. Twelve credit hours of dissertation research are also required. Students must pass qualifying examinations on the core and specialty area before commencing formal dissertation work. Students should consult the Program Guidelines for details.

## Admission Requirements

- Bachelor's degree with at least a 3.0 GPA (on 4.0 scale);
- Master's degree in an appropriate field with at least a 3.5 GPA (on a 4.0 scale);
- GRE score of at least 500 Verbal, 500 Quantitative, and 4.5 Analytical.
- TOEFL: Those applicants whose native language is not English and who do not hold a degree from a university where the language of instruction is English must also submit scores from the Test of English as a Foreign Language, with a minimum score of 210 on the computer-based test.

Applications must include:

- transcripts from all institutions attended;
- supplemental application (available from School web site);
- at least two letters of recommendation (preferably from professors knowledgeable about your potential to perform doctoral level work).

Part-time students:

The program gives preference to applicants who intend to study full-time and who can be supported with financial aid (a Graduate Research Assistantship or a Fellowship). A few part-time students may be admitted if they can demonstrate they have flexible schedules and can attend daytime courses and fully participate in school functions. The Graduate School requires every Ph.D. student to complete at least one year of full-time study.

Admission deadlines:

*Fall Admissions* July 15

January 31 to be considered for a University Fellowship

March 1 to be considered for a Graduate Assistantship

*Spring Admissions* November 15

Students wishing to enter the program in Spring should discuss their situation with the program director or student advisor. The program is designed to be entered in the Fall.

## **Academic Policies**

### **Waivers And Prerequisites**

Students who have recently and satisfactorily completed equivalent courses elsewhere may request that up to nine hours of course work count towards their 48 hours of required Ph.D. study. Students who are not prepared for advanced study or do not hold the prerequisites for a particular course will be required to complete remedial work. Such courses do not count toward degree credit.

### **Satisfactory Progress**

Students who fall below a 3.0 GPA or fail to receive grades of "B" or higher in their course work are subject to dismissal from the program. No probationary period is provided for students failing core courses. The Admissions and Review committee will review performance of students each semester to ensure students are making satisfactory progress.

### **Comprehensive Exams**

To qualify for Ph.D. candidacy, students must satisfactorily complete (1) the core examination and (2) a field examination. Each student must sit for the core examination as soon as it is offered after the student completes all core courses. Students sit for the field exam after having completed core and elective courses (36 credits). Students must pass the core exam before proceeding to the field exam. Students must sit for exams as soon as they are eligible to take the exam. Examinations are held in May each year. Examinations always have a written component and may also include an oral component. Consult with the chair of the relevant examination committee for details about a particular exam.

Qualifying exams are graded on a Pass/Fail basis. The written examinations are evaluated independently and anonymously by each examiner. Examining committees ordinarily meet as a group before determining a final grade. Examining committee chairs forward grades to the Program Director who officially notifies students of their results.

Should a student not achieve a Pass on an exam, he or she must take the exam again when offered the following year. The examining committee may specify additional work to be completed before sitting for a subsequent exam. Students will not have more than two opportunities to sit for and satisfactorily complete each qualifying exam. Failure to retake the exam or failing to pass the exam on the second effort will result in dismissal from the Ph.D. program. Students may change field specializations for the second exam as long as they take the field exam within one year of the first effort. In this case, the student will only have one opportunity to pass the exam. Failure to pass a core or field exam may result in a student losing his or her graduate assistantship.

## **Curriculum**

The Ph.D. in Urban and Public Affairs consists of 48 credit hours of study including 18 hours of core courses, 18 hours in a field specialization, and 12 hours of dissertation research.

Students with no prior study of statistics are required to take PADM 601/PLAN 602 Statistics for Public Affairs and SOC 609 Computerized Data Analysis prior to enrolling in SOC 610. Students with previous study of basic statistics, but no experience with statistical software, are required to take SOC 609 prior to enrolling in SOC 610. Students with no prior study in economics are recommended to take an introductory course in that subject, such as PLAN 500 Foundations of Economics. These courses do not count toward the 48-semester-hour requirement.

### **Core Required Courses (18 semester hours)**

UPA 602 Urban Policy and Governance (3)

UPA 603 Urban Economics (3)

UPA 606 Research Methods (3)

UPA 610 Urban Theory and Public Affairs (3)

UPA 621 Policy Analysis and Program Evaluation (3)

SOC 610 Seminar in Statistics (3)

**Field Specialization (18 semester hours)**

*Urban Policy and Administration Field*

UPA 630 Politics and Urban Policy (3)

UPA 660 Advanced Organizational Behavior (3)

UPA 661 Public Administration and Organizational Theory (3)

Approved electives (9)

*Urban Planning and Development Field*

UPA 623 Comparative Urban Development (3)

UPA 683 Land Use Planning (3)

UPA 684 Planning Theory (3)

Approved electives (9)

**Dissertation Research (12 semester hours)**

UPA 700 Dissertation Research (12)

## **Departmental Faculty**

Mark Austin, Associate Professor of Sociology

Leonard Bright, Assistant Professor of Urban and Public Affairs

Steven C. Bourassa, KHC Real Estate Research Professor and Director, Ph.D. Program in Urban and Public Affairs

Carrie Donald, Professor of Urban and Public Affairs

Robert M. Carini, Assistant Professor of Sociology

Frank Goetzke, Assistant Professor of Urban and Public Affairs

John I. Gilderbloom, Professor of Urban and Public Affairs

David Imbroscio, Professor of Political Science

Steven G. Koven, Professor of Urban and Public Affairs

Cynthia Negrey, Associate Professor of Sociology

H. V. Savitch, Brown & Williamson Distinguished Research Professor of Urban and Public Affairs

**David M. Simpson, Fifth Third Bank Professor of Community Development and Associate Professor of Urban and Public Affairs**

**Lyle Sussman, Professor of Management**

**Wayne M. Usui, Professor of Sociology**

**Ronald K. Vogel, Professor of Political Science and Urban and Public Affairs**



# Master of Urban Planning

**Major:** URPL

**Degree Awarded:** MUP

**Unit:** GA

**Program Webpage:** <http://supa.louisville.edu/>

## Program Information

The Master of Urban Planning Program strives to play an important role in the University of Louisville's urban/metropolitan mission by creating the best possible learning environment for the student whose goal is to become a planning practitioner, by advancing the state of knowledge in the planning field through faculty research, and by bringing that knowledge to bear on the challenges facing the community.

The School of Urban and Public Affairs offers a Master of Urban Planning (MUP) degree in cooperation with the Department of Geography and Geosciences. The MUP Program prepares students to work in a wide variety of fields, including land use and environmental planning, urban design, historic preservation, transportation planning, open space planning, housing planning, economic development planning, real estate development, and the development of geographic information systems. With the continuing expansion of Louisville and the nation's other metropolitan areas, urban planning is one of the leading professional fields in terms of demand and job satisfaction, according to surveys by Jobs Rated Almanac and the Encyclopedia of Careers and Vocational Guidance.

Students can specialize in one or two of four areas: land use and environmental planning; administration of planning organizations; housing and community development; and spatial analysis for planning. Students have the opportunity to benefit from working on real planning problems through the required internship and studio courses. Studio courses are taught at the Urban Design Studio, located in downtown Louisville and operated by the MUP Program in cooperation with the Louisville Metro government and the School of Architecture of the University of Kentucky.

The degree requires 48 credit hours (two years of full-time study or the equivalent in part-time study), although up to 12 hours of relevant graduate course work may be transferred into the program. Students may enroll on a part-time or full-time basis. Classes are held in the evenings and on weekends to meet the scheduling needs of persons holding full-time jobs.

## Admission Procedures

Applicants must hold a bachelor's degree (any major is acceptable), must have taken the Graduate Record Examination (GRE), and must submit two letters of reference (at least one from someone familiar with the applicant's academic abilities) and a statement of purpose. Admission is competitive and generally requires a minimum combined quantitative and verbal GRE score of 1,000 and a minimum undergraduate GPA of 3.0 (B).

An application form can be obtained at the Program website. All required application materials must first be submitted to Office of Graduate Admissions. Those materials will then be forwarded to the MUP Program for review by the Admissions Committee. The program will notify the applicant of the Committee's decision.

## Curriculum

## **Core Courses (24)**

- PLAN 500 Economics for Public Affairs (3)
- PLAN 600 Planning History and Issues (3)
- PLAN 601 Planning Theory (3)
- PLAN 602 Statistics for Public Affairs (3)
- PLAN 603 Urban Economics (3)
- PLAN 604 Applied Research Methods (3)
- PLAN 605 Land Use and Planning Law (3)
- PLAN 606 Professional Practice (3)
- One Specialty Area (listed below) (9)
- Other Electives (9)
- PLAN 649 Planning Internship (3)
- PLAN 650 Capstone (3)

## **Minimum Total Hours (48)**

## **Specializations**

The courses available for each specialization are as follows. Other courses not listed below may be substituted with the permission of the Program Director.

### **Specialization in Land Use and Environmental Planning**

Three courses (nine (9) credit hours) from the following:

- PLAN 501 Urban Environmental Quality (3)
- PLAN 607 Land Use and Environmental Planning (3)
- PLAN 608 Geographic Information Systems (3)
- PLAN 612 Mediation and Dispute Resolution (3)
- PLAN 620 Environmental Policy (3)
- PLAN 621 Urban Infrastructure (3)
- PLAN 622 Urban Design (3)
- PLAN 623 Environmental Policy and Natural Hazards (3)
- PLAN 651 Urban Design Studio (3)
- PLAN 652 Neighborhood Planning Studio (3)

### **Specialization in Administration of Planning Organizations**

Three courses (nine (9) credit hours) from the following:

- PADM 608 e-Government (3)
- PADM 612 Non-profit Grantsmanship (3)
- PLAN 609 Public Budgeting and Finance (3)
- PLAN 610 Strategic Management and Planning (3)
- PLAN 611 Human Resources Management (3)
- PLAN 612 Mediation and Dispute Resolution (3)
- PLAN 613 Public Administration and Organizational Theory (3)

### **Specialization in Spatial Analysis for Planning**

Three courses (nine (9) credit hours) from the following:

- PLAN 608 Geographic Information Systems (3)
- PLAN 614 Retail Site Analysis (3)
- PLAN 615 Spatial Statistics (3)
- PLAN 616 Analytical Urban Geography (3)
- PLAN 618 Urban Demography (3)
- PLAN 619 Urban Geographic Information Systems Applications (3)
- PLAN 621 Urban Infrastructure (3)
- PLAN 624 Urban Transportation Planning (3)
- PLAN 628 Economic Conditions and Forecasting (3)

## **Specialization in Housing and Community Development**

Three courses (nine (9) credit hours) from the following:

- PLAN 614 Retail Site Analysis (3)
- PLAN 617 Housing and Community Development (3)
- PLAN 621 Urban Infrastructure (3)
- PLAN 622 Urban Design (3)
- PLAN 625 Historic Preservation (3)
- PLAN 626 Economic Development (3)
- PLAN 629 Real Estate Principles (3)
- PLAN 630 Real Estate Investment (3)
- PLAN 631 Real Estate Development (3)
- PLAN 651 Urban Design Studio (3)
- PLAN 652 Neighborhood Planning Studio (3)

## **Juris Doctor/Master of Urban Planning Dual Degree Program**

The Brandeis School of Law will allow students in the dual degree program to apply nine (9) credit hours of approved courses in urban planning as electives toward the JD degree. The Brandeis School of Law will accept each of these urban planning courses on a pass/fail basis, provided that the student earn at least a “B” (3.0) in the course. The following MUP courses are approved to be counted as electives toward the JD degree:

- Planning Theory
- PLAN 501 Urban Environmental Quality
- PLAN 607 Land Use Planning
- PLAN 612 Mediation and Dispute Resolution
- PLAN 620 Environmental Policy
- PLAN 609 Public Budgeting and Finance
- PLAN 611 Human Resources Management
- PLAN 613 Public Administration & Organizational Behavior
- PLAN 608 Geographic Information Systems
- PLAN 621 Urban Infrastructure
- PLAN 624 Urban Transportation Planning
- PLAN 617 Housing & Community Development
- PLAN 625 Historic Preservation
- PLAN 631 Real Estate Principles
- PLAN 633 Real Estate Development
- Any other MUP course approved by the Associate Dean of Student Life at the Brandeis School of Law, upon individual petition by a dual-degree student.

The urban planning program will allow students in the dual degree program to apply nine (9) credit hours of approved courses in law as electives toward the MUP degree. The urban planning program will accept each of these law courses on a pass/fail basis, provided that the student earn at least a “C” (2.0) in the course. The following JD courses are approved to be counted as electives toward the MUP degree:

- Administrative Law
- Energy Law
- Environmental Law
- Constitutional Law II
- Property II
- Real Estate Transactions
- Water Resources Law & Policy
- Any other JD course approved by the Director of the MUP Program in the School of Urban & Public Affairs, upon individual petition by a dual degree student.

In addition to the above cross-application of urban planning credits toward the JD degree and of law credits toward the MUP degree, students in the dual degree program shall be required to take “Land Use and Planning Law,” a 3-credit interdisciplinary course cross-listed in both law and urban planning. Land Use and Planning Law shall count as a three-

credit graded elective toward the JD degree, and likewise shall count as a three-credit graded elective toward the MUP degree. To receive MUP credit, the student must earn at least a “B” (3.0) in the course.

## **Departmental Faculty**

**David M. Simpson**

*Associate Professor*

*MUP Director*

**Steven C. Bourassa**

*Professor*

*School Director*

**John I. Gilderbloom**

*Professor*

**Frank Goetzke**

*Assistant Professor*

**Steven G. Koven**

*Professor*

**Peter B. Meyer**

*Professor*

**H.V. Savitch**

*Professor*

**Carrie G. Donald**

*Associate Professor*

**Clara A. Leuthart**

*Associate Professor*

# Master of Arts in Women's and Gender Studies

**Major:** ACCY

**Degree Awarded:** MA

**Unit:** GE

**Program Webpage:** <http://www.louisville.edu/a-s/ws>

## Program Information

### MA in Women's and Gender Studies

The WGS M.A. is open to qualified individuals with a bachelor's degree from an accredited college or university. Any undergraduate major is acceptable for admission; however, students without some Women's and Gender Studies background may be required to take preparatory courses before beginning the M.A. curriculum or in addition to the M.A. curriculum.

The 36-hour interdisciplinary degree program is organized around an 18-hour core of two introductory seminars and a selection of courses in four areas. In addition to the core, students complete a concentration area and either a thesis or culminating project. Faculty in the WGS Department, as well as faculty in other departments of the university, offer courses in the M.A. program.

The WGS M.A. may be completed in four semesters (fall/spring). Most courses are offered in late afternoon or evening. Limited summer offerings are also available.

### MSSW/MA in Women's and Gender Studies

The dual MSSW/ WGST program recognizes the value of professional education in two interrelated fields and encourages students who have an interest in both Women's and Gender Studies and Social Work to pursue these degrees simultaneously. Social workers and Women's and Gender Studies scholars often seek to address identical or related societal concerns, albeit from different perspectives; understanding both disciplines enhances one's effectiveness in both the analysis of and engagement with contemporary social and cultural issues. Women's and Gender Studies courses strengthen the social worker's understanding of the historical foundations for policies and structures that have an impact on social institutions and human conditions; social work courses help Women's and Gender Studies scholars or activists to better understand human behavior, conflict resolution and social welfare institutions. A Women's and Gender Studies and Social Work combination provides the tools of social change for an historic problem of gender inequality and injustice.

The curriculum leading to dual degree, a Master of Arts in Women's and Gender Studies and a Master of Science in Social Work is a 72-credit hour program which combines credits in WGS and the Kent School of Social Work. Students take the core curriculum in both programs, but substitute elective hours with M.A. and MSSW hours. In addition, the Kent School has tailored its second year-long practicum to focus on issues of gender and women, adding that content and experience for the student. Students must apply and be admitted to both programs in order to pursue the dual degree.

## Program Admission Procedure

1. Students must meet the admission criteria established by the UofL Graduate School (submit a complete application, submit official transcripts verifying the receipt of a baccalaureate degree from an accredited institution, and pay application fee).
2. Students must have a 3.0 GPA in undergraduate work. Provisional admission is possible for students who do not meet this requirement.
3. Students must submit two letters of recommendation (submitted to the Graduate School). Letters of recommendation must be current (written within the last year), and members of the WGS Graduate Admissions Committee may not be letter writers.

4. Students must achieve a combined score of at least 900 on the GRE verbal and quantitative sections. Provisional admission is possible for students with lower scores.
5. Students must submit one academic writing sample of at least five pages (a paper written as part of the requirements of a university or college course), which should be mailed directly to the Department of Women's & Gender Studies. The Graduate Admissions Committee will determine whether the student has the necessary level of competence in written communication to enter the M.A. program.
6. Students must submit a personal statement of one-two pages discussing how the M.A. in Women's & Gender Studies relates to the student's professional or personal goals (mail directly to the Department of Women's & Gender Studies).
7. Any undergraduate major is acceptable for admission; however, students without Women's and Gender Studies background may be required to take preparatory courses before beginning the M.A. curriculum or in addition to the M.A. curriculum. This will be determined by the Graduate Admissions Committee.
8. Students must maintain a 3.0 average in order to be in good standing.
9. Up to six (6) hours of graduate-level, "A" or "B" grade work in Women's and Gender Studies done at another institution may be applied toward the student's UofL degree, upon approval of the director.
10. Students enrolled in the UK or WKU graduate certificate programs may transfer up to 12 hours of graduate-level "A" or "B" grade work, upon approval of the director.

## Curriculum

The M.A. curriculum includes 18 hours of core courses; 9 hours in a concentration; a thesis or non-thesis option; and three to nine hours of electives, depending on whether the thesis is chosen. At least 18 of the 36 hours must be in courses at the 600 level.

### Core Curriculum, 18 hours:

#### *Foundation courses:*

- WGST 601: Feminist Research and Theory in the Humanities (3 hours)
- WGST 602: Feminist Research and Theory in the Social Sciences (3 hours)

#### *Women's/Gender History, choose one (3 hours)*

- WGST 630: Feminism in Western Civilization
- WGST 631: Women in Europe and the U.S. in the 20th Century
- WGST 633: Women in 19th-Century America
- WGST 513: U.S. Social Justice Movements
- WGST 532: History of Sexualities
- WGST 591/691: Topics in WGS [recent example: Global History of Women]

#### *Gender, Race, and Colonialism, choose one not chosen in another category (3 hours)*

- WGST 612: Gender, Race, Work and Welfare
- WGST 643: Black Women's Voices
- WGST 640: Women's Health in Africa
- WGST 682: Gender, Race, Culture and Health Care
- WGST 513: U.S. Social Justice Movements
- WGST 545: Southern Women: Black and White
- WGST 558: Women and Leadership in Developing Nations
- WGST 591, 593, 691, 692: Topics in WGS [recent example: Postcolonial Bodies]

#### *Humanities Perspectives on Women/Gender, choose one not chosen in another category (3 hours)*

WGST 622: The Body in Popular Media  
WGST 682: Gender, Race, Culture and Health Care  
WGST 520: Women's Personal Narratives  
WGST 560: Feminist Philosophical Literature  
WGST 571: Francophone Women Writers and Critics  
WGST 593/WGST 692: Topics in WGS [recent example: Feminist Theology]

*Social Science Perspectives on Women/Gender, choose one not chosen in another category (3 hours)*

WGST 656: Feminist Theory  
WGST 612: Gender, Race, Work and Welfare  
WGST 615: Sociology of Disabilities  
WGST 513: U.S. Social Justice Movements  
WGST 538: American Women in Sports  
WGST 545: Southern Women: Black and White  
WGST 643: Black Women's Voices  
WGST 640: Women's Health in Africa  
WGST 558: Women and Leadership in Developing Nations  
WGST 591/691: Topics in WGS [Recent example: Gender and the Law]

### **Concentration, 9 hours:**

For the concentration, students take three courses in a concentration, either around a theme or a more traditional grouping.

### **Thesis option or non-thesis option, 9 hours:**

*Thesis option:*

In addition to the core and the concentration:  
WGST 695: Practicum **or** elective (need not be in WGS), 3 hours  
WGST: 699: Thesis, 6 hours

*Non-thesis option:*

In addition to the core and the concentration:  
WGST 695: Practicum or elective (need not be in WGS), 3 hours  
WGST elective, 3 hours  
WGST 698: Culminating Master's Project

## **Departmental Faculty**

**Nancy M. Theriot**  
Professor and Chairperson

**Karen Christopher**  
Associate Professor

**Cate Fosl**  
Associate Professor

**Dawn Heinecken**  
Associate Professor

**Kaila Story**

Assistant Professor

Audre Lorde Endowed Chair in Race, Class, Gender, and Sexuality

**Tomarra Adams**

Affiliated Faculty

Assistant Professor, Pan African Studies

**Ann Allen**

Affiliated Faculty

Professor, History

**Annette Allen**

Affiliated Faculty

Associate Professor, Humanities

**Beth Boehm**

Affiliated Faculty

Associate Professor, English

**Mary Esi Bani**

Affiliated Faculty

Associate Professor, Pan African Studies

**Barbara Burns**

Affiliated Faculty

Professor, Psychology

**Thomas B. Byers**

Affiliated Faculty

Professor, English

**Karen Chandler**

Affiliated Faculty

Associate Professor, English

**Anne Caldwell**

Affiliated Faculty

Associate Professor, Political Science

**Julia Dietrich**

Affiliated Faculty

Professor, English

**Christine Ehrick**

Affiliated Faculty

Associate Professor, History

**Rinda Frye**

Affiliated Faculty

Associate Professor, Theatre Arts

**Patricia Gagne**

Affiliated Faculty

Associate Professor, Sociology

**Alan Golding**

Affiliated Faculty

Professor, English



**Trish Gray**  
Affiliated Faculty  
Term Appointment, Political Science

**Susan Griffin**  
Affiliated Faculty  
Professor, English

**Anita Harris**  
Affiliated Faculty  
Assistant Professor, Anthropology and Pan African Studies

**Karen Hadley**  
Affiliated Faculty  
Associate Professor, English

**Susan Herlin**  
Affiliated Faculty  
Associated Professor, Emerita, History and Pan African Studies

**Suzette Henke**  
Affiliated Faculty  
Professor, English

**Katherine Johnson**  
Affiliated Faculty  
Assistant Professor, University Libraries

**Cheryl Kolander**  
Affiliated Faculty  
Professor, HPES

**Karen L. Kopelson**  
Affiliated Faculty  
Assistant Professor, English

**Gul Marshall**  
Affiliated Faculty  
Assistant Professor, Sociology

**Carol Mattingly**  
Affiliated Faculty  
Associate Professor, English

**Diane Pecknold**  
Affiliated Faculty  
Visiting Teaching Scholar, Commonwealth Center for the Humanities and Society

**Wendy Pfeffer**  
Affiliated Faculty  
Professor, Classical and Modern Languages

**Natalie Polzer**  
Affiliated Faculty  
Assistant Professor, Humanities

**Nancy Potter**  
Affiliated Faculty  
Associate Professor, Philosophy

**Annette Powell**

Affiliated Faculty  
Assistant Professor, English

**Theresa Rajack-Talley**  
Affiliated Faculty  
Associate Professor, Pan African Studies

**Anu Sabhlok**  
Affiliated Faculty  
Assistant Professor, Geography and Geosciences

**Edwin S. Segal**  
Affiliated Faculty  
Professor, Emeritus, Anthropology

**Arthur Slavin**  
Affiliated Faculty  
Professor, Emeritus, Humanities

**Mary Ann Stenger**  
Affiliated Faculty  
Associate Professor, Humanities

**Tamara Yohannes**  
Affiliated Faculty  
Term appointment, English

# Graduate Certificate in Police Executive Leadership Development

**Major:** PELDNON

**Degree Awarded:** CERT

**Unit:** GA

**Program Webpage:** <http://louisville.edu/a-s/ja/>

## Program Information

### Admission to the Program

Applicants must meet the standards for conditional admission to the Master of Science in Administration of Justice, including an earned Bachelor's degree and appropriate letters of recommendation. They must also achieve a qualifying score on the Southern Police Institute's admission examination and be recommended by the Chief Executive Officer of their supporting agency. Applications are reviewed for eligibility by the Southern Police Institute's faculty who are members of the University's Graduate Faculty and the Department of Justice Administration.

The curriculum of the Administrative Officers Course (AOC) of the Southern Police Institute may be taken only by students regularly enrolled in the Institute.

## Curriculum

The curriculum of the Administrative Officers Course (AOC) of the Southern Police Institute may be taken only by students regularly enrolled in the Institute.

### Curriculum

- JA 576.....3 credit hours
- JA 612.....3 credit hours
- JA 625.....3 credit hours
- JA 665.....3 credit hours
- Total Hours.....12 credit hours

The Southern Police Institute offers two twelve-week courses annually.

## Departmental Faculty

**William F. Walsh**

Director of Southern Police Institute

Professor

**Gennaro Vito**

Professor

**Terry Edwards**

Associate Professor

**Alex Ferguson**

Associate Director of Southern Police Institute

# Graduate Certificate in Women's and Gender Studies

**Major:** WGST

**Degree Awarded:** CERT

**Unit:** GA

**Program Webpage:** <http://louisville.edu/a-s/ws/certificate.html#certdegree>

## Program Information

The Women's and Gender Studies (WGS) graduate certificate is a 15-hour program for students who have completed a B.S. or B.A. degree in any field. Students with no prior course work in WGS may be required to take classes in preparation for admission to the certificate program.

### Program admission procedure:

Admission to the graduate certificate in Women's & Gender Studies is open to any student who has completed a B.A. or B.S. degree with a 3.0 overall GPA. Students may pursue the certificate outside the framework of a graduate degree program or in conjunction with a graduate degree program in another UofL department. Students wishing to pursue the certificate must apply for admission through the Graduate School by:

1. Completing a Graduate School application form and sending in the application fee
2. Submitting an official transcript reflecting previous degrees earned

Students must also send directly to Women's and Gender Studies a one-to-two page letter of intent, describing how the WGS graduate certificate will further their personal or professional goals.

Students wishing to pursue the graduate certificate in conjunction with a graduate degree program in another UofL department should first apply and be admitted to the degree program before applying for admission to the WGS graduate certificate program.

## Curriculum

1. Students must complete a total of 15 hours in courses approved for graduate credit in accordance with the policies of the Graduate School, approved by the WGS chairperson.
2. One course among the 15 hours must be WGST 601 or WGST 602.
3. At least two courses must be at the 600-level.
4. Courses must be chosen from both humanities and social sciences disciplines, with consultation of WGS chairperson.
5. Students pursuing the WGS certificate in conjunction with a graduate degree program must take at least one course outside of the department in which the student is pursuing the degree.
6. A single course may satisfy more than one requirement.
7. Course work toward the graduate certificate in WGS may also count toward the student's graduate degree.

# Departmental Faculty

## **Nancy M. Theriot**

Professor and Chairperson

## **Karen Christopher**

Associate Professor

## **Cate Fosl**

Associate Professor

## **Dawn Heinecken**

Associate Professor

## **Kaila Story**

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Audre Lorde Endowed Chair in Race, Class, Gender, and Sexuality

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Professor, Psychology

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Affiliated Faculty  
Professor, English

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Affiliated Faculty  
Associate Professor, History

**Rinda Frye**  
Affiliated Faculty  
Associate Professor, Theatre Arts

**Patricia Gagne**  
Affiliated Faculty  
Associate Professor, Sociology

**Alan Golding**  
Affiliated Faculty  
Professor, English

**Trish Gray**  
Affiliated Faculty  
Term Appointment, Political Science

**Susan Griffin**  
Affiliated Faculty  
Professor, English

**Anita Harris**  
Affiliated Faculty  
Assistant Professor, Anthropology and Pan African Studies

**Karen Hadley**  
Affiliated Faculty  
Associate Professor, English

**Susan Herlin**  
Affiliated Faculty  
Associated Professor, Emerita, History and Pan African Studies

**Suzette Henke**  
Affiliated Faculty  
Professor, English

**Katherine Johnson**  
Affiliated Faculty  
Assistant Professor, University Libraries

**Cheryl Kolander**  
Affiliated Faculty  
Professor, HPES

**Karen L. Kopelson**  
Affiliated Faculty  
Assistant Professor, English

**Gul Marshall**  
Affiliated Faculty  
Assistant Professor, Sociology

**Carol Mattingly**

Affiliated Faculty  
Associate Professor, English

**Diane Pecknold**

Affiliated Faculty  
Visiting Teaching Scholar, Commonwealth Center for the Humanities and Society

**Wendy Pfeffer**

Affiliated Faculty  
Professor, Classical and Modern Languages

**Natalie Polzer**

Affiliated Faculty  
Assistant Professor, Humanities

**Nancy Potter**

Affiliated Faculty  
Associate Professor, Philosophy

**Annette Powell**

Affiliated Faculty  
Assistant Professor, English

**Theresa Rajack-Talley**

Affiliated Faculty  
Associate Professor, Pan African Studies

**Anu Sabhlok**

Affiliated Faculty  
Assistant Professor, Geography and Geosciences

**Edwin S. Segal**

Affiliated Faculty  
Professor, Emeritus, Anthropology

**Arthur Slavin**

Affiliated Faculty  
Professor, Emeritus, Humanities

**Mary Ann Stenger**

Affiliated Faculty  
Associate Professor, Humanities

**Tamara Yohannes**

Affiliated Faculty  
Term appointment, English



# College of Business

Entrepreneurship - Ph.D.

# Doctor of Philosophy in Entrepreneurship

**Major:** ENTR

**Degree Awarded:** Ph.D.

**Unit:** GB

**Program Webpage:** <http://business.louisville.edu/entrepreneurshipphd/>

## Program Information

Admission to the program is highly competitive. It is based on an applicant's past graduate school record, scores on the graduate management admissions test (GMAT), a personal statement and letters of recommendations. Applicants are only admitted on even years in the Fall semester.

No specific graduate or undergraduate major is required. However, applicants are generally admitted provisionally until they have successfully completed coursework equivalent to the functional areas taught in UofL's M.B.A. programs--either the Integrative MBA Program or the Professional MBA program. Questions about prerequisites should be directed to the program director. In addition, students without the required functional courses will be at a competitive disadvantage in the admission process. This is a full-time program, requiring year-round study and a 20 hour/week paid research assistantship. Typically, students can finish their course work in two years and the program in four years, subject to progress on a dissertation. Students generally take 19 courses consisting of seminars and directed readings and/or research. A student's curriculum choices are supervised and approved by an advisory committee.

All required courses are offered on a rotating basis in the Fall, Spring and Summer semesters, along with a variety of elective courses.

## Curriculum

The following are the curriculum requirements for the Entrepreneurship Ph.D. Because the state of the knowledge in the field changes, both the content and sequencing of these course requirements may change in order to address topics of current interest. Applicants should contact the Program director, Dr. James O. Fiet, for the most current requirements.

### Year 1 --Summer

#### ***Entrepreneurship 725: Linear Statistics***

This is an accelerated bootcamp, taught to review linear statistical models, the distribution of quadratic forms, estimation and hypothesis testing in the general linear model, including special linear models and their applications. The prerequisites for this course are admission into the entrepreneurship PhD program. Students take this course as program prerequisite but do not receive specific credit for doing so.

### Year 1--Fall

#### ***Entrepreneurship 761: Research Design***

*This seminar is designed to teach students the fundamentals of research in the social sciences. It is intended for entrepreneurship doctoral students who will conduct empirical research publishable in scholarly journals. Topics*

*include the philosophy of science, theory building, causality analysis, overviews of statistical methods, qualitative methods and psychometric theory.*

### ***Entrepreneurship 726: Advanced Multivariate Techniques***

This seminar covers all multivariate techniques in common usage, including cluster analysis, factor analysis, discriminant analysis, and covariance structure modeling.

### ***Entrepreneurship 720: Economic Foundations in Research in Entrepreneurship***

This seminar includes the development of economic thought related to entrepreneurship, ranging from historical figures in economic theory such as Cantillon and Ricardo to contemporary schools of thought on entrepreneurship, including the Austrian perspective. In-depth analyses of pricing strategies, market structures, dynamic vs. static analysis, regulatory issues, and examples of applications of economics in research in entrepreneurship are presented. Other topics may include real options theory, rational expectations, the economics of information, econometrics, transfer pricing, transaction cost economics, and agency theory.

### ***Entrepreneurship 733: Psychological Foundations of Entrepreneurship***

This seminar provides students with discipline-based foundations of theory and research. Specifically, this seminar explores psychological perspectives on entrepreneurship with an emphasis on the latest research findings. Topics include the social context of individual behavior, motivation and job satisfaction.

## **Year 1--Spring**

### ***Entrepreneurship 730: Entrepreneurship from a Strategic Perspective***

This seminar examines the entrepreneur in a industrial context, which provides insight into such issues, as performance, survival, competitive advantage, the role of a venture's resources, and positioning of the business plan.

### ***Entrepreneurship 700: Current Topics in Entrepreneurship Research***

This seminar introduces students to the most influential, recent research findings that are guiding current thinking. It is more than a survey course; it is a critical review that can provide a foundation for future research by students.

### ***Entrepreneurship 710: Sociological Foundations of Entrepreneurship***

This seminar emphasizes group influences on the appearance, growth and diminution of entrepreneurial activities. In addition, it treats the organizational and social context of firm formations, as well societal, population, and industrial and organizational selection processes.

### ***Entrepreneurship 727: Statistical Problems in Entrepreneurship Research***

This seminar addresses problems such as endogeneity, survivor bias, self-selection, restricted degrees of freedom, truncated data sets, common method variance and non-continuous data. Students will implement solutions to these problems and review literature about how to address them.

## **Year 1**

A student's advisory committee must approve all electives required for the satisfaction of program requirements. Any electives that support a student's research objectives may be considered. To maintain maximum flexibility, no list of potential electives has been developed, and as a result, prior permissions to enroll in them have not been obtained. It is a student's responsibility in consultation with his or her committee to select the most appropriate electives.

## **Year 1--Summer**

### ***Entrepreneurship 750: Issues and Developments in the Quantitative Approach to Entrepreneurship Research***

Research using large data bases and panel studies. Includes survey design and cleaning data sets, as well as appropriate statistical analysis techniques.

### ***Entrepreneurship 770: Directed Readings***

This seminar provides students with an opportunity to focus on research topics of particular interest to them while at the same time requiring them to synthesize and extend what is known about a particular research topic.

#### **Year 2--Fall**

### **Entrepreneurship 740: Entrepreneurship from an Organizational Behavior Perspective**

This seminar deals with the behavioral challenges confronting new and growing businesses such as incentive alignment, motivation, recruiting, decision making and team structure.

### **Entrepreneurship 745: Measurement and Structural Equation Modeling**

This seminar is an advanced treatment of test theory, measurement and structural equation modeling

### ***Entrepreneurship 753: Venture Capital***

This seminar addresses the functioning and operation of venture capital firms and venture capital markets, together with their relationships with the users of funding, typically the founders of high-growth potential new ventures. It also examines the market for business angles and their unique contribution to the founding of new ventures. The emphasis of this seminar is on the development of testing of theory to understand venture capital processes.

### ***Entrepreneurship 771: Directed Readings***

This individualized course may treat topics such as the following in detail: classical origins of entrepreneurial thought and analysis; informational economics or entrepreneurial competence. Topics are designed to reinforce a student's research interests.

#### **Year 2--Spring**

### **Entrepreneurship 785: Entrepreneurship Pedagogy and Practicum**

The seminar treats topics such as course design, rubrics, evaluation, teaching technique and auditing and assisting in teaching assigned courses.

### **Entrepreneurship 786: Integrative Seminar of Entrepreneurship**

This seminar assists students to develop and defend their own mental models about competing views in the field of entrepreneurship research. It also serves a vehicle for reviewing for the preliminary examinations prior to admission to candidacy.

An Elective

#### **Year 2--Summer**

Second year paper prior to preliminary examination

Preliminary Examinations

#### **Year 3--Fall**

Dissertation Proposal

Electives

A student's program will typically consist of at least 54 credit hours of seminar work and study beyond the master degree. A student's committee, based on a student's research objectives, will determine the exact total. Prerequisites required to

enroll in designated seminars will likely increase this total to 64 credit hours.

**Year 3--Spring**

Dissertation

**Years 4 and 5 as necessary**

Dissertation

**Departmental Faculty**

**James O. Fiet**

Professor  
Brown-Forman Chair in Entrepreneurship  
Program Director

**Melissa Baucus**

Associate Professor

**Reginald Bruce**

Associate Professor

**David Dubofsky**

Professor  
Chair, Ph.D. Program Committee

**Bruce H. Kemelgor**

Associate Professor

Richard Germain

Professor

**Robert L. Taylor**

Professor  
Dean Emeritus

**Term Appointments:**

**Howard Aldrich**

Professor

**Jay B. Barney**

Professor

**Per Davidsson**

Professor

**Simon Parker**

Professor

**Dean Sheperd**

Professor

**Scott Shane**

Professor

# College of Education and Human Development

Art Education - MAT

Counseling and Personnel Services - Ph.D.

Curriculum and Instruction - Ph.D.

Counseling and Personnel Services - MEd.

Early Elementary Education (P-5) - MAT

Early Elementary Education - MEd.

Educational Administration - MEd.

Educational Administration - Ed.S.

Educational Leadership and Organizational Development - Ed.D.

Educational Leadership and Organizational Development - Ph.D.

Exercise Physiology - MS

Community Health - MEd.

Higher Education - MA

Human Resource Education - MS

Instructional Technology - MEd.

Interdisciplinary Early Childhood Education - MAT

Middle School Education - MAT

Middle School Education - MEd.

Music Education - MAT

Physical Education - MAT

Reading Education - MEd.

Secondary Education - MAT

Secondary Education - MEd.

Special Education - MEd.

Sport Administration - MS

Special Education: Learning and Behavior Disorders

Special Education with Specialization in Moderate and Severe Disabilities - MAT



# Master of Arts in Teaching in Art Education

**Major:** EDAR

**Degree Awarded:** MAT

**Unit:** GE

**Program Webpage:** <http://louisville.edu/education/degrees/mat-edar.html>

## Program Information

### Program admission procedure:

1. Bachelor's degree in Fine Arts with a suggested 2.75 grade point average, and a 2.50 GPA in content area.
2. "C" or better in English 102, Speech Communication course.
3. Admission to Teacher Education.
4. Admission to the Graduate School and completion of official program with advisor.

### Initial Assessment:

Admission to Graduate School & Teacher Education.

## Curriculum

\*EDTP 602 Exploring Teaching Within the Socio-Cultural Context of P-12 Schools 3

\*ECPY 607 Learning Theory and Human Growth and Development 3

(NOTE: The above two courses must be taken prior to or concurrent with the next two courses)

\*ART 508 Art Education Methods/Research I 3

\*ART 518 Art Education Methods/Research II 3

**Mid-Point Assessment: Prior to Student Teaching:** Satisfactory dispositions assessment; No lower than 2.0 in art education methods/research class; Within 3 credits of meeting content requirements; EDTP 602, ECPY 607, and ART 508 and 518 passed; Satisfactory mid-point portfolio; Positive recommendation from Middle/Secondary Program Committee.

Choose two from the following three student teaching courses:

\*EDTP 615/616 Student Teaching Primary or Student Teaching Intermediate 6 **OR**

EDTP 617 Student Teaching Middle Grades 6 **OR**

EDTP 619 Student Teaching Secondary 6

\*EDTP 677 Capstone Seminar: Initial Certification <sup>2</sup> 3

\*EDSP 545 Exceptional Child in the Regular Classroom

3

**Certification Assessment: After Student Teaching:** Satisfactory dispositions assessment; *All certification course work\* completed with 2.5 cumulative GPA*; 2.5 cumulative GPA in content course requirements; 2.0 or higher in each student teaching; Satisfactory certification portfolio; Passing scores on required PRAXIS content and PLT exams; Positive recommendation from Middle/Secondary Program Committee.

EDTP 503 Developing Cross-Cultural Competence<sup>1</sup>

3

ART 5xx Academic support course<sup>1</sup>

3

ART 6xx Academic support course<sup>1</sup>

3

EDTP 620 Reading and Writing Across the Curriculum/Adolescent Literature<sup>1</sup> 3

<sup>1</sup> Can be taken at any point in the program; at least one must be at the 600 level.

<sup>2</sup> Must be taken concurrently with Student Teaching

**Minimum total hours**

**36**

**Degree Assessment:** Satisfactory dispositions assessment; All program course work with 3.0 cumulative GPA; Satisfactory degree portfolio.

## **Departmental Faculty**

Barbara Hanger



# Doctor of Philosophy of Education Counseling and Personnel Services

**Major:** CPS

**Degree Awarded:** Ph.D.

**Unit:** GE

**Program Webpage:** <http://louisville.edu/education/degrees/ecpy-doctoral-degree.html>

## Program Information

### Doctor of Philosophy: Counseling and Personnel Services

The Department of Educational and Counseling Psychology (ECPY) is committed to meeting the University of Louisville's Challenge for Excellence, which aims to make Uof L a preeminent metropolitan research university by the year 2020. The department's purpose is to (1) cultivate exemplary professional practitioners and scholars; (2) to advance the knowledge base in our various fields; (3) and to serve our diverse communities by drawing on our expertise in human development across the life span.

ECPY occupies a central role as "an effective, rigorous, and leading-edge department of educational psychology and applied psychological interventions that is focused on the issues and settings that are of primary concern to the College" (CEHD Strategic Plan, 2005). Our faculty's areas of expertise in educational and developmental psychology, psychometrics and assessments, counseling psychology, college student personnel services, mental health counseling, and school counseling, among other areas, make ECPY a core of excellence within the CEHD and allow it to serve the needs of the surrounding community.

ECPY offers a ***Doctor of Philosophy degree in Counseling and Personnel Services*** with a concentration in *Counseling Psychology*, and specializations in *College Student Personnel*, *Mental Health Counseling*, and *School Counseling*. The ECPY Counseling Psychology doctoral program is accredited by the American Psychological Association (APA).\* In addition to possessing expertise in these areas, a core group of ECPY faculty are educational psychologists who conduct research and teach across multiple departments in the CEHD.

For more information on ECPY's range of doctoral degree specializations and concentrations, visit the department's doctoral program page (<http://louisville.edu/education/degrees/ecpy-doctoral-degree.html>) and the individual program websites:

**College Student Personnel:** <http://louisville.edu/education/degrees/phd-cps-collegepersonnel.html>

**Counseling Psychology:** <http://louisville.edu/education/degrees/phd-cps-counselingpsychology.html>

**Mental Health Counseling:** <http://louisville.edu/education/degrees/phd-cps-mentalhealth.html>

**School Counseling:** <http://louisville.edu/education/degrees/phd-cps-school.html>

\* Inquiries about the accreditation status of the Counseling Psychology Doctoral Program can be obtained from the APA's Committee on Accreditation. American Psychological Association, Office of Program Consultation and Accreditation, 750 First Street NE, Washington, DC . Phone: . Email: [apaaccred@apa.org](mailto:apaaccred@apa.org).

## Curriculum

## **Distinctive Characteristics of Doctoral Programs in CEHD.**

### **I. Social Justice and Equity**

Aligned with our mission, our students would build experience and expertise in the issues of social justice and equity. This theme would align with our metropolitan mission and that of student achievement.

### **II. Leadership**

This area could be assisted by the Future Faculty/Future Leaders program. Leadership is a distinct focus in other programs in CEHD and the doctoral program should be no exception. In this component students would gain expertise in supervising and leading others to achieve organizational goals and missions, managing complex systems, addressing administrative issues and procedures, conducting research to enhance leadership and teaching others about the art of organizational leadership.

### **III. Practical Experience**

The doctoral programs in CEHD will also contain practicums, internships, or embedded field experience that aligns both with their program studies and their career goals. These experiences are to be mentored and may include a number of the following areas: teaching; research, administration or other appropriate areas.

### **IV. Scholarship/Research**

The emphasis on scholarship would include experience and mentorship in ethics, publications, presentation, grantsmanship, and other forms of creative activity. The research component will be characterized by the development of vertical research teams; senior faculty, junior faculty, doctoral students, masters' students, and in some programs, undergraduate students, working together on research projects and research areas. These might be bolstered by partnerships with local school districts, businesses, or community agencies.

The doctoral degree is granted in recognition of scholarly proficiency and distinctive achievement in a specific field/discipline. All candidates for a doctoral degree in the CEHD must successfully complete qualifying exams and a dissertation/professional portfolio that clearly indicates the candidate has mastered and can exhibit/articulate the content knowledge, skills and dispositions specific to their discipline and can utilize appropriate research methodologies to contribute to the body of knowledge in their field.

## **60 Hour Program**

**Master's Degree prerequisite + 60 hours minimum:** The Student and Committee must develop courses, programs and experiences that clearly identify and address the specific themes of Leadership, Scholarship, Social Justice and Equity. These areas of emphasis must have descriptive competencies that the student should attain and the Committee can assess.

**Specialty Components** (33 hours minimum) Selected with Program Committee Approval

**Research Methodology** (27 hours minimum) Selected with Program Committee Approval

Statistics and Methodology I (Stat 601 or equivalent required)	3
Statistics and Methodology II <sup>b</sup> (701 – Intermediate Multiple Regression)	3
Statistics and Methodology III (703 - Multivariate educational statistics)	3
Research Electives:	6
e.g., Field Survey Research, additional qualitative methodologies and/or quantitative methodologies. <sup>a,b</sup>	
Dissertation/Portfolio Research	12

**Elective Component or Master's Degree** Master's Degree comprises Elective component of program.

- a. Selected with Program Committee Approval within program guidelines/framework
- b. EDFD 600 may not be used for this course.

**Minimum total hours:** **60**

## 90 Hour Program

The Student and Committee must develop courses, programs and experiences that clearly identify and address the specific themes of Leadership, Scholarship, Social Justice and Equity. These areas of emphasis must have descriptive competencies that the student should attain and the Committee can assess

**SPECIALTY COMPONENTS** (42 hours minimum) *Selected with Program Committee Approval* 42

**RESEARCH METHODOLOGY** (27 hours minimum) *Selected with Program Committee Approval*

Statistics and Methodology I (*Stat 601 or equivalent required*) 3

Statistics and Methodology II <sup>b</sup> (702 – Applied Multiple Regression) 3

Statistics and Methodology III (703 - multivariate educational statistics) 3

Research Electives: e.g., *Field Survey Research, additional qualitative methodologies and/or quantitative methodologies.* <sup>a,b</sup> 6

**ELECTIVE COMPONENT** (21 hours Minimum) *Selected with Program Committee Approval* 21

a. *Selected with Program Committee Approval within program guidelines/framework*

b. *EDFD 600 may not be used for this course.*

**Minimum total hours:** **90**

## Departmental Faculty

<http://louisville.edu/education/degrees/ecpy-doctoral-degree.html>

# Doctor of Philosophy in Curriculum and Instruction

**Major:** EDCI

**Degree Awarded:** Ph.D.

**Unit:** GE

**Program Webpage:** <http://louisville.edu/education/degrees/tl-doctoral-degree.html>

## Program Information

### Distinctive Characteristics of Doctoral Programs in CEHD

#### I. Social Justice and Equity

Aligned with our mission, our students would build experience and expertise in the issues of social justice and equity. This theme would align with our metropolitan mission and that of student achievement.

#### II. Leadership

This area could be assisted by the Future Faculty/Future Leaders program. Leadership is a distinct focus in other programs in CEHD and the doctoral program should be no exception. In this component students would gain expertise in supervising and leading others to achieve organizational goals and missions, managing complex systems, addressing administrative issues and procedures, conducting research to enhance leadership and teaching others about the art of organizational leadership.

#### III. Practical Experience

The doctoral programs in CEHD will also contain practicums, internships, or embedded field experience that aligns both with their program studies and their career goals. These experiences are to be mentored and may include a number of the following areas: teaching; research, administration or other appropriate arenas.

#### IV. Scholarship/Research

The emphasis on scholarship would include experience and mentorship in Ethics, Publications, Presentation, Grantsmanship, and other forms of creative activity. The research component will be characterized by the development of vertical research teams; Senior faculty, junior faculty, doctoral students, masters' students, and in some programs, undergraduate students, working together on research projects and research areas. These might be bolstered by partnerships with local school districts, businesses, or community agencies.

The doctoral degree is granted in recognition of scholarly proficiency and distinctive achievement in a specific field/discipline. All candidates for a doctoral degree in the CEHD must successfully complete qualifying exams and a dissertation/professional portfolio that clearly indicates the candidate has mastered and can exhibit/articulate the content knowledge, skills and dispositions specific to their discipline and can utilize appropriate research methodologies to contribute to the body of knowledge in their field.

## Curriculum

### 60 Hour Program

**Master's Degree prerequisite + 60 hours minimum:** The Student and Committee must develop courses, programs and experiences that clearly identify and address the specific themes of Leadership, Scholarship, Social Justice and Equity. These areas of emphasis must have descriptive competencies that the student should attain and the Committee can assess.

**Specialty Components** (33 hours minimum) Selected with Program Committee Approval 33

**Research Methodology** (27 hours minimum) Selected with Program Committee Approval

Statistics and Methodology I (Stat 601 or equivalent required) 3

Statistics and Methodology II <sup>b</sup> (701 – Intermediate Multiple Regression) 3

Statistics and Methodology III (703 - Multivariate educational statistics) 3

Research Electives: 6

e.g., Field Survey Research, additional qualitative methodologies and/or quantitative methodologies. <sup>a,b</sup>

Dissertation/Portfolio Research 12

**Elective Component or Master's Degree** Master's Degree comprises Elective component of program.

a. Selected with Program Committee Approval within program guidelines/framework

b. EDFD 600 may not be used for this course.

**Minimum total hours:** 60

## 90 Hour Program

The Student and Committee must develop courses, programs and experiences that clearly identify and address the specific themes of Leadership, Scholarship, Social Justice and Equity. These areas of emphasis must have descriptive competencies that the student should attain and the Committee can assess

**SPECIALTY COMPONENTS** (42 hours minimum) *Selected with Program Committee Approval* 42

**RESEARCH METHODOLOGY** (27 hours minimum) *Selected with Program Committee Approval*

Statistics and Methodology I (*Stat 601 or equivalent required*) 3

Statistics and Methodology II <sup>b</sup> (702 – Applied Multiple Regression) 3

Statistics and Methodology III (703 - multivariate educational statistics) 3

Research Electives: e.g., *Field Survey Research, additional qualitative methodologies and/or quantitative methodologies.* <sup>a,b</sup> 6

Dissertation/Portfolio Research 12

**ELECTIVE COMPONENT** (21 hours Minimum) *Selected with Program Committee Approval* 21

a. *Selected with Program Committee Approval within program guidelines/framework*

b. *EDFD 600 may not be used for this course.*

**Minimum total hours:** 90



# Departmental Faculty

## College of Education and Human Development

Faculty and Staff Directory

<http://php.louisville.edu/edu/directory/index.php>

# Master of Education in Counseling and Personnel Services

**Major:** CPS

**Degree Awarded:** MED

**Unit:** GE

**Program Webpage:** <http://louisville.edu/education/departments/ecpy/>

## Program Information

Master's degree applicants must take the Graduate Record Examination (GRE) and obtain a minimum combined score of 800 on the verbal and quantitative sections. Applicants must have earned a minimum 2.75 grade point average (GPA) in an undergraduate degree from an accredited institution. Applicants for the Concentration in Counseling Psychology must obtain a score of 900 on the verbal and quantitative section of the GRE. Also, applicants for this concentration must have earned a minimum 3.0 grade point average (GPA) in an undergraduate degree from an accredited institution. If the applicant meets one of the above standards and does not meet the other (e.g., receives scores between 700-799 on the GRE, or earns between a 2.50-2.74 GPA), he/she may be considered for admission in a conditional status. Additionally, all applicants should submit two letters of recommendation, the Addendum to the Application, and a statement of professional goals not to exceed 750 words. Deadlines for completed applications are March 1<sup>st</sup> for the summer and fall and October 1<sup>st</sup> for the spring semesters. (Extended deadline of June 15 for fall if spaces are available after the March 1 deadline).

## Curriculum

### Concentration in Counseling Psychology

**Initial Assessment:** Admission to Graduate School & Counseling Psychology Program.

**General Requirement:** Undergraduate prerequisite: Degree in psychology or completion of four leveling courses. <sup>1</sup>

**Core Professional Area:** (total 30 hours)

ELFH	600	Introduction to Research Methods and Statistics	<sup>2</sup>	3
ECPY	540	Evaluation & Measurement		3
ECPY	600	Introduction to Counseling & Psychotherapy		3
ECPY	605	Human Development		3
ECPY	629	Theories and Techniques of Counseling & Psychotherapy		3
ECPY	650	Group Process & Practice		3
ECPY	663	Multicultural & Diversity Issues		3

ECPY 670 Career Counseling 3

ECPY 730 Social, Legal & Ethical Issues 3

**Mid-Point Assessment:** Prior to ECPY 680 Practicum: Must complete ECPY 629 with at least a B.

ECPY 680 Practicum <sup>3</sup> 3

**Counseling Psychology Concentration:** (total 27 hours)

ECPY 601 Applied Statistics 3

ECPY 611 Learning Systems 3

ELFH 619 Empirical and Theoretical Foundations of Counseling & Psychotherapy 3

ECPY 621 Differential Diagnosis & Treatment in Counseling 3

ECPY 648 Psychological Assessment I 3

ECPY 649 Psychological Assessment II 3

ECPY 680 Practicum in Counseling <sup>3</sup> 3

ECPY 683 Internship in Counseling Psychology <sup>3</sup> 3

ECPY 775 Biological Bases of Behavior 3

**Professional Elective:** (3 hours)

**Minimum total hours: 60**

**Degree Assessment:** All program course work with a 3.0 cumulative GPA.

1. *Students admitted to the Counseling Psychology Program who have not completed an undergraduate degree in psychology must complete four leveling courses in the areas of developmental psychology, abnormal psychology, social psychology, and statistics/research design for the social sciences.*
2. *ELFH 600 must be taken within the first 9 hours.*
3. *At least 900 hours of field placement must be completed during the two, practicum and internship. No less than 10 and no more than 20 hours per week are required during the two practicums. Counseling psychology students take one practicum in counseling and one practicum in psychological assessment.*

## Concentration in Art Therapy

The Master of Education (36 credit hour minimum) does not fulfill the requirements for the American Art Therapy Association (AATA), Kentucky Certified Professional Art Therapist (CPAT), Registered Art Therapist (ATR), and Board Certified Art Therapist (ATR-BC). An additional 24 credit hours as listed below will satisfy the educational requirements for these credentials.

**Core Professional Area:** (total 30 hours)

ELFH 600 Introduction to Research Methods and Statistics 3

ECPY 540 Evaluation & Measurement in Education 3

ELFH 600 Introduction to Research Methods and Statistics 3

ECPY 605 Human Development 3

ECPY 629 Theories & Techniques of Counseling 3

ECPY 650	Group Process and Practice	3
ECPY 663	Multicultural Issues	3
ECPY 670	Career Counseling	3

**Mid-Point Assessment:** Prior to ECPY 680 Practicum: Must complete ECPY 643 with at least a B.

ECPY 680	Practicum <sup>2</sup>	3
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**Art Therapy concentration:** (24 hours)

ECPY 621	Differential Diagnosis & Treatment in Counseling	3
ECPY 632	Clinical Art Therapy I: Theories	3
ECPY 633	Clinical Art Therapy II: Assessment and Practice	3
ECPY 638	Group Art Therapy Techniques	3
ECPY 639	Research in Expressive Therapies	3
ECPY 641	Applied Methods in Expressive Therapies	3
ECPY 643	Field Studies in Art Therapy	3
ECPY 680	Practicum in Counseling <sup>2</sup>	3

*Professional Elective from the educational areas designated in Curriculum Guidelines for LPCC and ATR (6 hours)<sup>3</sup>*  
 Art Therapy electives include, but are not limited to the following: ECPY 653 Medical/Grief Counseling in Art Therapy, ECPY 655 Art for Children with Special Needs, and ECPY 694 Chemical and Substance Abuse in ART Therapy.

Other electives must be approved by advisor	6
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**Total hours:** **60**

## Concentration in Mental Health Counseling

**Initial Assessment:** Admission to Graduate School & Mental Health Counseling program.

**General Requirement:** Undergraduate prerequisite- Course in abnormal psychology <sup>1</sup>

**Core Professional Area:** (total 30 hours)

ELFH 600	Introduction to Research Methods and Statistics <sup>2</sup>	3
ECPY 540	Evaluation & Measurement	3
ECPY 600	Introduction to Counseling & Psychotherapy	3
ECPY 605	Human Development	3
ECPY 629	Theories and Techniques of Counseling & Psychotherapy	
ECPY 650	Group Process & Practice	3
ECPY 663	Multicultural & Diversity Issues	3
ECPY 670	Career Counseling	3
ECPY 730	Social, Legal & Ethical Issues	3

**Mid-Point Assessment:** Prior to ECPY 680 Practicum: Must complete ECPY 629 with at least a B.

ECPY 680 Practicum in Counseling <sup>3</sup> 3

**Counseling Psychology Concentration:** (total 15 hours)

ECPY 619 Empirical and Theoretical Foundations of Counseling & Psychotherapy 3

ECPY 621 Differential Diagnosis & Treatment in Counseling 3

ECPY 626 Consultation 3

ECPY 680 Practicum in Counseling <sup>3</sup> 3

ECPY 682 Internship in Mental Health Counseling <sup>3</sup> 3

**Professional Elective from the 9 areas designated in Curriculum Guidelines for LPCC:** (12 hours) <sup>4</sup> 12

**Minimum total hours:** 60

**Degree Assessment:** All program course work with a 3.0 cumulative GPA.

1. *Students admitted to the Mental Health Counseling Program who have not completed a course in abnormal psychology are required to take PSYC 485: Abnormal Psychology as a prerequisite to the program. Students who have successfully completed a graduate-level course in abnormal psychology at another institution may transfer it into the program as an elective course.*

2. *ELFH 600 must be taken within the first 9 hours.*

3. *At least 700 hours of field placement must be completed during the two practicums and internship. No less than 10 and no more than 20 hours per week are required during the two practicums.*

**Kentucky Board of Licensed Professional Counselors Curriculum Guidelines:** <sup>4</sup>

1. The helping relationship, including counseling theory and practice.

2. Human growth and development.

3. Lifestyle and career development.

4. Group dynamics, process, counseling, and consulting.

5. Assessment, appraisal, and testing of individuals.

6. Social and cultural foundations, including multicultural issues.

7. Principles of etiology, diagnosis, treatment planning, and prevention of mental and emotional disorders and dysfunctional behavior.

8. Research and evaluation.

9. Professional orientation and ethics.

## **Concentration in School Counseling (P-12)**

**Initial Assessment:** Admission to Graduate School & School Counseling Program.

**Core Professional Area:** (total 30 hours)

ECPY 540 Evaluation and Measurement in Education 3

ELFH 600 Introduction to Research Methods and Statistics 3

ECPY 600	Introduction to Counseling and Psychotherapy	3
ECPY 605	Human Development	3
ECPY 630	Theories and Techniques of School Counseling	3
ECPY 654	Group Procedures in School Counseling	3
ECPY 663	Multicultural and Diversity Issues	3
ECPY 670	Career Development and Counseling	3
ECPY 730	Social, Legal, & Ethical Issues in Counseling	3

**Mid-Point Assessment:** Prior to Practicum in Counseling- Students must earn at least a B in ECPY 630. Acceptable completion of midpoint portfolio.

ECPY 680	Practicum in Counseling	3
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**School Counseling Concentration:** (total 15 hours)

ECPY 512	Learning and Cognition in Education	3
ECPY 624	Foundations of School Counseling	3
ECPY 626	Consultation	3
ECPY 627	Leadership and Professional Orientation in School Counseling	3
ECPY 640	Assessment Methods for Counselors	3

**MINIMUM TOTAL HOURS** **45**

**Degree Assessment:** All program course work with a 3.0 cumulative GPA; Acceptable portfolio is required for degree.

Notes: Must apply for Practicum: ECPY 680 Practicum in Counseling by March 1 for Fall term and October 1 for Spring term.

1. For school counseling certification, a grade of “B” or better is required in ECPY 680.
2. Transfer of credit is dependent upon receipt of transcript and advisor’s approval (no more than six hours may be transferred).
3. Upon admission, students have six years to complete their program.
4. All students must have liability insurance prior to taking practicum.
5. At any point after admission, the faculty reserve the right to review a student’s fitness on the basis of personal characteristics, for continuing in the counseling or student personnel program. Such a review shall be initiated upon written recommendation of two faculty members and shall consist of a review of the student’s academic result in a recommendation to the Dean for (1) continuation of the student in the program, (2) continuation for a specified provisional period with specific conditions for continuation thereafter, or (3) dismissal from the program.
6. The program requires the acceptable completion of a program portfolio.
7. The program is not official unless signed by both advisor and student.

## Concentration in College Student Personnel

**Initial Assessment:** Admission to Graduate School & College Student Personnel Program.

**Core Professional Area:** (total 30 hours)

ELFH	600	Introduction to Research Methods and Statistics	3
ECPY	660	Introduction to Student Personnel Works	3
ECPY	661	Theories of College Student Development	3
ECPY	629	Theories and Techniques of Counseling & Psychotherapy	3
ECPY	650	Group Process & Practice	3
ECPY	662	Student Affairs Programs, Policies, and Practices	3
ECPY	663	Multicultural and Diversity Issues	3
ECPY	670	Career Counseling	3
ECPY	761	Program development & Evaluation in Student Affairs	3

**Mid-Point Assessment:** Prior to Internship in College Student Personnel Services: Must complete ECPY 660.

ECPY	681	Internship in College Student Personnel Services	3
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**College Student Personnel Concentration:** (total 12 hours)

ECPY	664	College Student Sub-Cultures	3
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ECPY	681	Internship in College Student Personnel Services	3
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ELFH	682	The Organization and Administration of Higher Education Institutions	3
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ECPY	695	Capstone Seminar in College Personnel Work	3
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**Professional Elective:** **3**

**Minimum total hours:** **45**

**Degree Assessment:** All program course work with a 3.0 cumulative GPA.

## Departmental Faculty

College of Education and Human Development Faculty and Staff Directory:

<http://louisville.edu/education/faculty-staff>

# Master of Arts in Teaching in Early Elementary Education (P-5)

**Major:** ERED

**Degree Awarded:** MAT

**Unit:** GE

**Program Webpage:** <http://louisville.edu/education/degrees/mat-ered.html>

## Program Information

### Program Admission Procedure

1. Bachelor's degree with a 2.75 grade point average.
2. "C" or better in English 102, Speech Communications, passing grades in ART 407, MUS 525, HSS 274, MATH 151 and 152, one physical and one biological science course, one with a lab.
3. Admission to Teacher Education
4. Admission to the Graduate School.

## Curriculum

**Initial Assessment:** Admission to Graduate School & Teacher Educational pre-requisites met.

\*EDTP 602 Exploring Teaching Within the Socio-Cultural Context of P-12 Schools 3

\*ECPY 607 Learning Theory and Human Growth and Development 3

\*EDTP 501 General Methods 3

(NOTE: The above three courses must be taken prior to any of the next 4 courses)

\*EDTP 603 Language Arts Methods 3

\*EDTP 604 Mathematics Methods 3

\*EDTP 605 Science Methods 3

\*EDTP 606 Social Studies Methods 3

**Mid-Point Assessment: Prior to Student Teaching:** No lower than 2.0 in each content methods class; all pre-requisites met; all courses listed above passed; Positive recommendation from Elementary Program Committee (including assessment of dispositions and mid-program portfolio).

\*EDTP 615 Student Teaching (Primary) 3

\*EDTP 616 Student Teaching (Intermediate) 3

\*EDSP 545 Exceptional Child in the Regular Classroom 3



**Certification Assessment: After Student Teaching:** All certification course work\* completed with 2.5 cumulative GPA; 2.0 or higher in each student teaching course; Passing scores on required PRAXIS and PLT exams; Positive recommendation from Elementary Program Committee (including assessment of dispositions and final certification portfolio).

EDTP 503 Developing Cross-Cultural Competence <sup>1</sup> 3

EDTP 504 Teaching with Technology <sup>1</sup> 2

EDTP 505 Challenging Advanced Learners <sup>2</sup> 1

<sup>1</sup> Can be taken at any point in the program

<sup>2</sup> Must be taken concurrently with student teaching.

\* Course is required for certification

**Minimum total hours** **36**

**Degree Assessment:** All program course work with 3.0 cumulative GPA; Positive recommendation from Elementary Program Committee (including assessment of dispositions and final degree portfolio).

## Departmental Faculty

### Early Elementary Education Faculty

Sherri Brown

Todd Brown

Jean Anne Clyde

Betty Doyle

Marcia Lile

Maggie McGatha

Brenda Overturf

Chuck Thompson

Jennifer Bay-Williams

# Master of Education in Early Elementary Education

**Major:** ERED

**Degree Awarded:** MED

**Unit:** GE

**Program Webpage:** <http://louisville.edu/education/degrees/med-ered.html>

## Program Information

### Program Admission Procedure

1. Holds certification in a P-5 area (required for M.Ed.)
2. Admission to Graduate School, and
3. An official program sheet completed with advisor are required.

## Curriculum

**Requirements:** Admission to Graduate School and Completion of Official Program with advisor.

EDAP 606 Orientation and Readings (take in first semester of enrollment) 3

ELFH 600 Introduction to Research Methods & Statistics 3

**Leadership and Change:** (select one of the following courses)

EDAP 607 Leadership and Change 3 **OR**

ELFH 603 Administrative Leadership in a Reform Environment 3 **OR**

EDAP 624 Curriculum Theory 3 **OR**

EDAP 625 Social and Ethical Dev. of Teaching 3

*Success for All Learners: (select one of the following courses)*

EDAP 642 Literacy Learning & Cultural Differences 3 **OR**

EDAP 626 Affirming Diversity 3 **OR**

EDTP 503 Developing Cross-Cultural Competence 3

**AREA OF EMPHASIS** 12

EDAP 680 Capstone Course 3

**Elective** 3

## **Exit Requirements**

Portfolio or Master's Thesis (EDAP699)

2-5

**Minimum total hours**

**30**

### **Notes**

1. Minimum of 18 hours in 600-level courses is required.
2. Transfer credit must be officially accepted by the advisor (maximum of 6 hours) - final acceptance is dependent upon receipt of official transcripts.
3. A maximum of 6 hours taken in non-degree status can be applied toward a master's degree (upon approval of advisor).
4. All courses must be completed within 6 years of admission to the program.
5. To complete the program, students must have minimum of a 3.0 cumulative grade point average. No credit shall be accepted for carrying a grade lower than "C".

## **Departmental Faculty**

### **Early Elementary Education Faculty**

Sherri Brown

Todd Brown

Jean Anne Clyde

Betty Doyle

Marcia Lile

Maggie McGatha

Chuck Thompson

Jennifer Bay-Williams

# Master of Education in Education Administration Professional Certificate for Instructional Leadership

**Major:** EDAD

**Degree Awarded:** MED

**Unit:** GE

**Program Webpage:** <http://louisville.edu/education/degrees/med-edad.html>

## Program Information

### Program Admission Requirements

#### 1. Admission to Graduate School:

- Evidence of bachelor's and master's degrees.
- Transcripts of all undergraduate and graduate work.
- General Test Section score on the Graduate Record Examination.

#### 2. Admission to this Program:

- Qualification for a Kentucky classroom teaching certificate.
- General Test Section score on the Graduate Record Examination of 800 (V + Q).
- A 2.75 grade point average on a 4.0 scale on all collegiate preparation.
- Successful completion of the Kentucky Teacher Internship Program, as provided in 704 KAR 20:045, or two years (one year = a minimum of 140 contract days) of successful K-12 teaching experience outside the state of Kentucky.

## Curriculum

ELFH 607	Principles of Educational Leadership	3
ELFH 608	K-12 Leadership	3
ELFH 609	Internship in Educational Leadership	3
ELFH 612	Human Resource Management	3
ELFH 620	Legal Issues in P-12 Education	3
ELFH 604	Instructional Leadership & Supervision	3

**Cognate Area** (Must be approved by the advisor.)

ELFH 600	Introduction to Res. Methods & Statistics	3*
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ELFH	3	
ELFH 603 Leadership in a Reform Environment		3
ELFH	3	
<b>Minimum Total Hours</b>		<b>30</b>

*\*Must be taken in first nine hours. This program completes ONLY Level I certification for principal.*

### **Program Completion Requirements**

1. A grade point average of 3.0 in all courses counting on this program.
2. Successful completion of a portfolio. Information about the portfolio is found in "Guidelines for Portfolio Completion Requirements," available from you advisor.

*NOTE: Awarding of this degree does not result in certification immediately. Completion of this program leads to completion of Level I for certification only.*

### **Certification Requirements**

1. Satisfactory completion of the Kentucky assessment program for principal certification. Current information about the Kentucky assessment program may be obtained in the Education Advising Center (Room 124). As of October 1, 1999, assessment includes: 1) a minimum score of at least 85% on the Kentucky Specialty Test of Instructional and Administrative Practices; and 2) a minimum score of at least 155 on the School Leaders Licensure Assessment.
2. Completion of three (3) years of full-time teaching experience.
3. Successful completion of the Kentucky Principal Internship Program.

## **Departmental Faculty**

# Specialist in Education in Educational Administration

**Major:** EDAD

**Degree Awarded:** Ed.S.

**Unit:** GE

**Program Webpage:** <http://louisville.edu/education/departments/elfh/ed-leadership/ed-leadership.html>

## Program Information

### Degree Program Admission Requirements

#### 1. Admission to Graduate School:

- Evidence of bachelor's and master's degrees
- Transcripts of all undergraduate and graduate work
- General Test Section score on the Graduate Record Examination

#### 2. Admission to this Program:

- General Test Section score on the Graduate Record Examination of 900 (V + Q)
- A 3.3 grade point average
- A successful interview with a departmental committee
- A written rationale for pursuing the degree
- Successful, relevant professional experience

## Curriculum

ELFH 720	Adv. Internship in Adm. & Supervision	3
ELFH 796	Research Literature	3
ELFH Courses		24
<b>Minimum total hours</b>		<b>60</b>

*\*Completion of a Rank I program requires a minimum of 60 hours in an approved program filed before 45 hours are completed. For Rank I purposes, approved graduate hours at the master's level may be counted to reach 60 hours, though some of those hours may not count for certification. Students seeking Rank I simultaneously with this certification program must complete the appropriate form with the advisor. The advisor must approve electives/unnamed courses*

*NOTE: There are additional admission and completion requirements if certification is sought. Refer to the appropriate Curriculum Contract for the details.*

### **Degree Program Completion Requirements**

1. A grade point average of 3.3 in all courses counting on this program.
2. Successful completion of a portfolio. Information about the portfolio is found in “Guidelines for Portfolio Completion Requirement,” available from your advisor.

## **Departmental Faculty**

### **Link to Departmental Faculty Listing:**

<http://php.louisville.edu/edu/directory/index.php>

# Doctor of Education in Educational Leadership and Organizational Development

**Major:** ELOD

**Degree Awarded:** Ed.D.

**Unit:** GE

**Program Webpage:** <http://louisville.edu/education/departments/elfh/ed-leadership>

## Program Information

### Distinctive Characteristics of Doctoral Programs in CEHD

#### I. Social Justice and Equity

Aligned with our mission, our students would build experience and expertise in the issues of social justice and equity. This theme would align with our metropolitan mission and that of student achievement.

#### II. Leadership

This area could be assisted by the Future Faculty/Future Leaders program. Leadership is a distinct focus in other programs in CEHD and the doctoral program should be no exception. In this component students would gain expertise in supervising and leading others to achieve organizational goals and missions, managing complex systems, addressing administrative issues and procedures, conducting research to enhance leadership and teaching others about the art of organizational leadership.

#### III. Practical Experience

The doctoral programs in CEHD will also contain practicums, internships, or embedded field experience that aligns both with their program studies and their career goals. These experiences are to be mentored and may include a number of the following areas: teaching; research, administration or other appropriate arenas.

#### IV. Scholarship/Research

The emphasis on scholarship would include experience and mentorship in ethics, publications, presentation, grantsmanship, and other forms of creative activity. The research component will be characterized by the development of vertical research teams: Senior faculty, junior faculty, doctoral students, masters' students, and in some programs, undergraduate students, working together on research projects and research areas. These might be bolstered by partnerships with local school districts, businesses, or community agencies.

The doctoral degree is granted in recognition of scholarly proficiency and distinctive achievement in a specific field/discipline. All candidates for a doctoral degree in the CEHD must successfully complete qualifying exams and a dissertation/professional portfolio that clearly indicates the candidate has mastered and can exhibit/articulate the content knowledge, skills and dispositions specific to their discipline, and can utilize appropriate research methodologies to contribute to the body of knowledge in their field.

## Curriculum



# 60 Hour Program

**Master's Degree prerequisite + 60 hours minimum:** The Student and Committee must develop courses, programs and experiences that clearly identify and address the specific themes of Leadership, Scholarship, Social Justice and Equity. These areas of emphasis must have descriptive competencies that the student should attain and the Committee can assess.

**SPECIALTY COMPONENTS** (33 hours minimum), *selected with Program Committee Approval* 30

ELFH 715 Advanced Organizational Theory 3

**RESEARCH METHODOLOGY** (27 hours minimum), *selected with Program Committee Approval*

Statistics and Methodology I (*Stat 601 or equivalent required*) 3

Research Course to aid in the completion of the EdD Degree 3

Research Course to aid in the completion of the EdD Degree 3

Research Electives: e.g., *Field Survey Research, additional qualitative methodologies and/or quantitative methodologies.* <sup>a,b</sup> 3

ELFH 777 Capstone for Education Doctorate Degree 12

**MASTER'S DEGREE OR ELECTIVE COMPONENT** *Master's Degree comprises Elective component of program.* (30 hours)

a. *Selected with Program Committee Approval within program guidelines/framework*

b. *EDFD 600 may not be used for this course.*

**Minimum total hours:** 60

# 90 Hour Program

The Student and Committee must develop courses, programs and experiences that clearly identify and address the specific themes of Leadership, Scholarship, Social Justice and Equity. These areas of emphasis must have descriptive competencies that the student should attain and the Committee can assess.

**SPECIALTY COMPONENTS** (42 hours minimum), *selected with Program Committee Approval* 39

ELFH 715 Advanced Organizational Theory 3

**RESEARCH METHODOLOGY** (27 hours minimum), *selected with Program Committee Approval*

Statistics and Methodology I (*Stat 601 or equivalent required*) 3

Research Course to aid in the completion of the EdD Degree 3

Research Course to aid in the completion of the EdD Degree 3

**RESEARCH ELECTIVES:** e.g., *Field Survey Research, additional qualitative methodologies and/or quantitative methodologies.* <sup>a,b</sup> 3

ELFH 777 Capstone for Education Doctorate Degree 12

**ELECTIVE COMPONENT** *selected with Program Committee Approval* 21

a. *Selected with Program Committee Approval within program guidelines/framework*

*b. EDFD 600 may not be used for this course.*

**Minimum total hours:**

**90**

## **Departmental Faculty**

**Link to Departmental Faculty and Staff:**

<http://louisville.edu/education/faculty-staff>



# Doctor of Philosophy in Educational Leadership and Organizational Development

**Major:** ELOD

**Degree Awarded:** Ph.D.

**Unit:** GE

**Program Webpage:** <http://louisville.edu/education/departments/elfh/ed-leadership>

## Program Information

### Distinctive Characteristics of Doctoral Programs in CEHD

#### I. Social Justice and Equity

Aligned with our mission, our students would build experience and expertise in the issues of social justice and equity. This theme would align with our metropolitan mission and that of student achievement.

#### II. Leadership

This area could be assisted by the Future Faculty/Future Leaders program. Leadership is a distinct focus in other programs in CEHD and the doctoral program should be no exception. In this component students would gain expertise in supervising and leading others to achieve organizational goals and missions, managing complex systems, addressing administrative issues and procedures, conducting research to enhance leadership and teaching others about the art of organizational leadership.

#### III. Practical Experience

The doctoral programs in CEHD will also contain practicums, internships, or embedded field experience that aligns both with their program studies and their career goals. These experiences are to be mentored and may include a number of the following areas: teaching; research, administration or other appropriate arenas.

#### IV. Scholarship/Research

The emphasis on scholarship would include experience and mentorship in ethics, publications, presentation, grantsmanship, and other forms of creative activity. The research component will be characterized by the development of vertical research teams; Senior faculty, junior faculty, doctoral students, masters' students, and in some programs, undergraduate students, working together on research projects and research areas. These might be bolstered by partnerships with local school districts, businesses, or community agencies.

The doctoral degree is granted in recognition of scholarly proficiency and distinctive achievement in a specific field/discipline. All candidates for a doctoral degree in the CEHD must successfully complete qualifying exams and a dissertation/professional portfolio that clearly indicates the candidate has mastered and can exhibit/articulate the content knowledge, skills and dispositions specific to their discipline and can utilize appropriate research methodologies to contribute to the body of knowledge in their field.

## Curriculum

# 60 Hour Program

**Master's Degree prerequisite + 60 hours minimum:** The Student and Committee must develop courses, programs and experiences that clearly identify and address the specific themes of Leadership, Scholarship, Social Justice and Equity. These areas of emphasis must have descriptive competencies that the student should attain and the Committee can assess.

## **SPECIALTY COMPONENTS** (33 hours minimum), *s*

*elected with Program Committee Approval* 30

ELFH 715 Advanced Organizational Theory 3

## **RESEARCH METHODOLOGY** (27 hours minimum), *selected with Program Committee Approval*

**Statistics and Methodology I** (*Stat 601 or equivalent required*) 3

**Research Course to aid in the completion of the Ph.D. Degree** 3

**Research Course to aid in the completion of the Ph.D. Degree** 3

**Research Electives:** e.g., *Field Survey Research, additional qualitative methodologies and/or quantitative methodologies.* <sup>a,b</sup> 3

ELFH 777 Capstone for Education Doctorate Degree 12

**MASTER'S DEGREE OR ELECTIVE COMPONENT** *Master's Degree comprises Elective component of program.* (30 hours)

a. *Selected with Program Committee Approval within program guidelines/framework*

b. *EDFD 600 may not be used for this course.*

**Minimum total hours:** 60

# 90 Hour Program

The Student and Committee must develop courses, programs and experiences that clearly identify and address the specific themes of Leadership, Scholarship, Social Justice and Equity. These areas of emphasis must have descriptive competencies that the student should attain and the Committee can assess

## **SPECIALTY COMPONENTS** (42 hours minimum), *selected with Program Committee Approval*

42

## **RESEARCH METHODOLOGY** (27 hours minimum), *selected with Program Committee Approval*

**Statistics and Methodology I** (*Stat 601 or equivalent required*) 3

**Statistics and Methodology II** <sup>b</sup> (702 – Applied Multiple Regression) 3

**Statistics and Methodology III** (703 - multivariate educational statistics) 3

**Research Electives:** e.g., *Field Survey Research, additional qualitative methodologies and/or quantitative methodologies.* <sup>a,b</sup> 6

**Dissertation/Portfolio Research** 12

**ELECTIVE COMPONENT** (21 hours Minimum), *selected with Program Committee Approval*

21

a. *Selected with Program Committee Approval within program guidelines/framework*

*b. EDFD 600 may not be used for this course.*

**Minimum total hours:**

**90**

## **Departmental Faculty**

**Link to Departmental Faculty and Staff:**

<http://louisville.edu/education/faculty-staff>

# Master of Science in Exercise Physiology

**Major:** EXP

**Degree Awarded:** MS

**Unit:** GE

**Program Webpage:** <http://louisville.edu/education/degrees/ms-exp.html>

## Program Information

**General program information:** Students who complete the Master of Science degree in Exercise Physiology are prepared to pursue a number of career options. Graduates from our program have continued their education by completing the Ph.D. degree in fields such as exercise physiology, physiology, biochemistry, and the M.D. Many students have pursued careers in allied health fields such as nursing and physical therapy as well as in such fields as aviation physiology, cardiac rehabilitation, corporate wellness, and ergonomics. Because many of our students seek to work in the fields of cardiac rehabilitation and corporate wellness, the curriculum is structured to satisfy the preliminary requirements for certification as “exercise technologists” or “exercise specialist” as set by the American College of Sports Medicine. The curriculum provides students the necessary knowledge base and course work to satisfy entrance into the certification process (which is under control of the American College of Sports Medicine and requires both a written and practical exam).

**Program admission procedure:** In order to be admitted unconditionally a student must have earned a grade-point average of at least 2.75 on a 4-point scale in their undergraduate program. A variety of undergraduate majors are acceptable, including exercise science, biology, chemistry, physiology, nursing, etc. In addition, the student must complete the application procedure as required by the graduate school. Students are expected to score a minimum of 800 (Verbal and Quantitative sections combined) on the Graduate Record Exam. Students with a grade point standing below 2.75 may be admitted conditionally. Only under unusual circumstances will students with less than a 2.5 grade-point average be admitted to the program. Individuals who do not meet the 800 requirement on the GRE may still be admitted. Admission in such cases will be based on prior course work (including GPA in science classes), experience, two (2) letters of recommendation and personal interviews with the faculty.

## Curriculum

### Thesis Option

The M.S. thesis option requires a minimum of 33 hours of course work, which includes six credits devoted to completion of the thesis. Students in this option are required to actively participate in all phases of research within the laboratory. The thesis program require two full years of study including the summer between the first and second years. To complete the M.S. degree in exercise physiology, a minimum of 23 hours must be at the 600 level or above.

### First Year:

*Fall*

EXP 501 Applied Exercise Physiology 3

EXP 601 Lab Methods in Exercise Physiology 3

EXP 605 Human Physiology 3

*Spring*

EXP 502 Principles of Exercise Testing & Prescription 3

EXP 600 Physiology of Exercise 3

EDFD 601 Applied Statistics 3 **OR**

HSS 604 Research Methods 3

*Summer*

EXP 604 Advanced Topics in Exercise Physiology 3

EXP 699 Thesis 1-6

**Second Year:**

*Fall*

EXP 603 Seminar in Exercise Physiology 3

EXP 604 Advanced Topics in Exercise Physiology 3

EXP 699 Thesis 1-6

*Spring*

EXP 604 Advanced Topics in Exercise Physiology 3

EXP 699 Thesis 1-6

**Minimum Total Hours 33**

**Non-thesis Option**

The M.S. non-thesis option emphasizes the use of exercise as a clinical intervention. This option is heavily slanted toward improved cardiovascular health and cardiovascular rehabilitation through the use of exercise. Students in this option must complete a minimum of 36 hours of course work. The non-thesis program requires two full years of study including the summer between the first and second years.

**First Year:**

*Fall*

EXP 501 Applied Exercise Physiology 3

EXP 601 Lab Methods in Exercise Physiology 3

EXP 605 Human Physiology 3

*Spring*

EXP 502 Principles of Exercise Testing & Prescription 3

EXP 600 Physiology of Exercise 3

EDFD 601 Applied Statistics 3 **OR**

*Summer*



HSS	604	Research Methods	3
EXP	604	Advanced Topics in Exercise Physiology	3
EXP	611	Principles of Electrocardiography	3

**Second Year:**

*Fall*

EXP	603	Seminar in Exercise Physiology	3
EXP	604	Advanced Topics in Exercise Physiology	3

*Spring*

EXP	604	Advanced Topics in Exercise Physiology	3 (OPTIONAL)
EXP	620	Clinical Internship	6

**Minimum Total Hours** **36 hours**

## Departmental Faculty

### Exercise Physiology Faculty

- Adrienne P. Bratcher
- Dean Jacks
- Charles P. Lambert
- Ann Swank

# Master of Education in Community Health

**Major:** HPE

**Degree Awarded:** MED

**Unit:** GE

**Program Webpage:** <http://louisville.edu/education/degrees/med-hpe.html>

[/?searchterm=Health%20Education%20MED](http://louisville.edu/education/degrees/med-hpe.html/?searchterm=Health%20Education%20MED)

## Program Information

Students generally pursue careers at worksites (plan and implement wellness programs to keep employees healthy and maintain a safe work environment), medical services (develop, implement and evaluate health promotion programs in hospitals, HMO's, acute care clinics and long-term facilities) and communities (assess needs for health promotion programs, and deliver education programs at various sites in the community, including voluntary health agencies and government-based service programs).

The goal of the health education program is the development and preparation of individuals to be future leaders in a variety of urban settings including public and private corporations and government agencies in the area of health and human performance.

### Program Admission

All candidates must meet the general requirements for admission to the Graduate School, as well as the requirements for admission to certain specific programs offered by the College of Education and Human Development. All students applying for a master's program in education must take the Graduate Records Examination (GRE) prior to application for admission. A combined score of 800 on the verbal and quantitative sections of the GRE is required for all master's degree programs in the College of Education and Human Development. Exit Requirements: Minimum of 3.0 GPA, and two of the following: portfolio, internship, exit exam, research project or thesis.

## Curriculum

### Core Curriculum

HSS 675 Health Promotion and Disease Prevention at the Individual Level 3

HSS 676 Community Health Promotion and Disease Prevention 3

HSS 684 Program Planning in Health Education and Promotion 3

HSS 655 Current Trends and Issues in Health and Sport Sciences 3

HSS 631 Leadership in Health Promotion 3

### Research Methods

ELFH 600 Introduction to Research Methods and Statistics 3

HSS 604 Research Methods in Health and Sport Sciences 3

**Internship/Practicum** – Location approved by advisor.

HSS 692 Cooperative Internship/Practicum 6

**Electives** – Courses approved by advisor. 9

**Minimum total hours:** 36

**Exit Requirements:** Student must also satisfactorily complete an exit exam and submit a portfolio of all Hallmark Assessments and internship materials.

## **Departmental Faculty**

Richard A. Fee

Cheryl Kolander

Bill Weinberg

Barbara Mercer

Carol Stinson

# Master of Arts in Higher Education

**Major:** HED

**Degree Awarded:** MA

**Unit:** GE

**Program Webpage:** <http://louisville.edu/education/degrees/ma-hed.html/?searchterm=higher%20education%20MA>

## Program Information

This program is designed for students who wish to qualify for college administrative positions. It does not qualify graduates for Kentucky administration certification. This degree is also available for distance education through on-line instruction.

### Program Admission Procedure

1. Admission to Graduate School of Education:
  - Evidence of a Bachelor's Degree and 2.75 cumulative grade point average (GPA).
  - Transcripts of all undergraduate and graduate work.
  - General Test score on the Graduate Record Examination of 800 (verbal + quantitative).
  - Two letters of recommendation.
2. Admission to the Program:
  - Department committee reviews application materials and makes recommendation to Graduate School.

## Curriculum

### General Requirements

ELFH 600	Introduction to research Methods and Statistics	3
ELFH 678	The American College and University	3 <b>OR</b>
ELFH 681	Philosophy of Higher Education	3

### Professional Area

ELFH 607	Principles of Educational Leadership	3
ELFH 626	Planning	3
ELFH 680	Legal Issues in Postsecondary Education	3
ELFH 682	Organization and Administration of Higher Educational Institutions	3
ELFH 684	Educational Resource Management in Postsecondary Education	3

Electives (approved by advisor) 6

## **Exit Requirements**

ELFH 690 Internship in Postsecondary Education 3 **OR**

ELFH 699 Thesis or Professional Paper 4

**Minimum Total** 31-33 hours

## **Concentration in Sport Administration**

### **Professional Area**

ELFH 607 Principles of Educational Leadership 3

ELFH 620 Legal Issues in Education 3

EDFH 682 Organ. & Admin. of Higher Educ. Institutions 3

EDFH 600 Introduction to Research Methods & Statistics 3

EDFD 680 The American College and University 3 **OR**

EDFD 681 The Philosophy of Higher Education 3

SPAD 625 Sport Administration 3

### **Specialization Area**

SPAD 618 Rise of the Sport System in America 3 **OR**

SPAD 680 Athletic in Higher Education 3

SPAD 505 Sport Facility Management 3 **OR**

HSS 575 Administration of P.E. Programs & Athletics 3

SPAD 684 Current Trends & Issues in Sport Administration 3

SPAD Elective as approved by the advisor 3

### **Exit Requirements, 4-6 hours**

ELFH 699 Thesis or Professional Paper 3 **OR**

SPAD 692 Internship in Sport Administration 6

**Minimum Total Hours** 31-33

## **Departmental Faculty**

John Welsh

Paul Winter

# Master of Science in Human Resource Education

**Major:** HRE

**Degree Awarded:** MS

**Unit:** GE

**Program Webpage:** <http://louisville.edu/education/degrees/ms-hre.html/?searchterm=MS%20Human%20Resource%20Education>

## Program Information

This program is designed to prepare or enhance individuals for a mid-level training and human resource positions in business, industry, health, military and education organizations. This degree is NOT acceptable for renewing a teaching certification or obtaining a Rank II salary status for Certified and Secondary Teachers.

## Program Admission Procedure

1. Evidence of a Bachelor's degree and 2.75 cumulative grade point average (GPA).
2. General Test score on the Graduate Record Examination of 800 (verbal and quantitative).
3. Two letters of recommendation.

## Curriculum

### Core Courses

ELFH 600	Introduction to Research Methods and statistics	3
ELFH 616	Internship and Portfolio Seminar	3-6
ELFH 605	Leading Training and Performance	3
ELFH 614	Planning and Evaluation	3
ELFH 662	Organizational Analysis	3
ELFH 664	Facilitating Change in Organizations	3
ELFH 672	Instructional Design and Development	3

### Electives: choose 9 hours

ELFH 661	Adult Development & Learning Principles	3
ELFH 663	Methods of Facilitation	3
ELFH 671	Performance Interventions	3

ELFH 675	Web Use and Publishing	3
ELFH 676	Multimedia Authoring	3
ELFH 695	Distance Teaching and Learning	3
ELFH 640	Developing a Philosophy of Education	3
ELFH 641	Seminar	3 <sup>1</sup>
<b>Minimum total hours</b>		<b>30-33</b>

<sup>1</sup> Yearly semester-long course aimed at advanced master & doctoral students. Topics such as Transformational Leadership, Consulting, Learning Research in Instructional Design, Workplace Learning.

**Program Purpose:** To prepare or enhance individuals for mid-level training and human resources positions in business, industry, health, military and education organizations. This degree is **NOT** acceptable for renewing a teaching certification or obtaining Rank II salary status for Certified Elementary and Secondary Teachers.

**Portfolio Requirement:** This program requires the development of a portfolio. Portfolio projects are required in each course in the program. ELFH 616 Capstone Seminar and Portfolio Presentation includes the requirement to organize and revise the projects and to present them in a professional portfolio. Portfolio Projects are organized around the program's professional standards.

## Departmental Faculty

### Human Resource Education Faculty

- Ray Haynes  
*Organizational Development*
- Tom Reio  
*Adult Learning*
- Carolyn Rude-Parkins  
*Instructional Design and Technology*

# Master of Education in Instructional Technology

**Major:** IT

**Degree Awarded:** MED

**Unit:** GE

**Program Webpage:** <http://louisville.edu/education/degrees/med-it.html>

## Program Information

### Initial Requirements:

1. Teaching certification in B-12 Area.
2. Admission to Graduate School.
3. Admission to M.Ed. in Instructional Technology program (which requires completion of EDAP 585: intro to Educational Technology with B+ or higher or equivalent course/experience).
4. Meeting with faculty advisor to discuss Kentucky Experienced Teacher Standards, U of L Program Themes, Conceptual Framework, and ISTE Technology Facilitation Standards.

## Curriculum

### Research (3 hours)

ELFH 600 Introduction to Research Methods and Statistics 3

### Leadership (3 hours)

EDAP 677 Teacher Leadership: Mentoring and Coaching 3

### Diversity (3 hours)

EDAP 642 Literacy Learning and Cultural Differences 3

### OR

EDSP 618 Instructional Technology for Students with Special Needs 3

### Area of Emphasis (15 hours)

EDAP 688 Designing Technology Rich Curricula <sup>1</sup> 3

EDAP 690 Teaching with Multimedia Tools <sup>1</sup> 3

EDAP 587 Teaching and Learning Online <sup>1</sup> 3

EDAP 601 Teaching with Emerging Technologies <sup>1, 2</sup> 3

EDAP 680 Capstone Seminar <sup>2</sup> 3



## **Electives (9 hours)**

EDAP 585 Intro to Education Technology: Integrating Technology into Instruction 3

EDAP 624 Curriculum Theory 3

EDAP 629 Teaching Mathematics with Technology, P-8 3

EDAP 687 Literacy, Teaching and Technology 3

EDAP 689 Using the Internet in P-12 Teaching<sup>1</sup> 3

Course approved by Advisor 3

**Minimum total hours: 33**

<sup>1</sup> Denotes Courses that are required for the endorsement.

<sup>2</sup> Denotes course that must be taken in the last 6 hours of program study.

**Mid-Point Assessment:** Review program on KY Experienced Teacher standards, U of L Program Themes, Conceptual Framework, and ISTE Technology Facilitation Standards (2002) Half of required KETS and ISTE Technology Facilitation standards and indicators met within portfolio work.

**Degree Assessment:** Minimum GPA of 3.0; no grade lower than "C", acceptable portfolio.

### **Endorsement Assessment:**

1. All Endorsement coursework completed.
2. No lower than 3.0 GPA in endorsement courses, no credit accepted for grade lower than C.
3. Review of Portfolio which includes Post-Program Self Assessment.

## **Departmental Faculty**

Sherri Brown

# Master of Arts in Teaching in Interdisciplinary Early Childhood Education

**Major:** IECE

**Degree Awarded:** MAT

**Unit:** GE

**Program Webpage:** <http://louisville.edu/education/degrees/mat-iece.html>

## Program Information

### Interdisciplinary Early Childhood Education Birth to Primary Teacher Certification Program

**Program Intent:** This program is designed for students who hold at least a baccalaureate degree in any academic area and who are interested in receiving birth to primary teacher certification in Kentucky. The program includes a minimum of 36 hours of course work. However, some students admitted to the program may not have general teacher competencies and will need to take pre-requisite courses as identified by their advisor. Due to the differing backgrounds of students who enter the program, completion of the Self Assessment to determine areas of strength and need will be required upon admission.

#### Prerequisites:

1. Baccalaureate degree from an accredited college in: Child Development, Early Childhood education, Early Childhood Special education, or related field, or BA/BS degree in an unrelated field plus 6-9 hours of Early Childhood coursework (based on information from Self-assessment).
2. Admission to Teacher Education.
3. Admission to Graduate School.
4. Completion of Self-Assessment.
5. Admission to IECE MAT program.

### Interdisciplinary Early Childhood Education without Birth to Primary Teacher Certification

## Curriculum

### Interdisciplinary Early Childhood Education Birth to Primary Teacher Certification Program

**Initial Assessment:** Admission to Graduate School, Teacher Education, and IECE MAT Program. Admission: Suggested GPA of 2.75, suggested GRE of 800 (V+Q) and 3.5 (A), three letters of recommendation, interview, must

complete graduate school application, dispositions self-assessment and documentation, signed Professional Code of Ethics, signed Technology User Agreement, signed Statement of Understanding of Admissions Guidelines, appropriate bachelor's degree and pre-requisite courses, C or higher in English 102 and speech communication and personal statement.

EDTP 527	Inquiry into Early Childhood Education and Child Development	3
EDTP 532	Curriculum and Methods in Early Childhood Education	3
EDTP 536	Theories of Play	3
EDTP 537	Infant/Toddler Development and Care	3
EDTP 638	Literacy and Social Studies Methods in IECE	3
EDTP 639	Mathematics and Science Methods in IECE	3
EDTP 628	Building Learning Communities (with Field Experience)	3
EDSP 533	Curriculum and Methods in Early Childhood Special Education	3
EDSP 684	Family Dynamics and Early Interventions in IECE	3
EDSP 683	Early Childhood/Special Education Screening	3

**Mid-Point Assessment: Prior to Student Teaching:** No lower than 2.0 in EDTP 638 and EDTP 639; successful completion of all courses listed above except EDSP 684; Positive recommendation from Program Committee (including assessment of dispositions and mid-program portfolio).

EDTP 614	Student Teaching (Birth to Primary)	3
EDTP 615	Student Teaching (Primary)	3

**Exit Assessment (Certification and Degree):** All course work completed with 3.0 cumulative GPA; 2.0 or higher in each student teaching course; Positive recommendation from Program Committee (including assessment of dispositions and final certification portfolio)

**Minimum total hours: 36**

## Departmental Faculty

Sophia Han

Jon Lee

Betty Doyle

Victoria Molfese

# Master of Arts in Teaching in Middle School Education

**Major:** MSED

**Degree Awarded:** MAT

**Unit:** GE

**Program Webpage:** <http://louisville.edu/education/degrees/mat-msed.html>

## Program Information

The Master of Arts in Teaching (MAT) degree in Middle School Education leads to certification in Science, Social Studies, Mathematics, and English and Communications Education (grades 5-9). Students are encouraged to pursue certification in two content areas. There are also programs within Secondary Education leading to 5-12 certification in Business and Marketing Education and P-12 certification in French and Spanish.

The Alternative Certification program is designed to provide the local school districts with qualified teachers and interested candidates with a flexible, supportive route to teacher certification. The program provides candidates with an opportunity to pursue initial teacher certification while working as a full time teacher at Rank III level.

Employment is not required for initial acceptance to this program. However, candidates must be employed in a Kentucky-accredited school by the start of the school year in order to continue in the program. This program is a two year, 30 credit hour program resulting in initial teacher certification and a masters of Arts in Teaching degree. The Alternative Certification program certifies teachers in middle or secondary education only.

## Program Admission Procedure

1. Bachelor's degree with a 2.75 grade point average.
2. "C" or better in English 102, Speech Communications.
3. Within 9 credits of content area with a 2.5 or above GPA in content area
4. Admission to Teacher Education
5. Praxis in content area has been taken.
6. Admission to the Graduate School.

## Curriculum

### Single Area Certification

**Initial Assessment:** Admission to Graduate School & Teacher Education prerequisites met.

*EDTP 602	Exploring Teaching Within the Socio-Cultural Context of P-12 Schools	3
*ECPY 607	Learning Theory and Human Growth and Development	3
*EDTP 501	General Methods	3

(NOTE: The above three courses must be taken prior to either of the next 2 courses)

\*EDTP 607 Middle Grades Methods I 3

\*EDSP 545 Exceptional Child in the Regular Classroom 3

**Mid-Point Assessment: Prior to Student Teaching-** Satisfactory dispositions assessment. No lower than 2.0 GPA in content methods class. Within 3 credits of meeting content requirements. ECPY 607 and EDTP 602, 501, 607 passed. Satisfactory mid-point portfolio and positive recommendation from Middle/Secondary Program Committee.

\*EDTP 617 Middle Grades Student Teaching I 3

\*EDTP 618 Middle Grades Student Teaching II 3

\*EDTP 677 Capstone Seminar: Initial Certification <sup>2</sup> 3

**Certification Assessment: After Student Teaching-** Satisfactory dispositions assessment. All certification course work completed with 2.5 cumulative GPA. 2.5 cumulative GPA in content course requirements. 2.0 GPA or higher in each student teaching. Satisfactory certification portfolio. Passing scores on PRAXIS content and PLT exams. Positive recommendation from Middle/Secondary Program Committee.

Academic Support Course <sup>1</sup> 3

EDTP 503 Developing Cross-Cultural Competence <sup>1</sup> 3

EDTP 504 Teaching with Technology <sup>1</sup> 2

EDTP 505 Challenging Advanced Learners <sup>2</sup> 1

EDTP 620 Reading and Writing Across the Curriculum/Adolescent Literature <sup>1</sup> 3

<sup>1</sup> Can be taken at any point in the program.

<sup>2</sup> Must be taken concurrently with student teaching.

**Minimum total hours: 36**

**Degree Assessment:** Satisfactory dispositions assessment. All program course work with 3.0 cumulative GPA. Satisfactory degree portfolio.

## Double Area Certification

1. Bachelor's degree with a 2.75 grade point average.
2. "C" or better in English 102, Speech Communications.
3. Within 9 credits of both content areas with a 2.5 or above GPA in the content areas
4. Admission to Teacher Education
5. Praxis content exams have been taken for both areas.
6. Admission to the Graduate School.

**Initial Assessment:** Admission to Graduate School & Teacher Education.

\*EDTP 602 Exploring Teaching Within the Socio-Cultural Context of P-12 Schools 3

\*ECPY 607 Learning Theory and Human Growth and Development 3

\*EDTP 501 General Methods 3

(NOTE: The above three courses must be taken prior to either of the next 2 courses)

\*EDTP 607 Middle Grades Methods I 3

\*EDTP 608 Middle Grades Methods II 3

\*EDSP 545 Exceptional Child in the Regular Classroom 3

**Mid-Point Assessment: Prior to Student Teaching-** Satisfactory dispositions assessment; No lower than 2.0 GPA in either content methods class; Within 3 credits of meeting content requirements; ECPY 607 and EDTP 602, 501, 607, 608 passed; Satisfactory mid-point portfolio; Positive recommendation from Middle/Secondary Program Committee.

\*EDTP 617 Middle Grades Student Teaching I 3

\*EDTP 618 Middle Grades Student Teaching II 3

\*EDTP 677 Capstone Seminar: Initial Certification <sup>2</sup> 3

**Certification Assessment: After Student Teaching-** Satisfactory dispositions assessment. All certification course work completed with 2.5 cumulative GPA. 2.5 cumulative GPA in content course requirements. 2.0 GPA or higher in each student teaching. Satisfactory certification portfolio. Passing scores on PRAXIS content and PLT exams. Positive recommendation from Middle/Secondary Program Committee.

EDTP 503 Developing Cross-Cultural Competence <sup>1</sup> 3

EDTP 504 Teaching with Technology <sup>1</sup> 2

EDTP 505 Challenging Advanced Learners <sup>2</sup> 1

EDTP 620 Reading and Writing Across the Curriculum/Adolescent Literature <sup>1</sup> 3

**Minimum total hours: 36**

<sup>1</sup> Can be taken at any point in the program

<sup>2</sup> Must be taken concurrently with student teaching.

**Degree Assessment:** Satisfactory dispositions assessment. All program course work with 3.0 cumulative GPA. Satisfactory degree portfolio.

### **Alternative Route to 5-9 Certification**

**Initial Assessment:** Admission to Graduate School & Teacher Education. Passing scores on the content PRAXIS test(s). Current employment as a full-time temporary provisional teacher.

EDTP 631 Integrated Teaching and Learning I 3

EDTP 632 Integrated Teaching and Learning II 3

EDTP 609 Special Methods in Secondary Education (in teaching field) 3

EDTP 633 Integrated Teaching and Learning III 3

EDTP 619 Secondary Student Teaching 3

**Mid-Point Assessment:** Completion of all courses listed above. Satisfactory dispositions assessment. 2.5 cumulative GPA. All content coursework completed with a 2.5 cumulative GPA. 2.0 or higher in student teaching. Satisfactory certification portfolio. Positive recommendation from Middle/Secondary Program Committee.

EDTP 620 Reading and Writing Across the Curriculum/Adolescent Literature 3

EDTP 678 Supporting the Intern Teacher I 3

EDTP 504 Teaching with Technology 2

EDTP 505 Challenging Advanced Learners 1

EDTP 679	Supporting the Intern Teacher II	3
EDTP 503	Developing Cross-Cultural Competence	3

**Minimum total hours:** **30**

**Certification Assessment:** Satisfactory dispositions assessment. All program course work with 2.5 cumulative GPA. Satisfactory certification portfolio. Passing score on 5-12 PLT PRAXIS exam.

**Degree Assessment:** Satisfactory dispositions assessment. All program course work with 3.0 cumulative GPA. Satisfactory Alternative Certification degree portfolio.

## Departmental Faculty

Sherri Brown

Betty Doyle

Barbara Hanger

Ann Larson

Marcia Lile

Maggie McGatha

Ellen McIntyre

Teddi Phillipson-Mower

Robert Ronau

Gina Schack

Shelley Thomas

Thomas Tretter

Randy Wells

Jane Wolph

# Master of Education in Middle School Education

**Major:** MSED

**Degree Awarded:** MED

**Unit:** GE

**Program Webpage:** <http://louisville.edu/education/departments/t-l/advanced-programs.html/?searchterm=Master%20of%20Education%20Middle%20School%20Education%20MED>

## Program Information

### Program Admission Procedure

- Holds certification in a 5-9 area.
- Admission into Graduate School.
- Completion of Official Program with advisor are required.

## Curriculum

EDAP 606 Orientation and Readings (take in first semester of enrollment) 3

ELFH 600 Introduction to Research Methods & Statistics 3

**Leadership and Change:** (select one of the following courses)

EDAP 607 Leadership and change 3 **OR**

ELFH 603 Administrative Leadership in a Reform Environment 3 **OR**

EDTP 624 Curriculum Theory 3 **OR**

EDAP 625 Social and Ethical Dev. of Teaching 3

**Success for All Learners:** (select one of the following courses)

EDAP 642 Literacy Learning & Cultural Differences 3 **OR**

EDAP 626 Affirming Diversity 3 **OR**

EDTP 503 Developing Cross-Cultural Competence 3

### Area of Emphasis

EDAP 680 Capstone Course 3

**Elective** 3

### Exit Requirements



**Minimum total hours****30****Notes**

1. Minimum of 18 hours in 600-level courses is required.
2. Transfer credit must be officially accepted by the advisor (maximum of 6 hours) - final acceptance is dependent upon receipt of official transcripts.
3. A maximum of six hours taken in non-degree status can be applied toward a master's degree (upon approval of advisor).
4. All courses must be completed within six years of admission to the program.
5. To complete the program, students must have a minimum 3.0 cumulative grade point average. No credit shall be accepted for carrying a grade lower than "C".

**Departmental Faculty**

&lt;Departmental Faculty&gt;

# Master of Arts in Teaching in Music Education

**Major:** EDMU

**Degree Awarded:** MAT

**Unit:** GE

**Program Webpage:** <http://louisville.edu/education/degrees/mat-edmu.html/>

## Program Information

In addition to the general degree requirements described in the General Information section of the Graduate Catalog, the following degree requirements must be met:

- The student shall obtain permission from the Graduate Division Committee to begin work at the graduate level.
- All students must qualify for non-conditional status no later than the end of the second semester of full-time residence, or before eighteen (18) semester hours have been completed. To qualify for degree candidacy the student must have: (a) an academic record with a minimum of nine (9) hours of graduate credit with a grade point average of 3.0, (b) an inclusive program of studies fulfilling the requirements of a master's curriculum, approved by the major professor and the departmental chairperson.
- As per the Graduate School requirements, at least half of the required credits for the master's degree must be at the 600 level, excluding thesis, internships, or practicums.
- Graduate students must have a 3.0 grade point average in order to receive a master's degree in music.
- No more than six (6) hours with any "C" or "C+" grade will be accepted toward a degree, and no grade below a "B-" will be accepted in a major subject.
- Transfer of more than six hours from a degree program of an accredited institution in which a degree has been previously earned will only be granted on recommendation of the student's division and approval of the Director of Graduate Studies in consultation with the Graduate Committee. The request will be considered provided the additional hours have not been earned by extension and that the University of Louisville minimum residency requirements have been met as stated in the Graduate Catalog.
- Transfer of graduate hours within the University of Louisville toward a graduate degree in music may be requested with the restriction that the minimum residency requirement be maintained in compliance with the Graduate Catalog.

## Admission Requirements

In addition to the general requirements for admission to the Graduate School, the following specific requirements must be met:

- To be admitted, the applicant should possess a baccalaureate degree in the area (or an equivalent one) to be pursued in advanced studies.
- Applicants must meet the specific entrance requirements established by the major department.
- Graduate applicants must submit GRE scores with the application form.

The School of Music provides each student with a copy of the Handbook for Graduate Music Students. Students are expected to read the School of Music handbook and the University Graduate Catalogue and to follow regulations and procedures regarding their specific degree program at the University of Louisville. In particular, students are advised to observe the request for submitting GRE scores for admission to the Graduate School.

## Prerequisites

- Bachelor or Music Education, Pre-certification requirements, or equivalent.
- Admission to Graduate School.
- Admission to Teacher Education as outlined and required by the College of Education and Human Development.

- Completion of Learning Theory and Human Growth and Development (ECPY 607) and Exploring Teaching Within the Socio-Cultural Context of P-12 Schools (EDTL 502/602).
- Successful music audition.
- PRAXIS must be taken prior to admission to the MAT Program.
- ACT of 21 (minimum) or equivalent.
- GRE scores.

## Curriculum

### Semester Hours

#### Either

Pre-Student Teaching (MUED 605): Orientation and General Methods (Vocal)\* 3

#### OR

Pre-Student Teaching (MUED 606): Orientation and General Methods (Instrumental)\*

\* Note: Students are strongly encouraged to take either MUED 605 (Vocal) or MUED 606 (Instrumental) in accordance with their degree emphasis prior to student teaching. **No student may receive credit for both MUED 556 and 605/606.**

Qualitative Research Methods (MUED 618)	2
Foundations of Music Education (MUED 629)	2
Quantitative Research Methods (MUED 630)	2
Learning Theories in Music Education (MUED 639)	2
Applied Music (MUS 611) OR Conducting (MUS 659)	2
Applied Music (MUS 612) OR Conducting (MUS 660)	2
Exit Requirement	
Student Teaching Seminar (MUED 607)	2
Student Teaching Seminar (MUED 608)	2
Capstone Seminar (MUED 609)	3
Music Student Teaching: Elementary/Secondary I (MUED 610)	4
Music Student Teaching: Elementary/Secondary II (MUED 611)	4
<b>Minimum Total</b>	<b>30</b>

## Other Requirements

PRAXIS Exam must be passed for certification and conferral of the MAT degree in Music Education. Passing all KDE-required PRAXIS subtests is necessary for certification.

## Departmental Faculty

### Robert Amchin

*Professor*

Division Head-Music Education and Music Therapy

Distinguished Teaching Professor

**Jack Ashworth**

*Professor*

Director of Early Music Ensemble

Distinguished Teaching Professor

**Jean Christensen**

*Professor*

Director of Graduate Studies

Division Head-Music History

**Anne Marie de Zeeuw**

*Professor*

Director of Undergraduate Studies

Area Coordinator-Music Theory

Distinguished Teaching Professor

**Christopher Doane**

*Professor*

Dean

**Donn Everette Graham**

*Professor*

**Kent Hatteberg**

*Professor*

Director of Choral Activities

University Scholar

**Herbert Koerselman**

*Professor*

**John LaBarbera**

*Professor*

**Naomi Oliphant**

*Professor*

Associate Dean

Distinguished Teaching Professor

**J. Patrick Rafferty**

*Professor*

**Steve Rouse**

*Professor*

Division Head-Music Theory and Composition

**Marc Satterwhite**

*Professor*

**Frederick Speck**

*Professor*

Division Head-Ensembles and Conducting

**Edith Davis Tidwell**

*Professor*

Area Coordinator-Voice

Distinguished Teaching Professor

**Michael Tracy**

*Professor*

Division Head-Jazz Studies

**Michael Tunnell**

*Professor*

Distinguished Teaching Professor

**Barbara Wheeler**

*Professor*

Director of Music Therapy

University Scholar

**Greg Byrne**

*Associate Professor*

**Bruce Heim**

*Associate Professor*

University Scholar

**John Jones**

*Associate Professor*

Division Head-Applied Studies

**Kimcherie Lloyd**

*Associate Professor*

Division Head-Ensembles and Conducting

Director of Orchestral Studies and Opera

**Seow-Chin Ong**

*Associate Professor*

**Brett Shuster**

*Associate Professor*

**Dallas Tidwell**

*Associate Professor*

**Gerald Tolson**

*Associate Professor*

**Paul York**

*Associate Professor*

**Julia Shinnick**

*Assistant Professor*

**Krista Wallace-Boaz**

*Assistant Professor*

**Daniel Weeks**

*Assistant Professor*

University Scholar

**Jerry W. Ball**

*Professor Emeritus*

**Doris Owen Bickel**

*Professor Emeritus*

**Paul R. Brink**

*Professor Emeritus*

**Melvin Dickinson**

*Professor Emeritus*

**Francis Fuge**

*Professor Emeritus*

**Karl-Werner Guempel**

*Professor Emeritus*

**Lee Luvisi**

*Professor Emeritus*

**Daniel McAninch**

*Professor Emeritus*

**Peter McHugh**

*Professor Emeritus*

**Acton Ostling**

*Professor Emeritus*

**Richard Spalding**

*Professor Emeritus*

**Robert Weaver**

*Professor Emeritus*

**Loren Waa**

*Professor Emeritus*

# Master of Arts in Teaching Health and Physical Education

**Major:** HPE

**Degree Awarded:** MAT

**Unit:** GE

**Program Webpage:** <http://louisville.edu/education/departments/hss/pe.html/?searchterm=MAT%20Physical%20Education>

## Program Information

The Master of Arts in Teaching Health and Physical Education degree provides initial P-12 certification in health and physical education.

### Admission Requirements

Admission to Graduate School & Admission to Teacher Education. Admission: Suggested GPA of 2.75, suggested GRE of 800 (V+Q) and 3.5 (A), three letters of recommendation, interview, must take Praxis II content exam (middle/secondary), must complete graduate school application, dispositions self-assessment and documentation, signed Professional Code of Ethics, signed Technology User Agreement, signed Statement of Understanding of Admissions Guidelines, Bachelor's in Physical Education from an accredited institution, Bachelors in Health Education or equivalent courses from an accredited institution, demonstrate competency in English composition and speech communication, must submit a separate HSS portfolio, and personal statement.

### Prerequisites:

ECPY 507/607 Learning Theory and Human Growth and Development, EDTP 401/501 General Methods.

## Curriculum

**Degree Assessment:** Satisfactory dispositions assessment; All program course work with 3.0 cumulative GPA; Satisfactory degree portfolio.

**Certification Assessment:** After Student Teaching: Satisfactory dispositions assessment; All certification course work completed with 2.5 cumulative GPA; 2.5 cumulative GPA in content course requirements; 2.0 GPA or higher in each student teaching; Satisfactory certification portfolio; Passing scores on PRAXIS content and PLT exams; Positive recommendation from Health and Physical Education Program Committee.

HSS 614 Action Research Project \* 3

### Prerequisites:

ECPY 507/607 Learning Theory and Human Growth and Development, EDTP 401/501 General Methods.

HSS 605 Teaching and Learning for Elementary Physical Education 6

HSS 606 Teaching and Learning for Secondary Physical Education 6

HSS 609 Methods in Practical Living: Health 6

**Mid-point assessment:** Prior to Student Teaching: All content methods classes listed above passed with a cumulative 3.0 GPA; Positive recommendation from the Health and Physical Education Program Committee (includes assessment and mid-point portfolio).

HSS 611 Seminar in Student Teaching in Health and Physical Education 3

HSS 612 Student Teaching in Health Physical Education I \* 6

HSS 613 Student Teaching in Health Physical Education II \* 6

Minimum total hours 36

*\*These courses are the exit requirements for this program. Includes Teacher Certification in P-12 Health and Physical Education*

**Certification Assessment:** After Student Teaching: Satisfactory dispositions assessment; All certification course work completed with 2.5 cumulative GPA; 2.5 cumulative GPA in content course requirements; 2.0 GPA or higher in each student teaching; Satisfactory certification portfolio; Passing scores on PRAXIS content and PLT exams; Positive recommendation from Health and Physical Education Program Committee.

HSS 614 Action Research Project \* 3

### **Certification Requirements**

1. 2.50 G.P.A. is required in teaching field for admission to student teaching and for certification. Admission to Graduate School requires a minimum cumulative 2.75 G.P.A. Consult Graduate Catalogue for further details.
2. 3.00 G.P.A. is required in 36 hour M.A.T. program in Physical Education.
3. Successful completion of the PRAXIS Examination is required for teacher certification. Two Specialty Area Examinations in Physical Education: Content Knowledge and Physical Education, and Movement Forms-Analysis and Design must be taken.
4. A portfolio is required for successful admission and completion of this program.
5. This program is considered tentative unless signed by both the advisor and student.

## **Departmental Faculty**

Pat Keiffner

Barbara Mercer

Bill Weinberg

Stefanie Wooten



# Graduate Certificate in Health Professions Education

**Major:** HPENON

**Degree Awarded:** CERT

**Unit:** GE

**Program Webpage:** <http://louisville.edu/education/degrees>

## Program Information

**Program Purpose:** To promote effective clinical teaching and student instruction in a variety of Health Science Center settings and to develop skill in designing education research for presentation and publication.

**Admission Requirements:** This program is unofficial until admitted to Graduate School non-degree status. Requires a minimum of 2.5 GPA.

## Curriculum

ELFH 683	College Teaching	3	
ELFH 600	Graduate Research and Statistics	3	
ELFH 661	Adult Learning and Development	3	
ELFH 614	Assessment and Evaluation	3	
<b>Minimum total hours:</b>			<b>12</b>

## Departmental Faculty

<Program Faculty>

# Master of Education in Reading Education

**Major:** RE

**Degree Awarded:** MED

**Unit:** GE

**Program Webpage:** <http://louisville.edu/education/degrees/med-re.html/?searchterm=reading%20education>

## Program Information

The Teacher Literacy Leadership Program will provide an M.Ed. in Reading Education with a Kentucky Reading and Writing Endorsement, or a Rank I program, that provides a Kentucky Reading and Writing Endorsement (P-12).

### Initial Requirements:

- Teaching certification in P-12 Area.
- Admission to Graduate School.
- Admission to M.Ed. in Reading program.
- Meeting with faculty advisor to discuss KYETS, U of L Program Themes, Conceptual Framework, and IRA Standards

## Curriculum

### Research (3 hours)

ELFH 600 Introduction to Research Methods and Statistics 3

### Leadership (3 hours)

EDAP 641 Literacy Leadership and School-wide Planning 3

### Diversity (3 hours)

EDAP 642 Literacy Learning and Cultural Differences 3

### Curriculum and Instruction (3 hours)

EDAP 639 Advanced Reading Methods P-12 3

### Area of Emphasis (21 hours)

EDAP 610 Literacy Research and Theory 3

EDAP 614 Supporting Struggling Readers and Writers 3

EDAP 615 Measurement and Diagnosis of Literacy 3

EDAP 618 Capstone Practicum in Literacy: Reading Specialist 3

EDAP 678	Language Knowledge and Acquisition	3
EDAP 679	Capstone Practicum in Literacy: Literacy Coach	3
EDAP 693	Teaching Writing P-12	3

**Electives** (3 hours)

EDAP 540	Teaching Adolescent Readers	3
EDAP 604	Teacher Leadership: Mentoring and Coaching	3
EDAP 624	Curriculum Theory	3
EDAP 643	Emergent Literacy	3
EDAP 644	Reading/Writing Workshop	3
EDAP 645	Advanced Studies in Children’s Literature	3
EDAP 687	Literacy, Teaching, and Technology	3
EDAP 694	Special Topics in Writing	3
	Course approved by Advisor	3

**Total hours for M.Ed. in Reading** (includes six hours supervised practicum) **36**

*Special Program or Institutes\** (These are selective programs.) (See Special Programs note below)

EDAP 694	Kentucky Reading Project	3
EDAP 612	Louisville Writing Project	6
EDAP 694	Reading Recovery	6

NBPTS: English Language Arts Early & Middle Childhood Literacy: Reading-Language Arts OR

Early Adolescence Or Adolescence and Young Adult (may count three hours) 6

EDAP	Kentucky Institute for Arts in Education	3
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**Mid-Point Assessment:** Review program on KY Experienced Teacher Standards, U of L Program Themes, Conceptual Framework, and International Reading Association Standards for Reading Professionals (2003). Two of five standards completed for culminating Reading Specialist/Literacy Coach portfolio based on the IRA Standards. One Capstone Practicum completed, EDAP 618.

**Exit Assessment:** Updated Rank I Self-Report on Kentucky Experienced Teacher Standards, U of L Program Themes, Conceptual Framework, and IRA Standards for Reading Professionals (2003); Academic average of “B”; no grade lower than “C”; completed Reading Specialist/Literacy Coach Portfolio based on IRA Standards; passing score on PRAXIS for Reading Specialist (0300)

*\* Special Programs note:*

- 1. Some special programs are three graduate credit hours. If the advisor approves, three hours may be substituted for an appropriate required course, or candidates may choose to apply three hours as the elective.*
- 2. Some special programs are six graduate credit hours. If the advisor approves, three hours may be substituted for an appropriate required course, and three hours may be used as the elective. As an alternative, candidates may choose to apply three hours as an elective and apply the additional three hours toward a Rank I or doctoral program.*

# Departmental Faculty

<Departmental Faculty>

# Master of Arts in Teaching in Secondary Education

**Major:** SE

**Degree Awarded:** MAT

**Unit:** GE

**Program Webpage:** <http://louisville.edu/education/degrees>

## Program Information

### Program Admission Procedure

1. Bachelor's degree with a 2.75 grade point average.
2. "C" or better in English 102, Speech Communications.
3. Within 9 credits of completing prerequisite content with a 2.5 or above GPA.
4. Admission to Teacher Education.
5. Praxis II in content area has been taken.
6. Admission to the Graduate School.

## Curriculum

### 8-12 Certification

**Initial Assessment:** Admission to Graduate School & Teacher Education prerequisites met.

\*EDTP 602 Exploring Teaching Within the Socio-Cultural Context of P-12 Schools 3

\*ECPY 607 Learning Theory and Human Growth and Development 3

\*EDTP 501 General Methods 3

(NOTE: The above three courses must be taken prior to Methods Course )

\*EDTP 609 Special Methods in Secondary Education (in teaching field) 3

\*EDSP 545 Exceptional Child in the Regular Classroom 3

**Mid-Point Assessment: Prior to Student Teaching:** Satisfactory dispositions assessment; No lower than 2.0 in content special methods class; Within three credits of meeting content requirements; ECPY 606 and EDTP 602, 501, 609 passed; Satisfactory mid-point portfolio; Positive recommendation from Middle/Secondary Program Committee.

\*EDTP 619 Secondary Student Teaching 6

EDTP 677 Capstone Seminar: Initial Certification <sup>2</sup> 3

**Certification Assessment: After Student Teaching:** Satisfactory dispositions assessment; All certification course work\* completed with 2.5 cumulative GPA; 2.5 cumulative GPA in content course requirements; 2.0 or higher in student teaching; Satisfactory certification portfolio; Passing scores on the PRAXIS exam; Positive recommendation from

## Middle/Secondary Program Committee.

Academic support course <sup>1</sup> :	3
EDTP 503 Developing Cross-Cultural Competence <sup>1</sup>	3
EDTP 504 Teaching with Technology <sup>1</sup>	2
EDTP 505 Challenging Advanced Learners <sup>2</sup>	1
EDTP 620 Reading and Writing Across the Curriculum/Adolescent Literature <sup>1</sup>	3

<sup>1</sup> Can be taken at any point in the program

<sup>2</sup> Must be taken concurrently with student teaching.

**Minimum total hours** **36**

**Degree Assessment:** Satisfactory dispositions assessment; All program course work with 3.0 cumulative GPA; Satisfactory degree portfolio.

## Alternative Route to 8-12 Certification

**Initial Assessment:** Admission to Graduate School & Teacher Education prerequisites met, passing scores on the content PRAXIS test(s), current employment as a full-time temporary provisional teacher.

EDTP 631 Integrated Teaching and Learning I	3
EDTP 632 Integrated Teaching and Learning II	3
EDTP 609 Special Methods in Secondary Education (in teaching field)	3
EDTP 633 Integrated Teaching and Learning III	3
EDTP 619 Secondary Student Teaching	3

**Mid-Point Assessment:** Completion of all courses listed above; satisfactory dispositions assessment; 2.5 cumulative GPA; all content coursework completed with a 2.5 cumulative GPA; 2.0 or higher in student teaching; satisfactory certification portfolio; positive recommendation from Middle/Secondary Program Committee.

EDTP 620 Reading and Writing Across the Curriculum/Adolescent Literature	3
EDTP 678 Supporting the Intern Teacher I	3
EDTP 504 Teaching with Technology	2
EDTP 505 Challenging Advanced Learners	1
EDTP 679 Supporting the Intern Teacher II	3
EDTP 503 Developing Cross-Cultural Competence	3

**Minimum total hours** **30**

**Certification Assessment:** Satisfactory dispositions assessment; all program course work with 2.5 cumulative GPA; Satisfactory certification portfolio; passing score on 7-12 PLT PRAXIS exam.

**Degree Assessment:** Satisfactory dispositions assessment; all program course work with 3.0 cumulative GPA; Satisfactory Alternative Certification degree portfolio.

# Departmental Faculty

Betty Doyle

Barbara Hanger

Ann Larson

Marcia Lile

Maggie McGatha

Holly Nolan

Robert Ronau

Gina Schack

Shelley Thomas

Thomas Tretter

Bill Weinberg

Jean Hicks

# Master of Education in Secondary Education

**Major:** SE

**Degree Awarded:** MED

**Unit:** GE

**Program Webpage:** <http://louisville.edu/education/degrees/med-se.html>

## Program Information

### Program Admission Procedure

1. Holds certification in an 8-12 area.
2. Admission to Graduate School.
3. Completion of an official program are required.

## Curriculum

**Requirements:** Admission to Graduate School and Completion of Official Program with advisor.

EDAP 606 Orientation and Readings (take in first semester of enrollment) 3

ELFH 600 Introduction to Research Methods & Statistics 3

**Leadership and Change:** (select one of the following courses)

EDAP 607 Leadership and change 3 **OR**

ELFH 603 Administrative Leadership in a Reform Environment 3 **OR**

EDAP 624 Curriculum Theory 3 **OR**

EDAP 625 Social and Ethical Dev. of Teaching 3

**Success for All Learners:** (select one of the following courses)

EDAP 642 Literacy Learning & Cultural Differences 3 **OR**

EDAP 626 Affirming Diversity 3 **OR**

EDTP 503 Developing Cross-Cultural Competence 3

**AREA OF EMPHASIS** 12

EDAP 680 Capstone Course 3

**Elective** 3

**Exit Requirements**



**Minimum total hours****30****Notes**

1. Minimum of 18 hours in 600-level courses is required.
2. Transfer credit must be officially accepted by the advisor (maximum of six hours) - final acceptance is dependent upon receipt of official transcripts.
3. A maximum of six hours taken in non-degree status can be applied toward a master's degree (upon approval of advisor).
4. All courses must be completed within six years of admission to the program.
5. To complete the program, students must have a minimum 3.0 cumulative grade point average. No credit shall be accepted for carrying a grade lower than "C".

**Departmental Faculty**

# Master of Education in Special Education

**Major:** SPE

**Degree Awarded:** MED

**Unit:** GE

**Program Webpage:** <http://louisville.edu/education/degrees/med-spe.html>

## Program Information

This master's degree can be taken to gain expertise in a variety of areas. These include but are not limited to:

- Assistive Technology and Autism - Contacts: Dr. Debra Bauder or Dr. Thomas Simmons
- Orientation & Mobility - Contact: Dr. Bill Penrod
- Visual Impairment - Contact: Dr. Bill Penrod or Mary Ann Reynolds

The goal of the program is to offer a Master's degree that will advance one's knowledge and further their expertise in a specialty area.

## Curriculum

### Non-Teaching

This degree is designed for master's degree candidates whose professional goals are in areas other than teaching or whose goals are in the area of early childhood/special education, specifically comprehensive-care centers, institutions, clinics, day care centers, preschools, and community programs.

**Prerequisites for Admission:** Baccalaureate degree from an accredited college and admission to Graduate School and EDSP 540: Introduction to Special Education.

**Degree Requirements:** A minimum of 33 semester hours of graduate coursework; at least 18 hours of courses numbered 600 or above; and a culminating course, either EDSP 639 or EDSP 687, to be taken at the end of the program and requiring a major paper.

ELFH 600	Introduction to Research Methods and Statistics	3
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**Introductory Courses** Select three courses from the following:

EDSP 537	Language Learning for Exceptional Children	3
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EDSP 594	Teaching Student with Physical Disabilities	3
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EDSP 624	Seminar in Psychological & Social Implications of Handicaps	3
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EDSP 634	Introduction to Mental Retardation	3
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EDSP 640	Introduction to Learning Disabilities	3
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EDSP 674	Theories of Behavior Disorders	3
EDSP 697	Applied Behavior Analysis	3
EDSP 670	Introduction to Autism	3

**Mid point assessment:** Satisfactory, Unsatisfactory, Needs Improvement

**Advanced/Related Courses:** Courses will be selected, with advisor's approval, to provide the necessary background to meet the candidate's professional goals

Advanced courses	9
Related Electives	9

**Exit Requirement:**

EDSP 639	Research Analysis in Special Education	3
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**Minimum total hours** **33**

## **Master of Education in Special Education in Orientation and Mobility Non-Teaching (leading to ACVREP certification)**

**Admission Requirements:** This degree is designed for master's degree candidates whose professional goals are in areas other than teaching and whose goal is to be certified in orientation and mobility.

**Prerequisites for Admission:** Baccalaureate degree from an accredited college and admission to Graduate School and EDSP 540: Introduction to Special Education and EDSP 619: Orientation and Mobility/daily Living Skills for Teachers and a computer (at least 300 MHZ with 64 RAM, sound card, and speakers, at least 56.6 modem or higher capacity) and be able to send/receive email and access to Internet, with printer. Instructor may require access to additional equipment for some courses.

**Degree Requirements:** A minimum of 33 semester hours of graduate coursework. Maintain a 3.0 or above grade point average. Students must make at least a B in the following courses: EDSP 624, EDSP 625. Participants whose academic performance falls below the grade point average will be asked to develop a plan for improvement. Failure to meet the objectives of this plan will result in dismissal from the program.

**Orientation and Mobility Entry Courses** *(To be completed the first 9 hours of EDSP coursework)*

EDSP 624	Characteristics and Needs of Students Who are Visually Impaired or Blind	3
EDSP 625	American Braille Codes	3

*The following courses may be taken in any sequence/combination upon completion of the "Orientation and Mobility entry courses."*

EDSP 634	Characteristics and Needs of Students with Moderate and Severe Disabilities	3
EDSP 620	Introduction to Orientation and Mobility	3
EDSP 623	Orientation and Mobility for Infants, Preschool, and Multiply Impaired	3

**Mid Point Evaluation**

EDSP 621	Advanced Methods in Orientation and Mobility I	3
EDSP 622	Advanced Methods in Orientation and Mobility II	3

**Orientation and Mobility Exit Courses** (completed sequentially as the last six hours of the program)

EDSP 630 Practicum: Observation and Participation in O&M 3

EDSP 631 Internship 3

**MASTERS IN EDUCATION IN ORIENTATION AND MOBILITY REQUIREMENTS (6 hours)**

ELFH 600 Introduction to Graduate Studies 3

EDSP 639 Research in Special Education 3

**Minimum total hours 33**

**Exit Requirements:** Completion of EDSP 630: Practicum in O&M and EDSP 631: Internship and Pass Comprehensive Specialty Exam

**Concentration in Learning Disabilities**

**Admission Requirements:** Baccalaureate degree from an accredited college, certification in elementary education, and certification in learning disabilities.

ELFH 600 Introduction to Research Methods and Statistics 3

ELFH (Historical, sociological, or philosophical foundations of education to be selected from  
EDFD620,625,630,640,681) 3

**Learning Disabilities Specialization**

EDSP 693 Consulting with Parents and Teachers of Exceptional Children 3

EDSP 697 Topical Seminar in Special Education 3

**Special Education Core**

EDSP 641 Curriculum Methods: Special Education 3

EDSP To be selected with advisor 6

**Related Electives** (may be taken outside Education) 9

**Exit Requirement**

EDSP 639 Research Analysis in Special Education 3

**Minimum total hours 33**

**Notes**

1. Minimum of 18 hours in 600-level courses is required.
2. Maximum of 2 workshops allowed in total program.
3. Final acceptance of transfer credit (a maximum of six hours) is dependent upon receipt of transcript.
4. Program must be approved by advisor and filed at the beginning of the program.
5. A maximum of six hours taken in non-degree status can be applied toward a master's degree (upon approval of advisor).
6. All courses must be completed within 6 years of admission of program.
7. This program is considered tentative unless signed by both the advisor and student.
8. A portfolio is required for successful completion of this program.
9. To complete the program, students must have minimum of a 3.0 cumulative grade point average. No credit shall be accepted for carrying a grade lower than "C".
10. To complete the program, students must have minimum of a 3.0 cumulative grade point average. No credit shall be accepted for carrying a grade lower than "C".

# Master of Education in Special Education and/or Rank II/Rank I Program Leading to Certification in Learning and Behavior Disorders

Candidates for this program must have a valid regular education teaching certificate. The courses listed below may, with advisor's approval, be applied toward a Rank II or Rank I program. Teachers certified only in Music, Physical Education or Home Economics (at any level) or regular classroom teaching at the 5-8 or 7-12 level(s) must complete the EDTP 610 and EDTP 620 (pending review by the LBD Screening committee) with grades of C or better in each prior to enrolling in the Special Education Entry Courses.

EDAP 610	Literacy: Research and theory	3
EDAP 620	Introduction to Teaching Elementary Mathematics Education	3

## Special Education Entry Courses: (To be completed as the first nine hours of EDSP course work)

EDSP 540	Introduction to Exceptional Children	3
EDSP 640	Introduction to Learning Disorders	3
EDSP 675	Management of the Behavior Problem Child	3

## The following six courses may be taken in any sequence/combo upon completion of the "Special Education entry Courses":

EDSP 537	Language Learning for Exceptional Children	3
EDSP 594	Problems and Methods of Teaching the Physically Handicapped/Sensory Impaired	3

### OR

EDSP 638	Educational Management: Physical Disabilities	3
EDSP 618	Instructional Technology for Students with Special Needs	3
EDSP 681	Early Childhood Education of Exceptional Children	3
EDSP 614	Transition Services	3

## Mid-point Assessment: Satisfactory, Unsatisfactory, Needs Improvement

Special Education Exit Courses (Completed sequentially as the last nine hours of the program)

EDSP 642	Assessment Procedures for LBD	3
EDSP 643	Instructional Procedures for LBD	3
EDSP 645	Student teaching: Learning and Behavioral Disorders (If waived, another three hour course approved by advisor)	3

**Minimum total hours 33-39**

## Master of Education in Learning and Behavior Disorders Requirements

(The M.Ed. includes all courses listed in the Rank II program above and the following requirements of 6 additional hours.)

ELFH 600	Introduction to Research Methods and Statistics	3
EDSP 639	Research in Special Education	3

**Minimum total hours 39-42**

**NOTE:**

1. Students who make a grade of C or below in any Special Education course leading to teacher certification are required to repeat the course before being admitted to Student Teaching (EDSP 645).
2. Successful completion of the following PRAXIS Exams are required for Learning and Behavior Disorders teacher certification: The Application of Core Principles Across Categories of Disability (either 352 or 353 and Teaching Students with Emotional/Behavior Disorder (either 371 or 542).
3. Successful completion of midpoint evaluation of program and performance.
4. A portfolio is required for completion of this program.
5. The Certification Program requires development of a Professional Portfolio and a Midpoint Performance Review, both of which must be successfully completed before the participant will be recommended for certification by the Kentucky Department of Education.

**Concentration in Moderate & Severe Disabilities**

**Admission Requirements:**

1. Baccalaureate degree from an accredited college.
2. Certification in elementary education.
3. Certification in moderate and severe disorders.
4. EDSP 540 or introduction/survey course in Special Education.
5. Computer (at least 300MHZ with 64SDRAM, sound card and speakers, CD-ROM, at least 56.6 modem or higher capability) able to send/receive email and access to internet, with printer. \*Instructor may require additional equipment for some courses.

EDFD 600 Introduction to Research Methods and Statistics 3

EDFD (Historical, sociological, or philosophical foundations of education to be selected from EDSP620,625,630,640,681) 3

**Moderate & Severe Disabilities Specialization**

EDSP 6XX Orientation and Mobility for Teachers 3

EDSP 600 Assessment of Students with Disabilities 3

EDSP 624 Char. & Needs of Blind & Visually Impaired Students 3

EDSP 627 Applications of Assistive Technology 3

EDSP 634 Char. & Needs of Students w/ Moderate and Severe Disability 3

EDSP 637 Transdisciplinary Collaboration for Inclusion 3

EDSP 636 Diag. & Prescriptive Teaching of Individuals with Dis. 3

EDSP 670 Introduction to Autism 3

EDSP 638 Ed. Manage. of Health, Physical, and Multiple Disabilities 3

**Exit Requirement**

EDSP 635 Moderate and Severe Disabilities Practicum 3

**Minimum total hours 36**

**Notes**

1. Minimum of 18 hours in 600-level courses is required.
2. Maximum of two workshops allowed in total program.
3. Final acceptance of transfer credit (a maximum of six hours) is dependent upon receipt of transcript.

4. Program must be approved by advisor and filed at the beginning of the program.
5. A maximum of six hours taken in non-degree status can be applied toward a master's degree (upon approval of advisor).
6. All courses must be completed within six years of admission of program.
7. This program is considered tentative unless signed by both the advisor and student.
8. A portfolio is required for successful completion of this program.

## **Master of Education in Special Education or Rank I/II Leading to P-12 Certification in Moderate/Severe Disabilities**

1. Certification in P-5, 5-9, or 8-12.
2. BA/BS degree from an accredited university/College of Education and Human Development.
3. Admission to Graduate School for Certification or Master of Education program.
4. Introduction or Survey Course in special Education.
5. Computer (at least 300MHZ with 64SDRAM, sound card and speakers, CD-ROM, at least 56.6 modem or higher capability) able to send and receive email and access to Internet, with printer. \*Instructor may require access to additional equipment for some courses.

EDSP 627	Applications of Assistive Technology	3
EDSP 634	Characteristics and Needs of Students w/Moderate & Severe Disabilities	3
EDSP 636	Diagnostic and Prescriptive Teaching of Individuals with Disabilities	3
EDSP 614	Transition Programs and services for youth with Disabilities	3
EDSP 619	Orientation and Mobility for Teachers	3
EDSP 670	Introduction to Autism	3

### **Mid-point Assessment:** Satisfactory, Unsatisfactory, Needs Improvement

EDSP 637	Transdisciplinary Collaboration for Inclusion	3
EDSP 638	Educational Management of Health, Physical, and Multiple Disabilities	3
EDSP 646	Augmentative Communication	3
EDSP 635	Moderate and Severe Disabilities Practicum	3**

\*\*NOTE: This class can be waived with three successful years of teaching in the field of Moderate/Severe Disabilities and a STRONG letter of recommendation from your Principal. If this is done, then the replacement course would be EDSP644: Applied Behavior Analysis 3

### *For Masters:*

ELFH 600	Introduction to Research Methods and Statistics	3
EDSP 639	Research in Special Education	3

**Minimum total hours 36**

### Requirements

1. Develop professional portfolio.
2. Maintain a 3.0 (B) or above grade point average with no grade lower than a B.
3. Successful completion of PRAXIS Exam.
4. Successful mid-point, certificate and/or degree assessment
5. Successful completion of the following PRAXIS Exams are required: The Application of Core Principles Across

NOTE:

1. Students who earn a grade of C or below in any Special Education course leading to teacher certification are required to repeat the course before being admitted to Student Teaching (EDSP635).
2. Successful completion of the following PRAXIS Exams is required for Moderate Severe teacher certification: The Application of Core Principles Across Categories of Disability and Teaching Students with Mental retardation.
3. Successful completion of midpoint evaluation of program and performance.
4. A portfolio is required for completion of this program.
5. The Certification Program requires development of a Professional Portfolio and a Midpoint Performance Review, both of which must be successfully completed before the participant will be recommended for certification by the Kentucky Department of Education
6. This program is considered tentative unless signed by both the advisor and student.

## **Master of Education in Special Education with Concentration in Vision Impairment**

**Admission Requirements:** Baccalaureate degree from an accredited college, admission to Graduate School, and certification in elementary education.

### **Prerequisites in Special Education (nine (9) hours)**

(Courses required as preparation for graduate work but not counted in 31-hour minimum total for master's degree)

EDSP 505	Introduction to Blindness and Visual Impairment	3
EDSP 509	Standard English and Nemeth Braille Codes	3
EDSP 540	Introduction to Exceptional Children	3

### **Graduate Core Requirements (6 hours)**

EDFD 600	Introduction to Research Methods and Statistics	3
EDFD	Historical, sociological, or philosophical foundations of education to be selected from one of the following: EDFD620, 625,630,640,681	3

### **Visual Impairment Specialization (15 hours)**

EDSP 510	Educational Procedures for Blind Children	3
EDSP 512	Orientation, Mobility, and Daily Living Skills for the Visually Impaired	3
EDSP 525	Educational Procedures for Low Vision Children	3
EDSP 594	Problems and Methods of Teaching Physically Handicapped and Sensory Impaired	3
EDSP 628	Seminar: Assessment of the Visually Impaired Students	3

### **Related Electives (six (6) hours)**

The student will select courses numbered 600 or above with advisor's approval (may be outside Education) 6

### **Exit Requirement (4 hours)**

EDSP 629	Practicum n Visual Impairment	4
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**Minimum total hours 31**



## NOTES:

1. Students who make a grade below "C" in any Special Education course leading to teacher certification are required to repeat the course and earn a minimum grade of "C" prior to being admitted into student teaching.
2. This degree requires an exit evaluation. The exit evaluation may consist of a research paper or project in EDSP639 at the end of the program.
3. Successful completion of the PRAXIS Exam is required for teacher certification. The Application of Core Principles Across Categories of Disability and Teaching Students with Behavioral Disorders/Emotional Disturbances must be taken.

## **Departmental Faculty**

Peter Alter

Debra Bauder

Monica Delano

Nicole Fenty

Lisa Kemmerer

Amy Lingo

Bill Penrod

Terry Scott

Thomas Simmons

# Master of Science in Sport Administration

**Major:** SPAD

**Degree Awarded:** MS

**Unit:** GE

**Program Webpage:** <http://louisville.edu/education/degrees>

## Program Information

The Master of Science in Sport Administration is approved (accredited) by the Sport Management Program Review Council (SMPRC). The SMPRC was created by the National Association for Sport and Physical Education (NASPE), and the North American Society for Sport Management (NASSM), to act as an entity that reviews sport management programs. The SPAD program has a diverse student population representing a variety of geographical, cultural, educational, and professional backgrounds. U of L SPAD graduates find jobs in professional sports, business and marketing, exercise science, physical education, collegiate and high school coaching, collegiate and high school athletic administration, recreation, health and fitness, and other areas in the sport industry.

### Program admission procedure:

The recommendation to admit an applicant is made by an Admissions Committee made up of faculty in the Sport Administration Program. A preliminary decision is based on the following: U of L Graduate Application, all undergraduate and graduate transcripts, goal statement, GRE test scores, and at least two recommendations for Graduate School (Note: Applicants may submit up to three recommendations). Applicants are strongly encouraged to have at least one recommendation from a University faculty member who is familiar with the applicant's work as a student. A formal Statement of Goals should explain in 500 words or less why they want to be admitted into the program and what they plan to do with a Sport Administration degree. A minimum combined GRE test score of 800 (verbal and quantitative section) and undergraduate GPA of 2.75 is desired.

## Curriculum

### Core

ELFH	600	Introduction to Research Methods and Statistics	3
HSS	604	Research Methods in HSS	3
SPAD	505	Sport Facility Management	3
SPAD	604	Financial Principles in Sport	3
SPAD	625	Organizational Behavior In Sports Administration	3
SPAD	683	Sport Marketing	3
SPAD	684	Current Trends and Issues in Sport Administration	3
SPAD	689	Legal Aspects in the Sport Industry	3

SPAD 692	Internship in Sport Administration	3
<b>Electives (9 Hours)</b>		
HSS 649	Psychological Aspects of Physical Education & Sport	3
SPAD 525	Sport Event Management	3
SPAD 529	American Women in Sport	3
SPAD 530	Sport Promotion and Publicity	3
SPAD 661	Sport in American Society	3
SPAD 661	Special Topics in Sport Administration	3
SPAD 680	Athletics in Higher Education	3
College of Business Classes		3
College of Education and Human Development Classes		3
Other Classes Approved by an Advisor		3
<b>Minimum Total Hours</b>		<b>36</b>

## Departmental Faculty

<Departmental Faculty>

# Master of Arts in Teaching in Special Education with Specialization in Learning and Behavior Disorders

**Major:** SPE

**Degree Awarded:** MAT

**Unit:** GE

**Program Webpage:** <http://louisville.edu/education/degrees/mat-spe-lbd-altcert.html>

## Program Information

This program leads to certification in Kentucky for areas of Behavior Disorders, Learning Disabilities, Mild Mental Disabilities, and Orthopedic Impairments at all grade levels from preschool through high school. In order to be accepted into this program, applicants must be employed in an LBD classroom on a temporary provisional certificate. Full-time course work is required to complete the program. The program leads to certification for LBD only. Individuals completing this program would not be certified to teach in a typical classroom (Elementary, Middle or Secondary) unless they completed an additional certification program.

## Admission Requirements

1. Bachelor's degree from an accredited college or university
2. Grade of "C" or better in written communication, or score of 3.5 or higher on GRE Analytical Writing section of the general test
3. Grade of "C" or better in oral communication
4. Admission to Teacher Education
5. Admission to Graduate School
6. Employed as a teacher in an LBD classroom

## Curriculum

### Student Characteristics (6 hours)

EDSP	540	Introduction to Exceptional Children	3
EDSP	675	Characteristics, Needs, & Responses to Students with EBD	3

### Pedagogy (30 hours)

EDSP	612	LBD Curriculum Methods and Assessment I	3
EDSP	616	LBD Curriculum Methods and Assessment II	3

EDSP	617	Curriculum, Methods, & Assessment: Student Teaching	3
EDSP	644	Applied Behavior Analysis	3
EDSP	640	Teaching Reading Special Education P-12	3
<b>Mid-Point Assessment:</b> Satisfactory dispositions assessment; grade no lower than B- in all coursework; satisfactory mid-point portfolio; positive recommendation from the Special Education Program Committee.			
EDSP	618	Instructional Technology for Students with Special Needs	3
EDAP	620	Introduction to Teaching Elementary Mathematics Education	3
EDSP	637	Transition, Collaboration, and Inclusion	3
EDTP/AP		Content Course	3
EDTP/AP		Content Course	3

**Research (3 hours)**

EDSP	639	Research Methods in Special Education <i>(Must be taken in last six hours)</i>	3
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**Elective:** Choose from one of the following courses (3 hours)

EDSP	537	Language Learning for Exceptional Children	3
EDSP	627	Applications of Assistive Technology	3
EDSP	670	Autism: Introduction and Understanding	3
EDSP	681	Early Childhood Education and Exceptional Children	3

**Minimum total hours: 42**

**Exit Requirements for Certification and/or Degree**

1. Successful completion of portfolio.
2. Complete all coursework with grade of “B” or better.
3. Pass appropriate PRAXIS examinations for certification.

**Departmental Faculty**

Peter Alter

Debra Bauder

Amy Lingo

# Master of Arts in Teaching in Special Education with Specialization in Moderate and Severe Disabilities

**Major:** SPE

**Degree Awarded:** MAT

**Unit:** GE

**Program Webpage:** <http://louisville.edu/education/degrees/mat-spe-msd-altcert.html>

## Program Information

This program leads to certification in Kentucky for areas of Functionally Mentally Disabled, Mental Retardation, Multiple Impairments, and other health impaired at all grade levels from preschool through high school. In order to be accepted into the program, applicants must be employed in the LBD classroom on a temporary provisional certificate. Fulltime course work is required to complete the program. The program leads to certification for LBD only. Individuals completing this program would not be certified to teach in a typical classroom (Elementary, Middle or Secondary) unless they completed an additional certification program.

## Admission Requirements

1. Bachelor's degree from an accredited college or university
2. Grade of "C" or better in written communication, or score of 3.5 or higher on GRE Analytical Writing section of the general test.
3. Grade of "C" or better in oral communication
4. Admission to Teacher Education
5. Admission to Graduate school
6. Employed as a teacher in a MSD classroom

## Curriculum

### Student Characteristics (6 hours)

EDSP 540 Introduction to Exceptional Children 3

EDSP 634 Characteristics and Needs of Students with Moderate and Severe Disabilities 3

### Pedagogy (30 hours)

EDSP 609 MSD Curriculum and Methods I 3

EDSP 611	MSD Curriculum and Methods II	3
EDSP 617	Curriculum Methods and Assessment: Student Teaching	3
EDSP 644	Applied Behavior Analysis	3
EDSP 520	Assessment of exceptional Learners	3

**Mid-Point Assessment:** Satisfactory dispositions assessment; grade no lower than B- in all coursework; satisfactory mid-point portfolio; positive recommendation from the Special Education Program Committee.

EDAP 594	Educational Management of Health, Physical and multiple Disabilities	3
EDSP 614	Transition Programs and Services for Children and Youth with Disabilities	3
EDSP 646	Augmentative Communication	3
EDSP 670	Autism: Introduction and Understanding	3

**Research (3 hours)**

EDSP 639	Research Analysis in Special Education <i>(Must be taken in last 6 hours)</i>	3
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**Elective:** Choose from one of the following courses. (3 hours)

EDSP 537	Language Learning for Exceptional Children	3
EDSP 619	Orientation & Mobility/Daily Living Skills for Teachers	3
EDSP 627	Applications of Assistive Technology	3
EDSP 671	Autism: Strategies and Techniques	3

**Minimum total hours: 39**

**Exit Requirements for Certification and/or Degree**

1. Successful completion of portfolio.
2. Complete all coursework with grade of “B” or better.
3. Pass appropriate PRAXIS examinations for certification.

**Departmental Faculty**

Peter Alter

Debra Bauder

Monica Delano

Lisa Kemmerer

Terry Scott





# Kent School of Social Work

Social Work - MSSW

Social Work - Ph.D.

# Master of Science in Social Work

**Major:** SW

**Degree Awarded:** MSSW

**Unit:** GK

**Program Webpage:** <http://louisville.edu/kent>

## Program Information

### Accreditation of the M.S.S.W.

The Master of Science in Social Work program is accredited by the Council on Social Work Education. The Master of Science in Social Work with a Specialization in Marriage and Family Therapy Program and the Post Masters Certificate in Marriage and Family Therapy Program is accredited by the Commission on Accreditation for Marriage and Family Education.

### General Information

The Kent School of Social work seeks to prepare well-qualified social workers who practice from a strong professional value- base to serve the metropolitan mission of the university. Our graduates promote social justice through their practices with diverse client systems. In the context of a research institution, the Kent School is committed to knowledge development that informs social work practice, recognizing the importance of interdisciplinary collaboration to solve complex social problems.

Social work is a profession concerned with the prevention and amelioration of social problems and the enhancement of the quality of human life. Social workers achieve these goals through direct practice with individuals, families, groups, and community organizations; advocacy; social planning; social policy analysis and formulation; research; and administration. Social work practice helps people mobilize their resources to deal with present circumstances and to enlarge their prospects for the future. Since problems of the individual cannot be seen in any meaningful way in isolation from the broad social and community context in which they occur, social work also takes a leadership role in bringing about institutional and social change.

### Admission Procedure

Persons interested in admission to the Kent School should visit [louisville.edu/kent](http://louisville.edu/kent); contact the Coordinator of Admissions, Kent School of Social Work, Oppenheimer Hall, University of Louisville, Louisville, Kentucky 40292 (502) 852-0414; or attend a prospective student session. Please consult the Kent School website for a list of scheduled prospective student sessions.

Kent School seeks mature students with a demonstrated ability to work with people, emotional stability, good interpersonal skills, good health, and the ability to perform well academically. To ensure that entering students meet these standards, the faculty has set the following requirements:

- A bachelor's degree from a regionally accredited institution of higher learning;
- A minimum of 27 credit hours in the social sciences, i.e. communications (6), natural sciences (3), humanities (9), and social sciences (9);
- A minimum of three credit hours in each of the following courses: statistics, research methodology, and human biology.

Additionally, an undergraduate GPA of 3.00 is recommended to be considered for admission to Kent School. While we consider applicants whose undergraduate GPA does not meet this standard, applicants with GPAs less than 2.75 must

take the Miller Analogies Test or the Graduate Record Exam.

The application file is complete when all of the following are received by Graduate Admissions, University of Louisville, Louisville, Kentucky 40292:

1. Completed and signed application form. It is recommended that the application be typed. Application forms are available on-line at [graduate.louisville.edu/apply](http://graduate.louisville.edu/apply).
2. \$50 non-refundable application processing fee. Attach a personal check, money order or cashier's check (U.S. dollars) payable to the University of Louisville to the front of your completed application. If you apply on-line, you must also pay your application fee on-line with a credit card or electronic check at that time. Note: Paying your application fee on-line with an electronic check will delay the process for 8 days.
3. An official academic transcript is required from each college/university you have attended, including those at which you were enrolled for academic credit as a non-degree student and/or credits which you transferred to another college. All transcripts must bear the official seal and signature of the institution attended. You must request these transcripts directly from the Registrar or appropriate officer of each institution and ask that they send them directly to Graduate Admissions, University of Louisville, Louisville, KY 40292. If you are a University of Louisville graduate, your U of L transcript will be provided automatically, with no request needed from you. Applicants with a cumulative grade point average less than 2.75 are required to submit an acceptable Miller Analogies Test (MAT) score or an acceptable Graduate Record Exam (GRE) score with their application. Dates of M.A.T. tests and test links to the GRE are available at [louisville.edu/student/services/testing/index.html](http://louisville.edu/student/services/testing/index.html).
4. Three recommendations - each submitted on a University of Louisville Recommendation of Graduate School Form in a sealed, signed envelope. Applicants are encouraged to submit at least one academic recommendation. If the applicant has not enrolled in classes within the past 5 years, this requirement may be waived and an additional work reference substituted. Evaluations should be submitted from persons who have been directly responsible for assessing your human service related work/volunteer experience and academic performance. The Kent School requires three recommendation forms, however letters accompanying the forms are welcomed and encouraged. Applicants who wish to be considered for the 30-hour Advanced Standing program must submit their BSW Practicum Evaluation and one of their three letters of recommendation must be from their Director of Field Education. The school reserves the right to request additional supportive material from persons acquainted with the applicant's academic and/or practice capabilities.
5. Personal statement - This statement must be submitted with the application for admission. Submit a carefully written personal statement of approximately 700-1000 words that addresses the following four topics:
  - Describe a social problem or problem strategy that is of greatest interest to you.
  - Describe your commitment to engage in social work roles that involve social welfare institutions and systems most likely to have an effect on major social problems.
  - Describe in detail how you would insure that your work is relevant to the most economically and socially disadvantaged groups in our society.
  - Describe the intellectual and personal qualifications that will enable you to practice social work successfully.Note: If there are gaps or deficiencies in your academic record, please address these in an addendum to your statement. The personal statement may be emailed to [gradadm@louisville.edu](mailto:gradadm@louisville.edu) as an attachment .
6. Statement of authenticity - Each applicant is required to add the following statement to the beginning of their personal statement accompanied by the applicant's signature and date of signature:

*"Academic dishonesty is prohibited at the University of Louisville. In keeping with this policy, I certify the material contained in this application is solely my work and that I have neither cheated nor plagiarized in its creation".*
7. If you wish to be considered for the MFT, SSW, GER or ADCS specializations, please check the *future students link* at our website [louisville.edu/kent/](http://louisville.edu/kent/) for any additional admission procedures or documents necessary for consideration for admission to a particular specialization. Admission to these programs follows admission to Kent School but is not automatic.
8. If you wish to be considered for any of the dual degree programs, you must also complete the other unit's application process.
9. For all applicants whose native language is not English, Kent School requires the Test of English as a Foreign Language (TOEFL). A score of 550 on the paper-based TOEFL or a score of 213 on the computer-based TOEFL is required. Scores must be submitted before a decision will be made on an application. A test link to the TOEFL is available at [louisville.edu/student/services/testing/index.html](http://louisville.edu/student/services/testing/index.html).
10. International students may be required to have their transcripts evaluated by a credential evaluation service in the U.S. Two possible services include: World Education Services, Inc., at [www.wes.org](http://www.wes.org) and Educational Credential

Evaluators at [www.ecc.org](http://www.ecc.org). Students may be required to participate in a brief telephone interview as part of the admissions process. When completing the I-20, students should note that they will be placed in a practicum as part of their education. Admitted students should visit the International Center when they arrive on campus to obtain the proper immigration documentation necessary to begin the practicum.

11. If you have been convicted of a felony, please include a description of the circumstances and outcomes of the conviction. Please note that prior convictions for criminal offenses may preclude one's ability to be licensed as a social worker in many states. In addition, many practicum sites require background checks and periodic drug screenings. Any negative findings that affect agency placement may also prevent successful completion of the requirements for the degree. Applicants and students should consider these barriers in their educational planning.

All of the above materials must be received in Graduate Admissions by one of the deadlines listed below in the year in which you hope to begin coursework.

### **M.S.S.W. Entry Date**

New 60 hour program students enroll in the fall semester only. New 30 hour program students may enroll in the fall or summer semester only.

### **M.S.S.W. Admission Application Date**

Consideration of applications begins in November. The final deadline varies as explained below, but because entry into the program is highly competitive, applicants are encouraged to submit their applications early to ensure a space. All admissions materials must be received in Graduate Admissions by the listed date in order for an applicant to be considered for admission by a particular deadline. Earlier applicants have more options and enjoy clear advantages. Kent School deadlines for admission are classified as follows:

#### ***February 15 Early Bird Admission***

*Students are eligible for:*

- Field placement (the earlier students apply, the greater the selection available)
- Scholarships
- Federal Work Study/Community Service Program (a Financial Aid program)
- Additionally, students:
  - Have the time to complete necessary prerequisites classes before Fall term.
  - May register at earliest registration opportunity, with maximum scheduling choices.

*Options No Longer Available:*

- None

#### ***May 15 (traditional admission)***

*Students are eligible for:*

- Field placement (practicum selections become more limited)
- Scholarships
- Registration continues (scheduling choices more limited)

*Options No Longer Available:*

- No Federal Work Study available unless practicum is set up by May 15.
- Less time to complete prerequisites before Fall term.

#### ***June 11 (extended admission)***

Students are eligible for:

- Field placement (practicum selections become even more limited)
- Registration continues (scheduling choices even more limited)

### *Options No Longer Available:*

- No scholarships available.
- No Federal Work Study available.
- Less time to complete prerequisites before Fall Term.

### ***July 30 (late admission)***

Students are limited to curriculum plans that do not include practicum placements.

### *Options No Longer Available:*

- No field placement options.
- No scholarships available.
- No Federal Work Study available.
- Less time to complete prerequisites before Fall term.

\*Complete means all materials are received in Graduate Admissions by deadline date.

## **M.S.S.W. Admission Status**

The graduate curriculum is organized into a four (4) semester, sixty (60) hour sequence of classroom courses and field education over a 16 month period, progressing from a generalist base to advanced practice. Students who are admitted and do not have a Council on Social Work Education accredited Bachelor of Social Work degree enter the REGULAR PROGRAM [sixty (60) hour program]. Students who have graduated within the previous five years from an undergraduate social work program accredited or in candidacy by CSWE with a cumulative grade point average of 3.00 and who have demonstrated good academic performance in their social work courses may be enrolled in ADVANCED STANDING and complete the thirty (30) hour advanced portion of the program. No academic credit is given for life or work experience.

The Weekend Program offers, particularly for working students or commuters from other geographic areas, an opportunity to earn an M.S.S.W. degree by attending classes on Friday evenings and Saturday. Part-time students must enroll for a minimum of six credit hours each semester. All part-time students enrolled in Kent School must complete the program within four years. For more information about all of the possible curriculum plans, please refer to the Kent School's Catalog online at the *future students* link of the Kent School website, [louisville.edu/kent](http://louisville.edu/kent).

The Kent School, in an ongoing collaborative effort to bring its M.S.S.W. program to professionals in more remote areas who already have a baccalaureate degree in social work, offers an Alternative M.S.S.W. Weekend Program in conjunction with Brescia University. Please refer to the Kent School's Catalog online at the *future students* link of the Kent School website, [louisville.edu/kent](http://louisville.edu/kent).

## **M.S.S.W. Dual Degree Programs**

The Kent School also offers joint degrees with the Brandeis School of Law at the University of Louisville (M.S.S.W./J.D.), the Louisville Presbyterian Seminary (M.S.S.W./M.Div), the Department of Pan-African Studies at the University of Louisville (M.S.S.W./M.A.) and the Department of Women's and Gender Studies at the University of Louisville (M.S.S.W./M.A.). Applications must be submitted independently to each academic unit/institution. Additionally, the Kent School offers the opportunity to earn a specialization in Marriage and Family Therapy (MFT), School Social Work (SSW), Alcohol and Drug Counseling (ADCS), or Gerontology (GER) while obtaining the M.S.S.W. degree. In general, all of these programs require the student take electives in a particular concentration and take a targeted advanced practicum. Dual degree programs require additional coursework, while the specializations may or may not require additional coursework. For more complete descriptions of these programs, please refer to the *future students* link at the Kent School website: [louisville.edu/kent](http://louisville.edu/kent).

## **M.S.S.W./Master in Divinity**

The joint M.S.S.W./M.Div program recognizes the value of professional education in two interrelated fields and encourages students who have an interest in both ministry and social work to pursue these degrees simultaneously. A student may enter the dual degree program from social work or theology.

## **M.S.S.W./Juris Doctor**

The dual M.S.S.W./J.D. program recognizes the value of interdisciplinary study and encourages students having an interest in both social work and law to pursue these degrees simultaneously. Social workers and lawyers often seek to address identical or related societal concerns, albeit from different perspectives; understanding both disciplines enhances one's effectiveness in both professional capacities. Law courses strengthen the social worker's understanding of legal doctrine and structures that have an impact on social institutions and human conditions; social work courses help lawyers to better understand human behavior, conflict resolution and social welfare institutions.

### **M.S.S.W./M.A. in Pan-African Studies**

The dual M.S.S.W./PAS program recognizes the value of professional education in two interrelated fields and encourages students who have an interest in both Pan-African Studies and Social Work to pursue these degrees simultaneously. Social workers and Pan-African studies scholars often seek to address identical or related societal concerns, albeit from different perspectives; understanding both disciplines enhances one's effectiveness in both the analysis of and engagement with contemporary social and cultural issues. Pan-African Studies courses strengthen the social worker's understanding of the historical foundations for policies and structures that have an impact on social institutions and human conditions; social work courses help Pan-African scholars or activists to better understand human behavior, conflict resolution and social welfare institutions. A Pan African Studies and Social Work combination provides the tools of social change for an historic problem of racial injustice.

### **M.S.S.W./M.A. in Women's and Gender Studies**

The dual M.S.S.W./WGST program recognizes the value of professional education in two interrelated fields and encourages students who have an interest in both Women's and Gender Studies and Social Work to pursue these degrees simultaneously. Social workers and Women's and Gender Studies scholars often seek to address identical or related societal concerns, albeit from different perspectives; understanding both disciplines enhances one's effectiveness in both the analysis of and engagement with contemporary social and cultural issues. Women's and Gender Studies courses strengthen the social worker's understanding of the historical foundations for policies and structures that have an impact on social institutions and human conditions; social work courses help Women's and Gender Studies scholars or activists to better understand human behavior, conflict resolution and social welfare institutions. A Women's and Gender Studies and Social Work combination provides the tools of social change for an historic problem of gender inequality and injustice.

### **M.S.S.W. Specializations**

For more complete descriptions of the following specializations, please refer to the *future students* link at the Kent School website: [louisville.edu/kent](http://louisville.edu/kent).

#### **Marriage and Family Therapy (MFT)**

Students may complete the Specialization in Marriage and Family Therapy program as part of the M.S.S.W. degree. The program prepares students for clinical practice with families in the context of their communities, particularly those families who are disadvantaged and/or typically underserved. Completion of the program prepares students for licensure as a marriage and family therapist in Kentucky and for clinical membership in the American Association for Marriage and Family Therapy. The M.S.S.W./MFT specialization requires 14 graduate credit hours in addition to the 60 hours required for the M.S.S.W.. Only a limited amount of students can be admitted to this specialization; for more information on application specifics, prospective students should access the program's website at [louisville.edu/kent/family](http://louisville.edu/kent/family).

#### **School Social Work (SSW)**

M.S.S.W. students who want to practice social work in a school setting can earn a school social work specialization within the Kent School master's curriculum. Students who select this specialization learn how to help children and families overcome barriers to learning through home intervention. Those who complete the specialization meet the Kentucky Council on Teacher Education's requirements for certification as a school social worker.

#### **Alcohol and Drug Counselor Specialization (ADCS)**

Substance abuse is widely recognized as one of the top health problems in the USA and is attracting increasing attention and funding. However, there is an identified shortage of qualified addiction counselors--and students who prepare themselves for a career in chemical dependency can hope to gain immediate employment after graduation, and possibly before. In this regard, students should be aware of a professional certification, the Certified Alcohol and Drug Counselor (CADC) certification, that is valued by addiction treatment agencies with comparable respect and compensation as the

Licensed Clinical Social Work (LCSW) qualification. For those who are interested in initiating their careers in a clinical substance abuse treatment setting, they can begin to fulfill specialized requirements of the CADC certification while completing normal requirements of the M.S.S.W. program. The Kent School's ADCS program will (1) satisfy many of the requirements of the CADC program; (2) teach specialized knowledge and skills; (3) provide formal recognition of students' specialized knowledge; (4) position students for employment and advancement in a broad array of specialized substance abuse roles; and (5) include specialized faculty mentoring and suggestions on finding employment.

## **Gerontology Specialization (GER)**

The nation's burgeoning aging population is increasing the demand for well-trained and competent social workers to respond to the needs of older adults and their families. The U.S. Department of Labor reports that geriatric social work is one of the most rapidly growing occupations, with the promise of job security. Startup funding for this specialization was provided by the John A. Harford Foundation, the New York Academy of Medicine and Social Work Leadership Institute, through a nationally known Practicum Partnership Program centered on competency-focused leadership education and rotation field practicums with community experts. Kent School was one of a handful of programs nationwide selected to be a part of this exciting initiative.

## **Curriculum**

For a complete description of possible 30 and 60 hour curriculum plans, please refer to the Kent School website: [louisville.edu/kent](http://louisville.edu/kent).

Cognitive Flexibility Theory as developed by Spiro (1990) guides the underlying curriculum philosophy. The main premise of the curriculum is to provide students strategies to learn challenging materials, to encourage flexibility in the use of knowledge, and to change the underlying ways of thinking. At the end of their studies students will achieve a deeper, more complex understanding of social work, they will be able to critically evaluate and contemplate the material while experimenting with the flexible application of the knowledge in a variety of contexts. This higher order of thinking that will be developed and promoted with the curriculum is referred to as critical thinking.

This curriculum philosophy responds well to social work as an ever changing and evolving profession which responds to the radically changing needs and demands of society. It is impossible for any curriculum to address each problem or case example social work graduates may face in their practice. Cognitive flexibility theory provides avenues and tools for students to integrate their learning experiences in such a way as to maximize their potential to meet the demands of the profession upon graduation. The curriculum is designed to enhance students' ability to enable the diverse client systems they work with to make decisions that contribute to the quality and health of these clients systems. The focus will also be on decisions that promote social justice. The curriculum is designed to deliver graduate social workers who think critically about what they do, why they do it, and what outcomes they hope will result from the social work practice they do.

Critical thinking is defined as "the intellectual disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief or action" (Scriven & Paul, 2004). Critical thinking includes specific skills such as problem-solving and the ability to integrate knowledge from multiple disciplines and theories of human behavior. Throughout the curriculum, there is an emphasis on critical reflection, or appraisal of various points of view no matter what the source. The curriculum draws heavily on social science knowledge and integrates this with problem-solving phases such as assessment, intervention, and evaluation. In this respect, the curriculum is designed to teach students to access, integrate, and assess practice and policy related research to solve social problems and to work towards social justice. When critical thinking skills are used effectively, it leads to transparency and promotes social change, particularly with and on behalf of vulnerable and oppressed individuals and groups of people.

Bruner's spiral curriculum format (1991) is used to implement the above mentioned cognitive flexibility philosophy in the development of higher order critical thinking skills. With this format, topics are revisited throughout the curriculum, while increasing the level of difficulty, complexity and depth of the area and linking new knowledge or information to previous levels of learning on the same topic to increase the competency of the students. Students will be introduced in the foundation curriculum to different strategies on how to develop critical thinking. In the advanced curriculum, students

will move towards a higher level of complexity in their thinking because they will be required to analyze problems from multiple perspectives, evaluate multiple sources of evidence, and address complex issues and problems incorporating multiple level forces on client systems.

## **M.S.S.W. Foundation Curriculum**

The foundation curriculum promotes a generalist perspective in which the simultaneous impact of many systemic levels (individuals, families, groups, organizations, and communities) on clients' lives is critically analyzed and recognized. The foundation builds upon a liberal arts base that fosters an understanding of society as a complex organization of diverse people and ideas. Social problems are understood as occurring within the nexus of culture, conflict, development, ecology, and systems and as such, efforts to help or intervene must include consideration of these forces. Students will be able to critically identify and assess social problems, specifically attending to 1) how such problems are maintained, 2) how they impact the quality of people's life, 3) cultural sensitivity and appreciation of marginalized people, and 4) how to actively promote social and economic justice. In the foundation year, the focus is on the development of critical thinking skills in all the areas mentioned.

## **M.S.S.W. Advanced Curriculum - Advanced Social Work Practice**

The advanced curriculum seeks to develop the utilization and application of critical thinking on all levels - in reading professional writing and research, in students' practica, in the classroom, and in the students' own thinking. Consistently monitoring practice ethically, evaluating theoretical principles and epistemologies, and utilizing technological advances become basic practice patterns. Specific skill sets developed include: 1) Creating, organizing and integrating ideas and action on engaging diverse client systems effectively in change; 2) Assessing, conceptualizing and analyzing theoretical, practice and research problems from multiple perspectives and utilize critical thinking skills to formulate impressions based upon the data; 3) Analyzing, synthesizing and evaluating the evidence available to guide advanced social work practice; 4) Synthesizing, formulating and implementing a plan of action for social work practice that addresses complex issues and problems, builds consensus and incorporates multiple-level forces on client systems; 5) Analyzing and evaluating data of client progress and outcomes and assess implications and consequences of this progress and outcomes; 6) Synthesizing, creating, and organizing ideas from theory, research and practice for social justice; and 7) Demonstrating the ability to integrate culturally competent skills into all aspects of social work practice.

These skills will be used to actively pursue social change, particularly with and on behalf of vulnerable and oppressed client systems. Students will learn how to become leaders in social change efforts focused primarily on issues of poverty, discrimination, and other forms of social injustice.

To assist graduates in their future professional careers, these skills are organized around three practice foci: 1) children and families, 2) health and mental health, and 3) community and international practice. These domains give opportunity for students to focus on clustered learning within the context of these fields of practice. Recognizing that the employment of students after graduation is often a function of geography and personal circumstance, the school allows students the programmatic option of combining interests among focus areas.

While curricular options do exist for students to develop a certain subject-matter expertise, the recognition of the School that it needs to prepare students more broadly places the principal focus of the concentration work on a high-level critical thinking about social work engagement and also on the translational knowledge and skills that support the graduates' movement from one field of practice to another. Once students learn how to learn and how to think about social work practices, and they understand the components of ethical practice and the responsibility to increase specific field-of-practice expertise, they will be better equipped to practice in a world where knowledge changes and transforms what we do on a rapidly accelerating curve.

## **M.S.S.W. Practicum Education**

For additional information, please go to: [louisville.edu/kent/masters/practicum](http://louisville.edu/kent/masters/practicum). All students admitted to the 60 credit-hour program are required to complete satisfactorily SW 670, SW 671, SW 672 and SW 673 (900 clock hours) in approved practicum sites. Students admitted to the 30 credit-hour program are required to complete satisfactorily SW 672 and SW 673 (450 clock hours) practicum in an approved site. A growing number of students face the necessity of having to be employed full-time while undertaking their M.S.S.W. degree requirements. The Kent School faculty understands this and tries to address such circumstances through both the evening and weekend classroom course schedules, but it is important to note there are no evening and weekend practicum options. The school's present policies



about on-job field placements are explained below and in The Practicum Education Handbook which can be found at the *future students* link at the Kent School website, [louisville.edu/kent](http://louisville.edu/kent). If employed in a human services agency meeting the school's criteria as a placement site, the student may apply to undertake the practicum at her/his place of employment. This may be accomplished when the agency is willing to shift the student's work role and supervision in such a manner as necessary to meet the school's educational objectives for practicum instruction.

Practicum education is offered in a concurrent format so that students enrolled in a practicum course must simultaneously be enrolled in a practice course, i.e.; SW 670 with SW 604 (Foundation Practice I), SW 671 with SW 605 (Foundation Practice II), SW 672 with SW 640 (Adv Prac II), and SW 673 with SW 677 (Adv Prac III).

## **M.S.S.W. Electives**

The Kent School of Social Work provides electives as enrichment to the specialized learning in the concentration year. Social work jobs call for skills and knowledge that are broader than any narrowly defined specialization. For example, mental health workers are asked to know psychopathology, substance abuse, managed care, AIDS, and a range of other substantive areas. Many school social workers share the need for the same content. In addition, it is noted that social workers frequently change jobs, often to another field of practice. Social work education seeks to teach students to think critically, analyze systematically, and know where to find information and resources within the context of social work history, development and values. It is this type of education that best prepares students to function in a rapidly changing society.

In this curriculum paradigm, electives are considered enrichment. Some of this enrichment is in the form of very specific course content that aligns with a specific focus area or specialization. For example, a person interested in the health and mental health focus area, may elect to take a course in psychopathology to prepare for work in private practice or a mental health center. In another case, the enrichment may take the form of a complementary course such as a student focused on children and families taking a management course to prepare for career possibilities or the student interested in community and international practice, taking a course in family intervention to understand the complexities of family practice. Or, the enrichment may take the form of exploration as in the case of the student taking an aging or child welfare course to better understand those fields of practice and to prepare for various job prospects. Finally, the enrichment may include a course of general interest such as a women's issues course which crosses numerous focus areas, but may not correspond specifically to the direct focus of the student.

Students are eligible to take electives anytime following completion of the foundation curriculum, or at a minimum, after completing 2 human behavior courses, 2 social policy courses and the human diversity course. This coursework forms the basis of understanding social work concepts sufficiently to generate enrichment interest. Students are discouraged from taking practice-focused electives until completing generalist practice courses or at least taking such coursework concurrently. The program leading to the degree of Master of Science in Social Work focuses on developing professional leaders in social work practice. The program connects an intensive academic component with a practicum, allowing the student to learn and immediately apply theory.

## **M.S.S.W. 60-hour Regular Program**

Students who are admitted and do not have a Council on Social Work Education accredited Bachelor of Social Work degree enter the 60-hour REGULAR PROGRAM. This program can be completed in different ways of which the shortest period is 2 years and the longest period is 4 years. Specific plans are outlined under Curriculum Plans in the Kent School online catalog found at the *future students* link at the Kent School website, [louisville.edu/kent](http://louisville.edu/kent). The next listing provides a basic description of the courses needed to complete this program (all courses are 3 credit hours each):

## **Foundation Coursework**

### ***Name and Number of Course - Semesters offered***

- 601 Human Behavior in the Social Environment I (HBSE) - Fall
- 619 Human Behavior in the Social Environment II (HBSE) - Spring
- 602 Social Welfare Institutions, Policies and Services - Fall
- 622 Issues in Policy & Service Delivery - Spring
- 603 Human Diversity - Fall and Summer
- 604 Social Work Practice I - Fall
- 605 Social Work Practice II - Spring

- 670 Practicum I (16 clock hours per week) - Fall
- 671 Practicum II (16 clock hours per week) - Spring
- 626 Research Methodology - Spring (only weekdays) and Summer

## Advanced Coursework

(Pre-requisite: all Foundation Courses)

### ***Name and Number of Course - Semesters offered***

- 641 Advanced Social Work Practice I (must be taken in the same semester or in the Summer before 640) - Summer and Fall
- 640 Advanced Social Work Practice II - Fall
- 677 Advanced Social Work Practice III - Spring
- 668 Adv Research Practice I - Fall
- 669 Adv Research Practice II -Spring
- 672 Adv Practicum I (16 clock hours per week) - Fall
- 673 Adv Practicum II (16 clock hours per week) - Spring
- Electives (3 electives are required - 9 credit hours) - Fall, Summer and Spring

## M.S.S.W. 30-hour Advanced Standing Program

Students holding a CSWE accredited Bachelor of Social Work degree with a cumulative grade point average of 3.00 who have demonstrated good academic performance in their social work courses may be enrolled in the 30-hour ADVANCED STANDING Program. This program equates to completing the 30- hour advanced portion of the 60-hour program. No academic credit is given for life or work experience. Advanced Standing is limited to applicants who have earned BSW degrees within the last 5 years, at the time of enrollment in the Kent School. This program can be completed in different ways of which the shortest period is 1 year and the longest period is 2 years. Specific plans are outlined under Curriculum Plans in the Kent School online catalog found at the *future students* link at the Kent School website, [louisville.edu/kent](http://louisville.edu/kent). The next listing provides a basic description of the courses needed to complete this program (all courses are 3 credit hours each);

## Advanced Coursework

(Pre-requisite: BSW)

### ***Name and Number of Course - Semesters offered***

- 641 Advanced Social Work Practice I (must be taken in the same semester or in the Summer before 640) - Summer and Fall
- 640 Advanced Social Work Practice II - Fall
- 677 Advanced Social Work Practice III - Spring
- 668 Adv Research Practice I - Fall
- 669 Adv Research Practice II - Spring
- 672 Adv Practicum I (16 clock hours per week) - Fall
- 673 Adv Practicum II (16 clock hours per week) - Spring
- Electives (3 electives are required - 9 credit hours) - Fall, Summer and Spring

## Departmental Faculty

### Dean

Terry L. Singer  
Professor

## **Professors**

Anita P. Barbee

Gerard M. (Rod) Barber

Joseph H. Brown

Dana N. Christensen

*Director of Marriage and Family Specialization*

Ruth Huber

*Director of Doctoral Program*

Thomas R. Lawson

*Director of International Program*

Sharon Moore

Carol Tully

Riaan Van Zyl

*Associate Dean of Research*

## **Associate Professors**

Richard Cloud

*Coordinator, Alcohol and Drug Counseling Specialization*

Wanda Collins

Anna C. Faul

*Associate Dean of Academic Affairs*

*Co-Director, Gerontology Specialization*

Andy Frey

*Coordinator, School Social Work Specialization*

Seana Golder

Bibhuti Sar

*Director CFL Program*

Pamela Yankeelov

*Associate Dean of Student Services*

## **Associate Research Professors**

Linda K. Bledsoe

## **Assistant Professors**

Becky F. Antle

Sharon Bowland

Noell Rowan

*Co-Director, Gerontology Specialization*

*Director, BSW Program*

## **Assistant Research Professors**

Ramona Stone

Dana Sullivan

**Instructors**

Lisa Barrett

Martha Fuller

*Director of Field Education*

Kim Wadlington

# Doctor of Philosophy in Social Work

**Major:** SW

**Degree Awarded:** Ph.D.

**Unit:** GK

**Program Webpage:** <http://www.louisville.edu/kent/doctoral/>

## Program Information

The Commonwealth's first doctoral program in social work offers the opportunity for academically motivated master's level social workers to continue their studies at the doctoral level.

### Application to the Doctoral Program

To apply to the doctoral program in social work send the following materials by February 1 to:

*Ruth Huber, Ph.D., Director  
Ph.D. Program in Social Work*

*Kent School of Social Work  
University of Louisville  
Louisville, KY 40292  
Phone: 502-852-0435  
Email: [ruth.huber@louisville.edu](mailto:ruth.huber@louisville.edu)*

1. Completed Graduate School Application
2. Application for Admission to the UL Ph.D. in Social Work Program
3. Official transcripts from each college/university attended, and documentation of the receipt of a Master's Degree in Social Work, e.g. MSW, MSSW, from a CSWE accredited program or international equivalent.
4. Official report of GRE scores
5. Three recommendations (at least two from academicians)
6. Application fee of \$50
7. A current resume
8. A sample of scholarly writing
9. A personal statement of career goals, research interests, and reasons for pursuing doctoral studies (no more than 3 pages).

The admission process involves the following:

- Review of application materials by the doctoral admissions committee
- Admission committee interviews with those recommended
- Recommendation to the Graduate School

### Doctoral Admission Requirements

Students are expected to hold master's degrees in Social Work, i.e. MSW, MSSW, from programs accredited by the Council on Social Work Education (CSWE), or international equivalents. Two years of full time post-master's experience is advised.

### Academic Policies

**Four-year policy:** Doctoral students are expected to have taken their qualifying exams by the time they are in the program four years, and complete the program in four additional years.

**Data Analysis and Writing Policy:** Doctoral students in the Kent School of Social Work may not arrange for anyone to analyze their data or write parts of their dissertations; rather, they should consult with their committee members if assistance is needed. Students may ask professional editors or others to edit their writing for grammar and other canons of writing.

## Curriculum

<b>Core Courses</b>	<b>Semester Hours</b>	<b>Cumulative Total Hours</b>
Advanced Research Design & Analysis I	6	6
Advanced Research Design & Analysis II	6	12
Advanced Research Design & Analysis III	3	15
Professional Seminar I	1	16
Professional Seminar II	1	17
Teaching in Social Work	3	20
Theory I: Change Theories in Social Work	3	23
Ethics, Social Work, and Society	3	26
Theory II: Theory Development	3	29
Theory III: Advanced Analysis of Social Welfare Problems	3	32
Advanced Measurement in Social Work Research	3	35
Advanced Qualitative Research	3	38
Research Practicum	3	41
<b>Individualized Studies and Dissertation Hours</b>		
Individualized Studies	9	50

## **Doctoral Qualifying Examination**

The purpose of the qualifying examination is to provide a format in which students can demonstrate their abilities to apply and integrate the whole of their educational experiences by adequately addressing complex questions pertinent to social work's current and developing knowledge base, and their individual research areas. A student is eligible to take the qualifying examinations upon successful completion of 50 credits of core and individualized course work. Students are expected to provide answers that integrate knowledge from all required courses. Following the passage of the qualifying examination, students are admitted to candidacy status.

## **Doctoral Dissertation**

After admission to candidacy, students proceed to propose, complete, and defend their dissertations. The dissertation must represent independent research and should be based on original research questions or hypotheses. This process includes (a) a concept paper, (b) a formal proposal, and (c) conducting the research and writing the dissertation. Dissertation committees have at least five members, one of whom is from the University of Kentucky.

## **Departmental Faculty**

### **Gerard M. (Rod) Barber**

Professor

### **Anna C. Faul, Ph.D.**

Associate Professor

Associate Dean, Academic Affairs

### **Andrew J. Frey, Ph.D.**

Associate Professor

### **Ruth Huber, Ph.D.**

Professor

Director Ph.D. Program in Social Work

### **Thomas R. Lawson, Ph.D.**

Professor

### **Bibhuti K. Sar, Ph.D.**

Associate Professor

### **Terry L. Singer, Ph.D.**

Professor

Dean

### **Carol Tully, Ph.D.**

Professor

### **Riaan van Zyl, Ph.D.**

Professor

Associate Dean for Research

# Post Master's Certificate in Marriage and Family Therapy

**Major:** MFTCMF

**Degree Awarded:** CERT

**Unit:** GK

**Program Webpage:** <http://louisville.edu/kent/family/descflyr.htm>

## Program Information

The Family Therapy Program in the Kent School of Social Work offers the Post Master's Certificate in Marriage and Family Therapy (MFT). This certificate program is designed for those who already hold a master's degree from a regionally accredited institution in a human services field to pursue advanced study and supervised practice in marriage and family therapy. The Post Master's Certificate in MFT meets course requirements for Kentucky licensure in MFT and for Clinical Membership in the American Association for Marriage and Family Therapy (AAMFT). Coursework focuses on theoretical foundations, practical applications, ethical responsibilities, integration of research, and supervised clinical practice.

The Certificate Program is comprised of coursework and supervised practice. Courses are offered on Fridays on the Shelby Campus of the University of Louisville during fall, spring, and summer semesters. Supervised practice includes (1) a live supervision class that meets one evening per week, (2) a one-hour individual supervision session each week, and (3) additional time as needed to attain practicum requirements. The certificate program is structured for the student to complete the requirements in two calendar years, a new cohort of students beginning in the summer semester of each year. Requirements include six (6) courses concurrent with 500 hours of supervised clinical practice and 100 hours of approved supervision.

The Post Master's Certificate in MFT has been accredited since 1990 by COAMFTE.

Students must have employment or a volunteer placement that provides three-five hours of ongoing clinical contact per week with individuals, couples, or families. Students are expected to join AAMFT (American Association for Marriage and Family Therapy) as student members, to attend one major conference in MFT, and to volunteer service to KAMFT (Kentucky Association for Marriage and Family Therapy) each year. Students must also have liability insurance to begin practicum.

## Prerequisites

Prerequisites are required, but will vary depending upon the student's specific master's program.

- One (1) three semester hour course in *clinical practice* (e.g., MFT practice models, family and/or individual mental health assessment, interventions with specific clinical populations/problems).
- Three (3) three semester hour courses in *individual development and family relations* (e.g., sexuality issues, gender, sexual orientation, cultural diversity, human growth and development, personality, human behavior in the social environment).
- One (1) three semester hour course in *research* (e.g., methodology, data analysis, evaluation).
- One (1) three semester hour course in an area of specific professional interest.
- A semester-long practicum.

## Admissions

Prospective students must submit the following completed materials:

1. The University of Louisville Graduate School Application; see <http://graduate.louisville.edu/apply>;



2. An official copy of transcripts from all colleges or universities attended;
3. *Three (3) (please note difference from graduate school application)* letters of recommendation indicating potential for success in the program;
4. A letter of intent that explains the applicant's
  - interest in applying to this program,
  - knowledge of family therapy,
  - work experience (voluntary or paid) in human services,
  - affiliation with professional organizations (including conference attendance),
  - professional goals and expectations.
5. A current resumé; and
6. A five-page summary of significant family-of-origin experiences that reflects the applicant's exploration of personal growth issues which may be relevant in one's development as a family therapist.

Application materials required by the Graduate School (#1, #2, #3 above) should be sent directly to:

**Office of Graduate Admissions  
University of Louisville  
105 Houchens  
Louisville , Kentucky 40292**

The specific application materials for the Post Masters Certificate in MFT (#4, #5, #6 above) should be **sent electronically** to:

**Nancy Bruner at [nebrun01@louisville.edu](mailto:nebrun01@louisville.edu)  
(502) 852-0383**

It may be advisable to call Nancy Bruner, 852-0383, the FT Program Assistant, to check on the status of your application. Each application will be reviewed by the Family Therapy Program faculty. Upon satisfactory review of the student's MFT application materials (which includes completion of all prerequisites by the summer start date), an interview will be scheduled with the Family Therapy Program Director and or faculty. Enrollment is limited.

The Post Master's Certificate Program does not discriminate on the basis of age, gender, race, sexual orientation, disability status, national origin or religion. The Post Master's Certificate in MFT within the Kent School of Social Work at the University of Louisville is accredited by the Commission on Accreditation for Marriage and Family Therapy Education (COAMFTE) of the American Association for Marriage and Family Therapy (AAMFT), 112 South Alfred Street, Alexandria, VA 22314, (703) 838-9808.

## **Curriculum**

Please contact the program to learn more about the curriculum requirements.

## **Departmental Faculty**

# School of Dentistry

Oral Biology - MS

# Master of Science in Oral Biology

**Major:** OBIO

**Degree Awarded:** MS

**Unit:** GD

**Program Webpage:** <http://www.dental.louisville.edu/>

## Program Information

The School of Dentistry offers a program of study leading to the Master of Science Degree in Oral Biology. The program is directed toward a general understanding of the biology of the oral cavity and developing craniofacial region, clinical studies and biomechanics associated with dental sciences. Students obtain the scientific knowledge and biomedical skills required to perform contemporary dental research.

Areas for research training include: molecular, cellular and craniofacial biology; craniomaxillofacial diagnostic imaging; neural crest-related craniofacial and cardiovascular disorders; biochemistry of calcium-regulating hormones; regulation of gene transcription; oral microbiology; cellular mechanisms of salivary gland secretion; gene mapping of complex traits and birth defects; infection control; protein glycosylation; protein expression and trafficking; periodontology; dental materials science; orthodontics; endodontics; prosthodontics; and health services research related to dentistry.

A minimum of 30 semester hours is needed for the M.S. degree. Requirements for the degree include courses in introductory and advanced oral biology and in data analysis, participation in seminars, and a thesis.

Other course work may be required as individualized programs are developed by students working with their thesis advisor/director and graduate committees. The graduate committee also approves proposed thesis research, reviews the thesis research, reviews the thesis for acceptance, and administers a final oral examination.

The M.S. degree in oral biology offers training particularly important to persons wishing to pursue a career in academic dentistry. The program is available to students wishing to obtain only the M.S. degree, to students enrolled in Dental Specialty Certificate/ Residency Programs, students enrolled in the D.M.D. degree program, and persons who have previously earned a D.M.D. or M.D. (or equivalent) degree.

### Application for Admission

The application form is available on-line at: [graduate.louisville.edu/apply/](http://graduate.louisville.edu/apply/). Additionally, there is a \$50.00 non-refundable application fee. Applications are not processed until the application fee is received.

Credentials listed below should be sent to the Office of Graduate Admissions at least eight weeks prior to the beginning of the semester or summer session in which the student wishes to enroll; otherwise the application may not be reviewed in time for registration.

Students currently enrolled in the D.M.D. degree program who wish to apply to the M.S. degree in oral biology program should not do so until after the completion of their first academic year in the D.M.D. program.

### Admission Credentials

- Application and application fee
- Transcripts of all college coursework, including evidence of a baccalaureate degree
- Graduate Record Examination scores or acceptable scores on the DAT
- Two letters of recommendation

# Curriculum

## Major subject required (core) courses:

- OBIO 501 Biomedical Data Analysis: Experimental Design and Statistics (Fall Semester) (3 semester hours)
- OBIO 601 Introduction to Oral Biology Research (Fall Semester) (2 semester hours)
- OBIO 606 Oral Biology Seminar (Spring Semester, Prerequisite: OBIO 601) (1 semester hour)
- OBIO 619 Research (minimum of 8 semester hours required) (8 semester hours)
- OBIO 620 Thesis (minimum of 6 semester hours required; the student must register for at least 1 semester hour of OBIO 620 in the same semester as their thesis defense) (6 semester hours)

## Major subject selective courses:

At least 4 semester hours must be in courses selected from the group identified below:

- OBIO 600 Concepts in Oral Biology (4 semester hours)
- OBIO 602 Bone and Calcium Physiology (3 semester hours)
- OBIO 604 Oral Microbiology (3 semester hours)
- OBIO 611 Craniofacial Osteology (1-3 semester hours)
- OBIO 612 Craniomaxillofacial Diagnostic Imaging (2-4 semester hours)
- OBIO 613 Diagnosis and Treatment of Temporomandibular Disorders (1 semester hour)
- OBIO 614 Advanced Oral Diagnosis/Oral Medicine (1 semester hour)
- OBIO 615 Advanced Clinical Pharmacology (1 semester hour)
- OBIO 616 Overview of Medical Genetics in Oro-facial Disease (1.5 semester hours)
- OBIO 617 Advanced Oral Pathology (1 semester hour)
- OBIO 670 Dental Gross Anatomy (6 semester hours)
- OBIO 671 General and Oral Histology (5 semester hours)
- OBIO 675 Advanced Head and Neck Anatomy (2 semester hours)

## Additional approved course semester hours

These courses may be chosen from any 600-level courses offered by the Graduate School that are deemed to be relevant and applicable to the student's program of study and thesis research, and must be approved by the student's thesis advisor/director and the Program Director: (6 semester hours)

\*Note: OBIO 610 Advanced Topics in Oral Biology (1-4 semester hours) is strongly recommended in partial fulfillment to these 6 semester hours.

Total semester hours required for M.S. degree: 30 semester hours

## Departmental Faculty

### Director

F. John Firriolo

### Professors

Norbert J. Burzynski

Gary A. Crim

Connie L. Drisko

Allan G. Farman

Lawrence Gettleman

Allan Gould

Robert M. Greene

Henry Greenwell

Bruce Haskell

B. Edwin Johnson

Zafrulla Khan

Richard L. Miller

Frederick M. Parkins

Michelle L. Pisano

James P. Scheetz

Robert H. Staat

Arthur Van Stewart

John N. Williams

William W. Young

**Associate Professors**

Janice M. Butters

Douglas S. Darling

Sven-Ulrik Gorr

Margaret Hill

Regan L. Moore

Abbas Parsian

William Scarfe

Anibal M. Silveira

David Tasman

**Assistant Professors**

Steven Clark

# Speed School of Engineering

Chemical Engineering - MS

Chemical Engineering - Ph.D.

Civil Engineering - MS

Civil Engineering - Ph.D.

Computer Science - MS

Computer Science and Engineering - Ph.D.

Electrical Engineering - MS

Electrical Engineering - Ph.D.

Industrial Engineering - MS

Industrial Engineering - Ph.D.

Mechanical Engineering - MS

Mechanical Engineering - Ph.D.

# Master of Science in Chemical Engineering

**Major:** CHE

**Degree Awarded:** MS

**Unit:** GS

**Program Webpage:** <http://www.louisville.edu/speed/chemical>

## Program Information

This degree program is intended for persons having an accredited baccalaureate degree in chemical engineering, but is available to those with other backgrounds. Applicants with other backgrounds should plan on taking some undergraduate background course work. Students interested in the MS degree program should consult the Graduate Student Advisor in the Department of Chemical Engineering.

### Non-Thesis Option

In general, the non-thesis alternative makes graduate study more attractive to students who wish to receive advanced training in chemical engineering but do not qualify for or wish to pursue the Ph.D. degree and to students pursuing a Ph.D. who wish to receive a Master's degree "in-passing."

### Program admission procedure

The admission requirements for the MS program are essentially the same as those of the Graduate School. For unconditional admission, a minimum combined score of 1100 (Verbal and Quantitative) on the GRE and a minimum 3.0 on a 4.0 scale undergraduate GPA is expected. Remedial work may be specified for those applicants who, in the opinion of the faculty, do not have a sufficient background in chemical engineering, e.g., B.S. Chemists, Biologists (approximately one year of undergraduate courses may be required).

International applicants are required to take the TOEFL examination if English is not the native language. Applicants who have not scored 550 or higher on the TOEFL may choose to apply to the Intensive English as a Second Language (IESL) Program. Successful completion of this program or passing the Exit Examination in the advanced level of IESL will be considered adequate proof of the English proficiency required for course work in the MS program. Acceptance to the Intensive English Program does not constitute acceptance to the MS program. For information and application forms, write to IESL, University of Louisville, Louisville, KY 40292.

## Curriculum

### MS in Chemical Engineering with thesis

#### Curriculum Requirements

The general requirements of the MS with thesis program are the same as those of the Graduate School. Other specific guidelines for the MS degree in chemical engineering with thesis are these:

***Minimum course hours beyond baccalaureate degree in Chemical Engineering – 24 Semester Hrs***

	<b>Semester Hours Total</b>
ChE 610, Advanced Thermodynamics	3
ChE 620, Transport Phenomena	3
ChE 641, Advanced Reactor Design	3
ChE 686, Chemical Engineering Analysis	3
ChE 695, Chemical Engineering Seminar	2
Other 500-600 level courses (at least one course outside ChE) (not all may be 500 level)	12
ChE 690, Research in Chemical Engineering	6
<b>Total Credit Hours</b>	<b>32</b>

## **MS in Chemical Engineering with non-thesis alternative**

### **Curriculum Requirements**

The general requirements of the MS (non-thesis alternative) program are the same as those of the Graduate School. Other specific guidelines for the MS (non-thesis alternative) degree in chemical engineering are these:

### ***Minimum course hours beyond baccalaureate degree in Chemical Engineering – 30 Semester Hrs***

	<b>Semester Hours Total</b>
ChE 610, Advanced Thermodynamics	3
ChE 620, Transport Phenomena	3
ChE 641, Advanced Reactor Design	3
ChE 686, Chemical Engineering Analysis	3
ChE 695, Chemical Engineering Seminar	2
Other 500-600 level courses (at least one course outside ChE) (not all may be 500 level)	18
<b>Total Credit Hours</b>	<b>32</b>

## **Departmental Faculty**

### **Kyung A. Kang**

*Professor*

Graduate Program Director

### **Walden L.S. Laukhuf**

*Professor*

Associate Chair

### **Thomas L. Starr**

*Professor*

Associate Dean for Research and Facilities

### **Mahendra Sunkara**

*Professor*



**James C. Watters**

*Professor*

Chair

Undergraduate Student Advisor

**R. Eric Berson**

*Assistant Professor*

**Moises Carreon**

*Assistant Professor*

**Gerold A. Willing**

*Assistant Professor*

**Richard P. Baldwin**

Associate

*Professor of Chemistry*

**Lawrence Gettleman**

*Associate*

*Professor of Prosthodontics and Biomaterials*

**Patricia A. Ralston**

*Associate*

*Professor & Chair of Engineering Fundamentals*

**Richard A. Ward**

*Associate*

*Professor of Medicine, Division of Nephrology*

**Duane F. Bruley**

*Adjunct Professor*

**Garrett Cawthon**

*Adjunct Professor*

**Britton Chance**

*Adjunct Professor*

**Joseph A. Zimlich**

*Adjunct Assistant Professor*

**David W. Wheatley**

*Adjunct Professor*

**Dermot J. Collins**

*Emeritus Professor*

**Pradeep B. Deshpande**

*Emeritus Professor*

**Marvin Fleischman**

*Emeritus Professor*

**Earl R. Gerhard**

*Emeritus Dean and Professor*

**Dean O. Harper**

*Emeritus Professor*

# Doctor of Philosophy in Chemical Engineering

**Major:** CHE

**Degree Awarded:** Ph.D.

**Unit:** GS

**Program Webpage:** <http://www.louisville.edu/speed/chemical>

## Program Information

The mission of the Ph.D. program in chemical engineering is to develop graduates, who are academically prepared for the broad profession of Chemical Engineering, which is increasingly complex, diverse and changing. This is to be accomplished through educational programs and the pursuit of scholarship and research. The department is committed to fulfilling its role in the urban mission of the University of Louisville.

### Program Information

This degree program is intended for persons having an accredited masters and/or baccalaureate degree in chemical engineering, but is available to those with other backgrounds. Applicants with other backgrounds should plan on taking some undergraduate background course work. Students interested in the Ph.D. degree program should consult the Graduate Student Advisor in the Department of Chemical Engineering.

### Program Admission Procedure

The admission requirements for the Ph.D. program are essentially the same as those of the Graduate School. For unconditional admission, a minimum score of 1100 (Verbal and Quantitative) on the GRE and a minimum 3.0 on a 4.0 scale undergraduate GPA is expected. Remedial work may be specified for those applicants who, in the opinion of the faculty, do not have a sufficient background in chemical engineering, e.g., B.S. Chemists, Biologists (approximately one year of undergraduate courses may be required).

International applicants are required to take the TOEFL examination if English is not the native language. Applicants who have not scored 550 or higher on the TOEFL may choose to apply to the Intensive English as a Second Language (IESL) Program. Successful completion of this program or passing the Exit Examination in the advanced level of IESL will be considered adequate proof of the English proficiency required for course work in the Ph.D. program. Acceptance to the Intensive English Program does not constitute acceptance to the Ph.D. program. For information and application forms, write to IESL, University of Louisville, Louisville, KY 40292.

## Curriculum

The general requirements of the Doctor of Philosophy program are the same as those of the Graduate School. Other specific guidelines for the Ph.D. degree in chemical engineering are these:

Minimum course hours beyond baccalaureate degree in Chemical Engineering – 30 Semester Hrs

	<b>Semester Hours Total</b>
CHE610, Advanced Thermodynamics	3
CHE620, Transport Phenomena	3

CHE641, Advanced Reactor Design	3	
CHE686, Chemical Engineering Analysis	3	
CHE695, Chemical Engineering Seminar	4	
Other 500-600 level courses (at least one course outside CHE)	18	
CHE693, Research in Chemical Engineering	36	
<b>Total Credit Hours</b>		<b>70</b>

## Departmental Faculty

### **Kyung A. Kang**

*Professor*

Graduate Program Director

### **Walden L.S. Laukhuf**

*Professor*

Associate Chair

### **Thomas L. Starr**

*Professor*

Associate Dean for Research and Facilities

### **Mahendra Sunkara**

*Professor*

### **James C. Watters**

*Professor*

Chair

Undergraduate Student Advisor

### **R. Eric Berson**

*Assistant Professor*

### **Moises Carreon**

*Assistant Professor*

### **Gerold A. Willing**

*Assistant Professor*

### **Richard P. Baldwin**

*Associate*

*Professor of Chemistry*

### **Lawrence Gettleman**

*Associate*

Professor of Prosthodontics and Biomaterials

### **Patricia A. Ralston**

*Associate*

Professor & Chair of Engineering Fundamentals

### **Richard A. Ward**

*Associate*

Professor of Medicine, Division of Nephrology

### **Duane F. Bruley**

*Adjunct Professor*

### **Garrett Cawthon**

*Adjunct Professor*

### **Britton Chance**

*Adjunct Professor*

**David W. Wheatley**

*Adjunct Professor*

**Joseph A. Zimlich**

*Adjunct Assistant Professor*

**Dermot J. Collins**

*Emeritus Professor*

**Pradeep B. Deshpande**

*Emeritus Professor*

**Marvin Fleischman**

*Emeritus Professor*

**Earl R. Gerhard**

*Emeritus Dean and Professor*

**Dean O. Harper**

*Emeritus Professor*

# Master of Science in Civil Engineering

**Major:** CE

**Degree Awarded:** MS

**Unit:** GS

**Program Webpage:** <http://speed.louisville.edu/civil/>

## Program Information

The Department of Civil and Environmental Engineering of the Speed School of Engineering, the school of engineering and applied science of the University of Louisville, offers programs of study leading to the degrees of Master of Science and Doctor of Philosophy in Civil Engineering. It also offers an integrated five-year program of cooperative education leading to the professional degree of Master of Engineering. General requirements of the Master of Science Program are the same as those of the Graduate School.

### Admission Requirements

The admission requirements for the M.S. and Ph.D. programs are essentially the same as the general requirements of the Graduate School. Remedial work may be specified for those applicants who, in the opinion of the faculty, do not have a sufficient background in civil engineering.

## Curriculum

	Semester Hours	Total
Civil Engineering Courses (at least 9 hours at the 600 level)	12	
Other 500-600 level courses (at least two courses outside civil engineering)	12	
Thesis for M.S.	6	
Minimum Total		<b>30</b>

*A minimum of 12 hours must be at the 600-level, exclusive of thesis hours.*

**Master of Science in Civil Engineering--NON-THESIS OPTION**

**Requirements:** The non-thesis option will be open to any student enrolled in the Civil Engineering Master of Science degree program with no restrictions. The program utilizes existing courses and administrative infrastructure while the overseas degree program will be self-supporting from program fees and tuition.

The program will require a minimum of 30 credit hours of graduate courses, with a minimum of 15 credits at the 600-level. The specific courses will be selected in consultation with the student's academic advisor.

## **Departmental Faculty**

### ***Chair***

J. P. Mohsen , Professor

### ***Professors***

N. R. Bhaskar

Louis F. Cohn

Mark French

D. Joseph Hagerty

R. A. Harris

Thomas Holloman

Arthur C. Parola

Mario Paz

Charles R. Ullrich

Terence A. Weigel

### ***Professors Emeritus***

Michael A. Cassaro

C. Eugene Miller

# Doctor of Philosophy in Civil Engineering

**Major:** CE

**Degree Awarded:** Ph.D.

**Unit:** GS

**Program Webpage:** <http://speed.louisville.edu/civil/>

## Program Information

The Department of Civil and Environmental Engineering of the Speed School of Engineering, the school of engineering and applied science of the University of Louisville, offers programs of study leading to the degrees of Master of Science and Doctor of Philosophy in Civil Engineering. It also offers an integrated five-year program of cooperative education leading to the professional degree of Master of Engineering. The general requirements for the Doctor of Philosophy program are the same as those of the Graduate School. **Admission Requirements**

The admission requirements for the M.S. and Ph.D. programs are essentially the same as the general requirements of the Graduate School. Remedial work may be specified for those applicants who, in the opinion of the faculty, do not have a sufficient background in civil engineering.

## Curriculum

	<b>Semester Hours</b>	<b>Total</b>
CEE 699, CE PhD Research	18	
CEE 698, CE PhD Seminar	3	
In-Discipline Program Courses and Electives*	27	
<b>Total</b>		<b>48</b>

\*May include up to 6 hours credit in approved mathematics

## Departmental Faculty

***Chair***

J. P. Mohsen , Professor

***Professors***

N. R. Bhaskar

Louis F. Cohn

Mark French

D. Joseph Hagerty

R. A. Harris

Thomas Holloman

Arthur C. Parola

Mario Paz

Charles R. Ullrich

Terence A. Weigel

***Professors Emeritus***

Michael A. Cassaro

C. Eugene Miller



# Master of Science in Computer Science

**Major:** CS

**Degree Awarded:** MS

**Unit:** GS

**Program Webpage:** <http://speed.louisville.edu/cecs/programs/mscs/>

## Program Information

This program is available for interested individuals who have an adequate background, but do not necessarily have a baccalaureate degree in engineering. This program is governed by the general regulations of the University of Louisville Graduate School and is accredited by the Southern Associations of Colleges and Schools. Interested students should contact the Department of Computer Engineering and Computer Science office for further information about the Master of Science Program.

### Admission Requirements

Please check application deadlines for prospective semesters. The admission requirements for the M.S. programs are essentially the same as the general requirements of the Graduate School.

Prerequisites: (not included in degree program)

- A bachelor's degree.
- Successful completion of CECS 121, 230, 302, 303, 310, 325, 335, 420, and 440 or their equivalents and IE 360.

## Curriculum

### Required Courses

### Semester Hours Total

CECS 504, Automata Theory  
or CECS 530, Design of Compilers 3

CECS 550, Software Engineering  
or CECS 630, Data Base Design 3

CECS 619, Design and Analysis of Computer Algorithms  
or CECS 545, Artificial Intelligence 3

CECS 622, Simulation & Modeling of Discrete Systems  
or CECS 522, Performance Evaluation of Computer Systems 3

CECS 516, Fundamentals of Computer Communications and Networks <i>or</i> CECS 629, Distributed System Design	3	
CECS 563 Experimental Design in Engineering <i>or</i> CECS 508, Numerical Analysis	3	
CECS 690, M.S. Thesis in Computer Science <i>or</i> 2 CECS 600-level graduate courses for non-thesis options*	6	<b>24</b>

### **Elective Courses**

Computer Science	3	
Technical electives (may be from areas other than computer science)	3	<b>6</b>
<b>Minimum Total</b>		<b>30</b>

### **NOTES:**

- A minimum of 15 semester hours (including computer science thesis credit) must be in courses numbered 600 or above.
- Electives require approval of student's graduate committee or graduate program advisor.
- Languages such as C, C++, and JAVA might be needed. These are offered at the undergraduate level; not for graduate credit.
- \*Two CECS graduate faculty with the student's advisor must devise a plan of study with the student during the first semester outlining the requirements for successful completion of the non-thesis option. The study plan will be forwarded to the Graduate School for further approval and documentation.

## **Departmental Faculty**

Adel S. Elmaghraby

Chairman

*Professor*

James H. Graham

*Professor*

Anup Kumar

*Professor*

Melvin J. Maron

EM-Core Coordinator

*Professor*

Rammohan K. Ragade  
CSE, Ph.D. Coordinator  
*Professor*

Peter B. Aronhime  
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Darrel L. Chenoweth  
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Jacek M. Zurada  
*Professor*

Dar-jen Chang  
*Associate Professor*

Ahmed H. Desoky  
MEng Coordinator  
*Associate Professor*

Ibrahim N. Imam  
*Associate Professor*

Mehmed M. Kantardzic  
*Associate Professor*

Antonio Badia  
*Assistant Professor*

Khaled A. Kamel  
*Emeritus*

Arthur M. Riehl  
*Emeritus*

# Doctor of Philosophy in Computer Science and Engineering

**Major:** CSE

**Degree Awarded:** Ph.D.

**Unit:** GS

**Program Webpage:** <http://speed.louisville.edu/cecs/programs/phd/>

## Program Information

The Computer Engineering and Computer Science Department (CECS) and the Electrical and Computer Engineering Department (ECE) jointly offer the Ph.D. degree in Computer Science and Engineering (CSE) through the Graduate School.

### Admission

Typically, students who apply to the Ph.D. program will have completed a master's degree. Applicants may be granted unconditional admission if they have a Verbal and Quantitative section score on the Graduate Record Examination General Test of 1200; who have a master's degree in Computer Engineering, Computer Science and Engineering, Electrical Engineering, or Engineering Mathematics and Computer Science from an accredited program; and whose grade point average is at least 3.25/4.0 .

Applicants with master's degrees in other branches of engineering, computer science, chemistry, physics, or mathematics may be admitted conditionally and may be required to complete up to 30 hours of undergraduate courses before being admitted to degree status. Applicants with degrees in fields other than those enumerated in this paragraph will be directed to enroll as postbaccalaureate students and complete up to 30 hours in computer hardware and software courses and may be required to complete up to 24 hours of mathematics courses in order to provide a background adequate for admission to the Ph.D. program.

After the completion of nine (9) hours of post-baccalaureate courses, a student is reviewed by the program faculty to assess the student's capacity for doctoral-level work and to assist in developing an appropriate course of study. The review is based on an evaluation of the performance of the student in courses taken for credit in the CSE program. Upon recommendation of the program faculty, a student who fails this review may repeat it at the next offering; however, the repeat may not be taken more than twice.

Computer Science and Engineering provides a broad base in both hardware and software and in the application of computer concepts to other disciplines. The core curriculum covers essential mathematics, provides a background in computer software and hardware, and includes an introduction to computationally intensive applications.

## Curriculum

Doctoral students must complete at least two courses (six (6) hours) in each of two core areas and must complete one course in each of the remaining two core areas. They must complete a sufficient number of additional approved electives to ensure a depth of preparation in the field of Computer Science and Engineering. The four core areas are: Computer Software Engineering, Computer Hardware Engineering, Computationally Intensive Applications, and Advanced Mathematics. Each student must also complete three (3) hours of Seminar (CSE 695), but no more than three hours of

CSE 695 may be credited toward the degree.

- Computer Software Engineering core courses include: CECS 504, 530, 545, 550, 608, 619, 630.
- Computer Hardware Engineering core courses include: CECS/ECE 510, ECE 515, CECS 611, ECE 630, and ECE 516/CECS 525.
- Computationally Intensive Applications core courses include: ECE 520, 545, 550, 560, 614, 618/CECS 619/CECS 633, 650, 661, 662, 670; CECS 522, 542, 622, 628.
- Advanced Mathematics core courses include: CECS 508, 511/MATH 511, 563, 615; MATH 501, 581, 660, 662, 681.

More detailed information about the course requirements can be found at [speed.louisville.edu/cecs/programs/phd/cse/courses.php](http://speed.louisville.edu/cecs/programs/phd/cse/courses.php)

A student must consult with the dissertation advisor before registering for courses. A minimum of 72 semester hours of post-baccalaureate credit (including up to 24 semester hours for the dissertation), plus three hours of CSE Seminar (CSE 695) are required for the degree.

Upon the completion of the formal course work required for the Ph.D., a student must pass a written preliminary examination for admission to candidacy. The student shall prepare a formal plan of study for review by the dissertation committee soon after the formulation of the committee. This plan must be approved by the CSE Coordinator.

Each student is also required to prepare a written dissertation proposal and present it to the dissertation committee for approval. The dissertation proposal should be a sufficiently complete statement of the proposed research so that the committee can judge the originality, significance and likely success of the research. It should contain a detailed review of the previous contributions of others in the proposed area, with supporting reference citations. It should contain a clear statement of the proposed contributions, emphasizing the facets that will make this work unique, and it should include enough supporting detail and preliminary results so that an assessment of likelihood of success can be made. Appearance, format and citations should be in conformance with the requirements of the Graduate School.

After the committee has approved the dissertation proposal, the committee shall prepare a written examination pertaining to the proposal as well as background areas. This examination is called the preliminary examination. Upon successful completion of this examination, the student is admitted to candidacy status by the Graduate School.

## **Departmental Faculty**

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Mehmed M. Kantardzic  
*Associate Professor*

Antonio Badia  
*Assistant Professor*

Khaled A. Kamel  
*Emeritus*

Arthur M. Riehl  
*Emeritus*

# Master of Science in Electrical Engineering

**Major:** EE

**Degree Awarded:** MS

**Unit:** SP

**Program Webpage:** <http://www.ece.louisville.edu/>

## Program Information

### General Information

The Department of Electrical and Computer Engineering, offers a program of graduate study leading to the degree of Master of Science. It also offers an integrated five-year program of cooperative education leading to the professional degree Master of Engineering (described in the University's Undergraduate Catalogue).

The Department of Electrical and Computer Engineering offers a Ph.D. degree in Electrical Engineering and, also participates in the Ph.D. program in Computer Science and Engineering, offered jointly with the Computer Engineering and Computer Science Department.

### Program Admission Procedure

Applicants for admission to the M.S. program in Electrical Engineering should have a baccalaureate degree in Electrical Engineering or Electrical and Computer Engineering with a GPA of 3.0/4.0 or better. A baccalaureate degree in another branch of engineering or in chemistry, computer science, life sciences, mathematics, or physics may be acceptable, but the student may be required to take undergraduate courses in ECE to attain adequate preparation for graduate work. While no fixed minimum score on the Graduate Record Examination is required for admission, experience has shown that a combined score of 1170 (verbal + quantitative) is a good indicator of success in a graduate program in Electrical Engineering. In addition, to be successful, applicants should have received at least a 4 on the AAW portion of the GRE Exam. For students whose native language is not English or who received an undergraduate degree from a non-English speaking university, the TOEFL test is required. It is highly recommended that an applicant have a TOEFL score of either 550 on the paper-based test, at least 213 on the computer-based test, or at least 79 on the new internet-based test (IBT). An applicant who does not meet some requirements, but whose credentials are otherwise acceptable, may be admitted on a conditional basis. New students will not normally be considered for financial aid until after they have taken at least one semester of graduate courses at the University of Louisville.

A complete application packet should contain an application form (paper or on-line), official transcripts of all college credit, official copies of all earned university diplomas, GRE and TOEFL scores (if applicable) and two letters of recommendation.

## Curriculum

### Thesis or Paper Option

The Graduate Program Director will serve as the temporary advisor for new graduate students. During the second semester of graduate work, a permanent advisor, who will serve as the student's thesis/paper director, should be selected

by the student, in consultation with the Graduate Program Director. By the end of the second semester, the student, in consultation with the thesis/paper director, should select the remaining members of the thesis/paper committee, and submit a plan of study and thesis/paper proposal, approved by the committee, to the Graduate Program Director. The thesis/paper committee must include, at minimum, the thesis/paper director and two other graduate faculty members, one of whom must be from outside the Electrical and Computer Engineering Department.

#### THESIS/PAPER ALTERNATIVE --Semester Hours

Program Electives ECE 6XX (1) ----- 12  
Program Electives ECE 5XX or ECE 6XX (1) -----3  
Program or Technical Electives 5XX or 6XX (2) ----- 9  
M.S. Thesis ECE 690 or Paper ECE 691 ----- 6  
Minimum Total ----- 30 (4)

#### Course Only Option

The Graduate Program Director will serve as the temporary advisor for new graduate students. During the second semester of graduate work, a permanent advisor should be selected by the student, in consultation with the Graduate Program Director. By the end of the second semester, the student, in consultation with the permanent advisor, should submit a plan of study, approved by the permanent advisor, to the Graduate Program Director.

#### COURSE-ONLY OPTION --Semester Hours

Program Electives ECE 6XX (1,3)----- 15  
Program Electives ECE 5XX or ECE 6XX (1) ----- 6  
Program or Technical Electives 5XX or 6XX (2) ----- 9  
Minimum Total -----30 (4)

#### Advanced Project Option

The Graduate Program Director will serve as the temporary advisor for new graduate students. During the second semester of graduate work, a permanent advisor should be selected by the student, in consultation with the Graduate Program Director. By the end of the second semester, the student, in consultation with the permanent advisor, should submit a plan of study including the project proposal, approved by the permanent advisor, to the Graduate Program Director.

#### ADVANCED PROJECT OPTION --Semester Hours

Program Electives ECE 6XX (1,3)----- 12  
Program Electives ECE 5XX or ECE 6XX (1) ----- 6  
Program or Technical Electives 5XX or 6XX (2) ----- 9  
Project Hours ECE 692 -----3-4  
Minimum Total -----30 (4)

(1) Courses selected to meet the 500 and 600 level Program Electives require the approval of the student's advisor. Note that 600 level courses may be substituted for 500 level courses.

(2) Courses selected to meet the 500 and 600 level Technical Electives require the approval of the student's advisor and may be selected from areas outside ECE. Note that 600 level courses may be substituted for 500 level courses.

(3) Must include ECE 692 or a course from a list of approved research/project courses (maintained by the Department) and ECE 696.

(4) At least half of the hours must be at the 600 level or above.

Program electives are selected from ECE courses. Technical electives are selected, with the advisor's approval, from courses in related fields, such as other engineering disciplines, computer science, mathematics, and the physical and biological sciences.

At least two ECE core courses must be selected from the following three groups of core courses, and the two courses must be from different groups.



Group 1: ECE 510/511, ECE 516

Group 2: ECE 515/514, ECE 533/534, ECE 542, ECE 540/541, ECE 569

Group 3: ECE 520/521, ECE 530, ECE 550/551, ECE 560/561, ECE 625

ECE Graduate Students are allowed to take only six (6) hours of Independent Study and Project courses (ECE 505, 593, 605, 692, 693, 699). These courses may be taken in any combinations, but the total number of hours is not to exceed six (6).

Once a thesis or paper student has registered for course and thesis or paper hours, that student must register for MAST 600 (Masters Candidacy) in order to stay active in the EE MS program. International students must do this as well in order to stay in compliance with INS regulations.

## **Departmental Faculty**

James H. Graham  
Chairman  
*Professor*

Amir A. Amini  
*Professor*

Bruce W. Alphenaar  
*Professor*

Robert W. Cohn  
*Professor*

Joseph D. Cole  
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Aly A. Farag  
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John H. Lilly  
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Kevin M. Walsh  
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Hollace L. Cox  
*Associate Professor*

Xiangqian Liu  
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Cindy K. Harnett  
*Assistant Professor*

Tamer Inanc  
*Assistant Professor*

Shamus McNamara  
*Assistant Professor*

**Peter B. Aronhime**

*Emeritus*

**Samuel V. Bell, Jr**

*Emeritus*

**Kiron C. Bordoloi**

*Emeritus*

**Darrel L. Chenoweth**

*Emeritus*

**Thomas G. Cleaver**

*Emeritus*

**J. Carroll Hill**

*Emeritus*

**Leo B. Jenkins, Jr.**

*Emeritus*

**Donald J. Scheer**

*Emeritus*

# Doctor of Philosophy in Electrical Engineering

**Major:** EE

**Degree Awarded:** Ph.D.

**Unit:** GS

**Program Webpage:** <http://www.ece.louisville.edu/>

## Program Information

The objective of this program is to prepare the student for practice, research and/or teaching of electrical engineering at the advanced level. Upon the completion of the program, the student should be able to analyze a broad range of advanced problems in his or her field of specialization and determine the appropriate analysis technique or solution. It is expected that the student will publish his or her dissertation research in at least one refereed publication in a national or international journal.

## General Information

The Department of Electrical and Computer Engineering, offers a program of graduate study leading to the degree of Master of Science. It also offers an integrated five-year program of cooperative education leading to the professional degree Master of Engineering.

The Department of Electrical and Computer Engineering offers a Ph.D. degree in Electrical Engineering and also participates in the Ph.D. program in Computer Science and Engineering, offered jointly with the Computer Engineering and Computer Science Department.

## Admission Requirements

For admission into the EE Ph.D. Program, it is highly recommended that students have an undergraduate GPA of at least 3.5 on a 4.0 scale. Also recommended are a combined score of 1200 on the verbal and quantitative portions of the GRE and at least a 4 on the AAW portion of the GRE test. GRE subject tests are not required. For students whose native language is not English or who received an undergraduate degree from a non-English speaking country, the TOEFL test is required. An applicant should score at least 550 or higher on the paper-based test, at least a 213 on the computer-based test, or at least 79 on the new internet-based test (IBT). An applicant who does not meet some requirements, but whose credentials are otherwise acceptable, may be admitted on a conditional basis. Normally, it is expected that the student will complete a Master's degree before being admitted to the Ph.D. Program. Admission to the Ph.D. Program without a Master's degree will be permitted only in very exceptional circumstances.

A complete application packet should contain an application form, official copies of all college transcripts, official copies of all earned university diplomas, GRE and TOEFL (if required) scores, and two letters of recommendation.

## Curriculum

The Ph.D. in Electrical Engineering is structured to be in strict conformity with the curricular requirements of the University of Louisville Graduate School. Completion of the program requires a minimum of 48 semester hours beyond a Master's degree in electrical engineering. The curriculum includes coursework in advanced mathematics, in-discipline technical electives, and additional program electives.

## Minimum Curricular Requirements of the Program

Requirement	Semester Hours
Mathematics	6
In-Discipline Electives	15
Program Electives	9
Dissertation	18
<b>Total (minimum)</b>	<b>48</b>

The mathematics requirement of six hours provides the analytical background necessary to complete the demanding program of study and research in advanced engineering topics. Approved mathematics electives are drawn from both the J. B. Speed School of Engineering and the Mathematics Department in the College of Arts and Sciences.

Candidates must take 15 graduate level semester hours of in-discipline (electrical engineering) electives and 9 graduate level semester hours of program electives chosen from other departments in the Speed Scientific School and/or from other departments in the University as determined in consultation with the dissertation advisor. Together, the in-discipline electives and program electives must support the candidate's research effort and constitute an integrated program of study. The student's advisor and the Director of Graduate Studies must approve individual course plans.

**NOTE:** At least one half of the required 30 hours of coursework must be completed at the 600-level.

ECE Graduate Students are allowed to take only six (6) hours of Independent Study (ECE 593 or 693) and/or Projects (ECE 505 or 605). These courses may be taken in any combination, but the total number of hours is NOT to exceed six (6).

Once a student has completed course and dissertation hours (in EE Ph.D.), that student must register for DOCT 600 (Doctoral Candidacy) in order to stay active in the EE Program. International students must do this as well in order to stay in compliance with INS requirements.

## Departmental Faculty

James H. Graham  
Chairman  
*Professor*

Amir A. Amini  
*Professor*

Bruce W. Alphenaar  
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Robert W. Cohn  
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J. Carroll Hill

*Emeritus*

Leo B. Jenkins, Jr.

*Emeritus*

Donald J. Scheer

*Emeritus*

# Master of Science in Industrial Engineering

**Major:** IE

**Degree Awarded:** MS

**Unit:** GS

**Program Webpage:** <http://www.louisville.edu/speed/industrial/>

## Program Information

### Admission Requirements

Candidates for admission into the MSIE degree program must satisfy the following requirements for admission:

- Baccalaureate degree with complete transcripts
- 2.75/4.00 GPA for unconditional admission
- A combined verbal and quantitative score for the GRE basic examination of at least 1000
- For international students, a TOEFL score of at least 550 (written) or 213 (computer-based)

### Prerequisite Requirements

A candidate with a BSIE degree will have to give evidence of having taken the courses listed below for non-BSIE degree holders. A candidate with a BS degree in an engineering discipline other than IE must take the following courses, unless his or her transcript contains an equivalent course.

- IE 515, Operations Research Methods
- IE513, Operations Management

A candidate with a baccalaureate in an area other than engineering (e.g., mathematics, physics, psychology) must take all of the above course prerequisites, plus any other courses his or her thesis advisor deems appropriate.

## Curriculum

### Degree Requirements

The following core of graduate course credits in Industrial Engineering is required for the MSIE:

### Required Courses

- IE 541, Simulation (3)
- IE 561, Engineering Statistics I<sup>1</sup> (3)
- EM 582, Management of Human Systems (3)
- IE 630, Advanced Production Systems Design (3)
- IE 657, Models for Design and Analysis of Logistical Systems (3)
- IE xxx, Industrial Engineering electives<sup>2</sup> (9)

### Thesis Options

- IE 690, M.S. Thesis in Industrial Engineering (6) or
- IE 699, Industrial Engineering Master's Project (3) *and* IE xxx, Industrial Engineering elective (3)

**TOTAL = 30**

The specific courses selected will be at the discretion of the candidate with approval of his or her advisor. A minimum of 30 credits is required for graduation.

## **Advising**

Entering MSIE students will be advised by the MSIE Program Coordinator, Dr. Gerlad W. Evans. The candidate should select a thesis/project advisor prior to registering for his or her second semester.

<sup>1</sup> If a student has previously taken a Probability and Statistics course comparable to EM 561, he or she is required to take EM 661 – Engineering Statistics II

<sup>2</sup> A student can use at most one of the pre-requisite courses (3 credits) taken at the University of Louisville towards meeting the 9 credit IE elective requirement

## **Departmental Faculty**

### **John S. Usher**

*Professor*

Chair

### **William E. Biles**

*Professor*

Clark Professor of Computer-Aided Engineering

### **Sunderesh S. Heragu**

*Professor*

Duthie Chair in Engineering Logistics

### **Suraj M. Alexander**

*Professor*

### **Gail W. DePuy**

*Professor*

### **Gerald W. Evans**

*Professor*

### **Herman R. Leep**

*Professor*

### **Scherrill G. Russman**

*Professor and Assistant Dean*

### **Mickey Wilhelm**

*Professor and Dean*

### **Naira Campbell-Kyureghyan**

*Assistant Professor*

### **Lijian Chen**

*Assistant Professor*

# Doctor of Philosophy in Industrial Engineering

**Major:** IE

**Degree Awarded:** Ph.D.

**Unit:** GS

**Program Webpage:** <http://www.louisville.edu/speed/industrial/>

## Program Information

The doctor of Philosophy in Industrial Engineering (Ph.D.) is a research degree offered by the Department of Industrial Engineering through the Graduate School.

### Admission

Candidates for admission into the Ph.D. degree program must satisfy both the requirements for admission into the Graduate School and the requirements of the department. These requirements are summarized as follows:

1. Baccalaureate degree with complete transcripts.
2. 3.00/4.00 GPA for unconditional admission.
3. A combined verbal and quantitative score for the GRE basic examination of at least 1200.
4. For international students, a TOEFL score of at least 535 for paper-based tests and 210 for computer-based tests.

Students with suitable GRE scores and who have baccalaureate or master's degree in industrial engineering from an ABET accredited program may be admitted to degree status without condition. Frequently, applicants to the program will have completed a master's degree; however, a qualified student may be admitted directly to the doctoral program after receiving the baccalaureate. In the latter case, unless there is a specific waiver, the student will be required to complete the MSIE degree before proceeding to the additional course work and research required for the Ph.D.

### Prerequisite Requirements

Students with a baccalaureate in an area other than industrial engineering will be required to resolve industrial engineering undergraduate deficiencies by taking up to 23 semester hours of additional courses. The required courses will normally be chosen from the following list:

- IE 240 Fundamentals of Industrial Engineering
- IE 320 Manufacturing Processes
- IE 360 Probability and Statistics for Engineers
- IE 380 Work Design
- IE 415 Operations Research
- IE 421 Facility Location and Layout
- IE 425 Production and Inventory Control
- IE 480 Introduction to Ergonomics and Work Physiology

All candidates with a baccalaureate degree in an area other than industrial engineering, will be required to demonstrate mathematical preparation comparable to that provided by an ABET accredited engineering program. Typically, an acceptable undergraduate record in mathematics includes calculus, differential equations, and linear algebra.

## Curriculum



## Degree Requirements

Five of the following eight courses are required for the Ph.D. in industrial engineering unless comparable courses have already been completed:

- IE 541 Simulation
- IE 563 Experimental Design
- IE 581 Ergonomic Techniques
- IE 590 Stochastic Programming
- IE 611 Discrete Optimization
- IE 630 Adv. Production Systems Design
- IE 643 Analysis for Decision Making
- IE 657 Models for Design & Analysis of Logistical Systems

A minimum of 78 hours of post baccalaureate credits are required. Up to 30 hours of credit may be granted for a master's degree in industrial engineering from another institution. No more than 18 hours will be awarded for dissertation research.

The basic steps in completing the Ph.D. are given below. Also see the Ph.D. Student's Management Guide at: <http://louisville.edu/speed/industrial/>.

1. Submission of application (including scores for the GRE basic examination and the GRE subject examination in engineering, certified BS/MS transcripts, translated into English if necessary, at least three completed reference forms/letters, personal statement and curriculum vitae) by the student.
2. Admission to applicancy, following the completion of 12-15 hours of graduate-level course work and satisfactorily completing the industrial engineering undergraduate deficiency courses listed above. Admission to applicancy should be requested no later than the third semester of enrollment in the program. **All remedial courses must be taken for letter grades.**
3. Formation of a dissertation committee.
4. Submission of a written proposal for dissertation research to the dissertation committee.
5. Oral presentation of the dissertation proposal to the dissertation committee.
6. Completion of a written qualifying exam developed by dissertation committee.
7. Completion of an oral exam, based upon the student's answers to the qualifying exam questions, if required by the dissertation committee.
8. Admission to candidacy for the Ph.D. degree.
9. Submission and defense of the Ph.D. dissertation.

The Ph.D. candidate entering the program with a master's degree may take 12 to 15 hours of graduate-level course work before being admitted to applicancy status. Without a master's degree, a student may take anywhere from 21 to 27 hours. A candidate's admittance to applicancy is by vote of the faculty.

The dissertation committee, referred to in (step 3), will consist of at least five members of the graduate faculty. At least three of the committee members will be from the Industrial Engineering department and at least one from departments other than Industrial Engineering. The chair of the committee will be the student's dissertation advisor.

Following the presentation of the dissertation proposal (step five), the dissertation committee will review the student's transcript to verify the adequacy of the student's course work preparation to successfully pursue research in the chosen area. At this time, the committee may recommend additional course work.

The written qualifying exam referred to in step six will have the format of a seven-day, take-home exam. Each committee member will submit question(s)/problem(s) that should require approximately one working day of effort on the student's part to answer. Normally the questions/problems will relate to the student's proposed area of research. The main purpose of the qualifying exam is to allow the advisory committee to determine if the applicant is sufficiently prepared to pursue the proposed dissertation research.

After the student has submitted the written examination answers, and the respective committee members have reviewed them, the committee may require and administer an oral examination to the applicant (step seven). At the conclusion of the oral exam, the committee may, by simple majority vote, recommend that the applicant be admitted to candidacy for the Ph.D. degree, that the recommendation for admission to candidacy be delayed pending specific remedial work, or recommend that the applicant not be admitted to candidacy.

The defense, referred to in step nine, will be held on a draft of the dissertation that has been approved by the candidate's advisor. The Graduate School allows at most five years between the finished course work and the dissertation defense.

## **Advising**

Entering Ph.D. candidates will be advised by the Graduate Admissions Committee Chair, Dr. Sunderesh Heragu, until such time as the candidate is admitted to candidacy. After admission to candidacy, the candidate will be advised by his or her dissertation advisor.

## **Financial Aid and Seminar Attendance**

The IE department will hold seminars throughout each semester. The purpose of these seminars is to expose graduate students to research methods and topics and is intended to benefit graduate students in their research. Thus, all active graduate students are strongly encouraged to attend. If a student is absent for more than two seminars per semester, s/he risks losing financial aid for future semesters. Also, students whose status is deemed inactive by the GAC risk losing financial aid from the department or University.

## **Departmental Faculty**

### **John S. Usher**

*Professor*

Chair

### **William E. Biles**

*Professor*

Clark Professor of Computer-Aided Engineering

### **Sunderesh S. Heragu**

*Professor*

Duthie Chair in Engineering Logistics

### **Suraj M. Alexander**

*Professor*

### **Gail W. DePuy**

*Professor*

### **Gerald W. Evans**

*Professor*

### **Herman R. Leep**

*Professor*

### **Scherrill G. Russman**

*Professor and Assistant Dean*

### **Mickey Wilhelm**

*Professor and Dean*

### **Naira Campbell-Kyureghyan**

*Assistant Professor*

### **Lijian Chen**

*Assistant Professor*

# Master of Science in Mechanical Engineering

**Major:** ME

**Degree Awarded:** MS

**Unit:** GS

**Program Webpage:** <http://www.louisville.edu/speed/mechanical/>

## Program Information

The Department of Mechanical Engineering of the J. B. Speed School of Engineering offers a program of study leading to the degree of Master of Science. It also offers an integrated five-year program of cooperative education leading to the professional degree of Master of Engineering.

### Admission to the M.S. Program

Applicants for admission to the M.S. program in Mechanical Engineering should have a baccalaureate degree in Mechanical Engineering or a related discipline, with a GPA of 2.75/4.0 or better. Unconditional admission requires a composite score (verbal and quantitative) of no less than 1100 on the Graduate Record Examination (1500 preferred). International students must show proficiency in English by scoring 550 or higher on the TOEFL (Test of English as a Foreign Language) examination, or by completing the University's Advanced Level of the Intensive English as a Second Language Program. An applicant not meeting a requirement, but with otherwise acceptable credentials, may be admitted on a conditional basis. New students will not be considered for financial aid until after one semester of residency.

### Advising

Upon enrollment, a student will be advised by the Department's M.S. academic advisor. After completing at least 12, but not more than 18 semester hours of graduate work, a permanent thesis advisor must be chosen by the student and approved by the Department Chair. During the semester following the selection of the permanent advisor, the student and thesis advisor should select the remaining two members of the thesis committee from among the graduate faculty, one of whom must be from outside the Mechanical Engineering Department.

## Curriculum

	<b>Semester Hours</b>	<b>Total</b>
<b>Courses in Major</b>		
ME 600-level (graduate only) courses (in addition to thesis)	9	
ME electives 500-600 level	6	
ME 690, thesis	6	
<b>Courses Outside of Major</b>		
Non-ME electives (500-600 level) <sup>1</sup>	9	

<b>Minimum Total<sup>2</sup></b>		<b>30</b>

*Notes:*

1. Non-mechanical engineering electives must be approved by the student's advisor. These courses usually lie in mathematics, computer science, or another engineering discipline.
2. A minimum of 12 hours of coursework, exclusive of thesis hours, must be taken at the 600-level.

## **Departmental Faculty**

A complete faculty listing is on the following website: <http://louisville.edu/speed/mechanical/>.

# Doctor of Philosophy in Mechanical Engineering

**Major:** ME

**Degree Awarded:** Ph.D.

**Unit:** GS

**Program Webpage:** <http://www.louisville.edu/speed/mechanical/>

## Program Information

The Department of Mechanical Engineering in the J.B. Speed School of Engineering offers a program of study leading to the degree of Doctor of Philosophy in Mechanical Engineering. This program provides an opportunity for students to complete advanced course work and conduct independent research in the following specialization areas: Biomechanics or Advanced Product Design and Development.

## Curriculum

Completion of the program requires forty- eight (48) semester hours beyond a master's degree in Mechanical Engineering, or seventy- eight (78) semester hours beyond a baccalaureate degree in Mechanical Engineering.

<b>Required Core Courses</b>	<b>Semester Hours</b>	<b>Total</b>
Research Seminar	3	
Advanced Mathematics	6	
Mechanical Engineering Technical Core (appropriate for the specialization area)	6	
Technical Electives	15	
Dissertation Research	18	
<b>Minimum Total</b>		<b>48</b>

## Admission to the Doctoral Program

Unconditional admission into the Doctor of Philosophy program requires an earned mechanical engineering master's degree and the following credentials:

- Minimum undergraduate GPA of 3.0/4.0; minimum graduate GPA of 3.25/4.0.
- Three letters of recommendation, with at least two addressing the applicant's ability to perform independent research successfully.
- A composite score (verbal and quantitative) on the Graduate Records Examination (GRE) of no less than 1100 (1500 preferred). International students must show proficiency in English by scoring 550 or higher on the TOEFL (Test of English as a Foreign Language) examination, or by completing the University's Advanced Level of the Intensive English as a Second Language Program.

Qualified applicants may be admitted directly to the doctoral program after receiving a baccalaureate degree. These students will be required to complete an additional 30 hours of coursework at the 500 and 600 level under an individual plan developed in conjunction with the Chair of the Department's Graduate Studies Committee. Students with a B.S. in another branch of engineering, or in chemistry, mathematics, physics, or life sciences may be required to take up to 24 undergraduate units in mechanical engineering, and to demonstrate preparation comparable to that provided by an ABET accredited engineering program.

## **Departmental Faculty**

A complete faculty listing is on the following website: <http://louisville.edu/speed/mechanical/>.

# Graduate Certificate in Data Mining

**Major:** DTMGCDMNON

**Degree Awarded:** CERT

**Unit:** GS

**Program Webpage:** [http://louisville.edu/speed/cecs/new\\_web/programs/certificates/datamining/index.shtml](http://louisville.edu/speed/cecs/new_web/programs/certificates/datamining/index.shtml)

## Program Information

To address the need for trained professionals in the interdisciplinary field of data mining, the Department of Computer Engineering and Computer Science (CECS) and the Department of Mathematics faculty have developed a joint certificate program in data mining. The certificate will consist of 18 hours, with two required courses from CECS, two required courses from Mathematics, and two elective courses selected from a list of relevant elective courses in CECS and Mathematics.

## Admission Requirements

### For continuing studies as non-degree student:

- Undergraduate Degree in technically related field or technical experience.
- Knowledge of calculus.
- Graduate application and \$50 application fee.

### For degree status (those who want to continue for MS or Ph.D)

#### Additional Requirements:

- GRE scores.
- Two letters of recommendation.

## Curriculum

### Required courses and activities

*Two required Computer Engineering courses:*

- CECS 535 Introduction
- CECS 632, Data Mining

*Two required Mathematics courses:*

- Math 665 Advanced Linear Statistical Models

- Math 667 Methods of Classification

*Two elective courses chosen from the following list of courses:*

- CECS 545 Artificial Intelligence
- CECS 563 Experimental Design in ENgineering
- CECS 619 Design and Analysis of Computer Algorithms
- CECS 630 Advanced Databases and Data Warehousing
- CECS 645 Advanced Artificial Intelligence
- MATH 560 Introduction to Statistical Data Analysis
- MATH 561 Probability Theory
- MATH 562 Mathematical Statistics
- MATH 566 Nonparametric Statistics
- MATH 567 Sampling Theory
- MATH 568 Time Series Analysis

## **Departmental Faculty**

- Dr. Mehmed Kantardzic ([CECS](#) Department)
- Dr. Pat Cerrito ([Math](#) Department)



# Graduate Certificate in Environmental Engineering

**Major:** CENVNON

**Degree Awarded:** NON

**Unit:** GS

**Program Webpage:** <http://speed.louisville.edu/civil/academics/degree/>

## Program Information

Certificate Program only. Not a degree program. Awarded only with completion of a graduate degree program (M. Eng., M.S., Ph.D.) at Speed School of Engineering.

### Admission Requirements:

1. Admission to the Speed School of Engineering Division of Higher Studies (M.Eng.) or the Graduate School (M.S. or Ph.D) in Engineering.
2. Approval of an Application for the Environmental Engineering Certificate Program, link <http://louisville.edu/speed/civil/academic/EnvironEngCertApp.pdf>

## Curriculum

	<b>Semester Hours</b>	<b>Total</b>
Environmental Engineering Electives (500-level)	0-6	
Environmental Engineering Electives (600-level)	6-12	<b>12</b>

Courses are to be selected from the following:

- CEE 509 Environmental Process Systems
- CEE 534 Industrial Waste Management
- CEE 535 Solid Waste Management
- CEE 561 Environmental Analysis of Transportation Systems I
- CEE 570 Applied Hydraulics
- CEE 571 Applied Hydrology
- CEE 572 Open Channel Hydraulics
- CEE 573 Groundwater Hydrology
- CEE 670 Advanced Hydraulics
- CEE 673 Advanced Hydrology
- CEE 674 Water Resource Systems
- CEE 675 Surface Water Quality
- CHE 509 Environmental Process Systems
- CHE 620 Transport Phenomena I

- CHE 637 Advanced Stagewise Processes
- CHE 638 Advanced Absorption
- CHE 650 Membrane Separations
- CHE 662 Advanced Process Control
- CHE 533 Chemical Engineering Safety and Health
- CHE 534 Industrial Waste Management
- CHE 535 Pollution Prevention (Waste Reduction Treatment and Disposal)
- CHE 572 Plant Process and Project Design
- ME 580 Air Pollution Control
- CHEM 622 Analytical Separations
- BIOL 521 Stream Ecology
- BIOL 522 Aquatic Ecology
- BIOL 568 Conservation Biology
- BIOL 662 Ecosystems Ecology

**Note:**

- Graduate courses not shown in the list above require approval from the Certificate Program Director.
- Certificate courses do not constitute a degree program, but may be applied toward M.Eng., M.S., or Ph.D. degree requirements.

**Other requirements:**

Completion of graduate degree program at Speed School of Engineering (M.Eng., M.S., or Ph.D.).

## **Departmental Faculty**

<Program Faculty>

# Graduate Certificate in Logistics and Distribution

**Major:** LADCLDNON

**Degree Awarded:** CERT

**Unit:** GS

**Program Webpage:** <http://louisville.edu/org/lodi/certificateframes.htm>

## Program Information

The Graduate Certificate Program in Logistics and Distribution is offered jointly by the College of Arts and Sciences, the College of Business, and The J. B. Speed School of Engineering. It provides qualified applicants a high-quality program for structured graduate study in this truly interdisciplinary field. The program is designed primarily for people who are currently working in logistics and distribution organizations in the Louisville area, or for those who aspire to gain general knowledge in the field that may lead to career opportunities in logistics and distribution. As a result, the outcomes of the program are to provide, (1) a highly skilled workforce for regional employers; (2) a sought-after academic credential for employee-students; and (3) a career advancement credential for both employers and employees in the logistics and distribution sector.

## Admission Requirements

Students who apply for admission to the certificate in logistics and distribution program are expected to meet the following typical U of L Graduate School standards:

- Submission of a University of Louisville Graduate School Application,
- At least two letters of recommendation,
- The possession of at least a baccalaureate degree,
- The submission of an official transcript for each prior degree earned,
- A minimum 2.75/4.0 undergraduate cumulative grade point average, and
- Submission of scores on the Graduate Record Examination (GRE) or the Graduate Management Admissions Test (GMAT)

## Curriculum

The curriculum of the Certificate in Logistics and Distribution requires the completion of a total of 18 semester hours of coursework, consisting of six 3-semester hour courses. These courses are:

- MKT 525 Distribution Management (3 hours)
- MATH 588 Discrete Mathematics for Logistics and Distribution Applications (3 hours)
- ACCT 526 Finance and Accounting Applications in Logistics and Distribution (3 hours)
- IE 621 Facilities Planning (3 hours)
- IE 651 Warehousing and Transportation (3 hours)
- MKT 527 Logistics Management (3 hours)

# **Departmental Faculty**

The faculty who teach in the certificate program will be drawn from the members of the Logistics and Distribution Institute (LoDI) faculty. A list of these faculty members, with links to their vitae, may be found on the web at: <http://www.louisville.edu/org/lodi/faculty.html>.

# School of Interdisciplinary and Graduate Studies

Bioethics and Medical Humanities - MA (Interdisciplinary)

Interdisciplinary Studies - MA

Interdisciplinary Studies - MS

Interdisciplinary Studies - Ph.D.

# Interdisciplinary Master of Arts in Bioethics and Medical Humanities

**Major:** ISBMH

**Degree Awarded:** MA

**Unit:** GI

**Program Webpage:** <http://www.med.louisville.edu/bioethisma.htm>

## Program Information

The Master of Arts in Bioethics and Medical Humanities is a special track within the Interdisciplinary M.A. awarded by the Graduate School. As currently practiced, Bioethics is an inherently interdisciplinary field, located principally at the intersection of philosophy, the law, and the health care professions, such as clinical medicine and nursing, but drawing as well from social science disciplines as diverse as sociology, clinical psychology, and social work. The aim of the program is to provide students with the skills necessary to work in clinical and hospital settings from an enriched ethical knowledge base. Students will be exposed to the philosophical underpinnings of health care ethics as well as real-time clinical moral decision-making. This M.A. program will emphasize the need to examine concepts of race, gender, and culture as well as to learn to incorporate an ethically sound appreciation of difference and diversity.

The Interdisciplinary M.A. in Bioethics and Medical Humanities provides professional enhancement and resources for the following groups of students:

- Mid-Career Health Care Professionals - Current M.D.s, J.D.s, R.N.s and other health care professionals who wish to enhance their career prospects with increased expertise in ethics for educational purposes, and current faculty and staff serving on Hospital Ethics Committees.
- Dual-Degree students who wish to add an expertise in bioethics for their future professional, educational, and scholarly pursuits in medicine, dentistry, law, nursing, social work, or other professional fields.
- Post-Baccalaureate students who are in transition from a B.A. to a later professional degree and desire expertise in bioethics to enhance their admission to a later program and to expand their knowledge of bioethics.

For more information about this program, contact Emily Noonan at 502-852-6501.

### Program Admission Procedure

Please refer to <http://louisville.edu/bioethicsma/admissions.html>

## Curriculum

The Interdisciplinary Masters of Arts in Bioethics and Medical Humanities is a 33 credit-hour program, consisting of seven required core courses and four electives. The core courses provide essential grounding in ethical theory and the foundations of bioethics, current controversies in health care ethics, and the social and political context of health care decision-making; participation in hospital rounds emphasizes the practical realities of clinical ethics, and a capstone seminar integrates program courses with each other and with students' experience in the health care professions. Electives from the Schools of Law, Medicine, Public Health, and Social Work, as well as from the Arts and Sciences departments of History, Pan-African Studies, Philosophy, Political Science, Psychological and Brain Sciences, Sociology,

and Women's and Gender Studies round out and diversify the content of the program. We anticipate that our initial offerings will soon be broadened into the areas of English, Communication, and Spirituality. Use of the KY-TeleHealth Network will allow interactive (live) audio and visual participation in our program from remote sites throughout the Commonwealth, and nationwide.

**Required Core Courses  
(21 credit-hours)**

**BETH 621 Ethical Theory:** Recent developments in ethical theory, such as examinations of the status of moral facts; moral realism; impartiality and personal attachments; or moral agency.

**BETH 680 Foundations of Bioethics:** Grounding in the major theories and methods of bioethical decision-making, including contemporary controversies about the role of theory, principles, cases, narrative, and virtues.

**BETH 681 Current Controversies in Health Care Ethics:** Topics in health care ethics currently attracting the most attention in both professional and public discussions. A variety of viewpoints on these topics will be considered.

**BETH 682 Gender, Race, and Culture in Health Care:** Examines ways social groupings and systems affect the kind of health care needed and the kind people receive. Addresses both biases and stereotypes, and empirical claims about biologically based differences.

**BETH 683 Health Care, Community, and Justice:** Examines theories of justice and equality as they apply to issues in health care delivery, considers explanations for why disparities exist, and explores practical ways that communities have addressed inequalities.

**BETH 684 Clinical Ethics (includes clinical rounding):** Application of ethical principles, virtues, and cases in the context of clinical care, with a practical approach toward ethics consultation and conflict resolution.

**BETH 685 Integrative Bioethics: Self and Other in Theory and Practice:** Capstone seminar for Bioethics MA program in form of collaborative seminar. Students produce culminating project, whose development and final formal presentation they share with others in seminar format

## Elective Courses

(Four courses, 12 credit hours, at 500- or 600-level)

At least one elective must be selected from each list. Other courses may be allowed on a case-by-case basis.

### Social Context

- HIST 589/WGST 532: History of American Sexuality
- LAW 978: Disability Law
- PAS 515: Race and Racism
- PHIL 516/616: African-American Philosophy
- PHIL 519/619: Topics in the Philosophy of Race and Racism
- POLS 568/668: Feminist Theory
- SOC 512/612: Gender, Race, Work, and Welfare
- SOC 685: Seminar on Race and Ethnicity
- SW 603: Human Diversity

### Health Care Policy, Ethics, and the Law

- LAW 946: Introduction to Health Law
- LAW 947: Psychiatry, Mental Health and the Law
- LAW 959: Genetics and the Law
- LAW 980: Medicine, Bioethics and the Law
- PHCI 632: Ethical Conduct of Health Care Research
- PHIL 522: Virtue Ethics
- PSYC 656: Legal, Professional, and Ethical Issues in Clinical Psychology
- SW 636: Death and Grief

### Typical Schedule of Courses for Full-Time Students Fall Year 1/Spring Year 1

- Foundations of Bioethics
- Ethical Theory
- Gender, Race, & Culture
- Current Controversies
- Elective
- Elective

### Fall Year 2/Spring Year 2

- Foundations of Bioethics
- Clinical Ethics
- Health Care, Community, & Justice
- Integrative Bioethics
- Elective
- Elective

## Departmental Faculty

### Core Program Faculty

#### David Doukas, M.D., Co-Director

William Ray Moore Endowed Chair in Family Medicine & Medical Humanism

Professor and Chief, Division of Medical Humanism & Ethics, Family & Geriatric Medicine



**Robert Kimball, Ph.D., Co-Director**

Associate Professor of Philosophy;  
Chair of Philosophy

**Avery Kolers, Ph.D.**

Associate Professor of Philosophy

**Nancy Potter, Ph.D.**

Associate Professor of Philosophy

**Mark Rothstein, J.D.**

Herbert F. Boehl Chair of Law & Medicine  
Director, Institute for Bioethics, Health Policy and Law

**Paul Simmons, Ph.D.**

Clinical Professor, Department of Family & Geriatric Medicine

**Osborne Wiggins, Ph.D.**

Professor of Philosophy

# Master of Arts in Interdisciplinary Studies

**Major:** IS

**Degree Awarded:** MA

**Unit:** GI

**Program Webpage:** <http://graduate.louisville.edu>

## Program Information

The Master of Arts degree in Interdisciplinary Studies provides a mechanism for accommodating the interests of students and faculty in areas in which the faculty expertise is not confined to a department or individual academic unit. It permits students to establish individualized programs and groups of faculty to establish interdisciplinary tracks.

### Application and Admission

Applicants for individualized interdisciplinary master's programs must present complete admission credentials in order to be formally admitted by one of their constituent departments. Such formal admission must be recommended by at least one department or program offering degrees through the Graduate School before the student may register for course work. The required credentials are:

1. The application for admission, specifying which departments the student expects to comprise the program;
2. Transcripts showing all undergraduate and graduate course work and all degrees earned;
3. Scores on the Graduate Record Examination General Test;
4. Three letters of recommendation;
5. TOEFL score if the applicant's native language is not English and he/she has not earned a degree from a university or college in the U.S.;
6. A written statement of career objectives and rationale for the interdisciplinary research objective.

All these credentials must be sent to the Office of Graduate Admissions, University of Louisville, for distribution to the appropriate offices.

Only upon receipt of a letter of admission from the Office of Graduate Admissions may the applicant enroll for course work. There is no guarantee, however, that the desired degree program will be approved. Admission will be conditional until the program proposal has been submitted and approved by the Graduate School. During the initial semester, the curricular requirements of the program must be worked out with a supervisory committee of at least three faculty members. The chair, as well as the majority of the committee, must be members of the Graduate Faculty.

All departments or programs in which the student proposes to take more than 3 hours of graduate course work must offer degrees through the Graduate School; and, before submitting a program proposal, the student must have the permission of the department or program to take those courses.

### Program Proposal

In addition to the above stipulations regarding constituent departments or programs, each interdisciplinary degree program must meet specific criteria as follows:

1. An overall minimum of 30 semester hours at 500 or 600 level.
2. A thesis (maximum of 6 hours for thesis in a 30-hour program) or six (6) additional hours of 600-level courses for non-thesis. Interdisciplinary students must enroll in GS 699 for thesis credit.
3. At least one-half of the non-thesis, non-practicum, non-internship credit hours must be at the 600 level.
4. A minimum of 6 hours of 600-level course work must be taken in each of at least two departments or programs offering degrees through the Graduate School.
5. No single department or program may offer more than half the total number of credit hours required by the

- program.
6. Exclusive of thesis credit, no more than 6 hours may be taken in courses of the independent-study or practicum type; such course work may not be counted toward criteria specified in 3 or 4.
  7. Courses designated as fulfilling degree requirements must be offered with sufficient frequency to permit the student to complete degree requirements within a reasonable time (two years for a 30-hour program).
  8. The proposed curriculum must be submitted on the appropriate form, with approval signatures of at least three graduate faculty members.
  9. Requests for approval of substitutions or alternate courses must be submitted in writing to the Assistant Dean for Interdisciplinary Studies in the Graduate School.

### **Individually-Designed Programs of Study**

An individual interested in exploring advanced studies in a field that transcends established academic/institutional boundaries may design a program of study in consultation with faculty and the Assistant Dean for Interdisciplinary Studies. A program for this degree must involve at least two academic departments/units and it must cross traditional disciplinary organizational structures and programmatic lines of study. An individual interested in this program will need to develop a general proposal that can be reviewed by faculty who, in turn, must agree that they will participate in the program if approved. Before agreeing to participate in the supervision of an interdisciplinary M.A. student, faculty must obtain the consent of their departmental chair or dean.

During the initial semester, the specific curricular requirements of the program must be worked out with a supervisory committee consisting of a chair and at least two additional faculty members representing at least two different departments or programs. Before the end of the first semester, the proposed program of study should be submitted to the Graduate School for review. Students will be admitted to the Graduate School on a conditional basis, allowing them to take courses as a non-degree student, until the proposed program of study receives full approval. Students will be fully admitted to the Graduate School after the interdisciplinary program proposal is approved.

### **Interdisciplinary Tracks of Study: Interdisciplinary M.A. Concentrations**

Faculty may propose interdisciplinary tracks of study that will form the basis for suitable areas of concentration to train students. The track must meet the criteria outlined above in terms of minimum credit hours and the distribution of coursework across disciplinary lines. Proposed areas of concentration and interdisciplinary tracks of study will be subject to approval by the following academic bodies: 1) Unit Curriculum and Budget Committees; 2) Graduate Council; 3) Faculty Senate; 4) Provost. The development of an interdisciplinary track is the responsibility of the faculty, but the Assistant Dean for Interdisciplinary Studies will provide assistance and guidance. Participating faculty must have the consent of their departmental chair or dean to participate in an Interdisciplinary Track.

Requests for further information or assistance should be addressed to:

Assistant Dean for Interdisciplinary Studies  
Graduate School  
Houchens Building, Suite 105  
University of Louisville  
Louisville, Kentucky 40292  
Phone: (502) 852-6495  
Email: [graduate@louisville.edu](mailto:graduate@louisville.edu)

## **Curriculum**

Curriculum will be determined during the development of each individual student's program proposal for the individually-designed programs. For an Interdisciplinary Track program, a core of faculty may propose a curriculum that will form the basis for an area of concentration.

# **Departmental Faculty**

Faculty will be determined during the development of each individual student's program proposal.

# Master of Science in Interdisciplinary Studies

**Major:** IS

**Degree Awarded:** MS

**Unit:** GI

**Program Webpage:** <http://graduate.louisville.edu>

## Program Information

The Master of Science degree in Interdisciplinary Studies provides a mechanism for accommodating the interests of students and faculty in areas in which the faculty expertise is not confined to a department or individual academic unit. It permits students to establish individualized programs and groups of faculty to establish interdisciplinary tracks.

### Application and Admission

Applicants for individualized interdisciplinary master's programs must present complete admission credentials in order to be formally admitted by one of their constituent departments. Such formal admission must be recommended by at least one department or program offering degrees through the Graduate School before the student may register for course work. The required credentials are:

1. The application for admission, specifying which departments the student expects to comprise the program;
2. Transcripts showing all undergraduate and graduate course work and all degrees earned;
3. Scores on the Graduate Record Examination General Test;
4. Three letters of recommendation;
5. TOEFL score if the applicant's native language is not English and he/she has not earned a degree from a university or college in the U.S.;
6. A written statement of career objectives and rationale for the interdisciplinary research objective.

All these credentials must be sent to the Office of Graduate Admissions, University of Louisville, for distribution to the appropriate offices.

Only upon receipt of a letter of admission from the Office of Graduate Admissions may the applicant enroll for course work. There is no guarantee, however, that the desired degree program will be approved. Admission will be conditional until the program proposal has been submitted and approved by the Graduate School. During the initial semester, the curricular requirements of the program must be worked out with a supervisory committee of at least three faculty members. The chair, as well as the majority of the committee, must be members of the Graduate Faculty.

All departments or programs in which the student proposes to take more than 3 hours of graduate course work must offer degrees through the Graduate School; and, before submitting a program proposal, the student must have the permission of the department or program to take those courses.

### Program Proposal

In addition to the above stipulations regarding constituent departments or programs, each interdisciplinary degree program must meet specific criteria as follows:

1. An overall minimum of 30 semester hours at 500 or 600 level.
2. A thesis (maximum of 6 hours for thesis in a 30-hour program) or six (6) additional hours of 600-level courses for non-thesis. Interdisciplinary students must enroll in GS 699 for thesis credit.
3. At least one-half of the non-thesis, non-practicum, non-internship credit hours must be at the 600 level.
4. A minimum of 6 hours of 600-level course work must be taken in each of at least two departments or programs offering degrees through the Graduate School.

5. No single department or program may offer more than half the total number of credit hours required by the program.
6. Exclusive of thesis credit, no more than 6 hours may be taken in courses of the independent-study or practicum type; such course work may not be counted toward criteria specified in 3 or 4.
7. Courses designated as fulfilling degree requirements must be offered with sufficient frequency to permit the student to complete degree requirements within a reasonable time (two years for a 30-hour program).
8. The proposed curriculum must be submitted on the appropriate form, with approval signatures of at least three graduate faculty members.
9. Requests for approval of substitutions or alternate courses must be submitted in writing to the Assistant Dean for Interdisciplinary Studies in the Graduate School.

### **Individually-Designed Programs of Study**

An individual interested in exploring advanced studies in a field that transcends established academic/institutional boundaries may design a program of study in consultation with faculty and the Assistant Dean for Interdisciplinary Studies. A program for this degree must involve at least two academic departments/units and it must cross traditional disciplinary organizational structures and programmatic lines of study. An individual interested in this program will need to develop a general proposal that can be reviewed by faculty who, in turn, must agree that they will participate in the program if approved. Before agreeing to participate in the supervision of an interdisciplinary M.S. student, faculty must obtain the consent of their departmental chair or dean.

During the initial semester, the specific curricular requirements of the program must be worked out with a supervisory committee consisting of a chair and at least two additional faculty members representing at least two different departments or programs. Before the end of the first semester, the proposed program of study should be submitted to the Graduate School for review. Students will be admitted to the Graduate School on a conditional basis, allowing them to take courses as a non-degree student, until the proposed program of study receives full approval. Students will be fully admitted to the Graduate School after the interdisciplinary program proposal is approved.

### **Interdisciplinary Tracks of Study: Interdisciplinary M.S. Concentrations**

Faculty may propose interdisciplinary tracks of study that will form the basis for suitable areas of concentration to train students. The track must meet the criteria outlined above in terms of minimum credit hours and the distribution of coursework across disciplinary lines. Proposed areas of concentration and interdisciplinary tracks of study will be subject to approval by the following academic bodies: 1) Unit Curriculum and Budget Committees; 2) Graduate Council; 3) Faculty Senate; 4) Provost. The development of an interdisciplinary track is the responsibility of the faculty, but the Assistant Dean for Interdisciplinary Studies will provide assistance and guidance. Participating faculty must have the consent of their departmental chair or dean to participate in an Interdisciplinary Track.

Requests for further information or assistance should be addressed to:

Assistant Dean for Interdisciplinary Studies  
Graduate School  
Houchens Building, Suite 105  
University of Louisville  
Louisville, Kentucky 40292  
Phone: (502) 852-6495  
Email: [graduate@louisville.edu](mailto:graduate@louisville.edu)

## **Curriculum**

Curriculum will be determined during the development of each individual student's program proposal for the individually-designed programs. For an Interdisciplinary Track program, a core of faculty may propose a curriculum that will form the basis for an area of concentration.

## **Departmental Faculty**

Faculty will be determined during the develop of each individual student's program proposal.

# Doctor of Philosophy in Interdisciplinary Studies

**Major:** IS

**Degree Awarded:** Ph.D.

**Unit:** GI

**Program Webpage:** <http://graduate.louisville.edu>

## Program Information

The Interdisciplinary Ph.D. Program provides a mechanism for accommodating the interests of students and faculty in areas in which the faculty expertise is not confined to a department or individual academic unit. It permits students to establish individualized programs and groups of faculty to establish interdisciplinary tracks.

### Requirements for Admission

Applicants for interdisciplinary doctoral programs must present complete admission credentials in order to be formally admitted by one of their constituent departments. Students must be recommended by at least one department or program offering degrees through the Graduate School before the student may register for course work. The required credentials are:

1. A 3.25 grade point average.
2. Scores at or above the 60th percentile on the Quantitative, Verbal, Critical Thinking and Analytical portions of the Graduate Record Exam.
3. Proof of a Baccalaureate Degree and official transcripts of all undergraduate and graduate course work.
4. TOEFL score if the applicant's native language is not English and he/she has not earned a degree from a university or college in the U.S.
5. Three letters of recommendation.

All these credentials must be sent to the Office of Graduate Admissions, University of Louisville, for distribution to the appropriate offices.

### Design of Interdisciplinary Degrees

In addition to established Graduate School policies and requirements, each Interdisciplinary Ph.D. Program will be required to meet specific criteria as follows:

1. An overall minimum of 36 semester hours at the graduate level that includes coursework representing each of the disciplinary areas in the interdisciplinary degree program.
2. Up to 12 hours of coursework from a Master's program may be applied to the Interdisciplinary Ph.D. with the approval of the Dean of the Graduate School.
3. Each program must be designed so that it is not dominated by a single department's offerings. A minimum of six hours of 600-level course work must be taken in each of at least two different departments or programs offering degrees through the Graduate School.
4. The curriculum plan must include coursework that provides training in research methodology deemed suitable to the interdisciplinary nature of the program.
5. A dissertation involving original research that crosses established disciplinary lines will be required.
6. Faculty serving on committees and as mentors in the Interdisciplinary Ph.D. Program must have a doctorate degree or substantial evidence of relevant experience and must hold membership in the Graduate Faculty.

### Individually-Designed Programs of Study

An individual interested in exploring advanced studies in a field that transcends established academic/institutional



boundaries may design a program of study in consultation with faculty and the Assistant Dean for Interdisciplinary Studies. A program for this degree must involve multiple academic departments/units and it must cross traditional disciplinary organizational structures and programmatic lines of study. An individual interested in this program will need to develop a general proposal that can be reviewed by faculty who, in turn, must agree that they will participate in the program if approved. Before agreeing to participate in the supervision of an interdisciplinary Ph.D. student, faculty must obtain the consent of their departmental chair or dean.

During the initial semester, the specific curricular requirements of the program must be worked out with a supervisory committee consisting of a chair and at least two additional faculty members representing at least two different departments or programs. Before the end of the first semester, the proposed program of study should be submitted to the Graduate School for review. Students will be admitted to the Graduate School on a conditional basis, allowing them to take courses as a non-degree student, until the proposed program of study receives full approval. Students will be fully admitted to the Graduate School after the interdisciplinary program proposal is approved.

### **Interdisciplinary Tracks of Study: Interdisciplinary Ph.D. Concentrations**

Faculty may propose interdisciplinary tracks of study that will form the basis for suitable areas of concentration to train students. The track must meet the criteria outlined above in terms of minimum credit hours and the distribution of coursework across disciplinary lines. Proposed areas of concentration and interdisciplinary tracks of study will be subject to approval by the following academic bodies: 1) Unit Curriculum and Budget Committees; 2) Graduate Council; 3) Faculty Senate; 4) Provost. The development of an interdisciplinary track is the responsibility of the faculty, but the Assistant Dean for Interdisciplinary Studies will provide assistance and guidance. Participating faculty must have the consent of their departmental chair or dean to participate in an Interdisciplinary Track. Students in a track of study must choose a primary mentor, but may have co-mentors.

Requests for further information or assistance should be addressed to:

Assistant Dean for Interdisciplinary Studies  
Graduate School  
Houchens Building, Suite 105  
University of Louisville  
Louisville, Kentucky 40292  
Phone: (502) 852-6495  
Email: [graduate@louisville.edu](mailto:graduate@louisville.edu)

## **Curriculum**

Curriculum will be determined during the development of each individual student's program proposal (see details above). For an Interdisciplinary Track program, a core of faculty may propose a curriculum that will form the basis for an area of concentration.

## **Departmental Faculty**

Faculty will be determined during the development of each individual student's program proposal.

# School of Medicine

Anatomical Science and Neurobiology - MS

Anatomical Science and Neurobiology - Ph.D.

Audiology- Au.D.

Biochemistry and Molecular Biology - MS

Biochemistry and Molecular Biology - Ph.D.

Communicative Disorders - MS

Microbiology and Immunology - MS

Microbiology and Immunology - Ph.D.

Pharmacology and Toxicology - MS

Pharmacology and Toxicology - Ph.D.

Physiology and Biophysics - MS

Physiology and Biophysics - Ph.D.

# Master of Science in Anatomical Science and Neurobiology

**Major:** ASNB

**Degree Awarded:** MS

**Unit:** GM

**Program Webpage:** <http://www.louisville.edu/medschool/anatomy/>

## Program Information

The thesis M.S. program is available to qualified individuals possessing a bachelor's degree from an accredited college or university. No specific undergraduate major is required, although a science background is preferred.

The thesis M.S. degree is offered to students who want to continue their education in Anatomy and Neurobiology and offers the student the opportunity to improve his/her background for career development (e.g., to prepare for a career in teaching, or to prepare for further higher education programs such as a Ph.D. program or Medical School).

All degree programs require full-time study and it is expected that while participating in these programs, students will devote full-time effort toward completion of the degree requirements.

## Program Admission Procedure

All students wishing to apply must submit an application to the Office of Graduate Admissions with the following documents:

1. A formal application submitted to the University of Louisville Office of Graduate Admissions (see website: <http://graduate.louisville.edu/apply> for forms and directions).
2. Application fee.
3. A minimum of two letters of recommendation.
4. Official transcripts of all college work.
5. Official scores on the Graduate Record Examination (GRE) General Test.
6. A brief statement of purpose describing your interests and career goals.
7. All international applicants whose native language is not English must submit Test of English as a Foreign Language (TOEFL) scores.

Program candidates are admitted in the fall semester (which begins in early August). Review of applications begins January 15 and continues until all positions are filled. Admission into the program is competitive, and applicants are encouraged to submit their applications early.

## Curriculum

# Requirements for the thesis M.S. Degree

Students should familiarize themselves with the general requirements for the master's degree as stated in the current U of L Graduate School catalog. Briefly, a minimum of 30 semester hours is required for the master's degree, of which 15 semester hours must be in courses of the major subject area. At least one-half of the credits counted toward the degree must be 600 level courses or above. This does not include research credit hours. The department imposes the following additional requirements:

Students will successfully complete at least two of the following courses within the department:

Gross Anatomy (ASNB 601) 8.5 hours

Microscopic Anatomy (ASNB 603) 6 hours

Neuroanatomy (ASNB 607) 3 hours

Neural Systems (ASNB 608) 4 hours

Dental Gross and Neuroanatomy (ASNB 672) 3 hours

Head and Neck Anatomy (ASNB 673) 4 hours

Dental Microscopic Anatomy (ASNB 671) 5 hours

In addition, Anatomy Seminar (ASNB 606, 1 credit hr) must be taken for credit each semester prior to candidacy.

Credit for laboratory research may be earned by registering for Original Investigation (ASNB 619).

Additional courses (electives) within the department or graduate level courses in other departments may be taken to achieve the minimum requirement of 30 credit hours. The student should consult with his/her advisor on the selection of the appropriate electives.

The minimum number of hours which must be taken is nine (9) in the fall or spring semester and six (6) in the summer semester. The maximum number of hours that may be taken in the fall or spring semester is 12 (or 15 hours if three or more are research hours). 12 credit hours (including research hours) is the maximum allowed for summer sessions.

After completion of all course work and research hours, students who have not completed the writing of their thesis must maintain candidacy by registering for MAST 600. This registration must be maintained year round (Fall, Spring and Summer) until the degree is awarded. Once a student registers for MAST 600, he/she may not register for additional courses. The statute of limitation for obtaining a Master's degree is six (6) years maximum.

## Original Research

Students will conduct this required research under the direction of a member or associate member of the departmental faculty (hereafter known as the thesis advisor) who is also a member of the graduate faculty. Faculty reserve the right to decline accepting a student.

During the first year of residence, students are required to visit the laboratories of potential advisors to become acquainted with the faculty and the research opportunities available. Selection of an advisor and the initiation of a research project should be concluded prior to the end of the first year, at which time a letter of agreement, signed by both the student and thesis advisor, will be filed with the graduate program director.

Students must understand that the thesis master of science degree requires more than the completion of a prescribed curriculum of course work. Completion of a thesis based on original research and its successful oral defense is a requirement for the thesis master's degree. By its nature, original research does not always achieve positive results within a specific period of time. Therefore, no specific time can be given for the successful completion of this degree. Note that students are advised to complete the majority of their course work in the first year so that adequate time is allotted in the second year to complete their research and thesis. Specifically, students will be required to engage full-time in research for at least one academic semester in the spring or fall plus two summers.

## **Thesis Committee**

The composition requirements of, and specific deadlines related to, the thesis committee appear in the Graduate School catalog. Briefly, the thesis committee is composed of the student's advisor and two other faculty, one of which is from a different department. All three must be members of the graduate faculty. This committee should be established shortly after the student and her/his advisor agree on a specific research project. To avoid unnecessary delays the student should regularly consult with her/his thesis advisor and committee members concerning the direction and progress of the research project.

## **Thesis Defense**

The M.S. candidate will focus exclusively on completing their research projects and writing a thesis describing the results of their experiments. It is expected that the thesis should contain data sufficient for approximately one publishable manuscript. Upon completion of the thesis, the student will distribute a copy to each committee member. The committee will have two weeks to read the thesis and give approval to schedule a defense date or recommend changes that must be completed prior to scheduling a defense date. Once the thesis is approved by the committee, the student will schedule a thesis defense which will consist of an oral presentation to the department (approximately 30 minutes in length) of the research completed during the student's graduate training. Non-committee members in the audience will then ask questions. The general audience will then be dismissed and the student will defend his/her thesis before the committee. Completion of the M.S. degree will be determined by majority vote of the committee.

## **Academic Policies**

### **Satisfactory Progress**

All graduate students are expected to make steady and satisfactory progress toward the completion of degree. Unsatisfactory performance may result in immediate dismissal or in academic probation, at the discretion of the Graduate Education Committee of the department.

A student may not remain on academic probation for more than one semester, after which his/her performance must meet or exceed the minimum requirements. If a probationary student does not achieve the minimum performance level, the Education Committee will consider their dismissal from the program. In all cases, students receiving financial aid must maintain satisfactory progress in order to be eligible for continued financial support.

Satisfactory progress is assessed by a number of factors. While taking courses, students are required to maintain a minimum average grade of "B", i.e., a cumulative grade point of 3.0 on a 4.0 value scale. Deficiencies in the cumulative average grade generated through course work cannot be overcome using research credits (i.e. ASNB 616, 619 or 620). Unsatisfactory performance (i.e., GPA < 3.0) may result in immediate dismissal or in academic probation.

For degree candidates, satisfactory progress also involves maintaining steady progress in laboratory research, analysis, or the documentation of research results. The Reading or Thesis Committees will evaluate the student's progress and unsatisfactory progress will be reported to the Education Committee.

Satisfactory progress also involves maintaining the standards of academic and professional integrity. Plagiarism or other failures to maintain appropriate academic standards will result in immediate dismissal from the program.

### **Administration**

For administrative purposes, an interim advisor will be assigned to each incoming student until he/she has selected a Thesis Advisor.

### **Guideline Changes**

The Department reserves the right to change requirements at any time. When requirements change, the student may have the option of satisfying either the requirements in effect when he/she entered the program or the new requirements, depending on circumstances.

# Departmental Faculty

## **Fred J. Roisen**

*Professor*

Chairman, ASNB

## **Martha E. Bickford**

*Professor*

Director, Graduate Program

## **Ferrell R. Campbell**

*Professor*

Director, Analytical Microscopy & Histology Lab

## **Nigel G.F. Cooper**

*Professor*

Vice-Chair for Research

Director, Molecular Neurobiology Core Lab

## **Raymond Ho**

*Professor*

Course Director, Dental Gross and Neuroanatomy; Head and Neck Anatomy

## **George D. Mower**

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Course Director, Medical Neurosciences

## **G. Stephen Nettleton**

*Professor*

Vice Chairman for Administration and Academic Affairs, Education Coordinator, Course Director, Medical Gross; Human Embryology

## **Matthew Qiu**

*Professor*

Director, Neurochemistry Shared Instrumentation Lab

## **Michael T. Tseng**

*Professor*

Course Director, Dental Hygiene

## **Rita M. Colella**

*Associate Professor*

Course Director, Medical Microscopic Anatomy

## **Charles H. Hubscher**

*Associate Professor*

Director, Graduate Admissions

## **Robin F. Krimm**

*Associate Professor*

Course Director, Dental Microscopic Anatomy

## **Ashok Kumar**

*Associate Professor*

## **Nobuyuki Kuwabara**

*Associate Professor*

**Guillermo W. Rougier**  
*Associate Professor*

**Richard Benton**  
*Assistant Professor*

**H. Wayne Lambert**  
*Assistant Professor*

**Robert F. Lundy, Jr.**  
*Assistant Professor*

**J. Patrick Moore**  
*Assistant Professor*

**Jeff Petruska**  
*Assistant Professor*

**Madan Ajmani**  
*Instructor*

**Wei Fan**  
*Instructor*

## **Joint/Associate Appointments**

**Robert Acland**  
*Professor*  
Surgery

**Manuel Casanova**  
*Professor*  
Endowed Chair, Psychiatry

**Allan Farman**  
*Professor*  
Diagnosis & General Dentistry

**Irene Litvan**  
*Professor*  
Endowed Chair, Neurology

**C. Patrick McGraw**  
*Professor*  
Neurological Surgery

**Christopher Shields**  
*Professor*  
Chairman, Dept of Neurological Surgery

**Gülgün Tezel**  
*Professor*  
Ophthalmology and Visual Sciences

**Gordon Tobin**  
*Professor*  
Surgery

**Scott Whittemore**  
*Professor*  
Endowed Chair, Neurological Surgery

**Fred L. Wightman**

*Professor*

Psychological & Brain Sciences

**John Barker**

*Associate Professor*

Surgery

**Rif El-Mallakh**

*Associate Professor*

Psychiatry

**Susan Harkema**

*Associate Professor*

Neurological Surgery

**John Johnson**

*Associate Professor*

Chairman, Orthopedic Surgery

**David Magnuson**

*Associate Professor*

Neurological Surgery

**Michael Voor**

*Associate Professor*

Orthopedic Surgery

**Tongalp Tezel**

*Associate Professor*

Ophthalmology and Visual Sciences

**Welby Winstead**

*Assistant Professor*

Surgery, Otolaryngology

**Adjunct**

**Mark Wiegand**

*Assistant Professor*

**Emeritus/Emerita**

**Kunwar P. Bhatnagar**

*Professor*

**James B. Longley**

*Professor*

**Kenneth Reid**

*Professor*

**Richard Rink**

*Professor*

**Frank J. Swartz**

*Professor*

**Richard H. Swigart**

*Professor*



**Kathleen M. Klueber**  
*Associate Professor*



# Doctor of Philosophy in Anatomical Science and Neurobiology

**Major:** ASNB

**Degree Awarded:** Ph.D.

**Unit:** GE

**Program Webpage:** <http://www.louisville.edu/medschool/anatomy/>

## Program Information

Our philosophy is to encourage academic excellence in the neurosciences within a framework of structure-function relationships at the molecular, cellular, and systemic levels. We strive to prepare students with sufficient background depth to excel in high tech cutting-edge translational (applied) research environments and the more traditional multidisciplinary academic setting. We provide students with innovative approaches to important issues in neuroscience research including development, organization and plasticity. Our research interests range from sensory and motor systems to stem cell replacement strategies for spinal cord injuries. In all approaches we strive to integrate the latest teaching modalities while maintaining the time-honored advantages of hands-on, laboratory-based instruction.

The degree program is available to qualified individuals possessing a bachelor's degree from an accredited college or university. No specific undergraduate major is required, although a science background is preferred.

The Ph.D. degree is offered to students who plan to pursue a career in research and/or teaching, in an academic institution or within industry.

All degree programs require full time study, and it is expected that while participating in these programs students will devote full time effort toward completion of the degree requirements.

## Program Admission Procedure

All students wishing to apply must submit an application to the Office of Graduate Admissions with the following documents:

- A formal application submitted to the Office of Graduate Admissions (see website: <http://graduate.louisville.edu/app/> for forms and directions).
- Application fee.
- A minimum of two letters of recommendation.
- Official transcripts of all college work.
- Official scores on the Graduate Record Examination (GRE) General Test.
- A brief statement of purpose describing your interests and career goals.
- All international applicants whose native language is not English must submit Test of English as a Foreign Language (TOEFL) scores.

Program candidates are admitted in the fall semester (which begins in early August). Review of applications begins January 15 and continues until all positions are filled. Admission into the program is competitive, and applicants are encouraged to submit their applications early.

## Curriculum

## **Required coursework**

Students must complete the following courses:

Biochemistry (BIOC/CHEM 545 or equivalent) - 3 credit hours

Cell Biology (MBIO 667 or equivalent) - 3 credit hours

Two lab rotation (ASNB 618) - 6 credit hours

One methods course (e.g. ASNB 665) - 3 credit hours

Anatomy seminar (ASNB 606) each semester prior to candidacy - 1 credit/semester

Students must complete at least 12 credits of departmental courses (non-research), including at least 6 credits of following core courses:

Gross Anatomy (ASNB 601) - 8.5 credit hours

Microscopic Anatomy (ASNB 603) - 6 credit hours

Neuroanatomy (ASNB 607) - 3 credit hours

Neural Systems (ASNB 608) - 4 credit hours

Dental Gross and Neuroanatomy (ASNB 672) - 3 hours

Head and Neck Anatomy (ASNB 673) - 4 hours

Dental Microscopic Anatomy (ASNB 671) - 5 hours

Students must complete one of following elective courses<sup>1,2</sup>:

Introductory Immunology (BIO 602) - 2 credit hours

Biochemistry II (BIOCH/CHE547) - 3 credit hours

Cellular and Molecular Immunology (MBIO 658) - 3 credit hours

Neuroanatomy (ASNB 607) - 3 credit hours

Neural Systems (ASNB 608) - 4 credit hours

Physiology I (PHY 605) - 3 credit hours

Physiology II (PHY 606) - 3 credit hours

<sup>1</sup>Course substitutions can be made if approved by the ASNB Graduate Education Committee.

<sup>2</sup>ASNB 607 and 608 fulfill both core and elective requirements.

Following completion of all required coursework, each student is considered a Masters Candidate and will register as such (MAST).

## **Laboratory Rotations**

Each student will complete at least two rotations in different laboratories prior to the start of their third semester. The objectives are to expose the student to different approaches and areas of research, and to assist the student in choosing a laboratory for dissertation research. For each rotation, the student will register for the three (3)-credit course Laboratory Rotation (ASNB 618) which is graded on a pass/fail basis. Once a student has completed a semester rotation in a given laboratory, they can obtain credit for further research in that laboratory by registering for Original Investigation (ASNB 619).

## **Advisory Committee**

The purpose of the advisory committee is to guide the student in developing a course of study that will prepare him or her for a successful career. To this end, the committee may specify one or more of the courses to be taken by the student.

The committee will have five members, with at least one from outside ASNB. The principal advisor will serve as chair. The student, in conjunction with the advisor, should form a committee prior to the start of the third semester. Once the committee is formed, the student will meet with the committee at least twice per year. Following each meeting, the mentor will submit a written brief summary of the meeting to be placed in the student's file.

## **Qualifying Exam**

The purpose of the qualifying exam is to assure that the student has sufficient knowledge and skills to begin a research project. The exam will be taken within 2 terms (Fall, Spring or Summer terms) after the completion of required coursework. The exam consists of an oral presentation and defense of a research proposal (described below).

Prior to writing the Research Proposal, the student will develop an outline of the proposed experiments in coordination with their advisor and then present this outline to their committee. It is at this point, prior to writing the Research Proposal that the committee should recommend any changes in the research plan, regarding, for example, too many or too few experiments, experiments that are too difficult, or experiments that may be more appropriate for addressing the research question. Once the committee is satisfied with the proposed experiments, the student will write a Research Proposal in the following general format.\*

### ***Hypotheses and Experiments***

This section will consist of a list of the proposed hypotheses to be tested, and a brief description of the experiments that will be used to test these hypotheses.

### ***Materials and Methods***

This section will consist of a detailed description of the materials and methods that will be used to carry out the proposed experiments.

### ***Expected Outcomes***

This section will describe the expected results.

### ***Potential Problems***

This section will describe any potential problems that could occur, how they might affect interpretation of their research results, and how the student will address any potential problems.

*\*All students are encouraged to submit (in coordination with their advisor) an application for a National Institutes of Health Predoctoral National Research Service Award (F31) or a National Science Foundation Predoctoral Award. Therefore, the Research Proposal may be submitted in the format of a relevant application with the exception that the background and significance section should be expanded to include a more extensive literature review than permitted by the NIH or NSF page limitations.*

Upon completion of the research proposal, the student will distribute a copy to each committee member, who will have two weeks to read the proposal.

The qualifying exam will be chaired by the student's advisor. The exam will begin with an oral presentation, open to all faculty, in which the student will present a short (approximately 20 min) overview of the research plan. The presentation will be followed by an oral defense to assess the student's readiness to conduct the proposed research, and their knowledge of all background information relevant to the proposed research. Non-committee members in the audience will then ask questions. The general audience will then be dismissed and the student will defend his/her proposal before the committee. Passing will be determined by majority vote of the committee. A student who fails the exam will have 2 months to retake the exam. Failure on the second attempt will result in dismissal from the program.

Upon successful completion of the exam, a written report stating the outcome of the exam will be signed by each committee member and will become a permanent part of the student's record. A passing vote indicates that the student has completed the requirements for an M.S. degree, and is a candidate for the Ph.D. degree.

## **Annual presentation of research progress**

Ph.D. students who have completed their class work (M.S. and Ph.D. candidates) must present their research accomplishments annually. This presentation should be 30-50 minutes in length, and the time and location of the presentation should be formally announced to the department faculty, staff and students at least 1 week prior to the planned presentation.

## **Teaching requirements**

Each Ph.D. student must serve as a teaching assistant (T.A.) in at least one ASNB core course. The specific course will be chosen by the student and his/her advisory committee.

## **Dissertation Defense**

With the exception of their training in teaching, the Ph.D. candidate will focus exclusively on completing their research projects and writing a dissertation describing the results of their experiments. It is expected that the dissertation should contain data sufficient for approximately three publishable manuscripts. Upon completion of the dissertation, the student will distribute a copy to each Dissertation Committee member. The committee will have two weeks to read the dissertation and give approval to schedule a defense date or recommend changes that must be completed prior to scheduling a defense date. Once the dissertation is approved by the committee, the student will schedule a Dissertation Defense which will consist of an oral presentation to the department (approximately 45 minutes in length), of the research completed during the student's graduate training. Non-committee members in the audience will then ask questions. The general audience will then be dismissed and the student will defend his/her dissertation before the committee. Approval by the majority of Dissertation Committee members will signify completion of the Ph.D. degree.

## **Academic policies**

### **Satisfactory Progress**

All graduate students are expected to make steady and satisfactory progress toward the completion of degrees. Unsatisfactory performance may result in immediate dismissal or in academic probation, at the discretion of the Graduate Education Committee of the Department.

A student may not remain on academic probation for more than one semester, after which his/her performance must equal or exceed the minimum requirements. If a probationary student does not achieve the minimum performance level, the Education Committee will consider their dismissal from the program. In all cases, students receiving financial aid must maintain satisfactory progress in order to be eligible for continued financial support.

Satisfactory progress is assessed by a number of factors. While taking courses, students are required to maintain a minimum average grade of "B", i.e., a cumulative grade point of 3.0 on a 4.0 value scale. Deficiencies in the cumulative average grade generated through course work cannot be overcome using research credits (i.e. ASNB 616, 619 or 620). Unsatisfactory performance (i.e., GPA < 3.0) may result in immediate dismissal or in academic probation.

For degree candidates, satisfactory progress also involves maintaining steady progress in laboratory research, analysis, or the documentation of research results. The Reading or Dissertation Committees will evaluate the student's progress and unsatisfactory progress will be reported to the Education Committee.

Satisfactory progress also involves maintaining the standards of academic and professional integrity. Plagiarism or other failures to maintain appropriate academic standards will result in immediate dismissal from the program.

### **Administration**

For administrative purposes, an interim Ph.D. Advisor will be assigned to each incoming student until he/she has selected a Dissertation Mentor.

### **Guideline Changes**

The Department reserves the right to change requirements at any time. When requirements change, the student may have the option of satisfying either the requirements in effect when he/she entered the program or the new requirements, depending on circumstances.

# Departmental Faculty

**Fred J. Roisen**

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**Guillermo W. Rougier**

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**Richard Benton**

*Assistant Professor*

**H. Wayne Lambert**

*Assistant Professor*

**Robert F. Lundy, Jr.**

*Assistant Professor*

**J. Patrick Moore**

*Assistant Professor*

**Jeff Petruska**

*Assistant Professor*

**Madan Ajmani**

*Instructor*

**Wei Fan**

*Instructor*

## **Joint/Associate Appointments**

**Robert Acland**

*Professor*

Surgery

**Manuel Casanova**

*Professor*

Endowed Chair, Psychiatry

**Allan Farman**

*Professor*

Diagnosis & General Dentistry

**Irene Litvan**

*Professor*

Endowed Chair, Neurology

**C. Patrick McGraw**

*Professor*

Neurological Surgery

**Christopher Shields**

*Professor*

Chairman, Dept of Neurological Surgery

**Gülgün Tezel**

*Professor*

Ophthalmology and Visual Sciences

**Gordon Tobin**

*Professor*

Surgery

**Scott Whittemore**



*Professor*  
Endowed Chair, Neurological Surgery

**Fred L. Wightman**

*Professor*  
Psychological & Brain Sciences

**John Barker**

*Associate Professor*  
Surgery

**Rif El-Mallakh**

*Associate Professor*  
Psychiatry

**Susan Harkema**

*Associate Professor*  
Neurological Surgery

**John Johnson**

*Associate Professor*  
Chairman, Orthopedic Surgery

**David Magnuson**

*Associate Professor*  
Neurological Surgery

**Michael Voor**

*Associate Professor*  
Orthopedic Surgery

**Tongalp Tezel**

*Associate Professor*  
Ophthalmology and Visual Sciences

**Welby Winstead**

*Assistant Professor*  
Surgery, Otolaryngology

**Adjunct**

**Mark Wiegand**

*Assistant Professor*

**Emeritus/Emerita**

**Kunwar P. Bhatnagar**

*Professor*

**James B. Longley**

*Professor*

**Kenneth Reid**

*Professor*

**Richard Rink**

*Professor*

**Frank J. Swartz**

*Professor*

**Richard H. Swigart**  
*Professor*

**Kathleen M. Klueber**  
*Associate Professor*

# Doctor of Audiology

**Major:** AUDI

**Degree Awarded:** Au.D.

**Unit:** GI

**Program Webpage:** <http://www.louisville.edu/medschool/surgery/com-disorders/audiology/>

## Program Information

The Doctor of Audiology Degree (Au.D.) is a four-year post-bachelor's degree program leading to a professional degree conferred by the Graduate School. The program is physically located within the Louisville Medical Center and the University of Louisville Health Sciences Campus and administratively located in the Division of Communicative Disorders in the Department of Surgery. The faculty are committed to the clinical focus of the Au.D. degree and endeavor to bring real-world experiences to bear on the teaching environment. The faculty and staff of the Audiology Section actively participate in the provision of clinical services in both hospital and private practice arenas.

Students benefit by working side by side with the faculty and staff in an active and dynamic medical environment. Students will be able to interact with faculty, residents and medical students from other disciplines such as otolaryngology, speech pathology and pediatrics, not only in the provision of clinical services, but also in teaching and research endeavors.

## Program Admission Procedure

Admission to the program will be for Fall term only, and applications must be received by January 1 of the application year. Applicants should submit all undergraduate transcripts, GRE scores and 3 letters of recommendation. Admission to the program is based on a favorable review of application material and an interview with the admissions committee.

## Curriculum

The Doctor of Audiology degree program has been designed to meet the content and experience guidelines developed over the past decade by numerous professional organizations and associations. Curricular content areas and competencies are outlined as follows.

The curriculum begins with the student spending a significant amount of time in the classroom with a minimum amount of time in the clinical environment. Over the course of the four years, the ratio of classroom to clinic time reverses, so that the last year consists of virtually full-time clinical experience. During the fourth year, students will be given options for practical experiences in a variety of sites around the country.

<b>Year</b>	<b>Semester</b>	<b>Course#</b>	<b>Title</b>	<b>Credits</b>
<b>1</b>	<b>Fall</b>	600	Anatomy & Physiology	4
		604	Essential Techniques in Audiometry	3

	606	Acoustics & Speech Acoustics	3
	614	Clinical Methods I	1
	610	Clinical Clerkship I	1
		Total Credits	11

**Spring**

	648	Hearing Science	3
	624	Amplification Technology	3
	622	Electrophysiologic Techniques in Audiology I	3
	615	Clinical Methods II	1
	610	Clinical Clerkship I	1
		Total Credits	11

**Summer**

	636	Pediatric Audiology	3
	630	Amplification Selection & Fitting	3
	616	Genetics	2
	608	Anatomy & Physiology II	2
	620	Clinical Clerkship II	2
		Total Credits	12

**2 Fall**

	628	Differential Diagnosis in Audiology	3
	629	Cochlear Implants & FM Systems	3
	612	Pathology of the Aud. & Vestib. Systems	3

620 Clinical Clerkship II 2

Total Credits 11

**Spring** 650 Research Methods 3

654 Auditory Processing Disorders 3

638 Educational Audiology 3

620 Clinical Clerkship II 2

Total Credits 11

**Summer** 621 Audiologic Rehabilitation 3

626 Assessment & Management Vestib. Disorders 2

632 Professional Issues 2

635 Internship 4

660 Investigation 1

Total Credits 12

**3 Fall** 656 Practice Management in Audiology 3

646 Medical Audiology 3

660 Investigation 1

635 Internship 4

Total Credits 11

**Spring** 652 Prevention of Hearing Loss 2

642 Gerontologic Audiology 3

	660	Investigation	1
	635	Internship	4
		Total Credits	10
<b>4</b>	<b>Summer</b>	DOCT 600	1
	<b>Fall</b>	DOCT 600	1
	<b>Spring</b>	DOCT 600	1

## Clinical Services

The Audiology Program at the University of Louisville offers a variety of unique clinical services at a variety of sites. Services are provided and/or supervised by the faculty and staff. Students will initially rotate through the university clinical sites, including the Ambulatory Care Building and University of Louisville Hospital, Kosair-Children's Hospital, University Audiology Associates, and HearCare Associates. Students also have the opportunity for clinical rotations in affiliated sites outside the university.

## Departmental Faculty

### **David R. Cunningham**

*Professor*

### **Ian M. Windmill**

*Associate Professor*

### **Jill E. Preminger**

*Associate Professor*

### **George O. Purvis**

*Chief Audiology and Speech Pathology, V. A.*

### **Fred Wightman**

*Heuser Hearing Research Endowed Chair*

**Barbara Eisenmenger**

*Clinical Instructor*

**Hayley Gardner**

*Clinical Instructor*

**Julie Manche**

*Clinical Instructor*

**Shelley Moats**

*Clinical Instructor*

**Sue Windmill**

*Clinical Instructor*

# Master of Science in Biochemistry and Molecular Biology

**Major:** BIOC

**Degree Awarded:** MS

**Unit:** GM

**Program Webpage:** <http://biochemistry.louisville.edu/>

## Program Information

As teachers and scientists, the faculty of the Department of Biochemistry and Molecular Biology subscribe to the following missions:

- Provide up-to-date and high-quality classroom and laboratory instruction in the discipline of biochemistry and molecular biology to students at the University.
- Conduct and publish research or other scholarship in areas that advance knowledge within the discipline, contribute to improving the human condition, or contribute to teaching.
- Train students and post-doctoral fellows in biochemical research.
- Encourage and enhance the professional development of faculty colleagues, especially junior faculty.
- Serve as a resource for information on biochemistry and molecular biology for the University and the community at large.
- Contribute to the orderly and smooth functioning of the University by serving on committees, and participating in advising, policy-making and administrative activities.
- Serve as role models for students, fellows, staff and colleagues with regard to integrity, fairness, collegiality, and civility.
- Perform service that advances and enhances the discipline of biochemistry and molecular biology.
- Advocate the benefits of science and the scientific method to society.
- Speak out when ideals of honesty and integrity within the academic workplace are violated.

## Procedure for Application

To be considered for admission into the Biochemistry and Molecular Biology graduate program, we will need the following completed documents:

1. Completed application form (application fee applies)
2. A copy of your official transcripts
3. Two letters of recommendation
4. Your official GRE and TOEFL scores

These completed documents should be submitted to the Office of Graduate Admissions.

## Requirements for the MS Degree in Biochemistry and Molecular Biology

The Department of Biochemistry and Molecular Biology offers both a thesis option and non-thesis option for the MS degree

### MS Degree in Biochemistry and Molecular Biology thesis option

1. MS students entering the program should have received a grade of "B" or better in 2 semesters of organic chemistry
2. Course work will consist of BIOC 611, 645, and 647. In addition, the MS student must take six hours of classroom



- instruction of which at least four be in BIOC courses; and obtain 30 total credits which may include hours in seminar (BIOC 606), Biochemistry lab (BIOC 613), or Research (BIOC 619)
3. One semester of BIOC 606 (1 credit - seminar) is required during the second year
  4. Students are required to attend seminars and research conferences
  5. Students are expected to maintain a 3.0 average in their course work. Students who do not will be subject to dismissal from the program
  6. Students must present a 1-2 page research proposal for their thesis committee and orally defend that proposal
  7. All students will receive mandatory training in ethics as mandated by the NIH and the University of Louisville

## **Thesis**

An MS research thesis is required for the thesis option. Students, with the consent of their committee, may choose between a traditional research thesis format or a thesis in which the methods and results sections are replaced by manuscripts ready for submission for publication in a refereed journal. In either case, the thesis must conform to the Graduate School's Standards for Preparation of Theses and Dissertations. The Thesis Committee will consist of the preceptor, two other faculty of the Department of Biochemistry and Molecular Biology (at least two of the Committee members must be primary faculty in the Department), and one member outside of the Department, and must be approved by the Graduate Executive Committee.

## **MS Degree in Biochemistry and Molecular Biology non-thesis option**

1. MS students entering the program should have received a grade of "B" or better in 2 semesters of organic chemistry
2. Course requirements for students interested primarily in a course work MS include BIOC 645 and 647, and 22 credit hours of electives, 8 hours of which must be in BIOC courses.
3. For students interested in a laboratory based MS with a non-thesis option, course requirements include BIOC 645 and 647 (or their equivalent), BIOC 611, and the remaining hours (up to 29 credit hours) as BIOC 613 Biochemistry Laboratory (rotations)
4. One semester of BIOC 606 (1 credit - seminar) is required
5. Students are required to attend seminars and research conferences
6. Students are expected to maintain a 3.0 average in their course work. Students who do not will be subject to dismissal from the program
7. A professional paper based on laboratory rotations or literature research and a final exam will be accepted in lieu of a traditional research thesis
8. All students will receive mandatory training in ethics as mandated by the NIH and the University of Louisville

## **Curriculum**

### ***Fall Semester***

<b>Course #</b>	<b>Title</b>	<b>Hours</b>
603 03	Gene Networks Modeling	3
603 04	Techniques in Biomolecular Interaction	2
606	Seminar	1
611	Biochemical Molecular Methods	3
613	Biochemistry Lab (Rotation)	2 - 4
619	Research	1 - 15
641	Eukaryotic Genetics	4
645	Biochemistry I	4
668	Molecular Biology	4

### ***Spring Semester***

<b>Course #</b>	<b>Title</b>	<b>Hours</b>
603 01	Special Topics	
603 02	Biomolecular Interactions	1 - 2
603 03	Labatory Ethics	1
606	Biochemistry Seminar	1
613	Biochemistry Lab (Rotation)	2 - 4
619	Research	1 - 15
647	Biochemistry II	4
661/PHARM661	Molecular Methods of Toxicology	1.5

## **Departmental Faculty**

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**Russell A. Prough, Ph.D.**

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**Stephanie J Webb, Ph.D.**

*Assistant Professor*

**James L. Wittliff, Ph.D.**

*Professor*

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*Assistant Professor of Biochemistry & Molecular Biology*

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*Professor of Medicine*

**William W. Young, Jr., Ph.D.**

*Professor of Biological & Biophysical Sciences*  
*Professor of Biochemistry & Molecular Biology*

# Doctor of Philosophy in Biochemistry and Molecular Biology

**Major:** BIOC

**Degree Awarded:** Ph.D.

**Unit:** GM

**Program Webpage:** <http://biochemistry.louisville.edu/>

## Program Information

As teachers and scientists, the faculty of the Department of Biochemistry and Molecular Biology subscribe to the following missions:

- Provide up-to-date and high-quality classroom and laboratory instruction in the discipline of biochemistry and molecular biology to students at the University.
- Conduct and publish research or other scholarship in areas that advance knowledge within the discipline, contribute to improving the human condition, or contribute to teaching.
- Train students and post-doctoral fellows in biochemical research.
- Encourage and enhance the professional development of faculty colleagues, especially junior faculty.
- Serve as a resource for information on biochemistry and molecular biology for the University and the community at large.
- Contribute to the orderly and smooth functioning of the University by serving on committees, and participating in advising, policy-making and administrative activities.
- Serve as role models for students, fellows, staff and colleagues with regard to integrity, fairness, collegiality, and civility.
- Perform service that advances and enhances the discipline of biochemistry and molecular biology.
- Advocate the benefits of science and the scientific method to society.
- Speak out when ideals of honesty and integrity within the academic workplace are violated.

## Student Support

Every applicant will be considered for IPIBS Fellowship support. Support after the first 23 months is the responsibility of the individual student's dissertation advisor. Students are also encouraged to seek extramural support.

## Guidance For The Student

The Director of the Biochemistry and Molecular Biology Graduate Program will serve as the first year advisor to all incoming graduate students until a dissertation advisor is selected. During the first year, all students will meet with all available faculty to discuss research projects. After completion of lab rotations and before beginning the second year, the student will select a preceptor, subject to the approval of the Graduate Executive Committee and the Chairman.

After a preceptor is approved, the preceptor must initial the student's registration form each semester and the Director of the Biochemistry and Molecular Biology Graduate Program must sign it.

Drop/add of courses must be approved by the student's advisor and the Director of the Biochemistry and Molecular Biology Graduate Program in consultation with the instructor.

At the end of the first year, a Dissertation Committee will be formed which will serve as the Reading Committee and Examining Committee. This Committee will consist of the preceptor, three other faculty of the Department of Biochemistry and Molecular Biology (at least three of the Committee members must be primary faculty in the Department), and one member outside of the Department, and must be approved by the Graduate Executive Committee.

Each student must meet regularly with his/her Dissertation Committee. There must be at least one formal meeting per year. This meeting may occur immediately after the student presents his or her annual research conference. After each meeting, the advisor will complete the "Student Meeting Form" and provide copies to the Committee members, the student and the Director of the Biochemistry and Molecular Biology Graduate Program. If deficiencies are identified at the annual meeting, a second meeting of the student and committee will be held that year to determine whether the student has remediated the deficiencies. The first formal meeting of a Ph.D. student with the committee will probably be to present the Preliminary Proposal.

***Students who do not have at least one committee meeting per year (every 12 months) will be given an incomplete in Research. This will become an F if the deficiency is not made up within one semester.***

## **Program Admission Procedure**

### **Criteria and Mechanism for Selection**

In addition to the Graduate School requirements, the following criteria will be used as the basis for formal acceptance of students to the Ph.D. program in Biochemistry and Molecular Biology. Acceptance of each student requires approval unanimously by the Graduate Executive Committee or by a majority of the Graduate Committee.

1. Transcript of course work. A two-semester course in organic chemistry is required.
2. Grade point average: The Department requires an overall 3.0 grade point average (4.0 system) with an average of 3.0 in science courses.
3. The Graduate Record Examination general test.
4. At least two letters of recommendation, preferably from faculty in biology and/or chemistry.
5. A personal or phone interview with members of the Department of Biochemistry and Molecular Biology is encouraged for all applicants.
6. A personal statement of interest.

## **Curriculum**

Students entering the Ph.D. program should have taken two semesters of organic chemistry and earned satisfactory grades.

The courses required for the Ph.D. in Biochemistry and Molecular Biology, are the core IPIBS requirement, and a minimum of 24 credit hours of classroom instruction (not including research, rotations or seminars), of which 17 credit hours must be in BIOC courses. The Biochemistry and Molecular Biology courses that can be used to satisfy these requirements are listed below.

### **Fall Semester:**

- Biochemistry I 545/645 (3/4) (IPIBS-required course)
- Biochemical & Mol Biol Methods 611 (3) (IPIBS requires a departmental Methods course)
- Molecular Biology 668 (4)
- Advanced Eukaryotic Genetics 641 (4)
- Molecular Endocrinology 660 (2)
- Special Topics in Biochemistry 603 (1-3)

### **Spring Semester:**

- Cell Biology 667 (3) (IPIBS -required course)
- Biochemistry II 547/647 (3/4) (fulfills the IPIBS elective requirement)
- Protein Structure and Function 670 (4)
- Special Topics in Biochemistry 603 (1-3)
- Ethics 603-03 (1)
- Advanced Techniques in Biochemistry and Molecular Biology 603 (2)
- Biomolecular Interactions 603-04 (2)
- Biochemistry of Cancer 675 (4) (offered in alternate years)
- Molecular Toxicology 661 (3)

The selection of courses to complete the credit requirements should be made in consultation with the student's Dissertation Committee and require approval of the Graduate Executive Committee. Course descriptions may be found in the current edition of the Graduate Bulletin.

In addition, Biochemistry 606 (Seminar) is required each year of residence. In the first year, students are required to attend (but not present at) a seminar. After the first year, students will present seminars, with a total of three seminar presentations required. The first two seminars will be graded. *Only one seminar may be on a topic related to the student's research.* Attendance is required at all Biochemistry Seminars and Research Conferences.

All classes should be taken before the end of the student's second year and must be taken before the student enters candidacy. For students with previous graduate training, documented graduate level courses may be accepted to fulfill credit requirements. This requires approval by the Graduate Executive Committee when the student is admitted.

All Ph.D. students are required to assist in teaching 8-10 hours per week for one semester during their 2nd or 3rd years. The 2nd year is preferable. This requirement is normally met by serving as a teaching assistant in Biochemistry I or II.

Students are expected to maintain a B (3.0) average in their course work. A student who fails to maintain a B average will be placed on academic probation and will be subject to dismissal from the program.

## Examinations and Proposal

(If a mentor ascertains that the following schedule is not in the best interest of a student, the mentor may petition, in writing, the Graduate Executive Committee for a change in the schedule.)

**Ph.D. Qualifying Exam (Exam I).** The purpose of this exam is to evaluate the student's ability to interpret literature, independently develop a research plan, integrate material from the graduate curriculum, write clearly, organize a proposal, and orally defend their ideas. It will help the student to develop the tools necessary for preparation and defense of their doctoral dissertations. Successful completion of Exam I will be a strong indicator for successful completion of the Ph.D. Details about the format for exam I can be found in appendix A.

Exam I will usually be taken in May - June of the second year in the Ph.D. program. Students must have completed their core graduate courses, have a cumulative GPA of 3.0 or greater, and selected a mentor approved by the Graduate Executive Committee to be eligible for Exam I. Successful completion of this exam will allow the student to enter Ph.D. candidacy.

**Preliminary Dissertation Proposal.** The purpose of this preliminary proposal is to allow the Dissertation Committee to assess whether the proposed project is appropriate for Ph.D. research and whether the student is prepared to develop a written proposal for oral examination. The student will meet with his/her Ph.D. Committee to discuss the student's academic progress, get advice on electives and discuss the research project *during the third quarter of the second year.* The student will provide the Committee with a 1 to 2-page summary of research proposed for the Ph.D. dissertation one week prior to this meeting. The write-up may be in outline format and must include a hypothesis, a list of the specific aims, the general methodology that will be used, and the experiments that will be performed for the next few months in preparation of the formal research proposal. The candidate will give a 15-30 minute oral presentation to the Committee emphasizing the hypothesis, specific aims and feasibility of the proposed project and demonstrating knowledge of the literature. The completed "Student Meeting Form" will indicate whether or not an additional meeting is required.

**Written Dissertation Proposal and Oral Examination (Exam II)** - The purpose of this written proposal is for the Dissertation Committee to examine the student's ability to develop and defend a research project. A formal written proposal of the student's dissertation work and oral defense should be completed *before December of the student's third*

*year*. The proposal, typed single-spaced, will not exceed one page for hypothesis and specific aims, two pages for background (significance), three pages of preliminary results, and three pages for proposed experimental plans. The proposal will also include a listing of major equipment required, a proposed time frame for the conduct of experiments, and literature citations. See instructions for NIH proposal Guidelines ([http://grants.nih.gov/grants/funding/phs398/section\\_1.html#b\\_general](http://grants.nih.gov/grants/funding/phs398/section_1.html#b_general)). The student is responsible for the literature search, specific experimental design and preparation of the proposal. Students may format the dissertation proposal in the form of a thesis, and submit it to the graduate school for an M.S. degree. In this case the oral presentation and examination will serve as the M.S. thesis defense. Committee members must receive the proposal two weeks prior to the date of the oral examination. During the oral examination, the student will present a formal research conference open to the department. This will be followed by an oral defense with the student's Committee. The dissertation advisor should coordinate the proposal process and officiate at this examination, but should not dominate the questioning. A written report stating the outcome of the examination and signed by each examiner will become a part of the student's record. Failure to perform at an adequate level will result in the student being placed in Master's degree candidacy and may result in their being dismissed from the graduate program.

## **Dissertation and Defense**

The Department of Biochemistry and Molecular Biology defines a dissertation as a complete and coherent body of work resulting in a significant, substantial, and novel contribution to the field of biochemistry and molecular biology. It is expected that the work will result in first author peer-reviewed publications. At a minimum, one peer-reviewed, first author publication should result from a student's dissertation. The absence of such a publication will require a specific review by the Dissertation Committee addressing why a publication has not resulted from the work and confirming that the dissertation indeed represents a significant advance of the field. This review must be approved by the Chair of the Department in consultation with the Graduate Executive Committee.

Ph.D. students may choose between a traditional dissertation format or one consisting of manuscript(s) ready for submission for publication in a refereed journal. In addition to the manuscript(s), the latter format must contain an introduction that includes a literature review and an overall discussion tying the manuscripts together. The option of a traditional dissertation as opposed to the manuscript form needs the approval of the student's advisor. The number of manuscripts required and their quality will be left to the judgment of the Dissertation Committee. The Dissertation Committee must receive a completed copy of the dissertation at least two weeks prior to the date scheduled for the defense and shall complete the review of the dissertation at least one week before the oral defense. Consult the current "Standards for the Preparation of Theses and Dissertations," published by the Graduate School. A copy is available in the Biochemistry and Molecular Biology Departmental Office.

## **Change in Guidelines**

When requirements change, a student has the option of satisfying either the requirements in effect when he/she entered the program or the current requirements.

## **Departmental Faculty**

**Kenneth S. Ramos, Ph.D.**

*Professor and Chair*

**Mark D. Brennan, Ph.D.**

*Professor*

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# Master of Science in Communicative Disorders

**Major:** CMDS

**Degree Awarded:** MS

**Unit:** GM

**Program Webpage:** <http://www.louisville.edu/medschool/surgery/com-disorders/slp>

## Program Information

The Graduate School offers a Master of Science in Communicative Disorders for speech-language pathology majors. The program is administered through the Division of Speech-Language Pathology, Department of Surgery, School of Medicine.

The Speech-Language Pathology program offers a unique opportunity to pursue a Master of Science degree to students *with* and *without* an undergraduate degree in speech-language pathology. The program includes two phases. Applications from students without a background in speech-language pathology will be submitted automatically to the *Preparatory* phase of the program. Applications from students *who currently hold a Bachelors' degree in speech-language pathology* will be submitted automatically to the core phase of the program. The program leading to a Master of Science degree for Speech Pathology undergraduate degree majors is a full time five-semester sequence beginning each year in the fall semester.

The Council on Academic Accreditation (CAA) of the American Speech Language Hearing Association (ASHA) accredits the Speech-Language Pathology Program. Graduating students will be eligible to apply for the Certificate of Clinical Competence by ASHA if all requirements are fulfilled. Students may also be eligible for Kentucky State Teaching Certification in speech-language pathology. The Teacher Certification Program by which speech pathology students prepare for school therapy positions is certified by the National Council for Accreditation for Teacher Education. Additional coursework may be required to be eligible for ASHA or teaching certification.

The program operates its own teaching clinics, the University of Louisville Speech-Language Pathology Center and faculty practice locations. In addition, the program has cooperative arrangements with more than thirty schools, agencies, hospitals, and practice groups in the Kentuckiana region.

## Admission Procedures

**Speech Pathology:** Applicants should have a cumulative undergraduate grade point average of at least 3.0 on a 4.0 scale and combined Verbal and Quantitative scores on the Graduate Record Examination of at least 900. At least three letters of recommendation should accompany the application. A formal interview may be required. The applicant should read and meet the general requirements for admission to the Graduate School.

## Degree Requirements

Candidates for the Master of Science degree in speech pathology must complete at least 54 credit hours at the graduate level, exclusive of credits related to the completion of a (optional) master's thesis, courses required to complete ASHA certification requirements, and/or course work related to Kentucky State Teacher Certification.

Please refer to the section on Academic Standing in this catalog entitled "academic probation" concerning dismissal/retention in the program.

## Pass/Fail Option

In general, students in Speech Pathology may not choose the pass/fail option. Certain courses may be offered with this option at the discretion of the faculty.

## Comprehensive Examinations

Students in Speech-Language Pathology will take an eight-hour written comprehensive examination followed by a forty-five minute oral comprehensive examination during their last semester of study. The completion of a master's thesis is encouraged, but is optional. Thesis students will take at least one statistics course above the introductory level. Thesis students will take a comprehensive oral examination that will focus primarily, but not exclusively, on the thesis work itself.

These examinations must be completed at least five weeks prior to the completion of the student's graduate program. The student is responsible for becoming familiar with the consequences of failure on the written or oral examinations. This information is available in the student academic policy manual.

## Clinical Practicum

The American Speech Language Hearing Association requires a minimum of 400 clock hours of supervised clinical practicum in speech pathology to be eligible for certification. Twenty clock hours must be in the student's minor area and 325 of the 400 hours must be at the graduate level. All students must have had 25 hours of observation. If they were obtained at the undergraduate level, they are not repeated. The student may spend the last 8 weeks of the program at a clinical site outside the Louisville area.

Certain prerequisites and standards apply to the clinical practicum component of the program, including minimum course work requirements, mandatory readings, observations, case report formats, and grading criteria. This information is available in the program office and it is the student's responsibility to become acquainted with these requirements prior to enrolling in clinical practicum.

Falling below a 3.0 average in practicum for two consecutive semesters will result in dismissal from the program. Practicum assignments are made at the faculty's discretion and with the service needs of the clinic in mind. All practicum work done outside of the main program must be given prior approval by the clinical director.

For more detailed information regarding the graduate program in Communicative Disorders, please write: Program Chair, Division of Speech-Language Pathology, Myers Hall, University of Louisville, Louisville, Kentucky 40292 or telephone (502) 852-5274.

## Curriculum

### Preparatory Phase

#### Fall Semester

- CMDS 545:** Survey of Communication Disorders (3)
- CMDS 564:** Normal Speech and Language Development (3)
- CMDS 565:** Language Acquisition Laboratory (1)
- CMDS 573:** Anatomy & Physiology for Communicative Sciences (4) \*
- AUDI 604:** Essential Techniques in Audiometry (3)

#### Spring Semester

- CMDS 563:** Clinical Phonetics (4)
- AUDI 621:** Audiologic Rehabilitation (3) (odd years), or,
- AUDI 638:** Communication Evaluation and Training in the Pediatric Population (3) (even years)
- CMDS 570:** Clinical Observation (1)
- EDSP 540:** Introduction to Exceptional Children (3) (*teacher certification*)
- LING 522 :** Structure of Modern American English (3)

#### Summer Semester (Optional)

**ELFH 600**: Introductions to Research Methods and Statistics (3) (*graduate credit will be granted for an approved undergraduate course*)

**EDSP 637**: Collaborative Transdisciplinary Collaboration for Inclusion (3) (*teacher certification*)

## Core Phase

### Fall I

**CMDS 572**: Anatomy & Physiology for Communicative Sciences (4)

**CMDS 661**: Assessment of Childhood Language Disorders (3)

**CMDS 620**: Neurological Disorders of Speech Production (3)

**CMDS 602**: Articulation and Phonology (3)

**CMDS 570**: Clinical Observation in Speech Pathology (1)

**CMDS 611**: Practicum: Speech Pathology (1)

**CMDS 671**: Clinical Methods in Speech Language Pathology (1)

### Spring I

**CMDS 667**: Aphasia and Cognitive Disorders (4)

**CMDS 663**: Voice Disorders (4)

**CMDS 612**: Preschool Language Intervention (3)

**CMDS 652**: School Age Language and Phonology Intervention (3)

**CMDS 611**: Practicum: Speech Pathology (1)

### Summer I

**CMDS 696**: Augmentative & Alternative Communication (3)

**CMDS 690**: Dysphagia (3)

**CMDS 611**: Practicum: Speech Pathology (2)

**ELFH 600**: Introduction to Research Methods and Statistics (3) (*graduate credit will be granted for an approved undergraduate course*)

**EDSP 637**: Transdisciplinary Collaboration for Inclusion (3) (*teacher certification*)

### Fall II

**CMDS 611**: Practicum: Speech Pathology (3)

**AUDI 604**: Essential Techniques in Audiometry (3)

**CMDS 699**: Thesis (*thesis option*)

**ELFH 600**: Introduction to Research Methods and Statistics (3) (*graduate credit will be granted for an approved undergraduate course*)

**OBIO 501**: Biomedical Data Analysis: Experimental Design and Statistics or an approved advanced statistics course (3) (*thesis option*)

**CMDS 665**: Fluency Disorders (3)

**CMDS 695**: Special Topics in Speech and Language Disorders (3)

### Spring II

**CMDS 668**: Professional Issues in Audiology and Speech Pathology (1)

**CMDS 611**: Practicum: Speech Pathology (4)

**CMDS 680**: Medical Speech Pathology (2)

**CMDS 699**: Thesis (1-3) (*thesis option*)

**CMDS 610**: Practicum: Audiology (1)

**ELFH 600**: Introduction to Research Methods and Statistics (3) (*thesis option*)

**AUDI 621**: Audiologic Rehabilitation (3) (odd years), or,

**AUDI 638**: Communication Evaluation and Training in the Pediatric Population (3) (even years)

**EDSP 540**: Introduction to Exceptional Children (3) (*teacher certification*)

# Departmental Faculty

**David R. Cunningham**

*Professor*

**Barbara M. Baker**

*Professor*

**Ian M. Windmill**

*Associate Professor*

**Jill Preminger**

*Associate Professor*

**Pat B. Blackwell**

*Assistant Professor*

**M. Gay Masters**

*Assistant Professor*

# Master of Science in Microbiology and Immunology

**Major:** MBIO

**Degree Awarded:** MS

**Unit:** GM

**Program Webpage:** <http://www.louisville.edu/medschool/microbiology/>

## Program Information

The Department of Microbiology and Immunology, in the School of Medicine, offers programs of study leading to the degrees of Doctor of Philosophy and Master of Science. For admission to the Ph.D. or M.S. program, the applicant must have attained the B.S or B.A. degree with a minimum grade-point average of 3.0 (on a 4.0 point scale). In addition to the completed application form and \$50 application fee, the scores of the General Test Section of the Graduate Record Examination and the TOEFL (when applicable), official transcripts of all undergraduate and graduate course work, two letters of recommendation, and a short biographical sketch are required. The applicant must meet the other general requirements of the Graduate School as outlined in the General Information section of this catalog. Applicants are encouraged to apply early as space is limited. Applications are reviewed on a rolling basis beginning February 1st.

The applicant is expected to have completed the following: One year of introductory biology, one year of organic chemistry, one year of physics, one semester (or equivalent ) of introductory calculus, and one semester of biochemistry.

Prospective students may be invited for a personal interview with members of the department.

## Curriculum

### Required Courses:

BIOC 645, Graduate Biochemistry I.....(4 credit hours)

**either**

--MBIO 601, Molecular Microbiology.....(2 credit hours)

**--or**

-- MBIO 602, Introductory Immunology.....(2 credit hours)

MBIO 606, Seminar/Journal Club.....(2 credit hours)

MBIO 690, Research Methods in Microbiology and Immunology.....(3 credit hours)

MBIO 619, Research.....(1-12 credit hours)

MBIO 620, Thesis (optional).....(1-6 credit hours)

### Select two from the following list of suggested electives:

MBIO 658, Cellular and Molecular Immunology.....(3 credit hours)

MBIO 667, Cell Biology.....(3 credit hours)

MBIO 670, Molecular Virology.....(3 credit hours)

MBIO 680, Genetics of Infectious Disease.....(2 credit hours)

MBIO 685, Microbial Physiology.....(3 credit hours)

MBIO 687, Microbial Pathogenesis.....(2 credit hours)

MBIO 671-01, Epidemiology and Pathogenesis of Human Viruses .....(1 credit hour)



MBIO 672-01, Recombinant viruses and viral vectors.....(1 credit hour)(must take both 1 hour courses to equal one elective)

Minimum Total .....30 credit hours

If the student has satisfactorily completed the required courses and total credit hour requirements with an overall and program GPA of 3.0, then the student may register as an M.S. candidate.

### **Program of Study**

Students admitted to the M.S. Degree Program should select a research advisor, from a thesis committee, and decide upon an area of research in the first semester. The student and advisor should form a committee of three (3), composed of the advisor, one other graduate faculty member of the department, and a third member with graduate faculty status in another department. The second committee member will serve as co-advisor if the advisor does not have primary appointment in the Department of Microbiology and Immunology. The department chair may serve as an ex-officio member of the thesis committees.

Students in the M.S. program are required to submit and defend a thesis. The thesis must conform to the Graduate School's guidelines. Students, with the consent of the departmental graduate faculty committee, may elect to substitute a written research proposal instead of a traditional thesis, based on laboratory research performed by the student, describing successive research to be pursued. The final oral defense will be preceded by a research seminar open to everyone. The oral examination will be administered by the thesis committee, and will be open to any other interested graduate faculty members. Evaluation of student competence and thesis acceptability, together with departmental recommendations for graduation, will be forwarded to the Dean of the Graduate School.

## **Departmental Faculty**

### **Robert D. Stout**

Professor  
Department Chair

### **Haval Shirwan**

Professor  
Director, Molecular Immunomodulation Program, Institute for Cellular Therapeutics

### **Uldis N. Streips**

Professor

### **Jill Suttles**

Professor

### **Yousef Abu Kwaik**

Professor  
Bumgardner Endowed Professor

### **Haribabu Bodduluri**

Professor

### **Lawrence A. Hunt**

Associate Professor

### **Richard D. Miller**

Associate Professor

### **Michele Kosiewicz**

Associate Professor

### **Pascale Alard**

Assistant Professor

### **Reynaldo Carabeo**

Assistant Professor

**James E. Graham**

Assistant Professor

**Venkatakrishna Rao Jala**

Assistant Professor

**Menq-Jer Lee**

Assistant Professor

**Thomas C. Mitchell**

Associate Professor

Institute of Cellular Therapeutics

Barnstable-Brown Professor in Diabetes Research

**Shailesh Singh**

Assistant Professor

**Esma Yolcu**

Assistant Professor

Institute of Cellular Therapeutics

**Donald R. Demuth**

Joint Faculty Professor

Periodontal, Endodontal & Dental Hygiene

School of Dentistry

**G. Rafael Fernandez-Botran**

Joint Faculty Associate Professor Of Pathology And Laboratory Medicine

**Adwesh Kalia**

Joint Faculty Assistant Professor

Dept. of Biology

**Henry Kaplan**

Joint Faculty Professor

Chairman Ophthalmology & Visual Sciences

KY Lions Eye Center

**Denis Kinane**

Joint Faculty Professor

Delta Endowed Chair Of Periodontology

Associate Dean for Research

School of Dentistry

**Mariuz Ratajczak**

Joint Faculty Professor

Dept. Of Medicine

Director Of Stem Cell Biology Program

**Hui Shao**

Joint Faculty Assistant Professor

Ophthalmology & Visual Sciences

KY Lions Eye Center

**Robert H. Staat**

Joint Faculty Professor of Biological and Biophysical Sciences

School of Dentistry

**Deming Sun**

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**William G. Cheadle**

Associate Faculty Professor

Dept. of Surgery

**Paul W. Ewald**

Associate Faculty

Department of Biology

**Suzanne Ildstad**

Associate Faculty Professor of Surgery

Jewish Hospital Distinguished Professor of Transplantation

Director, Institute for Cellular Therapeutics

**Jon B. Klein**

Associate Faculty Professor

Kidney Disease Program

Department of Medicine

**Gary S. Marshall**

Associate Faculty Professor

Dept. of Pediatrics

Kosair Charities Pediatric Center

**Kenneth McLeisch**

Associate Faculty Professor

Dept. of Medicine

Kidney Disease Program

**James W. Snyder**

Associate Faculty Professor

Clinical Services, Dept. of Pathology

**James T. Summersgill**

Associate Faculty Professor

Div. of Infectious Diseases

Dept. of Medicine

**Jun Yan**

Associate Faculty

Assistant Professor, Dept. of Medicine

James Graham Brown Cancer Center

**Heshan Sam Zhou**

Associate Faculty Assistant Professor, Dept. of Medicine

James Graham Brown Cancer Center

**Karen Cost**

Adjunct Faculty

Adjunct Assistant Professor of Microbiology and Immunology

Director, Clinical Immunology Laboratory

**Anthony J. Janckila**

Adjunct Faculty

Adjunct Associate Professor of Microbiology and Immunology

Technical Director, Special Hematology Laboratory

Department of Veteran's Affairs Medical Center

**Diane J. Pidwell-Brown**

Adjunct Faculty

Adjunct Assistant Professor of Microbiology and Immunology

Transplant Immunologist, Department of Pathology

**Gerald Sonnenfeld**

Adjunct Faculty

Adjunct Assistant Professor of Microbiology and Immunology

Vice President for Research, Binghamton University

**Robert D. Higginbotham**

Emeritus Professor

**Pinghui Liu**  
Emeritus Professor

# Doctor of Philosophy in Microbiology and Immunology

**Major:** MBIO

**Degree Awarded:** Ph.D.

**Unit:** GM

**Program Webpage:** <http://www.louisville.edu/medschool/microbiology/>

## Program Information

The Department of Microbiology and Immunology, in the School of Medicine, offers programs of study leading to the degrees of Doctor of Philosophy and Master of Science. For admission to the Ph.D. or M.S. program, the applicant must have attained the B.S or B.A. degree with a minimum grade-point average of 3.0 (on a 4.0 point scale). In addition to the completed application form and \$50 application fee, the scores of the General Test Section of the Graduate Record Examination and the TOEFL (when applicable), official transcripts of all undergraduate and graduate course work, two letters of recommendation, and a short biographical sketch are required. The applicant must meet the other general requirements of the Graduate School as outlined in the General Information section of this catalog. Applicants are encouraged to apply early as space is limited. Applications are reviewed on a rolling basis beginning February 1st.

The applicant is expected to have completed the following: One year of introductory biology, one year of organic chemistry, one year of physics, one semester (or equivalent ) of introductory calculus, and one semester of biochemistry.

Prospective students may be invited for a personal interview with members of the department.

## Curriculum

### Required Courses:

MBIO 601, Molecular Microbiology.....	(2 credit hours)
MBIO 602, Introductory Immunology .....	(2 credit hours)
MBIO 667, Cell Biology.....	(3 credit hours)
BIOC 645, Biochemistry I .....	(4 credit hours)
MBIO 606, Seminar/Journal Club .....	(2 credit hours)
MBIO 600, Laboratory Rotations in Microbiology and Immunology...	(1-2 credit hours)
MBIO 690, Research Methods in Microbiology and Immunology .....	(3 credit hours)
MBIO 619, Research .....	(1-12 credit hours)

Select three courses from the list of suggested electives

(at least 1 elective must be offered in the Department MBIO):

MBIO 658, Cellular and Molecular Immunology.....	(3 credit hours)
MBIO 670, Molecular Virology.....	(3 credit hours)
MBIO 680, Genetics of Infectious Disease .....	(2 credit hours)
MBIO 685, Microbial Physiology.....	(3 credit hours)
MBIO 687, Microbial Pathogenesis .....	(2 credit hours)

BIOC 668, Molecular Biology .....(4 credit hours)  
BIOC 675, Biochemistry of Cancer .....(2 credit hours)  
BIOC 647, Biochemistry II.....(4 credit hours)  
BIOL 617, Advanced Molecular Biology.....(4 credit hours)  
MBO 671-01, Epidemiology and Pathogenesis of Human Viruses .....(1 credit hour)

MBO 672-01, Recombinant viruses and viral vectors.....(1 credit hour)(must take both 1 hour courses to equal one elective)

Note:

\*\* Students enrolled in the M.D./Ph.D. Joint Degree Program, who have completed step I of NBME, will have satisfied all of the required course requirements except seminar, Research Ethics, Research Methods and research. Three electives will be required. They will be required to satisfactorily complete the Qualifying Exam and successfully defend a dissertation research project, in addition to attending all journal club sessions and seminars.

### **Program of Study**

Upon successful completion of the first two semesters of required course work, maintaining a minimum 3.0 GPA, and upon the recommendation of the advisor or chair, the student may take the Ph.D. Qualifying Examination. The Qualifying Examination will consist of a written research proposal outside of his/her area of primary research and oral defense of the project. Three to five faculty with expertise in the area of the proposal will be selected by the chair to serve as the Examining Committee. The student may enter degree candidacy upon receipt of satisfactory judgment from the Examining Committee and successful completion of the final semester of coursework.

### **Selection of a Research Advisor, Dissertation Committee and Research Proposal**

Selection of the Research Advisor and specific research area is one of the most important decisions of the student's entire graduate training program, and is a joint decision by the student and faculty member. Students must select a Research Advisor for their dissertation research by Dec. 20th of their second semester. Selection of the Research Advisor and formation of the Dissertation Committee must be approved by the Graduate School Dean. If the potential advisor has a primary appointment in another department, the potential advisor must agree, in writing, to provide stipend and tuition from his/her research funds. Upon approval of the Research Advisor, the student will formally decide upon a dissertation research project. The student, Research Advisor, and Departmental Chairperson will form a Dissertation Committee with five (5) graduate faculty members. The committee will be composed of the advisor, three faculty members of the Department of Microbiology and Immunology, and one additional graduate faculty member from another department. If the advisor does not have a primary appointment in the Department of Microbiology and Immunology, one of the three other departmental members with a primary appointment in the department must serve as Co-Advisor. The Chairman of the Department may serve as an ex-officio member of the committee. The student will submit a written proposal co-signed by the Dissertation Advisor to the Dissertation Committee on the planned Ph.D. dissertation topic by April 1st, at the end of the first year in the program. The proposal should be 5-10 pages long, single-spaced, 12 point type, with no more than 1.25 inch margins. Approval of this dissertation proposal by the Dissertation Committee is the first step toward candidacy status.

The committee will meet regularly to evaluate progress of the research. The student will also be required to present a research seminar to the department annually on this progress. When the dissertation research is completed, the committee will conduct the final oral examination in accordance with the guidelines in the General Information section of this catalog.

For more information go to the department website at:  
<http://www.louisville.edu/medschool/microbiology/>

## **Departmental Faculty**

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Professor

Department Chair

**Haval Shirwan**

Professor

Director, Molecular Immunomodulation Program, Institute for Cellular Therapeutics

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Jewish Hospital Distinguished Professor of Transplantation  
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Assistant Professor, Dept. of Medicine  
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Adjunct Associate Professor of Microbiology and Immunology  
Technical Director, Special Hematology Laboratory  
Department of Veteran's Affairs Medical Center

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Transplant Immunologist, Department of Pathology

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Adjunct Faculty  
Adjunct Assistant Professor of Microbiology and Immunology  
Vice President for Research, Binghamton University

**Robert D. Higginbotham**

Emeritus Professor

**Pinghui Liu**

Emeritus Professor

# Master of Science in Pharmacology and Toxicology

**Major:** PHTX

**Degree Awarded:** MS

**Unit:** GM

**Program Webpage:** <http://www.louisville.edu/medschool/pharmacology>

## Program Information

The Department of Pharmacology & Toxicology is committed to academic excellence and to the attainment of regional, national, and international recognition for the quality of its educational, research, and service activities. Guided by the University of Louisville Challenge for Excellence to become a preeminent metropolitan research university, the Department Strategic Plan will focus on accomplishment of five broad objectives:

- Provide instruction in pharmacology and toxicology of the highest quality for the education and preparation of medical, dental, nursing, and other health care professional students. Emphasis will be placed on the fundamental principles necessary for life-long learning and the essential knowledge required for rational, effective, and safe use of drug therapy.
- Advance biomedical knowledge through active contribution to high quality research and other scholarly activities, particularly in pharmacology and toxicology and other areas of focus within the University of Louisville Challenge for Excellence.
- Provide high quality research and educational experiences in pharmacology and toxicology for the education and training of future biomedical scientists who can provide and advance biomedical education, research, and service.
- Provide instruction of the highest quality in pharmacology and toxicology that is appropriate for students at the undergraduate, graduate, and postgraduate levels.
- Provide high quality service to the School of Medicine, the Health Sciences Center, the University, the people of Louisville and the surrounding region, the Commonwealth of Kentucky, professional organizations, the nation, and the world.

## Goals of the Program

The Department of Pharmacology and Toxicology is dedicated to advancing biomedical knowledge through active contribution to high quality research in pharmacology and toxicology and to providing high quality research and educational experiences for the education and training of future biomedical scientists who advance biomedical education, research, and service.

## Program Admission Procedure

*For the Department of Pharmacology and Toxicology complete guidelines are given below. WWW Links can be found at : [http://www.louisville.edu/~wmpier01/info\\_pros\\_grad.htm](http://www.louisville.edu/~wmpier01/info_pros_grad.htm) )*

**1. Application forms.** All candidates for admission to graduate programs at the University of Louisville must complete the application form found at <http://graduate.louisville.edu/apply>. This may be completed online or may be submitted via mail to:

**Office of Graduate Admissions  
Suite 105, Houchens Bldg  
University of Louisville  
Louisville, KY 40292  
United States of America**

Applications are received at any time for starting dates of approximately August 1. All credentials and/or communications should be submitted to the Office of Graduate Admissions and should contain the student's full name and Social Security Number or UofL-issued Student ID. Lack of Social Security Number may cause processing to be delayed. Applications received by January 1 are assured of full consideration for that year. Admission on a conditional basis is a possibility in rare, special cases, even though application materials are incomplete. Please contact the department for additional information.

**2. Application Fee.** A \$50.00 US currency non-refundable application fee is required with the application form. An application will not be forwarded to the department until this fee is paid. A check or money order should be made payable to the " University of Louisville."

**3. Transcripts.** Applicants for admission to a degree program must submit an official transcript from each college attended. All University of Louisville transcripts will automatically be submitted with completion of an application. All applications are considered on an individual basis. Normally, a successful applicant will have an undergraduate GPA of 3.00 or higher and will have successfully completed sufficient coursework in basic biology, chemistry and mathematics.

**4. Test Scores.** Applicants normally must take the general section of the Graduate Record Examination (GRE). There is no absolute cutoff score for acceptance. Each case is decided on the totality of its merits. At the discretion of the department, MCAT or other entrance examinations scores may be accepted in place of the GRE. Information can be obtained from:

- University of Louisville Testing Center, or
- Graduate Record Examination Educational Testing Service Box 955 Princeton, NJ 08541, or
- <http://www.gre.org/>

The GRE Advanced Test in a discipline is not required, but if available will be used in admissions and placement decisions.

NOTE: GRE Institution Code is R1838-University of Louisville. The GRE major codes are 0216 – Pharmacology or 0219 – Toxicology.

**5. Statement of Experience and Professional Goals.** At the time of application, a two-three page typed statement should be sent directly to the Department of Pharmacology and Toxicology. This statement should be used to introduce the student to the faculty of the Department, describing past educational, laboratory and relevant life experiences, as well as outlining professional goals after the degree program. This statement can be sent electronically to [pierce@louisville.edu](mailto:pierce@louisville.edu) or via mail to:

**William M. Pierce Jr., Ph.D.**  
**Vice Chair for Graduate Education**  
**Department of Pharmacology and Toxicology**  
**School of Medicine**  
**University of Louisville**  
**Louisville, KY 40292**  
**United States of America**

**6. English Proficiency.** All applicants *for whom English is a second language* must also submit official TOEFL scores of 213 or higher on the computer-based test or 550 or higher on the paper-based test for verification of English proficiency. Students holding a bachelor's or advanced degree from an accredited institution in the United States are exempt from this requirement. Information concerning the TOEFL exam can be obtained from: University Testing Center, or Test of English as a Foreign Language PO Box 6151 Princeton, NJ 08541 USA or <http://www.toefl.org> The institutional code of UofL for TOEFL is 1838. The TOEFL department code is 30 (other biological sciences.)

**7. Personal Interview.** Whenever possible, a personal interview, either in person or via telephone will be held before final offer and acceptance of a position in the M.S. program.

**8. Letters of Recommendation.** Two letters of recommendation from persons familiar with the applicant's academic work are required. This can be in the form of a letter or may be done using the recommendation form found at <http://graduate.louisville.edu/students/grad-rec.pdf>.

**9. International Student Applicants.** In addition to satisfying the appropriate credential requirements, applicants may be required to provide the following documents.

- Applicants who attended college outside the US must submit verbatim notarized English translations of all academic records and credentials.
- If on a Visa that requires an I-20 or IAP-66, the applicant is required to complete an Application Supplement/Financial Declaration form (<http://graduate.louisville.edu/students/international-financial-declaration.html/>) and submit appropriate financial documentation.
- A cost estimate is available.

**10. Financial Aid** The Department normally provides no funds for such support of Masters' students.

**11. Residency Policy** Residency status for students is determined in the Office of Graduate Admissions. The status is determined according to the policy on classification of students for fee assessment purposes at state-supported institutions of higher education. Except as provided in the guidelines, it is presumed that a resident has remained in the state in a non-student status for the twelve months immediately preceding the last date for enrollment in the institution.

The domicile of an unemancipated person, as defined in the guidelines, is that of his/her parent. The domicile of a married person is determined by the provisions of the guidelines independent of the residence of the spouse. Copies of the guidelines and appropriate forms for requesting change of residence classification may be obtained from the Office of Student Services.

**Indiana Tuition Reciprocity:** The University of Louisville is participating in an Indiana Tuition Reciprocity Program for residents of Clark, Crawford, Floyd, Harrison or Scott Counties who have been admitted directly into an approved graduate program. Eligible participants are required to notify the Admissions Office prior to their first enrollment and the Registrar's Office after their first enrollment of any changes in residency status. [e.g. if they no longer live in one of the eligible counties, or are no longer in an eligible program.] The University reserves the right to further investigate and require documentation of eligibility for tuition reciprocity.

**For Military Personnel:** If an applicant, spouse or parent (if dependent) is currently stationed in Kentucky on military active duty for one or more years, please attach a copy of the military orders, a lease or mortgage showing Kentucky address and a military dependent identification card if appropriate. If the applicant is a Kentucky resident but has been in the military and has been recently discharged, please send a copy of the military discharge papers (DD-214).

**International Students on Immigrant/ Permanent Resident Status:** If currently on an immigrant/ permanent resident status, it will be necessary to submit a copy of an immigration/ permanent resident card, both sides, for review of possible residency classification for tuition purposes.

The University of Louisville reserves the right to change programs of study, academic requirements, fees, schedules of courses, the announced academic calendar and deadlines without prior notice.

## Curriculum

### Research M.S. Curriculum

The Research Master's Degree is a two (2)+ year course of study which includes the Pharmacology Foundation series, a research project and a research Thesis. This course of study is designed for students desiring training in pharmacological and toxicological research.

#### Curriculum

#### Co-Curricular Requirements

**Course Year Term Hours**

**Title**

BIOC 645	AY1	Fall	4	Biochemistry I	<b>Diagnostic Exam</b>
PHTX 660	AY1	Fall	4	Principles of Drug and Chemical Action	Receive research descriptions from mentors. Meet to discuss.
PHTX 672/673	AY1	Fall	1+1	Research Methods in Pharmacology and Toxicology I & II	Rotation selection by August 15
PHTX 619	AY1	Fall	2	Research in Pharmacology [grade assigned by Grad Cmte]	Rotation 1 – Report and lab book Rotation 2 – Report and lab book
<b>Total</b>	<b>AY1</b>	<b>Fall</b>	<b>12</b>		

**Mentor Selection by end of semester is ideal**

PHTX	AY1	Spring	2	Neuropharmacology	
BIOC 647	AY1	Spring	4	Biochemistry II	
MBIO 667	AY1	Spring	3	Cell Biology	
PHTX 674/675	AY1	Spring	1+1	Research Methods in Pharmacology and Toxicology III & IV	
PHTX 619	AY1	Spring	1	Research in Pharmacology [grade assigned by Grad Committee]	With mentor, develop Thesis topic
PHTX 606	AY1	Spring	1	Pharmacology & Toxicology Seminar	
BIOC 603	AY1	Spring	1	Ethics	With mentor, create Thesis Committee, have approved
<b>Total</b>	<b>AY1</b>	<b>Spring</b>	<b>14</b>		

PHTX 625	AY2	Fall	2	Scientific Writing	
PHTX 658	AY2	Fall	1	Selective Toxicity and Chemotherapeutics	
PHTX 656	AY2	Fall	2	Cardiovascular and Renal Pharmacology	
PHTX 657	AY2	Fall	2	Endocrine and Metabolic Pharmacology	
PHTX 619	AY2	Fall	1	Research in Pharmacology [grade assigned by Grad Committee]	Submission of outline/draft of research plan as research report
PHTX 606	AY2	Fall	1	Pharmacology & Toxicology Seminar	
<b>Total</b>	<b>AY2</b>	<b>Fall</b>	<b>9</b>		

### ***Promotion to Candidacy***

#### ***Electives***

Various	AYx	Fall	If appropriate, candidates may take elective courses for enrichment	Each year, candidates will present research finding and progress report to department. Dissertation committee will report concerning progress. Expectation of annual national / international presentation.
Various	AYx	Spring		

### **AY2-AY3 Research followed by Presentation and Defense of Masters Thesis**

**TOTAL HOURS**                      **35 hrs**

## **Academic M.S. Curriculum**

The Academic Master’s degree is a 1.5+ year course of study with a less in-depth foundation, more breadth of experience in the classroom (electives) and a capstone experience of a “dry” thesis – literature review or the like. It is proposed as ideal:

As a stand alone M.S. for individuals in professions that draw upon a pharmacological or toxicological foundation but do not require research expertise (e.g. pharmaceutical representatives, medical insurance providers, medico-legal professionals)

For pairing with other programs to form hybrid or dual science/business degrees, such as an M.S./M.B.A. program for

individuals interested in progressing through management ranks in Pharma or biotech businesses

When coupled with extensive scientific writing experience or electives, as the basis for a scientific writing career

When combined with theoretical and practical training in laboratory analysis, as the basis for a career in biotechnology

<b>Curriculum</b>					<b>Co-Curricular Requirements</b>
<b>Course</b>	<b>Year</b>	<b>Term</b>	<b>Hours</b>	<b>Title</b>	
BIOC 645	AY1	Fall	4	Biochemistry I	<b>Diagnostic Exam</b>
PHTX 660	AY1	Fall	4	Principles of Drug and Chemical Action	Select mentor.
PHTX 672/673	AY1	Fall	1+1	Research Methods in Pharmacology and Toxicology I & II	Develop thesis topic
<b>Total</b>	<b>AY1</b>	<b>Fall</b>	<b>10</b>		
PHTX new	AY1	Spring	2	Neuropharmacology	With mentor, finalize Thesis topic.
BIOC 647	AY1	Spring	4	Biochemistry II	
MBIO 667	AY1	Spring	3	Cell Biology	
PHTX 674/675	AY1	Spring	1+1	Research Methods in Pharmacology and Toxicology III & IV	Produce topic and Thesis Outline for approval
BIOC 603	AY1	Spring	1	Ethics	Selection of Committee
<b>Total</b>	<b>AY1</b>	<b>Spring</b>	<b>12</b>		
PHTX 625	AY2	Fall	2	Scientific Writing	
PHTX 658	AY2	Fall	1	Selective Toxicity and Chemotherapeutics	
PHTX 656	AY2	Fall	2	Cardiovascular and Renal Pharmacology	

PHTX 657	AY2	Fall	2	Endocrine and Metabolic Pharmacology
PHTX 620	AY2-3	Any	1	Masters Thesis
<b>Total</b>	<b>AY2</b>	<b>Fall</b>	<b>10</b>	

### ***Promotion to Candidacy***

### ***PRESENTATION AND DEFENSE of the Masters' Thesis***

**TOTAL HOURS** **32 hrs**

## **Departmental Faculty**

### **George R. Aronoff**

*Professor*  
*Professor of Medicine*

### **Gavin E. Arteel**

*Assistant Professor*

### **Shirish Barve**

*Associate Professor*  
*Associate Professor of Medicine*

### **Frederick W. Benz**

*Professor*

### **Aruni Bhatnagar**

*Professor*  
*Professor of Medicine*

### **Haribabu Bodduluri**

*Associate Professor*  
*Associate Professor of Microbiology & Immunology*

### **Jian Cai**

*Instructor*

### **Theresa S. Chen**

*Professor*

### **Jason A. Chesney**

*Assistant Professor*  
*Assistant Professor of Medicine*

### **Keith R. Davis**

*Professor*



**John W. Eaton**

*Professor*

*Professor of Medicine*

**Paul N. Epstein**

*Professor*

*Professor of Pediatrics*

**Teresa Whei-Mei Fan**

*Associate Professor*

*Associate Professor of Chemistry*

**Richard E. Goldstein**

*Professor*

*Professor of Surgery*

**David Gozal**

*Professor*

*Professor of Pediatrics*

**Evelyne Gozal**

*Associate Professor*

*Assistant Professor of Pediatrics*

**Ramesh C. Gupta**

*Professor*

**Theo Hagg**

*Professor*

*Professor of Neurological Surgery*

**David W. Hein**

*Professor*

*Chair*

**Michal Hetman**

*Assistant Professor*

*Assistant Professor of Neurological Surgery*

**Harrell. E. Hurst**

*Professor*

**Y. James Kang**

*Professor*

*Professor of Medicine*

**Mary J. Kennedy**

*Assistant Professor*

*Assistant Professor of Pediatrics*

**LaCreis R. Kidd**

*Assistant Professor*

**Chi Li**

*Assistant Professor*

*Assistant Professor of Medicine*

**Irene Litvan**

*Professor*

*Raymond Lee Leiby Professor in Parkinson's Disease Research*

**Manuel Martinez**

*Professor Executive Vice President for Research*

**Craig J. McClain**

*Professor*

*Professor of Medicine*

**W. Glenn McGregor**

*Professor*

*Associate Professor of Medicine*

**Kelly M. McMasters**

*Professor*

*Professor of Surgery*

**Donald M. Miller**

*Professor*

*Professor of Medicine*

**Steven R. Myers**

*Associate Professor*

**Donald E. Nerland**

*Professor*

**Chin Ng**

*Associate Professor*

*Associate Professor of Radiology*

**Kenneth A. Palmer**

*Associate Professor*

**William M. Pierce, Jr.**

*Professor*

*Vice Chair for Graduate Education*

**M. Michele Pisano**

*Professor*

*Professor, Birth Defects Center*

**George C. Rodgers**

*Professor*

*Professor of Pediatrics*

**Peter P. Rowell**

*Professor*

**Uma Sankar**

*Assistant Professor*

**Zhao-Hui Song**

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*Professor of Environmental & Occupational Toxicology*

**Leonard C. Waite**

*Professor*

**Yang Wang**

*Associate Professor*

*Associate Professor of Pediatrics*

**Brian (Binks) Wattenberg**

*Associate Professor Associate Professor of Medicine*

**Walter M. Williams**

*Professor*

**Hong Ye Assistant**

*Assistant Professor*

*Professor of Medicine*

**Wolfgang Zacharias**

*Associate Professor*

*Associate Professor of Medicine*

**Wayne S. Zundel**

*Assistant Professor*

*Assistant Professor of Radiation Oncology*

**Michael E. Brier**

*Professor*

*Professor of Medicine*

**Lu Cai**

*Assistant Professor*

*Assistant Professor of Medicine*

**Daniel J. Conklin**

*Assistant Professor*

*Assistant Professor of Medicine*

**Ye Qi Liu**

*Assistant Professor*

*Assistant Professor of Pediatrics*

**Avital Schurr**

*Professor*

*Professor of Anesthesiology and Perioperative Medicine*

**John L. Wong**

*Professor*

*Professor of Chemistry*

**William W. Young**

*Professor*

*Professor, Birth Defects Center*

# Doctor of Philosophy in Pharmacology and Toxicology

**Major:** PHTX

**Degree Awarded:** Ph.D.

**Unit:** GM

**Program Webpage:** <http://www.louisville.edu/medschool/pharmacology>

## Program Information

The Department of Pharmacology & Toxicology is committed to academic excellence and to the attainment of regional, national, and international recognition for the quality of its educational, research, and service activities. Guided by the University of Louisville Challenge for Excellence to become a preeminent metropolitan research university, the Department Strategic Plan will focus on accomplishment of five broad objectives:

- Provide instruction in pharmacology and toxicology of the highest quality for the education and preparation of medical, dental, nursing, and other health care professional students. Emphasis will be placed on the fundamental principles necessary for life-long learning and the essential knowledge required for rational, effective, and safe use of drug therapy.
- Advance biomedical knowledge through active contribution to high quality research and other scholarly activities, particularly in pharmacology and toxicology and other areas of focus within the University of Louisville Challenge for Excellence.
- Provide high quality research and educational experiences in pharmacology and toxicology for the education and training of future biomedical scientists who can provide and advance biomedical education, research, and service.
- Provide instruction of the highest quality in pharmacology and toxicology that is appropriate for students at the undergraduate, graduate, and postgraduate levels.
- Provide high quality service to the School of Medicine, the Health Sciences Center, the University, the people of Louisville and the surrounding region, the Commonwealth of Kentucky, professional organizations, the nation, and the world.

## Goals of the Program

The Department of Pharmacology and Toxicology is dedicated to advancing biomedical knowledge through active contribution to high quality research in pharmacology and toxicology and to providing high quality research and educational experiences for the education and training of future biomedical scientists who advance biomedical education, research, and service.

## Student Financial Support

Students accepted into the Ph.D. program will be considered for financial aid. This aid would include tuition remission, and student health insurance. The Department houses a [NIEHS Predoctoral Training Program in Environmental Health Sciences](#) which provides stipend support for selected students. Since all Ph.D. students and candidates are considered to be full-time students, they generally are not permitted to seek outside employment while enrolled in the doctoral program. In cases where financial aid is limited and additional support is essential, students needing outside employment must apply in writing for departmental faculty approval. The faculty must also approve any change in employment, as well as approving continued outside employment on an annual basis.

## Program Admission Procedure

*For the Department of Pharmacology and Toxicology complete guidelines are given below. WWW Links can be found at*

**1. Application forms.** All candidates for admission to graduate programs at the University of Louisville must complete the application form found at <http://admissions.louisville.edu/gapp/gapp.html> This may be completed online or may be submitted via mail to:

**Office of Graduate Admissions  
Suite 105, Houchens Bldg  
University of Louisville  
Louisville, KY 40292  
United States of America**

Applications are received at any time for starting dates of approximately August 1. All credentials and/or communications should be submitted to the Office of Graduate Admissions and should contain the student's full name and Social Security Number or UofL-issued Student ID. Lack of Social Security Number may cause processing to be delayed. Applications received by January 1 are assured of full consideration for that year. Admission on a conditional basis is a possibility in rare, special cases, even though application materials are incomplete. Please contact the department for additional information.

**2. Application Fee.** A \$50.00 US currency non-refundable application fee is required with the application form. An application will not be forwarded to the department until this fee is paid. A check or money order should be made payable to the "University of Louisville."

**3. Transcripts.** Applicants for admission to a degree program must submit an official transcript from each college attended. All University of Louisville transcripts will automatically be submitted with completion of an application. All applications are considered on an individual basis. Normally, a successful applicant will have an undergraduate GPA of 3.00 or higher and will have successfully completed sufficient coursework in basic biology, chemistry and mathematics.

**4. Test Scores.** Applicants normally must take the general section of the Graduate Record Examination (GRE). There is no absolute cutoff score for acceptance. Each case is decided on the totality of its merits. At the discretion of the department, MCAT or other entrance examinations scores may be accepted in place of the GRE. Information can be obtained from:

- University of Louisville Testing Center, or
- Graduate Record Examination Educational Testing Service Box 955 Princeton, NJ 08541, or
- <http://www.gre.org/>

The GRE Advanced Test in a discipline is not required, but if available will be used in admissions and placement decisions. NOTE: GRE Institution Code is R1838-University of Louisville. The GRE major codes are 0216 – Pharmacology or 0219 – Toxicology.

**5. Statement of Experience and Professional Goals.** At the time of application, a two-three page typed statement should be sent directly to the Department of Pharmacology and Toxicology. This statement should be used to introduce the student to the faculty of the Department, describing past educational, laboratory and relevant life experiences, as well as outlining professional goals after the degree program. This statement can be sent electronically to [pierce@louisville.edu](mailto:pierce@louisville.edu) or via mail to:

**William M. Pierce Jr., Ph.D.  
Vice Chair for Graduate Education  
Department of Pharmacology and Toxicology  
School of Medicine  
University of Louisville  
Louisville, KY 40292  
United States of America**

**6. English Proficiency.** All applicants *for whom English is a second language* must also submit official TOEFL scores of 213 or higher on the computer-based test or 550 or higher on the paper-based test for verification of English proficiency. Students holding a bachelor's or advanced degree from an accredited institution in the United States are exempt from this requirement. Information concerning the TOEFL exam can be obtained from: University Testing Center, or Test of English as a Foreign Language PO Box 6151 Princeton, NJ 08541 USA or <http://www.toefl.org> The institutional

code of UofL for TOEFL is 1838. The TOEFL department code is 30 (other biological sciences.)

**7. Personal Interview.** Whenever possible, a personal interview, either in person or via telephone will be held before final offer and acceptance of a position in the Ph.D. program.

**8. Letters of Recommendation.** Two letters of recommendation from persons familiar with the applicant's academic work are required. This can be in the form of a letter or may be done using the recommendation form found at <http://graduate.louisville.edu/students/grad-rec.pdf>.

**9. International Student Applicants.** In addition to satisfying the appropriate credential requirements, applicants may be required to provide the following documents.

- Applicants who attended college outside the US must submit verbatim notarized English translations of all academic records and credentials.
- If on a Visa that requires an I-20 or IAP-66, the applicant is required to complete an Application Supplement/Financial Declaration form (<http://graduate.louisville.edu/students/international-financial-declaration.html>) and submit appropriate financial documentation.
- A cost estimate is available.

**10. Financial Aid.** All applicants to the Ph.D. program of the Department of Pharmacology and Toxicology are automatically considered for financial aid upon admission. Typically, such aid consists of a stipend, tuition remission and a health insurance benefit.

**11. Residency Policy.** Residency status for students is determined in the Office of Graduate Admissions. The status is determined according to the policy on classification of students for fee assessment purposes at state-supported institutions of higher education. Except as provided in the guidelines, it is presumed that a resident has remained in the state in a non-student status for the twelve months immediately preceding the last date for enrollment in the institution.

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*International Students on Immigrant/ Permanent Resident Status:* If currently on an immigrant/ permanent resident status, it will be necessary to submit a copy of an immigration/ permanent resident card, both sides, for review of possible residency classification for tuition purposes.

The University of Louisville reserves the right to change programs of study, academic requirements, fees, schedules of courses, the announced academic calendar and deadlines without prior notice.

## Curriculum

Curriculum				Co-Curricular Requirements	
Course	Year	Term	Hours	Title	
BIOC 645	AY1	Fall	4	Biochemistry I	<b>Diagnostic Exam</b>
PHTX 660	AY1	Fall	4	Principles of Drug and Chemical Action	Receive research descriptions from mentors. Meet to discuss.
PHTX 672/ PHTX 673	AY1	Fall	1 + 1	Research Methods in Pharmacology and Toxicology I & II	Rotation selection by August 15
PHTX 619	AY1	Fall	2	Research in Pharmacology [grade assigned by Grad Committee]	Rotation 1 – Report and lab book Rotation 2 – Report and lab book
<b>Total</b>	<b>AY1</b>	<b>Fall</b>	<b>12</b>		<b>Qualifying Exam I.A</b>
<b><i>Mentor Selection by end of semester is ideal</i></b>					
PHTX 655	AY1	Spring	2	Neuropharmacology	<b>Expectation of full time laboratory participation when not in classroom</b>
BIOC 647	AY1	Spring	4	Biochemistry II	
MBIO 667	AY1	Spring	3	Cell Biology	
PHTX 674/ PHTX 675	AY1	Spring	1 + 1	Research Methods in Pharmacology and Toxicology III & IV	
PHTX 619	AY1	Spring	1	Research in Pharmacology [grade assigned by Grad Committee]	
PHTX 606	AY1	Spring	1	Pharmacology & Toxicology Seminar	

BIOC 603	AY1	Spring	1	Ethics	<b>Qualifying Exam I.B</b>
<b>Total</b>	<b>AY1</b>	<b>Spring</b>	<b>14</b>		<b>With mentor, develop and submit individual curriculum for approval</b>
PHTX 619	AY1	Summer	6	Research in Pharmacology [grade assigned by Grad Committee]	Research – semester report and lab book
<b>Total</b>	<b>AY1</b>	<b>Summer</b>	<b>6</b>		
PHTX 625	AY2	Fall	2	Scientific Writing	With mentor, create Dissertation Committee, have approved
PHTX 658	AY2	Fall	1	Selective Toxicity and Chemotherapeutics	Expectation of participation in regional forum (e.g.Research!Louisville , SOT)
PHTX 656	AY2	Fall	2	Cardiovascular and Renal Pharmacology	
PHTX 657	AY2	Fall	2	Endocrine and Metabolic Pharmacology	
PHTX 619	AY2	Fall	1	Research in Pharmacology [grade assigned by Grad Committee]	<u>Submission of outline/draft of research plan as research report</u>
PHTX 606	AY2	Fall	1	Pharmacology & Toxicology Seminar	
	AY2	Fall	3	Approved Elective	<b>Qualifying Exam I.C</b>
<b>Total</b>	<b>AY2</b>	<b>Fall</b>	<b>12</b>		



PHTX 619	AY2	Spring	5	Research in Pharmacology [grade assigned by Grad Committee]	<b>Qualifying Exam II – Research Plan as Grant Proposal (Due April 1)</b>
PHTX 606	AY2	Spring	1	Pharmacology & Toxicology Seminar	Each year, candidates will present research finding and progress report to department. Dissertation committee will report concerning progress. Expectation of annual national / international presentation.
	AY2	Spring	6	Approved Electives*	
<b>Total</b>	<b>AY2</b>	<b>Spring</b>	<b>12</b>		<b>DEFENSE of Proposal</b>
<b>Promotion to Candidacy</b>				<b>Expectation of submission of abstract to national of international meeting by end of AY2</b>	
<b>Electives</b>				<b>*Example Electives</b>	PROTEIN STRUCTURE & FUNCTION
Various	AYx	Fall	If appropriate, candidates may take elective courses for enrichment	<i>Immunology (from Med Core)</i>	INTRO IMMUNOLOGY
				<i>Pathology (from Med Core)</i>	MOLECULAR MICROBIOLOGY
Various	AYx	Spring		ADV EUKARYOTIC GENETICS	INTEGRATED SYST. PHYSIOL
				MOLECULAR BIOLOGY	
				MOLECULAR TOXICOLOGY	MOLECULAR NEUROSCIENCE
<b>AY3-AY5 Research followed by Presentation and Defense of Doctoral Dissertation</b>					
<b>TOTAL HOURS</b>		<b>54 hrs</b>	[38 classroom + 16 research / seminar/tutorial/lab]		

## Departmental Faculty

**George R. Aronoff**  
*Professor*  
*Professor of Medicine*

**Gavin E. Arteel**  
*Assistant Professor*

**Shirish Barve**  
*Associate Professor*  
*Associate Professor of Medicine*

**Frederick W. Benz**  
*Professor*

**Aruni Bhatnagar**  
*Professor*  
*Professor of Medicine*

**Haribabu Bodduluri**  
*Associate Professor*  
*Associate Professor of Microbiology & Immunology*

**Jian Cai**  
*Instructor*

**Theresa S. Chen**  
*Professor*

**Jason A. Chesney**  
*Assistant Professor*  
*Assistant Professor of Medicine*

**Keith R. Davis**  
*Professor*

**John W. Eaton**  
*Professor*  
*Professor of Medicine*

**Paul N. Epstein**  
*Professor*  
*Professor of Pediatrics*

**Teresa Whei-Mei Fan**  
*Associate Professor*  
*Associate Professor of Chemistry*

**Richard E. Goldstein**  
*Professor*  
*Professor of Surgery*

**David Gozal**  
*Professor*  
*Professor of Pediatrics*

**Evelyne Gozal**  
*Associate Professor*  
*Assistant Professor of Pediatrics*

**Ramesh C. Gupta**  
*Professor*

**Theo Hagg**  
*Professor*  
*Professor of Neurological Surgery*

**David W. Hein**  
*Professor*  
*Chair*

**Michal Hetman**  
*Assistant Professor*  
*Assistant Professor of Neurological Surgery*

**Harrell. E. Hurst**

*Professor*

**Y. James Kang**

*Professor*

*Professor of Medicine*

**Mary J. Kennedy**

*Assistant Professor*

*Assistant Professor of Pediatrics*

**LaCreis R. Kidd**

*Assistant Professor*

**Chi Li**

*Assistant Professor*

*Assistant Professor of Medicine*

**Irene Litvan**

*Professor*

*Raymond Lee Leiby Professor in Parkinson's Disease Research*

**Manuel Martinez**

*Professor Executive Vice President for Research*

**Craig J. McClain**

*Professor*

*Professor of Medicine*

**W. Glenn McGregor**

*Professor*

*Associate Professor of Medicine*

**Kelly M. McMasters**

*Professor*

*Professor of Surgery*

**Donald M. Miller**

*Professor*

*Professor of Medicine*

**Steven R. Myers**

*Associate Professor*

**Donald E. Nerland**

*Professor*

**Chin Ng**

*Associate Professor*

*Associate Professor of Radiology*

**Kenneth A. Palmer**

*Associate Professor*

**William M. Pierce, Jr.**

*Professor*

*Vice Chair for Graduate Education*

**M. Michele Pisano**

*Professor*

*Professor, Birth Defects Center*

**George C. Rodgers**

*Professor*

*Professor of Pediatrics*

**Peter P. Rowell**

*Professor*

**Uma Sankar**

*Assistant Professor*

**Zhao-Hui Song**  
*Associate Professor*

**J. Christopher States**  
*Professor*

**Janice E. Sullivan**  
*Associate Professor Professor of Medicine*

**David J. Tollerud**  
*Professor*  
*Professor of Environmental & Occupational Toxicology*

**Leonard C. Waite**  
*Professor*

**Yang Wang**  
*Associate Professor*  
*Associate Professor of Pediatrics*

**Brian (Binks) Wattenberg**  
*Associate Professor Associate Professor of Medicine*

**Walter M. Williams**  
*Professor*

**Hong Ye Assistant**  
*Assistant Professor*  
*Professor of Medicine*

**Wolfgang Zacharias**  
*Associate Professor*  
*Associate Professor of Medicine*

**Wayne S. Zundel**  
*Assistant Professor*  
*Assistant Professor of Radiation Oncology*

**Michael E. Brier**  
*Professor*  
*Professor of Medicine*

**Lu Cai**  
*Assistant Professor*  
*Assistant Professor of Medicine*

**Daniel J. Conklin**  
*Assistant Professor*  
*Assistant Professor of Medicine*

**Ye Qi Liu**  
*Assistant Professor*  
*Assistant Professor of Pediatrics*

**Avital Schurr**  
*Professor*  
*Professor of Anesthesiology and Perioperative Medicine*

**John L. Wong**  
*Professor*  
*Professor of Chemistry*

**William W. Young**  
*Professor*  
*Professor, Birth Defects Center*

# Master of Science in Physiology and Biophysics

**Major:** PHZB

**Degree Awarded:** MS

**Unit:** GM

**Program Webpage:** <http://www.louisville.edu/medschool/physiology/>

## Program Information

The Department of Physiology and Biophysics offers advanced training which leads to the degree of Masters of Science in Physiology and Biophysics. The department provides each student with a wide selection of possible research and graduate education opportunities to give broad-based knowledge and experience in Physiology.

Successful completion of our departmental Masters of Science graduate program can provide several career options:

- to develop competence in directed research and to develop a good general knowledge of physiology.
- to prepare for advanced technical positions in industry, government and university research laboratories.
- to explore the possibility of a future career as an independent scientist in medically-related research.

## Admission Requirements

The requirements for admission are :

1. B.A., B.S. or an equivalent degree.
2. An overall grade point average of 2.8 or higher on a scale of 4.0 (A=4, B=3, etc.).
3. Graduate Record Examination (GRE) scores which average at the 50th percentile or higher in verbal, quantitative and analytical sections. Acceptance may be granted on the basis of the Medical College Admissions Test (MCAT) scores or equivalent.
4. In the case of a foreign applicant from a non-English speaking country, the applicant must achieve a TOEFL examination score of 550 (paper) or 213 (computerized).

Applications are requested to be completed by July 1st (of each calendar year).

Submit all components directly to:

**Office of Graduate Admissions  
University of Louisville  
Houchens Building, Suite 105  
Louisville, KY 40292**

## Courses

The Department offers a variety of graduate courses including two semesters of systemic human physiology as well as an exciting seminar series and special topics courses.

## Tuition

Tuition information is provided by the Bursar and is found at: <http://louisville.edu/vpf/bursar/student/tuition.htm>.

## Financial Aid

No departmental financial aid is available for M.S. students .

Financial Aid information in the form of loans provided by the University can be found within the financial aid website located at: <http://www.louisville.edu/student/services/fin-aid/>.

## **Research Facilities**

All faculty members have excellent research facilities equipped with state-of-the-art equipment. Major items of available research equipment include intravital and fluorescent microscopes, computer data acquisition systems, image enhancement systems, cellular and molecular core facilities and a state-of-the-art instrumentation laboratory. In addition, within the Health Science Center complex, the department has access to cold rooms, constant temperature rooms, liquid scintillation counters, a photography laboratory, a machine shop, and a state-of-the-art laboratory animal research facility that is AALAC approved. The Kornhauser Library located on the Health Science Center campus contains the most current physiology and medical journals as well as an extensive collection of current books and monographs.

The University of Louisville dates back to 1798 and the Medical School is one of the oldest in the United States. The Health Sciences Center includes Schools of Medicine, Dentistry, Nursing and Public Health, the University Hospital, Regional Cancer Center, the Ambulatory Care Center and the Eye Research Institute. A number of nearby hospitals are also affiliated with the Health Sciences Center.

The Department of Physiology and Biophysics is located in a 14-story high-rise building which is devoted to basic science research and teaching. The Department has modern, well equipped laboratories specifically designed for physiological research. There are currently 21 faculty in the Department. In addition, the department has many joint, associate and adjunct faculty who regularly contribute in the research and teaching endeavors of the department.

## **Curriculum**

At least 30 semester hours beyond the baccalaureate degree are required for the degree of Masters of Science and at least 24 credit hours must have been earned at the University of Louisville. A maximum of 12 semester hours of this requirement may be credited from post-baccalaureate work in other professional or graduate degree programs by a special request.

Minimum course requirements include:

- Systemic Physiology I and II (PHZB 605 and 606) or equivalent
- Graduate Biochemistry (BIOC 645 and 647) or equivalent
- Physiological Methods (PHZB 625)
- Seminars in Physiology (PHZB 617)
- Research (PHZB 619)

A typical Master's Program would be:

### **First Semester (Fall)**

- Systemic Physiology I (PHZB 605, 4 cr)
- Graduate Biochemistry I (BIOC 645, 4 cr)
- Seminars in Physiology (PHZB 617.01, 2 cr)
- Physiological Methods (PHZB 625, 3 cr)
- Research (PHZB 619, 1 cr)

### **Second Semester (Spring)**

- Systemic Physiology II (PHZB 606, 4 cr)
- Graduate Biochemistry II (BIOC 647, 4 cr)

- Seminars in Physiology (PHZB 617.01, 1 cr)
- Research (PHZB 619, 1 cr)

### **Third Semester (2nd Fall)**

- Research (7 cr)

### **Fourth Semester (2nd Spring)**

- Research (MAST)
- Degree Completion
- M.S. Final Exam (Formal Presentation)

## **Departmental Faculty**

### **Irving G. Joshua**

*Professor*

*Chair*

### **William B. Wead**

*Associate Professor*

*Vice-Chair*

### **Gary L. Anderson**

*Professor*

### **Stanley D' Souza**

*Professor*

### **Patrick D. Harris**

*Professor*

### **Frederick N. Miller**

*Professor*

### **John C. Passmore**

*Professor*

### **Dale A. Schuschke**

*Professor*

### **Richard W. Stremel**

*Professor*

*Associate Dean of the Graduate School*

### **Suresh C. Tyagi**

*Professor*

### **David L. Wiegman**

*Professor*

### **Ayotunde S. O. Adeagbo**

*Associate Professor*

### **William D. Ehringer**

*Associate Professor*

### **Jeff C. Falcone**

*Associate Professor*

### **John T. Fleming**

*Associate Professor*

**David Lominadze**

*Associate Professor*

**Claudio Maldonado**

*Associate Professor*

**Gustavio Perez-Abadia**

*Assistant Professor*

**El Rasheid Zakaria**

*Assistant Professor*

**James C. Moore**

*Emeritus/Emerita*

**X. J. Musacchia**

*Emeritus/Emerita*

## **Joint Faculty**

**Roberto Bolli, M.D.**

*Professor, Medicine, Cardiology*

**Richard Neal Garrison, M.D.**

*Professor, Surgery*

**Sham Kakar, Ph.D.**

*Professor, Medicine, Cardiology*

**Sumanth Prabhu, M.D.**

*Professor, Medicine, Cardiology*

## **Associate Faculty**

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*Professor, Surgery, Plastic & Reconstructive*

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*Associate Professor, Surgery, Surgical Oncology*

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*Pediatrics*

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*Assistant Professor, Bioengineering*

**Evelyne, Gozal, Ph.D.**

*Associate Professor, Pediatrics*

**Suzanne Ildstadt, M.D.**

*Professor, Surgery, Director Institute of Cellular Therapeutics*

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*Assistant Professor, Medicine, Institute of Molecular Cardiology*

**Y. James Kang, M.D.**

*Professor, Medicine*

**Eleanor D. Lederer, M.D.**

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*Professsor, Molecular, Cellular & Craniofacial Biology*

**Jennifer Olive, Ph.D.**

*Assistant Professor, Health and Sport Sciences*

**D. Gregg Rokosh, Ph.D.**

*Assistant Professor, Medicine, Cardiology*

**Jerry Yu, Ph.D.**

*Associate Professor, Pulmonary Medicine*

## **Adjunct**

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*Assistant Professor, Biomolecular Science Center*

*University of Central Florida*

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*Associate Professor, Physical Therapy*

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**Alex Lentsch, Ph.D.**

*Associate Professor, Surgery*

*University of Cincinnati*

**Andreas S. Luebbe, M.D., Ph.D.**

*Associate Professor, Palliative Care and Symptom*

*Bad Lissspring, Germany*

**Peipei Ping, Ph.D.**

*Associate Professor, Cardiology*

*UCLA*

**Dirk Slaaf, Ph.D.**

*Professor and Chair*

*Biophysics, Maastricht, Netherlands*

**Nancy Urbscheit, Ph.D.**

*Professor, Physical Therapy*

*Bellarmino University*

# Doctor of Philosophy in Physiology and Biophysics

**Major:** PHZB

**Degree Awarded:** Ph.D.

**Unit:** GM

**Program Webpage:** <http://www.louisville.edu/medschool/physiology/>

## Program Information

The Department of Physiology and Biophysics is a member of the Graduate School of the University of Louisville. As such, one of the goals of the Department is to provide students with advanced training that leads to the Ph.D. Degree in Physiology and Biophysics. The research interests of the department are quite broad to provide each student with a wide selection of possible research and graduate education opportunities. Our doctoral graduate program is designed primarily to prepare students for a research career in basic and applied physiology.

The Ph.D. degree is designed for the student pursuing a professional life that involves original, independent research and who desires knowledge that will permit competent advanced teaching in a physiology area. The Ph.D. degree requires that the student reaches a high level of creativity and expertise and therefore, mere completion of a prescribed number of courses is not adequate for receipt of the doctoral degree.

Typically, a student with a bachelor's degree will require about four years to complete the Ph.D. program. However, the program does not have a fixed time for the awarding of the Ph.D. degree and completion would obviously depend on the progress of the individual student.

## Admission Requirements

The requirements for admission are:

1. A genuine interest in graduate work and the desire for a significant research career in the Biomedical Sciences.
2. B.A., B.S. or an equivalent degree.
3. A cumulative undergraduate grade point average of 3.0 or higher on a scale of 4.0 (A=4, B=3, etc.).
4. Graduate Record Examination (GRE) scores which average at the 50th percentile or higher in verbal, quantitative and analytical sections. Conditional acceptance may be granted on the basis of the Medical College Admissions Test (MCAT) scores or equivalent until the GRE is completed.
5. In the case of a foreign applicant from a non-English speaking country, the applicant must achieve a TOEFL examination score of 550 (paper) or 213 (computerized), with the exam taken in the United States.
6. Specific course prerequisites include: Biology (2 sem), Chemistry (2 sem), Organic Chemistry (2 sem) and Physics.
7. Under special circumstances, deficiencies and prerequisites may be waived or removed during the first year of training.

## Application Procedures

Applications will be reviewed beginning January 5th (of each calendar year). Stipend support is awarded based on each application's merit once the application is completed. Therefore, stipends are awarded on an approved and accepted, first-come, first-served basis. It behooves the applicant to have all materials submitted by the above date of January 10th of each calendar year.

Submit all components directly to:

## **Courses**

The Department offers a variety of graduate courses including an introductory human physiology, advanced cardiovascular and integrated systemic physiology as well as an exciting seminar series and special topics courses.

## **Financial Aid**

Students admitted to the Department of Physiology and Biophysics Ph.D. program are supported by financial aid with a fellowship or an assistantship. These students are given a stipend, full tuition remission, and health insurance for up to five years.

## **Research Facilities**

All faculty members have excellent research facilities equipped with state-of-the-art equipment. Major items of available research equipment include intravital and fluorescent microscopes, computer data acquisition systems, image enhancement systems, cellular and molecular core facilities and a state-of-the-art instrumentation laboratory. In addition, within the Health Science Center complex, the department has access to cold rooms, constant temperature rooms, liquid scintillation counters, a photography laboratory, a machine shop, and a state-of-the-art laboratory animal research facility that is AALAC approved. The Kornhauser Library located on the Health Science Center campus contains the most current physiology and medical journals as well as an extensive collection of current books and monographs.

The University of Louisville dates back to 1798 and the Medical School is one of the oldest in the United States. The Health Sciences Center includes the Schools of Medicine, Dentistry, Nursing, and Public Health, the University Hospital, Regional Cancer Center, the Ambulatory Care Center, and the Eye Research Institute. A number of nearby hospitals are also affiliated with the Health Sciences Center.

The Department of Physiology and Biophysics is located in a 14-story high-rise building which is devoted to basic science research and teaching. The department has modern, well-equipped laboratories specifically designed for physiological research. There are currently 21 faculty in the Department . In addition, the department has many joint, associate and adjunct faculty who regularly contribute in the research and teaching endeavors of the department.

## **Curriculum**

The Ph.D. degree is designed for a student who is pursuing a professional life that involves original independent research and desires knowledge that will permit competent advanced teaching in a physiology area. The Ph.D. degree requires that the student reaches a high level of creativity and expertise, therefore completion of a prescribed number of courses is not adequate for receipt of the doctoral degree.

At least three years of contiguous enrollment in approved courses beyond the baccalaureate degree is required for the Ph.D. degree. A maximum of 6 semester hours of this requirement may be credited for post-baccalaureate work in other professional or graduate degree programs. A minimum of two contiguous semesters in which the student is registered full-time shall be taken in residency at the University of Louisville. By the end of the program, the student must demonstrate the ability to conduct independent research.

The required program of academic study must include (if not completed with a grade of B or better prior to admission to the Department) the following courses:

- Systemic Physiology I and II (PHZB 605 and 606) or equivalent
- Graduate Biochemistry (BIOC 645 and 647) or equivalent

- Advanced Physiology (PHZB 611)
- Cell Biology (MBIO 667) or equivalent
- Experimental Physiology Methods (PHZB 625)
- Integrated Systemic Physiology (PHZB 609)
- Seminar in Physiology (PHZB 617.01, 617.02) four semesters
- Statistics of Physiology (616.02)

A typical Doctoral Program for the Traditional Student would be:

### **First Semester (1st Fall)**

- Systemic Physiology I (PHZB 605, 4 cr)
- Graduate Biochemistry I (BIOC 645, 4 cr)
- Seminars in Physiology (PHZB 617.01, 1 cr)
- Physiological Methods (PHZB 625, 3 cr)

### **Second Semester (1st Spring)**

- Systemic Physiology II (PHZB 606, 4 cr)
- Graduate Biochemistry II (BIOC 647, 4 cr)
- Cell Biology (MBIO 667, 3 cr)
- Seminars in Physiology (PHZB 617.01, 1 cr)

### **Third Semester (1st Summer)**

- Research (PHZB 619, 6 cr)

### **Fourth Semester (2nd Fall)**

- Advanced Human Physiology (PHZB 611, 4 cr)
- Research (PHZB 619, 5 cr)
- Seminar (PHZB 617.02, 1 cr)

### **Fifth Semester (2nd Spring)**

- Research (PHY 619, 3 cr)
- Integrated Systemic Physiology (PHZB 609, 3 cr)
- Statistics (PHZB 616.02, 3 cr)
- M.S. Final Exam (Ph.D. Qualifying Exam)

### **Sixth Semester (2nd Summer)**

- Research (DOCT)

### **Seventh Semester (3rd Fall)**

- Research (DOCT)

### **Eighth Semester (3rd Spring)**

- Research (DOCT)

### **Ninth Semester (3rd Summer)**

- Research (DOCT)

### **Tenth Semester (4th Fall)**

- Research (DOCT)

### **Eleventh Semester (4th Spring)**

- Research (DOCT)
- Dissertation / Defense

The program requires that a student, upon completion of the minimum course requirements (usually at the end of the second year), must take and pass the Ph.D. Qualifying Examination. Graduation requirements are that the student maintain at least a B average and produce an acceptable dissertation based on original research.

## Departmental Faculty

**Irving G. Joshua**

*Professor*

*Chair*

**William B. Wead**

*Associate Professor*

*Vice-Chair*

**Stanley D' Souza**

*Professor*

**Gary L. Anderson**

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## **Adjunct Faculty**

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*Assistant Professor, Biomolecular Science Center*

*University of Central Florida*

**Patricia Gillette, Ph.D.**

*Associate Professor, Physical Therapy*

*Bellarmino University*

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*Associate Professor, Surgery*

*University of Cincinnati*

**Andreas S. Luebbe, M.D., Ph.D.**

*Associate Professor, Palliative Care and Symptom*

*Bad Lissspring, Germany*

**Peipei Ping, Ph.D.**

*Associate Professor, Cardiology*

*UCLA*

**Dirk Slaaf, Ph.D.**

*Professor and Chair*

*Biophysics, Maastricht, Netherlands*

**Nancy Urbscheit, Ph.D.**

*Professor, Physical Therapy*

*Bellarmino University*

# School of Music

Music Composition - MM

Music Education - MME

Music History and Literature - MM

Music Performance - MM

Music Theory - MM



# Master of Music in Music Composition

**Major:** COMP

**Degree Awarded:** MM

**Unit:** GE

**Program Webpage:** <http://www.louisville.edu/music/>

## Program Information

The School of Music offers training toward two specific master's degrees: Master of Music and Master of Music Education. Major subjects in the Master of Music curriculum are music performance, music history, or theory/composition. The Master of Music Education program allows an applied music minor in an instrument, voice, or conducting. The music history and theory divisions offer basic instruction for all students at the undergraduate level as well as advanced study for those wishing to pursue graduate work in these fields.

## Admission Requirements

In addition to the general requirements for admission to the Graduate School, the following specific requirements must be met:

- To be admitted to the Graduate Division of the School of Music, the applicant should possess a baccalaureate degree in the area (or an equivalent one) to be pursued in advanced studies.
- Applicants must meet the specific entrance requirements established by the major department.
- Applicants are required to take entrance examinations in music history, literature, and theory. Students may be required to take, without credit, courses in which they are deficient as indicated by the examination results.
- All full-time students are required to enroll in Bibliography and Research Methods (MUS 607), within their first two semesters of graduate work. Part-time students must enroll in MUS 607 before registering for more than ten (10) hours of graduate work.
- Graduate applicants to the School of Music must submit GRE scores with the application form.

The School of Music provides each student with guidelines to assist in preparation for the entrance exams and a copy of the *Handbook for Graduate Music Students*. Students are expected to read the School of Music handbook and the *University Graduate Catalog* and to follow regulations and procedures regarding their specific degree program at the University of Louisville. In particular, students are advised to observe the request for submitting GRE scores for admission to the Graduate School. Graduate study in music begins with the preparation for the entrance examinations in Music History and Music Theory and concludes with the graduate oral exam that is taken when all requirements have been met.

## General Information

In addition to the general degree requirements described in the General Information section of the Graduate Catalog, the following degree requirements must be met:

- The student shall obtain permission from the Graduate Division Committee to begin work at the graduate level.
- All students must qualify for non-conditional status no later than the end of the second semester of full-time residence, or before eighteen (18) semester hours have been completed.

To qualify for degree candidacy the student must have:

- a. proof that all deficiencies in music history, literature and theory have been removed,
- b. an academic record with a minimum of nine (9) hours of graduate credit with a grade point average of 3.0,
- c. an inclusive program of studies fulfilling the requirements of a master's curriculum, approved by the major

- professor and the departmental chairperson,
- d. in the case of a program requiring a master's thesis or professional paper, a proposed topic for the thesis or paper and a proposed membership for a reading committee to provide guidance during the writing of the thesis or paper. [See bullet seven (7) below]
- As per the Graduate School requirements, at least half of the required credits for the master's degree must be at the 600 level, excluding thesis, internships, or practicums.
  - In order to be in good standing, graduate students must have a cumulative 3.0 grade point average. A student must be in good standing in order to graduate. No more than six (6) hours with any "C" or "C+" grade will be accepted toward a degree, and no grade below a "B-" will be accepted in a major subject. A student whose cumulative GPA falls below 3.0 will be placed on probation by the Graduate School. Students are ordinarily not permitted to continue on probation for more than one semester.
  - The School of Music does not accept transfer grades below a "B". No credit is transferred for applied music. Advanced standing for applied music may be awarded at a jury. Music history and theory credits will be evaluated for transfer by the Director of Graduate Studies and the respective faculty. Ensemble credits appropriate to the new degree program may be considered for transfer, but not to exceed one per semester.
  - Degree candidates in performance are required to give a public recital, normally during the candidate's final semester of study. Preparation and presentation of the recital shall follow the guidelines in the *Handbook for Graduate Students*.
  - Degree candidates in music history or theory and composition are required to submit a thesis or major composition for evaluation by the reading committee. The M.M. Thesis in music composition takes the form of a musical score. Apart from considerations such as page size and layout, composition theses conform to the guidelines issued by the Graduate School. The deadline for formal approval of M.M. composition theses is the last day of classes in the semester in which the degree is expected to be conferred. Approval signatures of all members of the thesis committee are required prior to the final graduate oral examination.
  - All students are required to pass an oral examination given by the Graduate Committee before the end of the semester in which the degree is to be granted. It may cover all areas of endeavor undertaken by the student in his graduate program or believed essential to the student's background.
  - A candidate who fails the oral examination at the end of a semester may not be given a second one before the regular time for such an examination at the end of the next semester or summer session. A candidate who fails in the second oral examination shall not be granted the degree of M.M. or M.M.E. from this university.
  - In comparing degree programs, please note that among universities, many times ensembles are required, but without credit. Our required ensembles are included in the number of required degree hours.
  - Part-time students (with the exception of those in M.M.E. degree programs) must participate in one ensemble for each 18 hours of course work completed. If part-time study precludes completing ensemble degree requirements, other course work may be substituted.
  - Transfer of more than 6 hours from a degree program of an accredited institution in which a degree has been previously earned will only be granted on recommendation of the student's division and approval of the Director of Graduate Studies in consultation with the Graduate Committee. The request will be considered providing the additional hours have not been earned by extension and that the University of Louisville minimum residency requirements have been met as stated in the Graduate Catalogue.
  - Transfer of graduate hours within the University of Louisville toward a graduate degree in music may be requested with the restriction that the minimum residency requirement be maintained in compliance with the Graduate Catalogue.
  - Hours earned beyond the minimum in any one curricular area apply only to that area and cannot be divided in order to satisfy a requirement in another area.

## Curriculum

### Prerequisites

1. Bachelor of Music degree or equivalent.

2. Demonstration, by examination, of skills and capacities in the following fields:
  - written, aural, and keyboard harmony;
  - melodic, harmonic, and rhythmic dictation;
  - elementary counterpoint; and
  - history and literature of music, and analytic understanding of musical forms and genres.
3. Evidence of preparation for advanced work in the area, as follows:
  - Applicants for the track in Music Composition must submit original works to indicate ability and technical facility in the field of composition. Students should also have a thorough and practical knowledge of piano as well as a thorough knowledge in the areas of string, brass, woodwind, and percussion instruments.
4. GRE scores.

## Core Curriculum

- Music History Review (MUS 500)\* 0
- Music Theory Review (MUS 400)\* 0
- Bibliography and Research Methods (MUS 607) 3
- Music History Seminar (600 level) 3
- Music Theory\*\* 4
- Additional Music Theory or Music History Seminar (500 or 600 level) 3
- Analysis (MUS 647, 648, 651, or 653) 3
- Ensemble (3 semesters of major ensemble) 3
- Thesis 4

Total.....**23**

## Other Requirements

All students must pass an oral examination after all course work is completed.

## Music Composition Track

- Advanced Composition (MUS 643, 644, 645)\*\*\* 9
- Graduate Composition Seminar (MUS 669 - Co-requisite for MUS 643-645)
- Applied Music [500 level or above; minimum of 2 semesters; may include Conducting or Seminar in Conducting MUS 659/660 (section designated for students who are not conducting majors), but excludes additional semesters of Applied Composition]

Total.....**13**

**Minimum Total.....36**

## Notes:

\* These courses may be satisfied by passing the entrance examinations in these areas.

\*\* Students should take Digital Techniques I & II (MUS 667-668).

\*\*\*Graduate composition majors are required to present public performances of their works within at least two semesters of their enrollment, for a total of at least 20 minutes of music. The graduate thesis will not be granted final approval until this requirement is met.

## Departmental Faculty

**Robert Amchin**

*Professor*

Division Head-Music Education and Music Therapy

Distinguished Teaching Professor

**Jack Ashworth**

*Professor*

Director of Early Music Ensemble

Distinguished Teaching Professor

**Jean Christensen**

*Professor*

Director of Graduate Studies

Division Head-Music History

**Anne Marie de Zeeuw**

*Professor*

Director of Undergraduate Studies

Area Coordinator-Music Theory

Distinguished Teaching Professor

**Christopher Doane**

*Professor*

Dean

**Donn Everette Graham**

*Professor*

**Kent Hatteberg**

*Professor*

Director of Choral Activities

University Scholar

**Herbert Koerselman**

*Professor*

**John LaBarbera**

*Professor*

**Naomi Oliphant**

*Professor*

Associate Dean

Distinguished Teaching Professor

**J. Patrick Rafferty**

*Professor*

**Steve Rouse**

*Professor*

Division Head-Music Theory and Composition

**Marc Satterwhite**

*Professor*

**Frederick Speck**

*Professor*

Division Head-Ensembles and Conducting

Director of Bands

**Edith Davis Tidwell**

*Professor*  
Area Coordinator-Voice  
Distinguished Teaching Professor

**Michael Tracy**

*Professor*  
Division Head-Jazz Studies

**Michael Tunnell**

*Professor*  
Distinguished Teaching Professor

**Barbara Wheeler**

*Professor*  
Director of Music Therapy  
University Scholar

**Greg Byrne**

*Associate Professor*  
Director of Marching Band

**Bruce Heim**

*Associate Professor*  
University Scholar

**John Jones**

*Associate Professor*  
Division Head-Applied Studies

**Kimcherie Lloyd**

*Associate Professor*  
Director of Orchestral Studies and Opera

**Seow-Chin Ong**

*Associate Professor*

**Brett Shuster**

*Associate Professor*

**Dallas Tidwell**

*Associate Professor*

**Gerald Tolson**

*Associate Professor*

**Paul York**

*Associate Professor*

**Julia Shinnick**

*Assistant Professor*

**Krista Wallace-Boaz**

*Assistant Professor*

**Daniel Weeks**

*Assistant Professor*  
University Scholar

**Jerry W. Ball**

*Professor Emeritus*

**Doris Owen Bickel**  
*Professor Emeritus*

**Paul R. Brink**  
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**Peter McHugh**  
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**Acton Ostling**  
*Professor Emeritus*

**Richard Spalding**  
*Professor Emeritus*

**Robert Weaver**  
*Professor Emeritus*

**Loren Waa**  
*Professor Emeritus*

# Master of Music Education in Music Education

**Major:** MUED

**Degree Awarded:** MME

**Unit:** GU

**Program Webpage:** <http://www.louisville.edu/music/>

## Program Information

The School of Music offers training toward two specific master's degrees: Master of Music and Master of Music Education. Major subjects in the Master of Music curriculum are music performance, music history, or theory/composition. The Master of Music Education program allows an applied music minor in an instrument, voice, or conducting. The music history and theory divisions offer basic instruction of all students at the undergraduate level as well as advanced study for those wishing to pursue graduate work in these fields.

## Admission Requirements

In addition to the general requirements for admission to the Graduate School, the following specific requirements must be met:

- To be admitted to the Graduate Division of the School of Music, the applicant should possess a baccalaureate degree in the area (or an equivalent one) to be pursued in advanced studies.
- Applicants must meet the specific entrance requirements established by the major department.
- Applicants are required to take entrance examinations in music history, literature, and theory. Students may be required to take, without credit, courses in which they are deficient as indicated by the examination results.
- All full-time students are required to enroll in Bibliography and Research Methods (MUS 607), within their first two semesters of graduate work. Part-time students must enroll in MUS 607 before registering for more than ten (10) hours of graduate work.
- Graduate applicants to the School of Music must submit GRE scores with the application form.

The School of Music provides each student with guidelines to assist in preparation for the entrance exams and a copy of the Handbook for Graduate Music Students. Students are expected to read the School of Music handbook and the University Graduate Catalogue and to follow regulations and procedures regarding their specific degree program at the University of Louisville. In particular, students are advised to observe the request for submitting GRE scores for admission to the Graduate School. Graduate study in music begins with the preparation for the entrance examinations in Music History and Music Theory and concludes with the graduate oral exam that is taken when all requirements have been met.

## General Information

In addition to the general degree requirements described in the General Information section of the Graduate Catalog, the following degree requirements must be met:

- The student shall obtain permission from the Graduate Division Committee to begin work at the graduate level.
- All students must qualify for non-conditional status no later than the end of the second semester of full-time residence, or before eighteen (18) semester hours have been completed.

To qualify for degree candidacy the student must have:

- a. proof that all deficiencies in music history, literature and theory have been removed,
- b. an academic record with a minimum of nine (9) hours of graduate credit with a grade point average of 3.0,
- c. an inclusive program of studies fulfilling the requirements of a master's curriculum, approved by the major

- professor and the departmental chairperson;
- d. in the case of a program requiring a master's thesis or professional paper, a proposed topic for the thesis or paper and a proposed membership for a reading committee to provide guidance during the writing of the thesis or paper. [See bullet seven (7) below]
- As per the Graduate School requirements, at least half of the required credits for the master's degree must be at the 600 level, excluding thesis, internships, or practicums.
  - In order to be in good standing, graduate students must have a cumulative 3.0 grade point average. A student must be in good standing in order to graduate. No more than six (6) hours with any "C" or "C+" grade will be accepted toward a degree, and no grade below a "B-" will be accepted in a major subject. A student whose cumulative GPA falls below 3.0 will be placed on probation by the Graduate School. Students are ordinarily not permitted to continue on probation for more than one semester.
  - The School of Music does not accept transfer grades below a "B". No credit is transferred for applied music. Advanced standing for applied music may be awarded at a jury. Music history and theory credits will be evaluated for transfer by the Director of Graduate Studies and the respective faculty. Ensemble credits appropriate to the new degree program may be considered for transfer, but not to exceed one per semester.
  - Degree candidates in performance are required to give a public recital, normally during the candidate's final semester of study. Preparation and presentation of the recital shall follow the guidelines in the *Handbook for Graduate Music Students*.
  - Degree candidates in music history or theory and composition are required to submit a thesis or major composition for evaluation by the reading committee. The M.M. Thesis in music composition takes the form of a musical score. Apart from considerations such as page size and layout, composition theses conform to the guidelines issued by the Graduate School. The deadline for formal approval of M.M. composition theses is the last day of classes in the semester in which the degree is expected to be conferred. Approval signatures of all members of the thesis committee are required prior to the final graduate oral examination.
  - All students are required to pass an oral examination given by the Graduate Committee before the end of the semester in which the degree is to be granted. It may cover all areas of endeavor undertaken by the student in his graduate program or believed essential to the student's background.
  - A candidate who fails the oral examination at the end of a semester may not be given a second one before the regular time for such an examination at the end of the next semester or summer session. A candidate who fails in the second oral examination shall not be granted the degree of M.M. or M.M.E. from this university.
  - In comparing degree programs, please note that among universities, many times ensembles are required, but without credit. Our required ensembles are included in the number of required degree hours.
  - Part-time students (with the exception of those in M.M.E. degree programs) must participate in one ensemble for each 18 hours of course work completed. If part-time study precludes completing ensemble degree requirements, other course work may be substituted.
  - Transfer of more than 6 hours from a degree program of an accredited institution in which a degree has been previously earned will only be granted on recommendation of the student's division and approval of the Director of Graduate Studies in consultation with the Graduate Committee. The request will be considered provided that the additional hours have not been earned by extension and that the University of Louisville minimum residency requirements have been met as stated in the Graduate Catalogue.
  - Transfer of graduate hours within the University of Louisville toward a graduate degree in music may be requested with the restriction that the minimum residency requirement be maintained in compliance with the Graduate Catalogue.
  - Hours earned beyond the minimum in any one curricular area apply only to that area and cannot be divided in order to satisfy a requirement in another area.

## Curriculum

### Prerequisites

1. Bachelor of Music degree or equivalent.



2. Classroom teaching experience (exclusive of practice teaching and prior to, or concurrent with, graduate study),
3. Demonstration, by examination, of skills and capacities in the following fields:
  - written, aural, and keyboard harmony;
  - melodic, harmonic, and rhythmic dictation;
  - elementary counterpoint; and
  - history and literature of music, and analytic understanding of musical forms and genres.
4. GRE scores.

## Curriculum

- Music History Review (MUS 500)\* 0
- Music Theory Review (MUS 400)\* 0
- Bibliography and Research Methods (MUS 607) 3
- Qualitative Research Methods (MUED 628) 2
- Foundations of Music Education (MUED 629) 2
- Quantitative Research Methods (MUED 630) 2
- Learning Theories in Music Education (MUED 639) 2
- Music Education and Related Courses 5-6
- Applied Music (chosen from major or minor performance fields, including Conducting) 4
- Music History (500 or 600 level) 3
- Music Theory (500 or 600 level) 2-3
- Thesis\*\* 4

**Minimum Total.....30**

## Other Requirements

It is recommended that full-time MME students enroll in ensembles during their degree program. All students must pass an oral examination after all course work is completed.

## Notes:

\* These course may be satisfied by passing the entrance examinations in these areas.

\*\* Students are required to prepare either a thesis (4 semester hours of credit) or a professional paper (without credit). In the latter case, 4 hours of coursework will be determined by the student and graduate advisor in order to achieve the 30-hour minimum requirement.

## Departmental Faculty

### Robert Amchin

*Professor*

Division Head-Music Education and Music Therapy

Distinguished Teaching Professor

### Jack Ashworth

*Professor*

Director of Early Music Ensemble

Distinguished Teaching Professor

### Jean Christensen

*Professor*

Director of Graduate Studies

Division Head-Music History

**Anne Marie de Zeeuw**

*Professor*

Director of Undergraduate Studies

Area Coordinator-Music Theory

Distinguished Teaching Professor

**Christopher Doane**

*Professor*

Dean

**Donn Everette Graham**

*Professor*

**Kent Hatteberg**

*Professor*

Director of Choral Activities

University Scholar

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**John LaBarbera**

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**Naomi Oliphant**

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**J. Patrick Rafferty**

*Associate Professor*

**Steve Rouse**

*Professor*

Division Head-Music Theory and Composition

**Marc Satterwhite**

*Professor*

**Frederick Speck**

*Professor*

Division Head-Ensembles and Conducting

Director of Bands

**Edith Davis Tidwell**

*Professor*

Area Coordinator-Voice

Distinguished Teaching Professor

**Michael Tracy**

*Professor*

Division Head-Jazz Studies

**Michael Tunnell**

*Professor*

Distinguished Teaching Professor

**Barbara Wheeler**

*Professor*

Director of Music Therapy

University Scholar

**Greg Byrne**

*Associate Professor*

Director of Marching Band

**Bruce Heim**

*Associate Professor*

University Scholar

**John Jones**

*Associate Professor*

Division Head-Applied Studies

**Kimcherie Lloyd**

*Associate Professor*

Director of Orchestral Studies and Opera

**Seow-Chin Ong**

*Associate Professor*

**Brett Shuster**

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**Acton Ostling**

*Professor Emeritus*

**Richard Spalding**

*Professor Emeritus*

**Robert Weaver**

*Professor Emeritus*

**Loren Waa**

*Professor Emeritus*

# Master of Music in Music History and Literature

**Major:** MUHM

**Degree Awarded:** MM

**Unit:** GU

**Program Webpage:** <http://www.louisville.edu/music/>

## Program Information

The School of Music offers training toward two specific master's degrees: Master of Music and Master of Music Education. Major subjects in the Master of Music curriculum are music performance, music history, or theory/composition. The Master of Music Education program allows an applied music minor in an instrument, voice, or conducting. The music history and theory divisions offer basic instruction for all students at the undergraduate level as well as advanced study for those wishing to pursue graduate work in these fields .

## Admission Requirements

In addition to the general requirements for admission to the Graduate School, the following specific requirements must be met:

- To be admitted to the Graduate Division of the School of Music, the applicant should possess a baccalaureate degree in the area (or an equivalent one) to be pursued in advanced studies.
- Applicants must meet the specific entrance requirements established by the major department.
- Applicants are required to take entrance examinations in music history, literature, and theory. Students may be required to take, without credit, courses in which they are deficient as indicated by the examination results.
- All full-time students are required to enroll in Bibliography and Research Methods (MUS 607), within their first two semesters of graduate work. Part-time students must enroll in MUS 607 before registering for more than ten (10) hours of graduate work.
- Graduate applicants to the School of Music must submit GRE scores with the application form.

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## General Information

In addition to the general degree requirements described in the General Information section of the Graduate Catalog, the following degree requirements must be met:

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- All students must qualify for non-conditional status no later than the end of the second semester of full-time residence, or before eighteen (18) semester hours have been completed.

To qualify for degree candidacy the student must have:

- a. proof that all deficiencies in music history, literature and theory have been removed,
- b. an academic record with a minimum of nine (9) hours of graduate credit with a grade point average of 3.0,
- c. an inclusive program of studies fulfilling the requirements of a master's curriculum, approved by the major

- professor and the departmental chairperson;
- d. in the case of a program requiring a master's thesis or professional paper, a proposed topic for the thesis or paper and a proposed membership for a reading committee to provide guidance during the writing of the thesis or paper. [See bullet seven (7) below]
- As per the Graduate School requirements, at least half of the required credits for the master's degree must be at the 600 level, excluding thesis, internships, or practicums.
  - In order to be in good standing, graduate students must have a cumulative 3.0 grade point average. A student must be in good standing in order to graduate. No more than six (6) hours with any "C" or "C+" grade will be accepted toward a degree, and no grade below a "B-" will be accepted in a major subject. A student whose cumulative GPA falls below 3.0 will be placed on probation by the Graduate School. Students are ordinarily not permitted to continue on probation for more than one semester.
  - The School of Music does not accept transfer grades below a "B". No credit is transferred for applied music. Advanced standing for applied music may be awarded at a jury. Music history and theory credits will be evaluated for transfer by the Director of Graduate Studies and the respective faculty. Ensemble credits appropriate to the new degree program may be considered for transfer, but not to exceed one per semester.
  - Degree candidates in performance are required to give a public recital, normally during the candidate's final semester of study. Preparation and presentation of the recital shall follow the guidelines in the *Handbook for Graduate Students*.
  - Degree candidates in music history or theory and composition are required to submit a thesis or major composition for evaluation by the reading committee. The M.M. Thesis in music composition takes the form of a musical score. Apart from considerations such as page size and layout, composition theses conform to the guidelines issued by the Graduate School. The deadline for formal approval of M.M. composition theses is the last day of classes in the semester in which the degree is expected to be conferred. Approval signatures of all members of the thesis committee are required prior to the final graduate oral examination.
  - All students are required to pass an oral examination given by the Graduate Committee before the end of the semester in which the degree is to be granted. It may cover all areas of endeavor undertaken by the student in his graduate program or believed essential to the student's background.
  - A candidate who fails the oral examination at the end of a semester may not be given a second one before the regular time for such an examination at the end of the next semester or summer session. A candidate who fails in the second oral examination shall not be granted the degree of M.M. or M.M.E. from this university.
  - In comparing degree programs, please note that among universities, many times ensembles are required, but without credit. Our required ensembles are included in the number of required degree hours.
  - Part-time students (with the exception of those in M.M.E. degree programs) must participate in one ensemble for each 18 hours of course work completed. If part-time study precludes completing ensemble degree requirements, other course work may be substituted.
  - Transfer of more than 6 hours from a degree program of an accredited institution in which a degree has been previously earned will only be granted on recommendation of the student's division and approval of the Director of Graduate Studies in consultation with the Graduate Committee. The request will be considered provided that the additional hours have not been earned by extension and that the University of Louisville minimum residency requirements have been met as stated in the Graduate Catalogue.
  - Transfer of graduate hours within the University of Louisville toward a graduate degree in music may be requested with the restriction that the minimum residency requirement be maintained in compliance with the Graduate Catalogue.
  - Hours earned beyond the minimum in any one curricular area apply only to that area and cannot be divided in order to satisfy a requirement in another area.

## Curriculum

### Prerequisites

1. Bachelor of Music degree or equivalent.

2. Demonstration, by examination, of skills and capacities in the following fields:
  - written, aural, and keyboard harmony;
  - melodic, harmonic, and rhythmic dictation;
  - elementary counterpoint; and
  - history and literature of music, and analytic understanding of musical forms and genres.
3. Evidence of preparation for advanced work in the area, as follows:
  - Applicants for the track in Music History must submit a paper to the Music History faculty demonstrating ability to write efficiently and to do elementary research. In addition, applicants must complete the entrance examination in Music History with an average score of no less than seventy (70) for admission to the Music History curriculum. Before admission to candidacy, students in Music History are required to have a reading ability in one foreign language (preferably German, French, or Italian) demonstrated by examination administered in cooperation with the Department of Classical & Modern Languages (fee \$20.00). The examination must be passed before the student is admitted to candidacy.
4. GRE scores.

**Core Curriculum**

- Music History Review (MUS 500)\* 0
- Music Theory Review (MUS 400)\* 0
- Bibliography and Research Methods (MUS 607) 3
- Music History Seminar (600 level) 3
- Music Theory 4
- Additional Music Theory or Music History Seminar (500 or 600 level) 3
- Analysis (MUS 647, 648, 651, or 653) 3
- Ensemble (3 semesters of major ensemble)\*\* 3
- Thesis 4

Total.....**23**

**Other Requirements**

All students must pass an oral examination after all course work is completed.

**Music History and Literature Track**

- Music History Seminars (600 level) 6
- Additional Music Theory or Analysis 2
- Music Electives 5

Total.....**13**

**Minimum Total.....36**

**Notes:**

- \* These courses may be satisfied by passing the entrance examinations in these areas.
- \*\*The recommended ensembles for the Music History Track include Early Music Ensemble and New Music Ensemble.

**Departmental Faculty**

**Robert Amchin**  
*Professor*

Division Head-Music Education and Music Therapy  
Distinguished Teaching Professor

**Jack Ashworth**

*Professor*  
Director of Early Music Ensemble  
Distinguished Teaching Professor

**Jean Christensen**

*Professor*  
Director of Graduate Studies  
Division Head-Music History

**Anne Marie de Zeeuw**

*Professor*  
Director of Undergraduate Studies  
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Dean

**Donn Everette Graham**

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**Brenda Kee**

*Professor*  
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*Professor*

**Naomi Oliphant**

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**Steve Rouse**

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Division Head-Music Theory and Composition

**Marc Satterwhite**

*Professor*

**Frederick Speck**

*Professor*  
Director of Bands

**Edith Davis Tidwell**

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Area Coordinator-Voice  
Distinguished Teaching Professor

**Michael Tracy**

*Professor*  
Division Head-Jazz Studies



**Michael Tunnell**

*Professor*

Distinguished Teaching Professor

**Barbara Wheeler**

*Professor*

Director of Music Therapy

University Scholar

**Greg Byrne**

*Associate Professor*

**Kent Hatteberg**

*Associate Professor*

Director of Choral Activities

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*Professor Emeritus*

**Robert Weaver**  
*Professor Emeritus*

**Loren Waa**  
*Professor Emeritus*

# Master of Music in Music Performance

**Major:** MUSP

**Degree Awarded:** MM

**Unit:** GU

**Program Webpage:** <http://www.louisville.edu/music/>

## Program Information

The School of Music offers training toward two specific master's degrees: Master of Music and Master of Music Education. Major subjects in the Master of Music curriculum are music performance, music history, or theory/composition. The Master of Music Education program allows an applied music minor in an instrument, voice, or conducting. The music history and theory divisions offer basic instruction of all students at the undergraduate level as well as advanced study for those wishing to pursue graduate work in these fields.

## Admission Requirements

In addition to the general requirements for admission to the Graduate School, the following specific requirements must be met:

- To be admitted to the Graduate Division of the School of Music, the applicant should possess a baccalaureate degree in the area (or an equivalent one) to be pursued in advanced studies.
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- Applicants are required to take entrance examinations in music history, literature, and theory. Students may be required to take, without credit, courses in which they are deficient as indicated by the examination results.
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- Graduate applicants to the School of Music must submit GRE scores with the application form.

The School of Music provides each student with guidelines to assist in preparation for the entrance exams and a copy of the Handbook for Graduate Music Students. Students are expected to read the School of Music handbook and the University Graduate Catalogue and to follow regulations and procedures regarding their specific degree program at the University of Louisville. In particular, students are advised to observe the request for submitting GRE scores for admission to the Graduate School. Graduate study in music begins with the preparation for the entrance examinations in Music History and Music Theory and concludes with the graduate oral exam that is taken when all requirements have been met.

## General Information

In addition to the general degree requirements described in the General Information section of the Graduate Catalog, the following degree requirements must be met:

- The student shall obtain permission from the Graduate Division Committee to begin work at the graduate level.
- All students must qualify for non-conditional status no later than the end of the second semester of full-time residence, or before eighteen (18) semester hours have been completed.

To qualify for degree candidacy the student must have:

- a. proof that all deficiencies in music history, literature and theory have been removed,
- b. an academic record with a minimum of nine (9) hours of graduate credit with a grade point average of 3.0,
- c. an inclusive program of studies fulfilling the requirements of a master's curriculum, approved by the major

- professor and the departmental chairperson;
- d. in the case of a program requiring a master's thesis or professional paper, a proposed topic for the thesis or paper and a proposed membership for a reading committee to provide guidance during the writing of the thesis or paper. [See bullet seven (7) below]
- As per the Graduate School requirements, at least half of the required credits for the master's degree must be at the 600 level, excluding thesis, internships, or practicums.
  - In order to be in good standing, graduate students must have a cumulative 3.0 grade point average. A student must be in good standing in order to graduate. No more than six (6) hours with any "C" or "C+" grade will be accepted toward a degree, and no grade below a "B-" will be accepted in a major subject. A student whose cumulative GPA falls below 3.0 will be placed on probation by the Graduate School. Students are ordinarily not permitted to continue on probation for more than one semester.
  - The School of Music does not accept transfer grades below a "B". No credit is transferred for applied music. Advanced standing for applied music may be awarded at a jury. Music history and theory credits will be evaluated for transfer by the Director of Graduate Studies and the respective faculty. Ensemble credits appropriate to the new degree program may be considered for transfer, but not to exceed one per semester.
  - Degree candidates in performance are required to give a public recital, normally during the candidate's final semester of study. Preparation and presentation of the recital shall follow the guidelines in the *Handbook for Graduate Music Students*.
  - Degree candidates in music history or theory and composition are required to submit a thesis or major composition for evaluation by the reading committee. The M.M. Thesis in music composition takes the form of a musical score. Apart from considerations such as page size and layout, composition theses conform to the guidelines issued by the Graduate School. The deadline for formal approval of M.M. composition theses is the last day of classes in the semester in which the degree is expected to be conferred. Approval signatures of all members of the thesis committee are required prior to the final graduate oral examination.
  - All students are required to pass an oral examination given by the Graduate Committee before the end of the semester in which the degree is to be granted. It may cover all areas of endeavor undertaken by the student in his graduate program or believed essential to the student's background.
  - A candidate who fails the oral examination at the end of a semester may not be given a second one before the regular time for such an examination at the end of the next semester or summer session. A candidate who fails in the second oral examination shall not be granted the degree of M.M. or M.M.E. from this university.
  - In comparing degree programs, please note that among universities, many times ensembles are required, but without credit. Our required ensembles are included in the number of required degree hours.
  - Part-time students (with the exception of those in M.M.E. degree programs) must participate in one ensemble for each 18 hours of course work completed. If part-time study precludes completing ensemble degree requirements, other course work may be substituted.
  - Transfer of more than 6 hours from a degree program of an accredited institution in which a degree has been previously earned will only be granted on recommendation of the student's division and approval of the Director of Graduate Studies in consultation with the Graduate Committee. The request will be considered provided that the additional hours have not been earned by extension and that the University of Louisville minimum residency requirements have been met as stated in the Graduate Catalogue.
  - Transfer of graduate hours within the University of Louisville toward a graduate degree in music may be requested with the restriction that the minimum residency requirement be maintained in compliance with the Graduate Catalogue.
  - Hours earned beyond the minimum in any one curricular area apply only to that area and cannot be divided in order to satisfy a requirement in another area.

## Curriculum

### Prerequisites

1. Bachelor of Music degree or equivalent.

2. Demonstration, by examination, of skills and capacities in the following fields:
  - written, aural, and keyboard harmony;
  - melodic, harmonic, and rhythmic dictation;
  - elementary counterpoint; and
  - history and literature of music, and analytic understanding of musical forms and genres.
3. Audition in major field, demonstrating a level equivalent to the completion of a Bachelor of Music in Performance degree. Students intending to major in voice must have a reading knowledge of one foreign language and satisfactory diction in two others.
4. Students in the Concentration in Jazz must demonstrate a level of competency in improvisation, jazz keyboard, jazz theory, and jazz history. Remedial courses are in place to assist students who do not meet these requirements.
5. GRE scores.

## Core Curriculum

- Music History Review (MUS 500) \* 0
- Music Theory Review (MUS 400) \* 0
- Bibliography and Research Methods (MUS 607) 3
- Music History Seminar (500 or 600 level) 3
- Music Theory (500 or 600 level)\*\* 4
- Applied Study (600 level)\*\*\* 8
- Graduate Recital (MUS 697)\*\*\*\* 0.....18

## Other Requirements

All students must pass an oral examination after all course work is completed.

### Notes:

\* These courses may be satisfied by passing the entrance examinations in these areas.

\*\* For students in the Concentration in Jazz, Jazz Theory (MUS 539-02) is recommended. For students in the Concentration in Jazz Composition and Arranging, Advanced Jazz Compositional Theory (MUS 654) is required and Jazz Theory (MUS 539-02) is recommended.

\*\*\* The applied course numbers for the degree concentrations are as follows: Choral Conducting: MUS 601, 602, 659, 660 (Students may substitute additional semesters of MUS 659, 660 for MUS 601, 602 at the discretion of the Director of Choral Activities.) Orchestral/Wind Conducting/Piano Pedagogy: MUS 601, 602, 611, 612. Jazz Performance: MUS 605, 606, 615, 616. Students enrolled for applied jazz composition and arranging may not also get credit for Advanced Jazz Arranging (MUS 656) or Film/TV Scoring (MUS 657). Instrumental/Organ/ Piano/Vocal Performance: MUS 603, 604.

\*\*\*\* Taken concurrently with final semester of applied study.

## Concentration in Choral Conducting

- Additional Applied Study (MUS 611)\* 2
- Choral Literature I & II (MUS 530, 531) 4
- Instrumental Conducting and Score Reading (MUS 559) 2
- Ensemble (one per semester) 4
- Music Electives\*\* 6.....18
- **Total.....36**

### Notes:

\* Must be taken in the semester of the graduate degree recital.

\*\* May include such courses as pedagogy, literature, the student's principal applied instrument, instrumental conducting, or a maximum of 2 additional ensemble credits.

## Concentration in Orchestral Conducting

- Seminar in Conducting-Instrumental (MUS 659,

660) 4

- Seminar in Conducting-Choral (MUS 659, 660) 4
- Orchestral Literature I & II (MUS 686, 687) 4
- Ensemble (two semesters of major ensemble) 2
- Music Electives \* 4.....18
- **Total.....36**

**Note:**

\* To be chosen from courses in music theory, literature, the student's principal applied instrument, or a maximum of 2 additional ensemble credits.

**Concentration in Wind Conducting**

- Seminar in Conducting-Instrumental (MUS 659, 660) 4
- Instrumental Conducting and Score Reading (MUS 559) 2
- Band Literature (MUS 561) 2
- Ensemble (one per semester) 4
- Music Electives \* 6.....18
- **Total.....36**

**Note:**

\* To be chosen from pedagogy, literature, the student's principal applied instrument, a maximum of 2 semesters of functional applied study, or a maximum of 2 additional ensemble credits.

**Concentration in Instrumental Music**

- Additional Applied Study (MUS 613, 614) 8
- Ensemble\* 4
- Music Electives\*\* 6.....18
- **Total.....36**

**Note:**

\* In comparing degree programs, please note that among universities, many times ensembles are required, but without credit. Our required ensembles are included in the number of required degree hours.

\*\* Students are encouraged to choose courses in literature or pedagogy; up to 2 additional ensemble credits are acceptable.

**Other Requirements**

Students are expected to present a public recital that comprises no less than sixty (60) minutes of music and follows the guidelines governing public recitals.

**Concentration in Jazz Performance**

- Advanced Jazz Improvisation (MUS 655) 2
- Standard Jazz Repertoire (MUS 539-03) 2
- Jazz Style and Analysis (MUS 539-01) 2
- Jazz Combo (one per semester) 2
- Jazz Ensemble or Jazz Repertory Ensemble (one per semester)\* 4
- Concentration Electives to be selected from: 4

Jazz Applied (MUS 605, 606)

(Applied Study on a jazz instrument is recommended)

Music Industry I & II (MUS 535, 536)

Computers and Music I & II (MUS 553, 554)  
Independent Study (MUS 690)  
Special Topics: Summer Jazz Workshop (MUS 691)

- Music Electives\*\* 2
- Concentration Total....18
- **Total.....36**

**Notes:**

\* A student may substitute two additional Jazz Combo courses for one of the Jazz Ensemble courses.

\*\* Students are encouraged to choose courses in pedagogy or literature; applied study on a jazz instrument or in a secondary is acceptable; additional ensembles will not meet this requirement.

**Concentration in Jazz Composition and Arranging**

- Advanced Jazz Improvisation (MUS 655) 2
- Standard Jazz Repertoire (MUS 539-03) 2
- Jazz Style and Analysis (MUS 539-01) 2
- Jazz Combo (one per semester) 2
- Jazz Ensemble or Jazz Repertory Ensemble (one per semester)\* 4
- Concentration Electives to be selected from: 4

Jazz Applied (MUS 605, 606)  
(Applied Study on a jazz instrument is recommended)  
Music Industry I & II (MUS 535, 536)  
Computers and Music I & II (MUS 553, 554)  
Independent Study (MUS 690)  
Special Topics: Summer Jazz Workshop (MUS 691)

- Music Electives\*\* 2
- Concentration Total....18
- **Total.....36**

**Notes:**

\* A student may substitute two additional Jazz Combo courses for one of the Jazz Ensemble courses.

\*\* Students are encouraged to choose courses in pedagogy or literature; applied study on a jazz instrument or in a secondary is acceptable; additional ensembles will not meet this requirement.

**Concentration in Organ Performance**

- Additional Applied Study (MUS 613-614) 8
- Ensemble 2
- Major Subject and Music Electives\* 8.....18
- **Total.....36**

**Note:**

\*Must include Organ Literature and Church Music Literature; additional Applied Organ or Ensemble will not meet this requirement. Applied study in a secondary area is acceptable.

**Other Requirements**

Students are expected to present a public recital that comprises no less than sixty (60) minutes of music and follows the guidelines governing public recitals.

**Concentration in Piano Pedagogy**

- Piano Pedagogy (MUS 671, 672, 673, 674) 8
- Piano Literature (MUS 561, 562) 4
- Ensemble \* 2
- Music Electives\*\* 4.....18
- **Total.....36**

**Notes:**

\* At least three semesters of ensemble to be chosen from Piano Ensemble or New Music Ensemble.

\*\* Additional Applied Piano or Ensemble will not meet this requirement; applied study in a secondary area is acceptable.

**Other Requirements**

Students are expected to present a public recital that comprises no less than sixty (60) minutes of music and follows the guidelines governing public recitals.

**Concentration in Piano Performance**

- Additional Applied Study (MUS 613, 614) 8
- Piano Literature (MUS 561, 562) 4
- Piano Pedagogy (500 or 600 level) 2
- Ensemble \* 2
- Music Electives \*\* 2.....18
- **Total.....36**

**Notes:**

\* At least three semesters of ensemble to be chosen from Piano Ensemble or New Music Ensemble.

\*\* Additional Applied Piano or Ensemble will not meet this requirement; applied study in a secondary area is acceptable.

**Other Requirements**

Students are expected to present a public recital that comprises no less than sixty (60) minutes of music and follows the guidelines governing public recitals.

**Concentration in Vocal Performance**

- Additional Applied Study (MUS 613, 614) 8
- Vocal Literature (MUS 561, 562) 4
- Vocal Pedagogy (MUS 571) 2
- Ensemble \* 2
- Music Electives\*\* 2.....18
- **Total.....36**

**Notes:**

\* Suggested ensembles include Opera Theatre and New Music Ensemble.

\*\* Additional Applied Voice or Ensemble will not meet this requirement; applied study in a secondary area is acceptable.

**Other Requirements**

Students are expected to present a public recital that comprises no less than sixty (60) minutes of music and follows the guidelines governing public recitals.



# Departmental Faculty

## **Robert Amchin**

*Professor*

Division Head-Music Education and Music Therapy

Distinguished Teaching Professor

## **Jack Ashworth**

*Professor*

Director of Early Music Ensemble

Distinguished Teaching Professor

## **Jean Christensen**

*Professor*

Director of Graduate Studies

Division Head-Music History

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*Professor*

Division Head-Ensembles and Conducting

Director of Bands

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**Loren Waa**

*Professor Emeritus*

# Master of Music in Music Theory

**Major:** MUST

**Degree Awarded:** MM

**Unit:** GU

**Program Webpage:** <http://www.louisville.edu/music/>

## Program Information

The School of Music offers training toward two specific master's degrees: Master of Music and Master of Music Education. Major subjects in the Master of Music curriculum are music performance, music history, or theory/composition. The Master of Music Education program allows an applied music minor in an instrument, voice, or conducting. The music history and theory divisions offer basic instruction for all students at the undergraduate level as well as advanced study for those wishing to pursue graduate work in these fields .

## Admission Requirements

In addition to the general requirements for admission to the Graduate School, the following specific requirements must be met:

- To be admitted to the Graduate Division of the School of Music, the applicant should possess a baccalaureate degree in the area (or an equivalent one) to be pursued in advanced studies.
- Applicants must meet the specific entrance requirements established by the major department.
- Applicants are required to take entrance examinations in music history, literature, and theory. Students may be required to take, without credit, courses in which they are deficient as indicated by the examination results.
- All full-time students are required to enroll in Bibliography and Research Methods (MUS 607) within their first two semesters of graduate work. Part-time students must enroll in MUS 607 before registering for more than ten (10) hours of graduate work.
- Graduate applicants to the School of Music must submit GRE scores with the application form.

The School of Music provides each student with guidelines to assist in preparation for the entrance exams and a copy of the *Handbook for Graduate Music Students*. Students are expected to read the School of Music handbook and the University Graduate Catalog and to follow regulations and procedures regarding their specific degree program at the University of Louisville. In particular, students are advised to observe the request for submitting GRE scores for admission to the Graduate School. Graduate study in music begins with the preparation for the entrance examinations in Music History and Music Theory and concludes with the graduate oral exam that is taken when all requirements have been met.

## General Information

In addition to the general degree requirements described in the General Information section of the Graduate Catalog, the following degree requirements must be met:

- The student shall obtain permission from the Graduate Division Committee to begin work at the graduate level.
- All students must qualify for non-conditional status no later than the end of the second semester of full-time residence, or before eighteen (18) semester hours have been completed.

To qualify for degree candidacy the student must have:

- a. proof that all deficiencies in music history, literature and theory have been removed;
- b. an academic record with a minimum of nine (9) hours of graduate credit with a grade point average of 3.0;
- c. an inclusive program of studies fulfilling the requirements of a master's curriculum, approved by the major

- professor and the departmental chairperson;
- d. in the case of a program requiring a master's thesis or professional paper, a proposed topic for the thesis or paper and a proposed membership for a reading committee to provide guidance during the writing of the thesis or paper. [See bullet seven (7) below]
- As per the Graduate School requirements, at least half of the required credits for the master's degree must be at the 600 level, excluding thesis, internships, or practicums.
  - In order to be in good standing, graduate students must have a cumulative 3.0 grade point average. A student must be in good standing in order to graduate. No more than six (6) hours with a "C" or "C+" grade will be accepted toward a degree, and no grade below a "B-" will be accepted in a major subject. A student whose cumulative GPA falls below 3.0 will be placed on probation by the Graduate School. Students are ordinarily not permitted to continue on probation for more than one semester.
  - The School of Music does not accept transfer grades below a "B". No credit is transferred for applied music. Advanced standing for applied music may be awarded at a jury. Music history and theory credits will be evaluated for transfer by the Director of Graduate Studies and the respective faculty. Ensemble credits appropriate to the new degree program may be considered for transfer, but not to exceed one per semester.
  - Degree candidates in performance are required to give a public recital, normally during the candidate's final semester of study. Preparation and presentation of the recital shall follow the guidelines in the *Handbook for Graduate Music Students*.
  - Degree candidates in music history or theory and composition are required to submit a thesis or major composition for evaluation by the reading committee. The M.M. Thesis in music composition takes the form of a musical score. Apart from considerations such as page size and layout, composition theses conform to the guidelines issued by the Graduate School. The deadline for formal approval of M.M. composition theses is the last day of classes in the semester in which the degree is expected to be conferred. Approval signatures of all members of the thesis committee are required prior to the final graduate oral examination.
  - All students are required to pass an oral examination given by the Graduate Committee before the end of the semester in which the degree is to be granted. It may cover all areas of endeavor undertaken by the student in his graduate program or believed essential to the student's background.
  - A candidate who fails the oral examination at the end of a semester may not be given a second one before the regular time for such an examination at the end of the next semester or summer session. A candidate who fails in the second oral examination shall not be granted the degree of M.M. or M.M.E. from this university.
  - In comparing degree programs, please note that among universities, many times ensembles are required, but without credit. Our required ensembles are included in the number of required degree hours.
  - Part-time students (with the exception of those in M.M.E. degree programs) must participate in one ensemble for each 18 hours of course work completed. If part-time study precludes completing ensemble degree requirements, other course work may be substituted.
  - Transfer of more than 6 hours from a degree program of an accredited institution in which a degree has been previously earned will only be granted on recommendation of the student's division and approval of the Director of Graduate Studies in consultation with the Graduate Committee. The request will be considered provided that the additional hours have not been earned by extension and that the University of Louisville minimum residency requirements have been met as stated in the Graduate Catalog.
  - Transfer of graduate hours within the University of Louisville toward a graduate degree in music may be requested with the restriction that the minimum residency requirement be maintained in compliance with the Graduate Catalogue.
  - Hours earned beyond the minimum in any one curricular area apply only to that area and cannot be divided in order to satisfy a requirement in another area.

## Curriculum

### Prerequisites

1. Bachelor of Music degree or equivalent.

2. Demonstration, by examination, of skills and capacities in the following fields:
  - written, aural, and keyboard harmony;
  - melodic, harmonic, and rhythmic dictation;
  - elementary counterpoint; and
  - history and literature of music, and analytic understanding of musical forms and genres.
3. Evidence of preparation for advanced work in the area, as follows:
  - Applicants to the track in Music Theory must submit a portfolio that incorporates a theoretical or analytical component. In addition, compositions should be submitted if available.
4. GRE scores.

## Core Curriculum

- Music History Review (MUS 500)\* 0
- Music Theory Review (MUS 400)\* 0
- Bibliography and Research Methods (MUS 607) 3
- Music History Seminar (600 level)\*\* 3
- Music Theory 4
- Additional Music Theory or Music History Seminar (500 or 600 level) 3
- Analysis (MUS 647, 648, 651, or 653) 3
- Ensemble (3 semesters of major ensemble) 3
- Thesis 4

Total.....**23**

## Other Requirements

All students must pass an oral examination after all course work is completed.

## Music Theory Track

- Pedagogy of Theory (MUS 641) 2
- Additional Music Theory 1
- Advanced Composition\*\*\* 6
- Graduate Composition Seminar (MUS 669 - Co-requisite for Advanced Composition) 0
- Digital Techniques I (MUS 667) 2
- Music Electives 2

Total .....**13**

**Minimum Total.....36**

## Notes:

\* These courses may be satisfied by passing the entrance examinations in these areas.

\*\* Students in the Theory Track should take Foundations of Music Theory (MUS 652).

\*\*\*To be chosen from MUS 543, 544, 643, 644 as determined by the composition faculty. Students enrolled in 500 level Advanced Composition are required to present public performances of their original works totaling at least 8 minutes of music; students enrolled in 600 level Advanced Composition present public performances of at least 8 minutes of music per semester.

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# School of Nursing

Nursing - MSN

Nursing - Ph.D.

# Master of Science in Nursing

**Major:** NURS

**Degree Awarded:** MSN

**Unit:** GN

**Program Webpage:** <http://www.louisville.edu/nursing>

## Program Information

The University of Louisville School of Nursing is an essential partner of a research intensive academic health science center in a nationally recognized University serving a metropolitan community.

The School of Nursing is a community in which faculty, staff and students collaborate to promote excellence in the profession of nursing. This is accomplished through research and scholarship that inform undergraduate and graduate education, support evidence-based practice and foster advances in nursing science.

Students are prepared to demonstrate excellence in nursing science, practice and leadership, in a variety of settings for the benefit of clients across the lifespan and to meet the evolving health care needs of society.

As a citizen of the larger community, the emphasis of the School of Nursing is to address the complex health needs of diverse and dynamic populations through nursing education, research, scholarship and service.

Marcia Hern, EdD, RN, CNS, Dean

The School of Nursing offers the following degrees through the Graduate School:

**Nursing - PhD**

**Nursing - MSN**

### MSN Admissions Policies - School of Nursing

Students may be admitted to the program for the summer, fall, or spring semester. Summer is preferable and will allow for a full time program of study to be completed in two years. Applications for each term will be reviewed and students will be contacted regarding their admission status within 4-6 weeks after the deadline.

Application deadlines:

- Summer Semester: April 1
- Fall Semester: April 1
- Spring Semester: October 1

In the case of late applications, application materials received after the deadline may be considered for Non-Degree status and such applicants may be limited to enrolling in six credit hours on a space available basis. Therefore, all applicants are strongly encouraged to apply **before** the deadline. Absolute deadlines for admissions in Non-Degree status are July 1 for Fall Semester, November 1 for Spring Semester, and May 1 for Summer Semester.

### Health Services Fee

Every HSC student will be assessed the \$87.50 Health Services Fee each semester. Thirty-five dollars of this fee will be bundled in tuition beginning Fall, 2007.

Services provided under the \$87.50 fee:

- a. All pathogen exposure (e.g., TB, needle stick, etc.) to include outside labs, x-ray, and medications

- b. All visits to the Campus Health Services (Belknap and HSC)\*
- c. Mental Health Services\*

\*Medications, lab, or x-ray costs that might be associated with these visits are not covered by the \$87.50 fee.

### **Clinical Laboratory Fee**

Effective Summer 2006, all graduate students enrolled in clinical programs in the School of Nursing will be charged clinical fees of \$300. A \$100.00 fee will be assessed at the time of enrollment in NURS 656 Advanced Clinical Assessment or NURS 629 Assessment of the Neonate. A \$200.00 fee will be assessed upon registration in the appropriate track course (NURS 624, 633, 645, or 661).

This fee covers costs associated with clinical laboratory instruction, including clinical laboratory supplies, clinical equipment, support of simulation equipment, preceptor placement coordination and clinical visitations.

### **Course Offerings**

Classes are taught on a single week day, traditionally on Thursdays. These courses may be taught during the day or in the evening. Some courses are offered only once per year, or every two years based on demand and/or resources. Some courses are online. Course offerings are subject to cancellation due to insufficient enrollment. Preceptorship/clinical experiences are scheduled on any day of the week based on availability of clinical sites and preceptors. Limited evening and weekend preceptorship experiences may be available. Preceptorship experiences throughout the state are also possible but not guaranteed. The office of the Associate Dean for Graduate Academic Affairs is responsible for student placement with preceptors, in collaboration with the Clinical Placement Coordinator and course faculty.

### **Criteria for Admission to the Master in Nursing Degree Program:**

To be considered for admission to Degree Status, the following items must be submitted:

*To the Office of Graduate Admissions:*

- Completed U of L Graduate School Application, including \$50 application fee (application available online at: <http://graduate.louisville.edu/apply>)
- Official transcripts of all college coursework with a cumulative grade point average of at least 3.0 on a 4.0 scale. Completion of an accredited (by NLN or CCNE) baccalaureate program in nursing must be verified.
- Graduate Record Examination (GRE) scores (successful applicants usually score at 425 or above on each of the verbal and quantitative scores; and 4 on the analytic score). Revisions of the GRE test format and scoring are under consideration. Recommended score may change based on revisions.
- Two references from individuals who can speak of academic and/or professional capabilities and potential are required. References should be chosen from among: former faculty members, current or immediate past employer, or other nursing/health professionals. One reference should be from a nurse. Each person providing a reference for you must complete the UofL Graduate School recommendation form (available online at: <http://graduate.louisville.edu/students/apply.html/>).
- Verification of licensure will be obtained from the Kentucky Board of Nursing.

*To the School of Nursing, Office of Student Services:*

- Completed Graduate Applicant Data Sheet (available online at: <http://www.louisville.edu/nursing>)
- Criminal background check submitted through Certified Background.com

A personal interview with faculty may be required.

**Students who do not meet admission requirements may contact the U of L School of Nursing Office of Student Services at 502-852-1196 for an advising appointment.**

### **Conditional Admission to MSN Degree Program:**

Students who do not meet these admission requirements **may** be considered for admission in **conditional** status. An example might be a student with low GRE scores.

Students admitted conditionally will be reevaluated for full degree status based on criteria identified by the Graduate

Academic Affairs committee.

**Applications will not be considered for Full or Conditional Degree status unless all application materials are available to the review committee by the application deadline dates.**

### **Provisional Admission to MSN Degree Program:**

Graduating BSN students: Students completing the final semester of their BSN program with a 3.0 or better grade point average may apply for provisional degree or non-degree status (refer to admission statuses in the General Information Section of this catalog.)

### **Criteria for Non-Degree Admission to the Graduate Nursing Program:**

Admission in non-degree status does not guarantee admission to the MSN degree program. Students may contact the School of Nursing, Office of Students Services at 502-852-1196 for assistance.

- Graduate School application including the \$50.00 fee.
- Official undergraduate transcripts of all undergraduate course work and verification of completion of a Baccalaureate of Nursing degree.

**Visiting** students from other schools may apply each semester for non-degree status by submitting the following:

To Office of Graduate Admissions:

- Graduate School Application including the \$50 fee.
- A letter of good standing from student's home school or transcripts from graduate school in which the student is currently enrolled verifying a grade point average of 3.0 or higher.

### **Important Notes:**

- Priority enrollment in courses is given to graduate nursing students in Degree status.
- Non-degree students are strongly encouraged to verify financial aid requirements as non-degree status may NOT meet eligibility requirements of some financial aid sources.
- To move from Non-degree to Degree status, students must submit a NEW U of L application to the Office of Graduate Admissions indicating that they are applying for MSN degree admission by the application deadline for the semester they wish to be admitted as degree-seeking (October 1, May 1, or February 15). Application fee is waived for non-degree students who are re-applying for degree admission.
- All application materials listed above in "Criteria for Admission to the Master of Science in Nursing Program" must be received by the appropriate University offices on or before the application deadline for the semester in which the student wishes to be admitted as degree-seeking.

*All applicants, regardless of their application status, are required to submit official transcripts for all college work completed. An application fee of \$50.00 is required of all **MSN applicants regardless of where the BSN was earned.***

## **Academic Policies**

### **Academic Progress in the Graduate Program**

Satisfactory academic progress in a program involves maintaining the academic and professional standards expected in a particular discipline or program and may include demonstration of the ability to function as a professional practitioner. Failure to maintain these standards or demonstrate such abilities may result in the termination of the student's admission to the program.

### **Removal From Clinical**

A student who is unsafe in the clinical area may be asked to withdraw from the program.

### **Transfer of Credit**

Students who desire to transfer graduate credit from other academic institutions shall discuss this option with the faculty

advisor. Earned graduate credit may be transferred from institutions that offer advanced degrees. The maximum number of semester hours transferable, upon request, is six (6) hours. Up to six additional hours may be requested in a master's program, provided that these additional hours are not credit earned by extension and provided that the residency requirement of 24 semester hours is maintained by the addition of U of L credits to the total program. Credit earned more than six years prior to the student's application to the Graduate School will not normally be considered for transfer.

In all cases, transfer of credit is NOT automatic. Students who want courses taken at other institutions evaluated should submit the course outline (syllabus) for the course in question to the Office of Student Services. Courses cannot be evaluated without course outlines. Course equivalency should be determined before enrollment in the course to ensure the credits will transfer. Only courses in which the student earned grades of B (3.0 on a 4.0 scale) or better will be considered for transfer. Credits which have been applied to a baccalaureate degree may not be applied to a subsequent master's degree. Six hours may be transferred from previously earned master's degree toward a second master's degree subject to the approval of the Associate Dean for Graduate Academic Affairs. Hours earned toward a project or thesis shall not be transferable to the second master's degree. If the faculty advisor agrees that the course work contributes to the Program of Study, the student may request a Transfer of Credit form from the Office of Student Services. Graduate nursing courses may be transferred as a required nursing course only if judged by the current faculty of record as equivalent to the course taught at the University of Louisville. The decision of equivalency made by the faculty of record is final.

### **Drop/Add Procedures**

Students wishing to alter their schedule of courses in any way must make the changes with the University's Office of the Registrar. Failure to officially withdraw from a course may result in a grade of F and tuition charges for that course.

Students may drop/add at any time during the early registration period after their first scheduled time for registration. The touch-tone or online ULink systems may be used for drop/add. See the online Schedule of Courses for current instructions for Drop/Add after classes begin.

### **Late Complete Withdrawal after the Deadline**

Upon proper documentation of extreme circumstances, decision for approval of late complete withdrawals may be made by the Associate Dean for Academic Affairs. Late complete withdrawals are those requested after the deadline has passed and before the instructor has assigned a grade.

Students may not withdraw from any course after the published deadline in the online Schedule of Courses without the approval of the Associate Dean for Academic Affairs. This is granted only because of sickness or conditions beyond the student's control. The grade report would reflect a grade of W.

### **Student Health Services Requirements**

Each student must comply with the current student health policy of the Health Sciences Center. All costs associated with compliance are the responsibility of the student. Because of contractual agreements with agencies and the changing needs of society, this policy is updated periodically. The current health policies are listed below. It is the responsibility of the student to maintain his/her health in order to insure safety for other students and clients. If faculty or the agency deems that any student creates a health risk, the student may be excluded from the clinical experience and/or the program.

Individual health care facilities, used as clinical sites by the School of Nursing, may have additional requirements. In this event, the student is required to comply with any additional requirements of that facility.

Note: Health policies are constantly under review by faculty based on CDC changing requirements and community expectations. Students will be notified of any policy changes, and compliance will be required.

### **Clinical Requirements**

Before beginning the first clinical course of the MSN program, students must be in compliance with the following clinical requirements:

- Verification of a valid Kentucky Registered Nurse License
- submit documentation of CPR certification (Adult, Child and Infant)
- submit proof of successful completion of UofL HIPAA Training

- submit a health screening questionnaire
- submit proof of student nurse practitioner liability insurance coverage
- submit required immunization records and proof of health insurance coverage to the Campus Health Services (call 852-6446 for additional current information on requirements).

Additional information on clinical requirements is published in the Graduate Students Handbook.

## **Health Insurance**

Students are responsible for submitting proof of health insurance. On April 26, 1999, the University of Louisville Board of Trustees approved a requirement for proof of insurance for all Health Sciences Center (HSC) students. Every HSC student will be assessed the University sponsored health insurance plan (the comprehensive plan) if not already covered. Students who already have health insurance that includes hospitalization coverage can waive the fee.

## **Repeating Nursing Courses**

Students who receive a grade of C+ or below in a course must repeat the course. Students in the Graduate Nursing Program are allowed to repeat one required nursing curriculum course only one time. A student who receives a grade of C+ or below in a second course required in the nursing curriculum will be dismissed from the program. A Permit to Repeat Course form should be submitted to the Office of Student Services (OSS), School of Nursing, to ensure that only the last grade attempted will be included in the student's grade point average. Repeating a course is not an automatic privilege, and in most cases the student must petition to the Graduate Academic Affairs Committee and the Associate Dean for Graduate Academic Affairs for permission to repeat a nursing course. Once permission is granted, the student will be allowed to repeat the course on a space available basis.

## **Satisfactory Standing**

Satisfactory standing in the nursing program is a cumulative program grade point average of at least 3.0.

## **Probation and Dismissal**

If the cumulative grade point average falls below 3.0, the student will be placed on academic probation for the next regular semester. If the cumulative grade point average is not raised to a minimum of 3.0 by the end of the probation semester, the student will be dismissed from the program. The dismissal will be reflected on the student's transcript. If a student wishes to continue at the University, he/she must apply and be accepted to another unit in order to continue to enroll in classes.

## **Permission for Visiting Student Status at Another Institution**

Students may apply for visiting student status should they wish to enroll in a nursing course at another institution while a student at U of L. If the course is being taken to apply toward the U of L degree requirements, it is the student's responsibility to check with OSS to confirm the equivalency of the course before they enroll. Students must provide OSS with the most recent copy of the course syllabus so that U of L faculty can evaluate the course for equivalency. Once the equivalency status of the course has been determined, the applying student will be sent a letter of permission for visiting student status. Students are responsible for requesting that an official transcript be sent to the University's Registrar's Office upon completion of any transfer work.

# **Curriculum**

## **The Master of Science in Nursing Curriculum**

The MSN curriculum has just undergone a revision for the following reasons:

1. To address the continuing needs of health care partners in the community.
2. To eliminate summer graduation ( all students will graduate in May).

3. To lay the foundation for a Doctor of Nursing Practice degree.
4. To better serve the people of Kentucky, the nation, and abroad.

Statistics has been eliminated as a pre-requisite and is

now part of the program. Pre-requisites for several other courses have been eliminated to allow more flexibility in student schedules. Several courses will be online; at present NURS 605 and NURS 653 (as of Spring 2009) will be online. Psychopharmacology and Psychopathology are moving to an online format as well. Others are being considered.

The goal of the graduate faculty is to prepare Advanced Practice Nurses that can function in a variety of settings and will have all of the foundational course work in place for a Doctorate of Nursing Practice.

The faculty have moved to decrease barriers, provide a climate responsive to individual student needs, and to move towards graduation the most well-prepared practitioners in the Kentuckiana area. With the University of Louisville mission directed toward research, teaching, practice, and service, the School of Nursing is well situated to be the premier graduate program in the metropolitan area.

### Proposed Full Time Program of Study in the MSN Program\*

Summer 1		Fall 1		Spring 1	
Course	Track	Course	Track	Course	Track
		NURS 609 Research & Writing (3)	<b>ALL</b>	NURS 605 Systems (3)	<b>ALL</b>
NURS 652 Statistics (3)	<b>ALL</b>	NURS 600 Genetics (2)	<b>ALL</b>	NURS 653 Roles (2)	<b>ALL</b>
NURS 654 Informatics (3)	<b>ALL</b>	NURS 605 Foundations (3)	<b>ALL</b>	NURS 657 Health Prom. (3)	<b>ALL</b>
		PHTX 650 Pharm. (3)	<b>ALL</b>	NURS 655 Patho. (3)	A/F/PMH
				NURS 6XX NNP Patho. (3)	NNP
6 credits		11 credits		11 credits	

Summer 2		Fall 2		Spring 2	
Course	Track	Course	Track	Course	Track
<b>Please see catalogue for course descriptions.</b>					
NURS 656 Assessment (3)	A/FNP	NURS 651 EBP (3)	<b>ALL</b>	NURS 604 Transitions (2)	<b>ALL</b>
<b>* Some courses are in the process of being reviewed by the graduate school for changes in credit hours, prerequisites, and course objectives. One new course is under development: a Neonatal Pathophysiology course that has not been assigned a number.</b>					
NURS 601 Pre-requisites (3)	PMH	NURS 602 Primary Care II (2)	A/FNP	NURS 625 ANP Clinical (5)	ANP
NURS 629 Neo. Assessment (3)	A/FNP	NURS 660 FNP Seminar (2)	FNP	NURS 662 FNP Clinical (6)	FNP
PHTX 651 NNP Pharm. (1)	NNP	NURS 661 FNP Clinical (4)	FNP	NURS 664 Pediatrics (1)	FNP
<b>Departmental Faculty</b>	NNP	NURS 624 ANP Clinical (4)	ANP	NURS 646 PMH (7)	PMH
NURS 633 NNP I (2)	NNP	NURS 645 PMHNP (6)	PMHNP	NURS 635 NNP III(2)	NNP
NURS 647 Psychopath. (3)	PMH	NURS 634 NNP II (2)	NNP	NURS 637 NNP Clinical (5)	NNP
NURS 649 Psych Ed (2)	PMH	NURS 636 NNP Clinical (4)	NNP		

**Marisa A. Decker, EdD, RN, CNS Professor and Dean**



**Paulette Adams, EdD, RN**  
*Professor, Emerita*

**Ruth B. Craddock, DNS, RN**  
*Professor, Emerita*

**Linda Freeman, DNS, RN**  
*Professor*

**Marianne Hutti, DNS, ARNP**  
*Professor*

**M. Cynthia Logsdon, DNS, ARNP, FAAN**  
*Professor*

**Kay Roberts, EdD, FAAN, FNP**  
*Professor*

**Karen Robinson, DNS, APRN, BC, FAAN**  
*Professor*

**Robert Topp, PhD, RN**  
*Professor*

**Deborah Armstrong, PhD, RN**  
*Associate Professor*

**Cathy Bays, PhD, RN**  
*Associate Professor*

**Carla Hermann, PhD, RN**  
*Associate Professor*

**Vicki Hines-Martin, PhD, RN, CS**  
*Associate Professor*

**Ermalyn Kiehl, PhD, ARNP, CNS**  
*Associate Professor Associate Dean for Undergraduate Academic Affairs*

**Rosalie O. Mainous, PhD, ARNP, NNP-BC**  
*Associate Professor*  
*Associate Dean for Graduate Academic Affairs*

**Barbara Speck, PhD, RN**  
*Associate Professor*  
*Acting Associate Dean for Research*

**Said Abusalem, PhD, RN** *Assistant Professor*

**C. Elizabeth Bonham, PhD, ARNP, BC**  
*Assistant Professor*

**Vicki Burns, PhD, ARNP, BC**  
*Assistant Professor*

**Mary Beth Coty, PhD, APRN, BC**  
*Assistant Professor*

**Peggy El-Mallakh, PhD, MSN, RN** *Assistant Professor*

**S. Lee Ridner, PhD, ARNP, FNP-BC**  
*Assistant Professor*

**Celeste Shawler, PhD, RN, CS**

*Assistant Professor*

**Mary Patricia Wall, PhD, RN, BC**

*Assistant Professor*

***Whitney Nash, MSN, ARNP, ANP-BC Instructor***

**Charlotte Ipsan, MSN, ARNP, NNP-BC Adjunct Instructor**

***Amy Watson-Reese, MSN, ARNP, NNP-BC Adjunct Instructor***

# Doctor of Philosophy in Nursing

**Major:** NURS

**Degree Awarded:** Ph.D.

**Unit:** GN

**Program Webpage:** <http://www.louisville.edu/nursing>

## Program Information

**Marcia J. Hern, Ed.D., CNS, RN, Dean**

The School of Nursing offers the following degree programs through the Graduate School:

Nursing - Ph.D.

Nursing - M.S.N.

### Vision

The University of Louisville School of Nursing affirms and builds upon our strengths and accomplishments as we move forward to meet the Challenge for Excellence. We will be recognized as a nursing program of national stature for the integration of teaching, research, practice and service. Our purpose is to enrich people's lives through the improvement of health care. We will be guided by the mission of our metropolitan urban university in serving the diverse needs of students, clients and community.

### Mission

The University of Louisville School of Nursing is an essential partner of a research intensive academic health science center in a nationally recognized University serving a metropolitan community.

The School of Nursing is a community in which faculty, staff and students collaborate to promote excellence in the profession of nursing. This is accomplished through research and scholarship that inform undergraduate and graduate education, support evidence-based practice and foster advances in nursing science. Students are prepared to demonstrate excellence in nursing science, practice and leadership in a variety of settings for the benefit of clients across the lifespan, and to meet the evolving health care needs of society. As a citizen of the larger community, the emphasis of the School of Nursing is to address the complex health needs of diverse and dynamic populations through nursing education, research, scholarship and service.

## Doctor of Philosophy in Nursing

### Program Description

The Doctor of Philosophy in Nursing is designed to prepare nurse scientists who will assume a variety of roles in education, research, leadership and health policy. The goal of the program is to prepare nurse scientists to: a) generate knowledge, test interventions and evaluate outcomes to reduce risks of illness/disability and promote quality of life, b) collaborate with other disciplines to improve the delivery of health care, c) assume research, leadership, executive, public policy and/or teaching roles, and d) affect health policy through the application of scientific knowledge.

Two progression tracks will be offered in the programs: (1) BSN to PhD and (2) MSN to PhD. The BSN to PhD track is an innovative approach to recruit students into graduate study at an early point in their nursing career. These students will complete the first year of coursework at the master's level and then continue on to the doctoral level work without earning a master's degree. The MSN to PhD students will enter directly into the doctoral coursework.

The PhD in Nursing consists of at least 63 credit hours of coursework beyond the baccalaureate degree or 45 credit hours beyond a master's degree plus two credit hours for the qualifying examination and 10 dissertation credit hours. Full or

part-time programs of study are available; however, full-time study is highly recommended to allow students to devote themselves entirely to the program and immerse themselves in the life of a scholar.

## Admissions Criteria

Submit the following items to:

Office of Graduate Admissions, University of Louisville, Louisville, KY 40292

1. U of L Graduate Application and application fee (**Online submission is preferred**. Complete online at <http://graduate.louisville.edu/apply>)  
the online version of the Graduate Application lists codes for the Nursing PhD program. If you are submitting a hard copy application form, please use the following codes:  
**NURSPHDMSN**- for students who have completed Master's of Nursing degrees  
**NURSPHDMSN**- for students who have completed only Bachelor of Science in Nursing Degrees.
2. Transcripts
  - *If BSN applicant*: Official transcripts representing all college course work with a cumulative grade point average of at least 3.0 on a 4.0 scale. Must verify completion of an accredited baccalaureate program in nursing.
  - *If MSN applicant*: Official transcripts representing all college course work with a cumulative grade point average of at least 3.0 on a 4.0 scale. Must verify completion of an accredited master's program in nursing.
  - If a BSN applicant, BSN program must have been accredited by CCNE or NLN.
  - If a MSN applicant, MSN program must have been accredited by CCNE or NLN.
3. Graduate Record Examination (GRE) scores  
Successful candidates generally have a combined Verbal and Quantitative score of 1100 or higher; and an Analytical score of 4.0 or higher. GRE scores earned within the last ten years will be accepted. (Revisions of the GRE test format and scoring are under consideration. Recommended score may change based on revisions.)
4. TOEFL Examination  
Foreign student applicants must review the Graduate Catalog TOEFL requirement guidelines. TOEFL scores required in the School of Nursing are:
  - Computer-based test minimum score of 220; Written Essay score of 4.0
  - Paper-based test minimum score of 560; Written Essay score of 4.0
5. Letters of Recommendation
  - Submit at least three recommendations from individuals who can speak of academic and/or professional capabilities and potential. Recommendations should be chosen from among: former faculty members, current or immediate past employers, or other nursing/health professionals. Each person providing a reference for you must complete the U of L Graduate School recommendation form (available online at: <http://graduate.louisville.edu/students/apply.html/>)
  - Recommendation forms must have been completed within the last year.
  - At least two recommendations should be from nurses.
6. Registered Nurse License  
Applicants must be licensed as a registered nurse and submit a copy of a valid Kentucky registered nurse license (without restrictions). If applicant is not currently licensed as a registered nurse in Kentucky, the applicant must be eligible to apply for licensure and submit a valid license within one year of admission.

Submit the following items to:

Office of Student Services, School of Nursing, University of Louisville, Louisville, KY 40292

1. School of Nursing PhD Applicant Data Sheet (**Online submission preferred**. Applicant Data Sheet is available at <http://www.louisville.edu/nursing>).
2. A current curriculum vitae or resume.
3. A sample of scholarly or professional writing completed within the past 5 years.
4. A written statement of career goals, area(s) of expertise, research interests, and reasons for pursuing doctoral studies (no more than three pages).
5. Personal interviews with School of Nursing faculty will be required.
6. Application deadline for fall admission is February 15th. Completed applications received after February 15<sup>th</sup> may be considered if space is available.

*Please note:*

Applicants accepted into the MSN-PhD program are strongly advised to have completed a three-credit masters-level statistics course (applied descriptive and inferential statistics) with a grade of B (3.0) or higher within five years before the date of enrollment. Applicants who do not meet this requirement will be advised of available statistics courses to take in the summer prior to beginning fall PhD coursework in statistics.

In order to do a self-assessment of knowledge in statistics, the following represents anticipated basic competencies from previous statistics coursework:

### **Design of Research**

- Frequency distributions
- Central tendency and variability
- Probability theory
- Normal distributions
- Correlation
- Simple linear regression
- Statistical inference
- Decision, error, and power
- T-tests
- One and two-way ANOVAs
- Nonparametric tests

### **Assistantships**

A PhD Graduate Student Assistantship is a financial award to a full-time PhD student for the period of one year. To be eligible for the award the student must be admitted to the PhD degree program and/or be a continuing PhD student. For the full year, the award includes tuition, health insurance, and a stipend of \$20,000. The student is required to maintain full-time study during the award period and participate for 20 hours/week in Research Assistant or Teaching Assistant activities in the School of Nursing. These activities serve to augment and enrich the student's academic program. The student will be assigned to either the Associate Dean for Academic Affairs or the Associate Dean for Research to coordinate and schedule their experiences. Descriptions of activities are available for each type of assistantship. Assistantships are awarded on a competitive basis. Applications are due by February 15th

### **Academic Policies**

#### **Academic Progress in the Graduate Program**

Satisfactory academic progress in a program also involves maintaining the academic and professional standards expected in a particular discipline or program and may include demonstration of the ability to function as a professional. Failure to maintain these standards or demonstrate such abilities may result in the termination of the student's admission to the program.

#### **Removal from a Clinical Research Area**

A student who is deemed at risk for patient safety may be asked to withdraw from the program.

#### **Transfer of Credit**

Earned graduate credit may be transferred from accredited institutions that offer advanced degrees. The maximum number of semester hours transferable, upon request, is six. Credits which have been applied toward an earned degree may not be applied toward the doctoral nursing degree. Course work being considered for transfer must have been taken while the student was enrolled in an accredited graduate or professional school and must be evaluated for equivalency by

the Associate Dean for Academic Affairs. Credit earned more than six years prior to the student's application to the Graduate School will not normally be considered for transfer. At least two years of full-time study must be spent at the University of Louisville.

### **Drop/Add Procedures**

Students wishing to alter their schedule of courses in any way must make the changes with the University's Office of Registration. Failure to officially withdraw from a course may result in a grade of F and tuition charges for that course.

Students may drop/add at any time during the Early Registration period after their first scheduled time for registration. The touch-tone or online ULink systems may be used for drop/add. See the online Schedule of Courses for current instructions for Drop/Add after classes begin.

### **Late Complete Withdrawal after the Deadline**

Upon proper documentation of extreme circumstances, decision for approval of late complete withdrawals may be made by the Associate Dean for Academic Affairs. Late complete withdrawals are those requested after the deadline has passed and before the instructor has assigned a grade.

Students may not withdraw from any course after the published deadline in the online Schedule of Courses without the approval of the Associate Dean for Academic Affairs. This is granted only because of sickness or conditions beyond the student's control. The grade report would reflect a grade of 'W'.

### **Student Health Services Requirements**

Each student must comply with the current student health policy of the Health Sciences Center. All costs associated with compliance are the responsibility of the student. Because of contractual agreements with agencies and the changing needs of society, this policy is updated periodically. It is the responsibility of the student to maintain his/her health in order to insure safety for other students and clients. If faculty or the agency deems that any student creates a health risk, the student may be excluded from the research or clinical area and/or the program.

Individual health care facilities, used as research or clinical sites by the School of Nursing, may have additional requirements. In this event, the student is required to comply with any additional requirements of that facility.

Note: Health policies are constantly under review by faculty based on CDC changing requirements and community expectations. Students will be notified of any policy changes, and compliance will be required.

### **Immunization Requirements**

Immunization requirements have been established by the Schools of Medicine, Dentistry, Nursing and Allied Health in recognition of a responsibility to provide for your safety, both in the classroom and in clinical settings, and for the safety of patients you will encounter in your training. These requirements also reflect the standards required by the various institutions in which you will be working during your education. Compliance is administered through the U of L Student Health Services. More detail is available in the student handbooks or on the Student Health Services website: <http://www.med.louisville.edu/clinical/studenthealth/HSOHome.htm>

### **Health Insurance**

Students are responsible for submitting proof of health insurance. On April 26, 1999, the University of Louisville Board of Trustees approved a requirement for proof of insurance for all Health Sciences Center (HSC) students. Every HSC student will be assessed the University sponsored health insurance plan, the comprehensive plan. Students who already have health insurance that includes hospitalization coverage can waive the fee.

### **Health Services Fee**

On April 26, 1999, the University of Louisville Board of Trustees approved a Health Services Fee. Every HSC student will be assessed the \$87.50 Health Services Fee each semester. Thirty-five dollars of this fee will be bundled in tuition beginning Fall 2007.

For more information about what the fee covers, please see the Student Health Services website: <http://www.med.louisville.edu/clinical/studenthealth/faq.htm#14>

## **Repeating Nursing Courses**

Students who receive a grade of C+ or below in a course must repeat the course. Students in the Graduate Nursing Program are allowed to repeat a required nursing curriculum course only one time. A student who receives a grade of C+ or below in a second course required in the nursing curriculum will be dismissed from the program. A Permit to Repeat Course form should be submitted to the Office of Student Services, School of Nursing, to ensure that only the last grade attempted will be included in the student's grade point average. Repeating a course is not an automatic privilege, and in most cases the student must petition to the Associate Dean and/or the Academic Affairs Committee for permission to repeat a nursing course. Once permission is granted, the student will be allowed to repeat the course on a space available basis.

## **Satisfactory Standing**

Satisfactory standing in the nursing program is a cumulative program grade point average of at least 3.0.

## **Probation and Dismissal**

If the cumulative grade point average falls below 3.0, the student will be placed on academic probation for the next regular semester. If the cumulative grade point average is not raised to a minimum of 3.0 by the end of the probation semester, the student will be dismissed from the program. The dismissal will be reflected on the student's transcript. If a student wishes to continue at the University, he/she must apply and be accepted to another unit in order to continue to enroll in classes.

# **Curriculum**

## **PhD in Nursing: Required Courses**

**BSN Students will complete 18 hours of required master\2019s level courses.**

- NURS 605: Foundations for Advanced Practice (3 credit hours)
- NURS 606: Health Care Systems (3 credit hours)
- NURS 651: Evidence Based Nursing for Advanced Practice (3 credit hours)
- NURS 652: Statistics (3 credit hours) OR ELFH 601: Applied Statistics (3 credit hours)
- NURS 657: Health Promotion and Illness Prevention Across the Lifespan (3 credit hours)
- PHKC 610: Introduction to Health Informatics (3 credit hours)

**BSN and MSN Students will complete the following required doctoral level courses, qualifying exam and dissertation:**

- Advanced Statistics (9 credit hours)
- Philosophy of Science (3 credit hours)
- Theoretical Basis of Nursing (3 credit hours)
- Research Methodology I: Qualitative Research Methods (3 credit hours)
- Research Methodology II: Quantitative Design (3 credit hours)
- Research Methodology III: Nursing Measurement (3 credit hours)

- Health Policy: An Evidence-Based Approach (3 credit hours)
- Seminar in Advanced Nursing Leadership (3 credit hours)
- Electives (9 credit hours)
- Research Methods Practicum (2 credit hours)
- Leadership Practicum (1 credit hour)
- Health Policy Practicum (1 credit hour)
- Doctoral Seminars (2 credit hours)
- Qualifying Examination (2 credit hours)
- Dissertation (10 Credit hours)

## Departmental Faculty

**Paulette Adams, EdD, RN**

*Professor, Emerita*

**Ruth B. Craddock, DNS, RN**

*Professor, Emerita*

**Linda Freeman, DNS, RN**

*Professor*

**Marianne Hutti, DNS, ARNP**

*Professor*

**M. Cynthia Logsdon, DNS, ARNP**

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**Vicki Hines-Martin, PhD, RN, CS**

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**Ermalyn Kiehl, PhD, ARNP**

*Associate Professor*

**Rosalie O. Mainous, PhD, ARNP**

*Associate Professor*

*Acting Associate Dean for Academic Affairs*

**Cynthia McCurren, PhD, RN**

*Associate Professor*

*Interim Dean*

**Barbara Speck, PhD, RN**

*Associate Professor*

*Acting Associate Dean for Research*

**Cheryl Zambroski, PhD, RN**

*Associate Professor*

**C. Elizabeth Bonham, PhD, ARNP, BC**

*Assistant Professor*

**Mary Beth Coty, PhD, APRN, BC**

*Assistant Professor*

**Vicki Burns, PhD, RN, ARNP-BC**

*Assistant Professor*

**S. Lee Ridner, PhD, ARNP**

*Assistant Professor*

**Celeste Shawler, PhD, RN, CS**

*Assistant Professor*

**Mary Patricia Wall, PhD, RN, BC**

*Assistant Professor*

# School of Public Health and Information Sciences

Biostatistics-Decision Science - MS

Biostatistics-Decision Science - Ph.D.

Epidemiology - MS

Public Health Sciences - Ph.D.

Clinical Investigation Sciences - MSc

Public Health - MPH

# Master of Science in Biostatistics-Decision Science

**Major:** PHST

**Degree Awarded:** MS

**Unit:** GH

**Program Webpage:** <http://louisville.edu/sphis/bb/academics>

## Program Information

The Department of Bioinformatics and Biostatistics offers the Master of Science Program in Biostatistics-Decision Science with concentrations in Biostatistics and in Decision Science. The program prepares graduates for positions in academic settings, pharmaceutical companies, government agencies, and healthcare organizations.

### Admission Requirements

Applicants are required to submit the following:

- Graduate application.
- Non-refundable application fee.
- At least two letters of recommendation written within past twelve months.
- GRE Quantitative section score.
- All postsecondary transcripts (may require foreign credential evaluation if not from accredited US institution).
- Statement of goals and desired concentration.
- TOEFL score may be required if English is not native language and no degree from accredited US institution.

## Curriculum

### Year One Fall

- PHEP 601 Introduction to Epidemiology 3
- PHST 661 Probability 3
- PHST 680 Biostatistical Methods I 3

### Year One Spring

- XXX XXX Elective (see below) 3
- PHST 662 Mathematical Statistics 3
- PHST 681 Biostatistical Methods II 3

### Year Two Fall

- PHST 602 Biostatistics-Decision Science Seminar 1
- PHCI 624 Clinical Trials I 2

Biostatistics concentration:

- PHST 683 Survival Analysis 3

- PHDA 666 Master's Thesis Research 3

Decision Science concentration:

- PHDA 666 Master's Thesis Research 3
- PHDA 663 Analysis for Decision Making (cross-listed with IE 643) 3

## **Year Two Spring**

- PHST 602 Biostatistics-Decision Science Seminar 1
- PHDA 603 Public Health Practicum I 2

Biostatistics concentration:

- PHST 684 Categorical Data Analysis 3
- PHDA 666 Master's Thesis Research 3

Decision Science concentration:

- PHDA 666 Master's Thesis Research 6

Total credit hours: 36

Elective must be chosen from the following list or as approved by student's assigned advisor:

- MATH 566 Nonparametric statistics
- PHCI 605 Survey research methods
- PHCI 622 Case-control Studies
- PHCI 623 Cohort Studies
- PHBI 750 Statistical Methods for Bioinformatics
- PHEH 600 Introduction to Environmental Health

## **Departmental Faculty**

### **Chair and Professor**

Rudolph S. Parrish, Ph.D.

### **Professors**

Somnath Datta, Ph.D.

### **Associate Professors**

Susmita Datta, Ph.D.

L. Jane Goldsmith, Ph.D.

Shesh Rai, Ph.D.

Dongfeng Wu, Ph.D.

### **Assistant Professors**

Guy Brock, Ph.D.

Maiying Kong, Ph.D.

Steven J. McCabe, M.D., M.Sc.

John A. Myers, Ph.D.

Jae Keun (Peter) Yoo, Ph.D.

# Doctor of Philosophy in Biostatistics-Decision Science

**Major:** PHST

**Degree Awarded:** Ph.D.

**Unit:** GE

**Program Webpage:** <http://louisville.edu/sphis/bb/academics>

## Program Information

The Department of Bioinformatics and Biostatistics offers the Doctor of Philosophy Program in Biostatistics-Decision Science with concentrations in Biostatistics and in Decision Science. The program prepares graduates for positions in academic settings, pharmaceutical companies, government agencies, and healthcare organizations.

### Program of Study

Upon admission to the Ph.D. program, a Program of Study will be developed for each student by the Graduate Coordinator and approved by the Department Chair. Decisions regarding additional coursework will be made by the student's assigned faculty dissertation advisor and such courses will become part of the Program of Study. This approach will give maximum flexibility for addressing differing student qualifications and interests and for ensuring that pertinent courses are taken.

### Qualifying Exams and Dissertation

Upon completion of the required coursework for the Ph.D., the student will be eligible to sit for the Doctoral Qualifying Exam. Successful completion of the exam will admit the student to doctoral candidacy. A doctoral candidate then must successfully develop and defend a Dissertation Proposal that describes an original, independent research project. Upon successfully completing the Doctoral Qualifying Exam and Dissertation Proposal, the student may proceed with dissertation research under the mentorship of a member of the Senior Faculty. Students who are in the process of completing a dissertation will be required to successfully defend their dissertation to the satisfaction of the members of their dissertation committee, which is chaired by a senior member of the Graduate Faculty and approved by the Graduate School Dean. Upon successful defense of the Dissertation, the student will be awarded the Ph.D. degree.

### Admission Requirements

Applicants are required to submit the following:

- Graduate application;
- Non-refundable application fee;
- At least two letters of recommendation written within past twelve months;
- GRE Quantitative section score;
- All postsecondary transcripts (may require foreign credential evaluation if not from accredited US institution);
- Statement of goals and desired concentration;
- TOEFL score may be required if English is not native language and no degree from accredited US institution.

## Curriculum

## Curriculum Minimum Requirements

33 Total Credit Hours (beyond a master's degree in Biostatistics, Statistics, or a related discipline):

- 24 credit hours of required coursework
- 9 credit hours of dissertation research

## Coursework for Concentration in Biostatistics

### Required Courses - Biostatistics

Course	Course Title	Credit Hours
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#### *Fall*

PHST 710	Advanced Statistical Computing I	3
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PHST 762	Advanced Statistical Inference	3
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PHST 781	Advanced Linear Models	3
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#### *Spring*

PHST 724	Advanced Clinical Trials	3
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PHST 782	Generalized Linear Models	3
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PHST 783	Advanced Survival Analysis	3
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In addition to the above required courses, at least six (6) credit hours of electives must be taken from the following list. The student's Program of Study will specify the courses to be taken.

### Elective Courses

Course	Course Title	Credit Hours
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PHBI 750	Statistical Methods for Bioinformatics	3
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PHBI 751	High-throughput Data Analysis	3
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PHST 682	Multivariate Analysis	3
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PHST 691	Bayesian Statistics	3
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PHST 711	Advanced Statistical Computing II	3
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PHST 725	Design of Experiments	3
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## Coursework for Concentration in Decision Science

### Required Courses - Decision Science

Course	Course Title	Credit Hours
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#### *Fall*

PHDA 673	Biostatistics-Decision Science Research	3
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PHDA 690	Utility Theory and Assessment	3
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#### *Spring*

PHDA 691	Bayesian Statistics	3
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PHDA 701	Advanced Medical Decision Making	3
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### Elective Courses

In addition to the above required courses, at least 12 credit hours of electives must be taken from the above electives list. The student's Program of Study will specify the courses to be taken.

### Dissertation

Dissertation work may be started upon successful completion of Doctoral Qualifying Examinations. Dissertation research may be credited at no more than nine (9) hours per semester (six (6) hours during summer semester) as PHDA 777.

## Departmental Faculty

### Chair and Professor

Rudolph S. Parrish, Ph.D.

### Professors

Somnath Datta, Ph.D.

### Associate Professors

Susmita Datta, Ph.D.

L. Jane Goldsmith, Ph.D.

Shesh Rai, Ph.D.

Dongfeng Wu, Ph.D.

### Assistant Professors

Guy Brock, Ph.D.

Maiying Kong, Ph.D.

**Steven J. McCabe, M.D., M.Sc.**

**John A. Myers, Ph.D.**

**Jae Keun (Peter) Yoo, Ph.D.**



# Master of Science in Epidemiology

**Major:** PHEP

**Degree Awarded:** MS

**Unit:** GH

**Program Webpage:** [http://www.sphis.louisville.edu/ecis\\_academics.cfm](http://www.sphis.louisville.edu/ecis_academics.cfm)

## Program Information

The M.S. program in Epidemiology is designed to prepare students for the Ph.D. program in Public Health Sciences with a concentration in Epidemiology.

### Program of Study

Upon admission to the M.S. program, each student will be assigned a faculty advisor who will work with the student to develop a program of study. The program of study recognizes core elements of modern epidemiology as well as its breadth and multidisciplinary nature.

### Eligibility for the M.S. program in Epidemiology

Students with a prior baccalaureate or more advanced degree in an appropriate field of study, from a regionally accredited university or college will be eligible for the M.S. program in Epidemiology. Previous coursework in mathematics and/or statistics and biological or health sciences (for example, biology, biochemistry, anatomy, physiology, microbiology) is strongly recommended. Applicants who are judged to not have sufficient prior coursework or experience in these areas may be required to take additional coursework.

The following are additionally required for admission:

- Undergraduate GPA at least 3.0 on 4.0 scale
- Minimum GRE at least 500 Verbal and 600 Quantitative.
- If applicable, Test of English as a Foreign Language (TOEFL) score in at least 60th percentile.

### Thesis Requirement

The M.S. thesis will follow formal Graduate School thesis guidelines and will be on one or more of the following:

1. a critical review of the contemporary epidemiologic literature on a specific disease, risk factor, or health related condition;
2. a meta-analysis of results from several epidemiologic studies of a specific disease;
3. a research report on analysis of collected data;
4. an evaluation of epidemiologic statistical methodology.

It is expected that the thesis will be original, professional quality, and be the basis for one or more potentially publishable papers.

In summary, the M.S. in Epidemiology is explicitly designed to prepare students for a career in research.

### Competencies

1. To graduate, students in the M.S. program in Epidemiology must demonstrate the following competencies:
  - Mastery of the principles of epidemiologic, observational study design, including:
  - The merits and limitations of cross-sectional, retrospective and prospective designs;
  - Methods of disease surveillance and case ascertainment;
  - Methods of population-based sampling;

- Sample size and statistical power calculation;
  - Issues in the measurement of exposure and disease transmission;
  - Identification and correct interpretation of potential biases in study design.
2. Knowledge of the socioeconomic and geographic distribution, risk factors, and etiology of major acute, infectious and chronic morbidity and mortality.
  3. Mastery of basic methods of analysis of epidemiologic data, including:
    - Measures of disease frequency, prevalence and incidence;
    - Methods for adjusting rates for age, gender, etc.;
    - Measures of association, odds ratio, relative risk;
    - Control of confounding and effect modification through stratification and statistical control;
    - Modeling in multiple logistic regression;
    - Principles of survival analysis;
    - Correct interpretation of results with regard to issues of error, bias and criteria for causality.

## Curriculum

### Minimum Requirements

- 36 Total Credit Hours including:
  - Six (6) credit hours in Biostatistics
  - Three (3) to (6) credit hours in another Public Health discipline
  - Six (6) credit hours of thesis research

### Required Coursework Fall I

PHEP 602 Epidemiologic Methods 3

PHEP 619 Biology of Disease in Populations 3

\*PHST xxx 3

### Spring I

PHEP 618 Epidemiologic Methods II 3

PHEP 604 Epidemiology of Acute and Infectious Diseases 3

\*PHST xxx 3

### Fall II

PHEP 607 Epidemiology of Cancer 3

PHEP 609 Epidemiology of Chronic Diseases 3

\*\*PHxx elective 3

### Spring II

\*\*PHxx elective OR

PHEP 650 Advanced Topics in Epidemiology 3

PHEP 666 Thesis Research in Epidemiology 1-6

\* To be determined in conjunction with Department Bioinformatics and Biostatistics

\*\* To be selected from course offerings of another SPHIS department.

### **\*List of Acceptable Biostatistics (PHST) Courses**

- PHST 624 Clinical Trials I
- PHST 650 Advanced Topics in Biostatistics
- PHST 680 Biostatistical Methods I
- PHST 681 Biostatistical Methods II
- PHST 661 Probability
- PHST 662 Mathematical Statistics
- PHST 683 Survival Analysis
- PHST 684 Categorical Data Analysis
- PHST 682 Multivariate Analysis

### **\*\*List of Acceptable Elective Courses in Public Health Sciences (PHxx)**

- PHEP 606 Genetic and Molecular Epidemiology
- PHEP 611 Nutritional Epidemiology
- PHEP 612 Epidemiology and Bioterrorism
- PHEP 613 Epidemiology of Aging
- PHEP 615 Epidemiology of Maternal/Child Health
- PHCI 671 Preventive Medicine I
- PHCI 672 Preventive Medicine II
- PHCI 605 Survey Research Methods
- PHCI 611 Introduction to Clinical Epidemiology
- PHEH 650 Advanced Topics in Environmental and Occupational Health
- PHPB 650 Advanced Topics in Health Knowledge and Cognitive Sciences
- PHMS 650 Advanced Topics in Health Management and Systems Science

Additional courses may be added pending their development by other departments in the School of Public Health and Information Sciences.

## **Departmental Faculty**

### **Chair and Professor**

Richard N. Baumgartner, Ph.D.

### **Professors**

Carlton A. Hornung, Ph.D.

### **Associate Professors**

Kathy B. Baumgartner, Ph.D.

### **Assistant Professors**

Frank Groves, M.D.

Susan B. Muldoon, Ph.D.

Chenxi Wang, Ph.D.

Kristina Zierold, Ph.D.

# Doctor of Philosophy in Public Health Sciences

**Major:** MPH

**Degree Awarded:** Ph.D.

**Unit:** GH

**Program Webpage:** <http://louisville.edu/sphis/>

## Program Information

The School of Public Health and Information Sciences offers a doctor of philosophy degree in Public Health Sciences with concentrations in the following areas:

- Environmental Health
- Epidemiology
- Health Management
- Health Promotion

### Concentration in Environmental Health

The concentration in Environmental Health for the Ph.D. in Public Health Sciences is designed to provide scholars with the tools to conduct in-depth research and provide advanced instruction in the discipline of Environmental Health at the college and university level. It will also prepare researchers for governmental, private, and voluntary organizations involved in environmental protection and the prevention of disease and injury. In addition to understanding advanced concepts of environmental health, industrial hygiene, and toxicology, graduates of this concentration are expected to develop skills that will enable them to identify and define questions of environmental and occupational health importance, design research studies to address these questions, and to complete a program of research that demonstrates abilities as an independent investigator.

The Ph.D. concentration in Environmental Health is in the Department of Environmental and Occupational Health ("Department") and is part of the Ph.D. program in Public Health Sciences in the School of Public Health and Information Sciences.

### Program of Study

Upon admission to the Ph.D. concentration, each student will be assigned a faculty advisor who will work with the student to develop a Program of Study. The Program of Study recognizes core elements of Environmental Health as well as its breadth and multidisciplinary nature. At the Ph.D. level, this will require the selection of courses directly relevant to environmental health, such as biostatistics, epidemiology, molecular genetics, behavioral science, health policy/management, systems sciences, or other relevant areas of study.

### Eligibility for the Ph.D. Concentration in Environmental Health

An applicant who has satisfactorily completed an appropriate M.S. degree or M.P.H. with a concentration in Environmental Health will be eligible for admission to the Ph.D. concentration in Environmental Health. An applicant with an advanced degree (M.D., Ph.D., D.O.) may also be accepted pending evaluation of appropriate training, experience, or coursework. The previous graduate work by such an applicant is reviewed on a case-by-case basis, and the applicant, if admitted, may be required to take additional course work prior to completing the minimum 43 credit hours required for post master's doctoral work.

The following are additionally required for admission:

- Undergraduate and Graduate GPA > 3.0 on 4.0 scale
- Minimum GRE > 500 Verbal; > 600 Quantitative
- If applicable, Test of English as a Foreign Language (TOEFL) score > 60th percentile

## **Competencies**

To graduate, a student in the Ph.D. concentration in Environmental Health must demonstrate the following competencies:

1. In depth knowledge of the history of environmental health.
2. Mastery of experimental study designs and the ability to identify optimal designs for specific hypotheses.
3. Ability to critically evaluate published environmental health research.
4. Expertise in one or more environmental health specialty such as risk assessment, environmental management, environmental and occupational toxicology.
5. Practical knowledge of issues in research management including:
  - Formation and leadership of multidisciplinary teams.
  - Staffing, budgeting, tracking.
  - Subject recruitment and retention.
  - Data quality control and data safety management.
  - Funding mechanisms and grantsmanship.
  - Research ethics and regulations.
6. Professional quality peer-review, oral and poster presentation, report, grant, and manuscript writing.
7. Mentoring of junior peers.

Demonstration of Competency 1 is achieved by passing the Doctoral Qualifying Examination and by successful completion and defense of the dissertation. Demonstration of Competencies 2 through 6, inclusive, is achieved by successful development, conduct, completion, and defense of the dissertation. Demonstration of Competency 7 is achieved by successful completion of assignments to work with master's students on the latter's research, theses, presentations, and posters.

## **Concentration in Epidemiology**

The concentration in Epidemiology in the Ph.D. program in Public Health Sciences is designed to develop academic researchers in population-based epidemiology.

### **Program of Study**

Upon admission to the concentration, each student will be assigned a faculty advisor who will work with the student to develop a program of study. The program of study recognizes core elements of modern epidemiology as well as its breadth and multidisciplinary nature. This will require the selection of a minor field of concentration, such as biostatistics, environmental science, molecular genetics, behavioral science, health management and systems sciences, or another relevant area of study, and the completion of at least six (6) hours of coursework in this field.

### **Eligibility for Ph.D. Concentration in Epidemiology**

Students who have satisfactorily completed the M.S. degree in Epidemiology will be eligible for the Ph.D. concentration in Epidemiology. Students with a Master's degree in a related discipline or an advanced degree (M.D., Ph.D., D.O.) may be accepted also pending evaluation of appropriate training, experience, and coursework. Previous coursework in mathematics and/or statistics and biological or health sciences (for example, biology, biochemistry, anatomy, physiology, microbiology) is strongly recommended. Students completing the M.Sc. in Clinical Investigation Sciences or M.P.H. with an Epidemiology concentration may be required to complete additional coursework to be accepted into the Epidemiology Ph.D. concentration.

## **Competencies**

To graduate, students in the Ph.D. concentration in Epidemiology must demonstrate the following competencies in addition to those for the M.S. degree:

1. In depth knowledge of the history and philosophy of epidemiology
2. Mastery of experimental and observational study designs and the ability to identify optimal designs for specific hypotheses
3. Ability to develop and apply
  - Questionnaires
  - Biomarkers for health status, exposure and susceptibility
4. Mastery of multivariate analytic methods for evaluating risk and prognosis
5. Ability to critically evaluate the published epidemiologic research

6. Expertise in one or more epidemiologic specialty such as nutritional, molecular, genetic, cancer, or chronic disease epidemiology
7. Practical knowledge of issues in research management including:
  - Formation and leadership of multidisciplinary teams
  - Staffing, budgeting, tracking
  - Subject recruitment and retention
  - Data quality control and data safety management
  - Funding mechanisms and grantsmanship
  - Research ethics and regulations
8. Professional quality peer-review, oral and poster presentation, report, grant, and manuscript writing
9. Mentoring of junior-peers
10. Development, conduct, completion and defense of a dissertation on an original research project that provides evidence of all of the above

## **Concentration in Health Management**

The Ph.D. concentration in Health Management in the Department of Health Management and Systems Sciences ("Department") is in the Ph.D. program in Public Health Sciences in the University of Louisville's School of Public Health and Information Sciences.

The concentration in Health Management is designed to prepare graduates for careers as researchers, teachers and practitioners, involved in the efforts to protect and promote the health and well-being of communities and populations. It will provide graduates with the knowledge and skills necessary to attain academic positions involving scholarly research and instruction in the disciplines of Public Health Management and key policy and management positions in governmental as well as private and voluntary organizations. In addition to an in depth understanding of the infrastructure and context of public health management, graduates of this concentration are expected to be able to identify issues and questions of importance with regard to the management of the resources of public health and to design and carry out a program of research designed to address these issues and questions. Graduates should be able to demonstrate abilities as an independent investigator as well as a team collaborator.

### **Program of Study**

Upon admission to the Ph.D. concentration, each student will be assigned a faculty advisor who will work with the student to develop a Program of Study. The Program of Study will incorporate a foundation of core courses intricate to Health Management as well as address its multidisciplinary nature. At the Ph.D. level, this will require the selection of courses directly relevant to health management, such as organizational theory, management and administrative processes, health policy, leadership, systems/network sciences, and another area of study related to providing in depth knowledge related to effectively managing the resources necessary to carrying out the mission of protecting and improving public health. The importance of understanding the contributions of the emerging field of Complexity and Network Sciences, as it relates to public health management, will be a focal point of emphasis within the Ph.D. concentration.

### **Eligibility for the Ph.D. Concentration in Health Management**

An applicant who has satisfactorily completed a Master of Public Health degree, or another relevant master degree or a health professional degree will be considered for admission to the Health Management concentration. Applicants already holding an advanced degree will be evaluated on the basis of appropriateness of previous coursework, training and experience. The graduate work by such applicants will be reviewed on a case-by-case basis, and the applicant, if admitted, may be required to take additional course work prior to completing the minimum 48 credit hours required for post master's doctoral work.

### **Admission Criteria and Required Documentation**

The minimum required documentation for full admission must include:

- Official transcript for each degree
- Official GRE score
- If applicant has no degree from accredited US institution, then only the GRE is acceptable.
- Requirement is waived if applicant has doctoral degree.
- Three (3) letters of recommendation from individuals who have direct knowledge and experience with the

- applicant's academic and/or professional work experience
- Official TOEFL score if applicant's native language is not English and applicant has no degree from accredited US institution
- Foreign credential evaluation for each degree not from an accredited US institution
- Resume of curriculum vitae
- Personal statement, not to exceed two pages, including prior experience, proposed area of research, and career plans

### **Recommended Criteria for Admission**

The following are recommended criteria for admission:

- Undergraduate and Graduate GPA each 3.0 or higher on a 4.0 scale
- GRE performance in 50th percentile or above for Verbal and Quantitative scores\*
- If applicable, Test of English as a Foreign Language (TOEFL) score in 60th percentile or above

\*Comparable scores on the MCAT or DAT will be considered.

### **Competencies**

To graduate, a student in the Ph.D. concentration in Health Management must demonstrate the following competencies:

1. In depth knowledge of the history of Public Health Management.
2. Mastery of experimental research study designs, including qualitative as well as quantitative, and the ability to identify optimal designs for specific hypotheses.
3. Ability to critically evaluate published research related to health management.
4. Expertise in one or more health management specialties such as information systems, planning and evaluation, human resource management, health policy analysis, development and implementation, budgeting and financial management, health economics, system dynamics, network science and social network analysis.
5. Practical knowledge of issues in research management including:
  - Formation and leadership of multidisciplinary teams.
  - Staffing, budgeting, tracking.
  - Data quality control and data safety management.
  - Funding mechanisms and grantsmanship.
  - Research ethics and regulations.
6. Professional quality peer-review, oral and poster presentation, report, grant, and manuscript writing.
7. Mentoring of junior peers.

Demonstration of Competency 1 is achieved by passing the Doctoral Qualifying Examination and by successful completion and defense of the dissertation. Demonstration of Competencies 2 through 6, inclusive, is achieved by successful development, conduct, completion, and defense of the dissertation. Demonstration of Competency 7 is achieved by successful completion of assignments to work with master's students on the latter's research, theses, presentations, and posters.

### **Concentration in Health Promotion**

The Ph.D. concentration in Health Promotion in the Department of Health Promotion and Behavioral Sciences is in the Ph.D. in Public Health Sciences degree program in the University of Louisville's School of Public Health and Information Sciences. The concentration is designed to prepare students for careers in higher education, upper level management positions in government and private nonprofit health agencies, and research positions with universities, government agencies and in the private sector. In addition to gaining a solid foundation in the theories and concepts of the discipline, students will also achieve competency as independent researchers.

### **Competencies**

The successful student will be able to demonstrate:

- Advanced knowledge of behavioral and cognitive sciences related to public health education and promotion.
- Expertise in planning, implementing, and evaluating theory-driven health promotion interventions in a variety of community and clinical settings.
- Research, evaluation, scholarship and leadership skills that may be applied in higher education, government, and community health agencies.

It is expected that prior to graduation, students in the program will have demonstrated these competencies by completing the curriculum, passing the qualifying exam, successfully defending the dissertation, participating in collaborative research and service projects with public health agencies, and serving as an instructor and mentor for master's level and beginning doctoral students.

Competency in the basic principles and application of epidemiology is a requirement for all students in the School. If a student has not had sufficient exposure to epidemiology prior to matriculation, he or she will be required to take a course in epidemiology as part of the program of study.

### **Admission**

Applicants should have a minimum of 3.0 on a 4.0 scale and, in most cases, should have completed a master's or other graduate degree related to the theme of the doctoral program. Applicants who have a master's degree in a different discipline may be admitted with the stipulation that they complete foundation course work during their enrollment for the doctoral degree. This coursework will be in addition to the outlined curriculum, and will be negotiated with the student's academic advisor on a case-by-case basis.

The formal application, curriculum vitae, personal statement, application fee, at least two letters of recommendation, official transcripts of all college work, and official scores on the Graduate Record Examination (GRE) General Test must be submitted to the Graduate School Office of Admissions. The personal statement should be a one-two page essay that discusses the student's background in health promotion, why the student is attracted to the field, and how the degree will help the student reach his or her career goals. Students should score above the 50th percentile on the GRE. In addition, prior work experience relevant to the health promotion discipline will also be considered as a factor in acceptance into the program. International students will also be required to submit TOEFL scores and a foreign credential evaluation of their transcripts. These are required no later than thirty days before the first day of classes of the semester in which the applicant plans to enroll.

For specific information about the degree concentration or the application process, students should contact Dr. Richard W. Wilson, Chair, Department of Health Promotion and Behavioral Sciences, 502-852-8040.

### **Faculty Advisor**

The Department of Health Promotion and Behavioral Sciences will appoint a Director of the Ph.D. concentration program each year. The Director will assign advisors for each doctoral student. The appointment process will be negotiated with the student who will have the option of requesting a specific advisor. The student's choice is contingent on the availability of the desired advisor and the overall resources of the Department.

## **Curriculum**

### **Concentration in Environmental Health**

Each doctoral student will, in consultation with his or her academic advisor and the Department Chair, plan a course of study that uniquely fits the student's career goals. The design of a doctoral program of study that reflects each student's professional skills and research interest is the primary organizing principle of the proposed program.

The emphasis in doctoral training goes beyond accumulating course credit. Completion of the coursework is the prelude to sitting for the Comprehensive Doctoral Exam. Successful passage of these comprehensive examinations allows the student to enter Doctoral Candidacy. A doctoral candidate must then successfully develop and defend a dissertation proposal that describes an original and independent research project. Upon successful defense of the proposal, a student may then proceed to dissertation research. Upon successful completion of the research, defense of the dissertation, and demonstration of the required competencies, a student is awarded the Ph.D. degree.

The Ph.D. concentration in Environmental Health is designed as a 43 credit hour program (minimum beyond a master's degree) including the Dissertation. Additional hours may be needed for completion of the concentration program.

### **Minimum Course Requirements for the Ph.D. concentration in Environment Health:**



## 43 Total Credit Hours including:

- 31 credit hours of required course work
- 3 credit hours of environmental health seminars
- 9 credit hours of dissertation research

## Curriculum for Ph.D. Concentration in Environmental Health

### Fall I

- PHST 620 Introduction to Statistical Computing 3
- PHEP 602 Epidemiological Methods 3
- BIOC 668 Molecular Biology 4

Total Credit Hours: 10

### Spring I

- PHEP 620 Environmental and Occupational Epidemiology 3
- MBIO 658 Cellular and Molecular Immunology 3
- Elective\* 3
- PHEH 750 Seminar 1 in Environmental and Occupational Health 1

Total Credit Hours: 10

### Summer I

- PHEH 751 Seminar 2 in Environmental and Occupational Health 1
- Elective\* 3
- Elective\* 3
- PHEH 777 Dissertation Research 2

Total Credit Hours: 9

### Fall II

- PHTX 661 Molecular Mechanisms in Toxicology 3
- PHEH 601 Environmental Risk Assessment 3
- PHEH 752 Seminar 3 in Environmental and Occupational Health 1
- PHEH 777 Dissertation Research 2
- Qualifying Exam
- Proposal Development and Defense

Total Credit Hours: 9

### Candidacy

- PHEH 777 Dissertation Research 5

Total Credit Hours: 5

**Total for Doctoral Degree: 43**

### **Seminars in Environmental and Occupational Health**

A student in the Ph.D. concentration in Environmental Health is required to complete the three Seminars in Environmental and Occupational Health (PHEH 750, 751, and 752) for a total of 3 credit hours. These group courses will be jointly taught by the faculty of the Department and are designed to provide a collegial experience that provides an

opportunity to integrate learning from other courses, discuss hot topics, brainstorm about research ideas, and acquire professional skills in scientific manuscript and grant writing, oral and poster presentations, grantsmanship, and peer review.

### **Elective Options\***

As a part of the approved Program of Study, a student will have the option to select nine (9) hours of elective coursework. Courses directly relevant to Environmental Health are preferred including, but not limited to, biostatistics, bioinformatics, epidemiology, medical geography, molecular or population genetics, toxicology, microbiology, health services research, outcomes research, health knowledge and behavior. Courses may be selected from those offered within the School of Public Health and Information Sciences, other departments within the University, or from sources outside the University with permission and acceptance of credit by the Graduate School.

Because the needs vary by research topic for which specific research methods and statistics skills, requirements in these area are difficult to define explicitly for all students. The student's Program of Study will utilize electives to provide the student with the courses needed in his or her particular case.

### ***\*List of Acceptable Courses for Ph.D. Minor Elective***

- PHST 650 Advanced Topics in Biostatistics
- PHST 680 Biostatistical Methods I
- PHST 681 Biostatistical Methods II
- PHPB 650 Advanced Topics in Health Promotion and Behavioral Sciences
- PHMS 650 Advanced Topics in Health Management and Systems Sciences
- GEOG 657 Geographic Information Systems
- GEOG 656 Spatial Statistics
- PHTX 601 Principles of Medical Pharmacology
- PHTX 630 Toxicology: Principles and Application
- PHTX 618 Topics in Pharmacology & Toxicology
- PHTX 607 Seminar in Genetics and Molecular Medicine
- BIOC 611 Biochemical and Molecular Methods
- BIOC 640 Principles of Biochemistry
- BIOC 670 Protein Structure and Function
- BIOC 660 Molecular Endocrinology
- BIOC 641 Advanced Eukaryotic Genetics
- BIOC 668 Molecular Biology
- BIOC 675 Cancer Biology
- BIOL 522 Aquatic Ecology
- BIOL 563 Population and Community Ecology
- BIOL 562 Ecosystem Ecology
- BIOL 584 Interdisciplinary Frameworks in Environmental Science and Technology
- BIOL 608 Ecological Instrumentation
- BIOL 660 Advanced Ecology of Urban and Suburban Landscapes
- BIOL 657 Advanced Industrial and Food Microbiology
- CEE 509 Environmental Processes and Systems
- CEE 534 Industrial Waste Management
- CEE 535 Solid Waste Management
- CEE 574 Water and Wastewater Treatment
- CEE 581 Environmental Impact Analysis
- CEE 674 Water Resources Systems
- CEE 675 Surface Water Quality Modeling
- CHE 509 Environmental Processes and Systems
- CHE 533 Chemical Engineering Safety and Health
- CHE 534 Industrial Waste Management
- CHE 535 Pollution Prevention
- EXP 600 Physiology of Exercise

- EXP 605 Human Physiology
- GEOG 522 GIS and Public Health
- GEOG 531 GIS and Urban Demographic Analysis
- GEOG 561 Urban Environmental Quality
- GEOS 564 Hydrology
- GEOS 565 Natural Hazards
- MBIO 601 Molecular Microbiology (Introductory to Infectious Diseases)
- MBIO 602 Introduction to Immunology
- MBIO 670 Molecular Virology
- MBIO 685 Microbial Physiology
- MBIO 687 Microbial Pathogenesis
- MBIO 618 Topics in Advanced Microbiology
- MBIO 680 Genetics of Infectious Diseases
- MBIO 667 Cell Biology
- PHZB 605 Systemic Physiology I
- PHZB 611 Advanced Human Physiology
- IE 530 Industrial Safety Engineering
- UPA 678 Land Use and Planning Law
- UPA 679 Environmental Policy
- UPA 687 Environmental Policy and Natural Hazards

A student may petition to take courses not on this list with approval of the instructor and the Chair of the Department. The student must provide a written rationale for the choices of elective coursework in his or her Program of Study.

### **Qualifying Exams**

Upon completion of the majority of the required coursework for the Ph.D., the student will be eligible to sit for the Doctoral Qualifying Examination. The timing and eligibility for the qualifying exams will be determined by the student's faculty advisor and Department Chair. Successful completion of the exam will admit the student to doctoral candidacy. A student who does not successfully complete the exam may be required to take additional or remedial coursework and will be allowed one opportunity to retake the exam.

### **Research Proposal Defense**

A student who successfully completes the qualifying exam must submit a written dissertation proposal to all members of the dissertation committee. The student will then be orally examined on the dissertation proposal.

### **Dissertation**

A dissertation is required of a candidate for the degree of Doctor of Philosophy in Public Health Sciences with a concentration in Environmental Health. It is to be a scholarly achievement in research, and should demonstrate a thorough understanding of research techniques in environmental health and the ability to conduct independent research.

The dissertation is to be submitted in completed form to the Chair of the Department at least thirty days before the end of the term in which the candidate expects to be graduated, and the candidate is not eligible for final examination until the dissertation has been approved.

The dissertation shall be read by a reading committee, chaired by the student's faculty advisor, and appointed by the Dean of the Graduate School upon the advice of the Chair of the Department. This committee shall consist of five members, and must include one representative of an allied department. The dissertation must be approved by the committee and the Chair of the Department.

One unbound copy of the dissertation, signed by dissertation committee, must be deposited with the Office of the Graduate School before graduation.

Dissertation research may be credited at no more than nine (9) credit hours per semester as PHEH 777. No more than nine (9) credit hours of PHEH 777 may be taken.

### **Concentration in Epidemiology**

## **Minimum Requirements**

48 Total Credit Hours (beyond admission requirements)

39 credit hours of required coursework, including:

- 9 credit hours of required seminars
- 6 credit hours in minor area of concentration
- 9 credit hours of dissertation research

## **Required Coursework for Concentration in Epidemiology**

Fall III

- PHEP 701 Advanced Epidemiologic Methods 3
- PHEP 702 Epidemiologic Research Management 3
- PHEP 613 Epidemiology of Aging 3
- Minor Elective\* 3

Spring III

- PHEP 611 Nutritional Epidemiology 3
- PHEP 615 Epidemiology of Maternal/Child Health 3
- PHEP 750 Seminars in Epidemiology 3
- Minor Elective\* 3
- Qualifying Exam

Summer IV

- PHEP 777 Dissertation Research (optional) 3

Fall IV

- PHEP 606 Molecular/Genetic Epidemiology 3
- PHEP 612 Epidemiology and Bioterrorism 3
- PHEP 750 Seminars in Epidemiology 3 - 6
- PHEP 777 Dissertation Research (optional) 3

Spring IV

- PHEP 750 Seminars in Epidemiology 3 - 6
- PHEP 777 Dissertation Research 3 - 9

## **Seminars in Epidemiology**

Students in the Ph.D. concentration in Epidemiology will be required to complete at least nine (9) credit hours of PHEP 750 Seminars in Epidemiology. This group course will be jointly taught by the faculty of the department and designed to provide a collegial experience that provides an opportunity to integrate learning from other courses, discuss hot topics, brainstorm about research ideas, and acquire professional skills in scientific manuscript and grant writing, oral and poster presentations, grantsmanship and peer-review.

## **Minor Requirement**

As a part of their approved program of study, students will be required to complete 6 hours of coursework in a minor field of concentration. Areas directly relevant to the science of epidemiology are preferred including, but not limited to, biostatistics, bioinformatics, medical geography, molecular or population genetics, environmental health, toxicology, microbiology, health services research, outcomes research, health knowledge and behavior. These courses may be selected from ones offered within the School of Public Health and Information Sciences, other departments within the University, or from sources outside the University with permission and acceptance of credit by the Graduate School.

## ***\*List of Acceptable Courses for Ph.D. Minor Elective***

- PHST 624 Clinical Trials I

- PHST 650 Advanced Topics in Biostatistics
- PHST 680 Biostatistical Methods I
- PHST 681 Biostatistical Methods II
- PHST 661 Probability
- PHST 662 Mathematical Statistics
- PHST 683 Survival Analysis
- PHST 682 Multivariate Analysis
- PHST 684 Categorical Data Analysis
- PHST 710 Advanced Statistical Computing
- PHST 711 Advanced Statistical Computing II
- PHST 724 Advanced Clinical Trials
- PHST 782 Generalized Linear Models
- PHST 783 Advanced Survival Analysis
- PHST 785 Nonlinear Regression
- PHBI 750 Statistical Methods for Bioinformatics
- PHBI 751 High-throughput Data Analysis
- PHEH 650 Advanced Topics in Environmental and Occupational Health
- PHPB 650 Advanced Topics in Health Knowledge and Cognitive Sciences
- PHMS 650 Advanced Topics in Health Management and Systems Science
- GEOG 657 Geographic Information Systems
- GEOG 656 Spatial Statistics
- PHTX 630 Toxicology: Principles and Application
- PHTX 618 Topics in Pharmacology & Toxicology
- PHTX 607 Seminar in Genetics and Molecular Medicine
- PHTX 661/BIOC 661 Molecular Mechanisms of Toxicology
- BIOC 660 Molecular Endocrinology
- BIOC 641 Advanced Eukaryotic Genetics
- BIOC 667/668 Molecular Biology
- BIOC 675 Cancer Biology
- EXP 600 - Physiology of Exercise
- EXP 605 - Human Physiology
- MBIO 601 Molecular Microbiology (Introductory to Infectious Diseases)
- MBIO 602 Introduction to Immunology
- MBIO 658 Cellular and Molecular Immunology
- MBIO 670 Molecular Virology
- MBIO 685 Microbial Physiology
- MBIO 687 Microbial Pathogenesis
- MBIO 618 Topics in Advanced Microbiology
- MBIO 680 Genetics of Infectious Diseases
- PHZB 605 Systemic Physiology I
- PHZB 611 Advanced Human Physiology
- NURS 670 Cancer Epidemiology and Pathophysiology

Students may petition to take courses not on this list with approval of the instructor and the Chair of the Department of Epidemiology and Population Health. All students must provide a written rationale for their choice of minor coursework in a program of study.

### **Qualifying Exams**

Upon completion of the required coursework for the first year of study (minimum of 24 credit hours), the student will be eligible to sit for the doctoral qualifying examination. Successful completion of the exam will admit the student to doctoral candidacy. Students who do not successfully complete the exam may be required to take additional or remedial coursework and will be allowed one opportunity to retake the exam.

### **Dissertation**

Dissertation work is generally started upon successful completion of the doctoral qualifying exam. Exceptions may be granted upon appeal to the department faculty. Dissertation research may be credited at no more than nine (9) hours per semester as PHEP 777.

# Concentration in Health Management

Each doctoral student will, in consultation with his or her academic advisor and the Department Chair, plan a course of study that uniquely fits the student's career goals. The design of a doctoral program of study that reflects each student's professional skills and research interest is the primary organizing principle of the proposed program.

The emphasis in doctoral training goes beyond accumulating course credit. Completion of the coursework is the prelude to sitting for the qualifying examination. Successful passage of this comprehensive examination allows the student to enter candidacy. A doctoral candidate must then successfully develop and defend a dissertation proposal that describes an original and independent research project. Upon successful defense of the proposal, a student then proceeds to dissertation research. Upon successful completion of the research, defense of the dissertation, and demonstration of the required competencies listed below, a student is awarded the Ph.D. degree.

The Ph.D. concentration in Health Management is designed as a 48 credit-hour program (minimum beyond a master's degree) including the dissertation. Depending on the student's previous educational experience, additional hours may be needed for completion of the concentration program.

## Minimum Course Requirements for the Ph.D. concentration in Health Management

48 Total Credit-Hours (minimum) including:

- 36 credit-hours of course work (including required and elective courses)
- 3 credit-hours of public health management seminars
- 9 credit-hours of dissertation research

## Curriculum for Ph.D. Public Health Science - Health Management Concentration

Fall I

- PHMS 606 Complexity in Health Care Organization and Leadership 3
- UPA 621 Policy Analysis and Program Evaluation 3
- UPA 661 Public Administration and Organizational Theory 3
- PHMS 751 Seminar 1 in Public Health Management 1

Total Credit Hours: 10

Spring I

- PHMS 616 Complexity and Health Systems 3
- PHMS 608 Managing Community Health with Policy Development 3
- PHEP 602 Epidemiology Methods 3
- PHMS 752 Seminar 2 in Public Health Management 1

Total Credit Hours: 10

Summer I

- PHMS 777 Dissertation Research 9

Total Credit Hours: 9

Fall II

- ECON 644 Health Economics 3
- PHMS 604 Advanced Topics of Legal, Ethical, and Policy Aspects of the Health System 3
- Elective 3
- PHMS 753 Seminar 3 in Public Health Management 1

Total Credit Hours: 10

Spring II

- PADM 602 Applied Research Methods  
OR
- PHPB 655 Systems Thinking and Dynamic Modeling in Public Health 3
- MBA 610 Organizational Behavior and Human Resource Management 3
- Elective 3
- Qualifying Exam
- Research Proposal Development and Defense

Total Credit Hours: 9

**Minimum Total for Doctoral Degree: 48**

**Elective Options\***

As a part of the approved Program of Study, a student will be able to select six (6) credit hours of elective coursework. Courses directly relevant to Health Management are preferred including, but not limited to, biostatistics, bioinformatics, epidemiology, medical geography, molecular or population genetics, toxicology, microbiology, health services research, outcomes research, health knowledge and behavior. Courses may be selected from those offered within the School of Public Health and Information Sciences, other schools or colleges within the University, or from sources outside the University with permission and acceptance of credit by the Graduate School.

***List of Acceptable Courses for Ph.D. Concentration Electives\*\****

School of Public Health and Information Sciences

Epidemiology

- PHEP 601 Introduction to Epidemiology (3)
- PHEP 602 Epidemiology Methods (3)
- PHEP 604 Epidemiology Infectious Disease (2) + PHEP 605
- PHEP 605 Research in Infectious Disease (1) (Laboratory for PHEP 604)
- PHEP 606 Genetic and Molecular Epidemiology (3)
- PHEP 611 Nutritional Epidemiology (3)
- PHEP 612 Epidemiology and Bioterrorism (3)
- PHEP 613 Epidemiology of Aging (3)
- PHEP 615 Epidemiology of Maternal and Child Health (3)
- PHEP 616 Disease Surveillance (3)
- PHEP 617 Field Epidemiology (3)
- PHEP 618 Epidemiologic Methods II (3)
- PHEP 619 Biology of Disease in Populations (3)

Biostatistics

- PHST 600 Introduction to biostatistics for Public Health (3)
- PHST 610 Statistical Computing and Data Management for Public Health (3)
- PHST 620 Introduction to Statistical Computing (3)
- PHST 640 Statistical Methods for Research Design in Health Sciences (3)

Decision Science

- PHDA 601 Introduction to Medical Decision Analysis (3)
- PHDA 663 Decision Analysis (3)
- PHDA 690 Utility Theory and Assessment (3)
- PHDA 701 Advanced Medical Decision Making (3)

Environmental and Occupational Health

- PHEH 600 Introduction to Environmental and Occupational Health (3)

- PHEH 610 Occupational Health and Safety (3)
- PHEH 620 Global Issues of Environmental and Occupational Health (3)

## Health Promotion and Behavioral Sciences

- PHPB 601 Introduction to Health Behavior (3)
- PHPB 604 Health Decision and Risk Analysis (3)
- PHPB 607 Population Health Management (3)
- PHPB 608 Public Health Program Evaluation (3)
- PHPB 610 Introduction to Informatics (3)
- PHPB 612 Health Communications Campaigns (3)
- PHPB 614 Critical Thinking and Program Evaluation (3)

## College of Business

- MBA 625 Managerial Accounting (3)
- MBA 635 Managerial Finance (3)
- MBA 645 Leadership and Ethics (3)
- MBA 655 Strategic Management (3)
- ACCT 615 Advanced Financial and Governmental Accounting (3)

## School of Urban and Public Affairs

- PADM 601 Statistics for Public Affairs (3)
- PADM 604 Public Budgeting and Finance (3)
- PADM 605 Strategic Management and Planning (3)
- PADM 606 Public Policy (3)
- PADM 607 Planning Theory (3)
- PADM 608 e-Government (3)
- PADM 610 Administrative Law and Process (3)
- PADM 611 Financial Management for Public Administration (3)
- PADM 620 Intergovernmental Relations (3)
- PADM 630 Environmental Policy and Natural Hazards
- PLAN 611 Human Resources Management (3)
- PLAN 612 Mediation and Dispute Resolutions (3)

**\*\*A student may petition to take courses not on this list with approval of the course instructor, the student's advisor, and the Chair of the HMSS Department. The student must provide a written rationale for the choices of elective coursework in his or her Program of Study.**

### **Seminars in Public Health Management**

A student in the Ph.D. concentration in Health Management is required to complete at least three (3) credit hours of seminars in Public Health Management (PHMS 751-753). This group course will be jointly taught by the faculty of the Department and is designed to provide a collegial experience that provides an opportunity to integrate learning from other courses, discuss hot topics, brainstorm about research ideas, and acquire professional skills in scientific manuscript and grant writing, oral and poster presentations, grantsmanship, and peer review.

### **Qualifying Exam**

Upon completion of the majority of the required coursework for the Ph.D., the student will be eligible to sit for the Doctoral Qualifying Examination. The components of the qualifying exam will focus on the subject matter drawn from foundation courses, the student selected minor area of study as well as research methods and problem analysis. The timing and eligibility for the qualifying exams will be determined by the student's faculty advisor and Department Chair. Successful completion of the exam will admit the student to doctoral candidacy. A student who does not successfully complete the exam may be required to take additional or remedial coursework and will be allowed one opportunity to retake the exam.



## **Research Proposal Defense**

A student who successfully completes the qualifying exam must submit a written dissertation proposal to all members of the dissertation committee. The student will then be orally examined on the dissertation proposal.

## **Dissertation**

A dissertation, based on original research conducted by the student, is required of a candidate for the degree of Doctor of Philosophy in Public Health Sciences with a concentration in Health Management. The dissertation is to be a scholarly achievement that demonstrates the student's thorough understanding of research techniques in health management and the ability to conduct independent research.

The student's dissertation research will be guided by, and the final product approved by, a dissertation committee, chaired by the student's faculty advisor, and appointed by the Dean of the Graduate School upon the advice of the Chair of the Department. The dissertation committee shall consist of five members, and must include one representative outside the Department. Once the student has completed work on the dissertation, the dissertation committee will schedule a date for the student's Final Examination during which time the student will be asked to defend the dissertation and the supporting research. The dissertation must be approved by the committee and signed off by the Chair of the Department.

The dissertation is to be submitted in completed form to the Chair of the Department at least thirty days before the end of the semester in which the candidate expects to graduate. One unbound copy of the dissertation, signed by dissertation committee, must be deposited with the Office of the Graduate School before graduation.

## **Concentration in Health Promotion**

The typical progression through the Health Promotion curriculum is:

- Program of Study (Year 1)
- Required and elective coursework of 48 credit-hours (Years 1 and 2)
- Qualifying examination (Year 2)
- Candidacy
- Dissertation research and preparation
- Oral examination

Upon matriculation in the program, each student will meet with his or her assigned advisor and develop a program of study, which will include courses in research design and statistics as well as selected cognate courses. The program of study may be modified as the student's needs change or course availability is altered.

If a student has not had sufficient exposure to epidemiology prior to matriculation, he or she will be required to take a course in epidemiology as part of the program of study. In addition, the program of study will include development of competencies in other areas of public health knowledge that are relevant to the student's area of interest.

## **Degree Requirements**

The Health Promotion concentration of the Ph.D. in Public Health Sciences consists of a minimum of 48 credit hours, including the following requirements:

- Health promotion theory and principles 12 credit hours
- Research design and statistics 12 credit hours
- Cognate courses 12 credit hours
- Dissertation research 9 credit hours
- ELFH 683 College Teaching 3 credit hours

## **Coursework**

Fall I

- PHPB 701 Theoretical Basis of Health Promotion 3
- PHPB 704 Psycho-Social Foundations of Health Decision Making 3
- Research design and statistics elective (with approval) 3

Semester Total: 9

Spring I

- PHPB 705 Community Organization and Health Policy Advocacy 3
- PHPB 710 Community-Based Participatory Research 3
- Cognate elective (with approval) 3

Semester Total: 9

Summer I

- PHPB 777 Dissertation research 3

Semester Total: 3

Fall II

- PHPB 722 Health Risk Communication 3
- Research design and statistics elective (with approval) 3
- Cognate elective (with approval) 3
- PHPB 724 Dissertation Methods Seminar 3

Semester Total: 12

Spring II

- Research design and statistics elective (with approval) 3
- Cognate elective (with approval) 3
- ELFH 683 College Teaching 3

Semester Total: 9

Summer II

- PHPB 777 Dissertation research 6

Semester Total: 6

**Degree Total: 48**

### **Research Design and Statistics Electives**

Students will work with their advisors to select appropriate courses to complete the 12 credit hours required in this category. Selections will be based on the research and statistics background of students and the anticipated research and statistics needs of the dissertation research projects.

The following is the list of approved electives for this category. Other courses may be considered with permission of the faculty advisor and the Program Director.

- PHEP 602 Epidemiological Methods
- PHEP 710 Community-based Participatory Research
- PHPB 711 Qualitative Research Methods in Public Health
- PHPB 724 Dissertation Methods Seminar
- PHST 630 Applied Statistical Methods
- PHST 640 Statistical Methods for Research Design in Human Studies
- PHST 680 Biostatistical Methods I
- PHST 681 Biostatistical Methods II
- PHST 682 Multivariate Statistical Analysis
- PHST 684 Categorical Data Analysis
- PHST 725 Design of Experiments
- PSYC 610 Advanced Statistics I
- PSYC 611 Advanced Statistics II
- PSYC 612 Advanced Statistics III
- ECPY 793 Reviewing Scientific Literature [course in meta-analysis]

## **Cognate Electives**

Students will work with their advisor to select appropriate courses to complete the 12 credit hours required in this category. Selections will be based on the research and professional interests of students and the career paths anticipated.

The following is the list of approved electives for this category. Other courses may be considered with permission of the faculty advisor and the Program Director.

- PHMS 603 Legal and Bioethical Aspects of Public Health
- PHPB 604 Health Decision and Risk Analysis
- GEOG 657 Geographic Information Systems
- PHEH 620 Global Issues
- PHPB 610 Introduction to Health Informatics
- PHPB 721 Health Promotion and Healthcare-Associated Infection
- PHPB 655 Systems Thinking and Dynamic Modeling in Public Health
- PHCI 631 Social and Behavioral Sciences in Health Care
- PHPB 650 Advanced Topics in Health Promotion and Behavioral Sciences
- PHPB 727 Culture and Public Health
- COMM 590 Health Communications
- HSS 669 Administering Health Promotion and Disease Prevention Programs
- PSYC 581 Introduction to Health Psychology
- HSS 675 Health Promotion and Disease Prevention at the Individual Level
- HSS 676 Community Health Promotion and Disease Prevention
- HSS 684 Program Planning in Health Education and Promotion

## **Qualifying Examination**

Upon completion of all formal course work, typically at the end of the second year, students will take a written qualifying exam to demonstrate their ability to synthesize and apply concepts from those courses. The exam will be evaluated on a pass/fail basis; students who don't pass the exam at the first administration will be given time to prepare to sit for the exam one additional time. Once the qualifying exam is successfully completed, students will be admitted to candidacy for the doctoral degree.

## **Dissertation**

A dissertation, based on original research conducted by the student, is required of a candidate for the degree of Doctor of Philosophy in Public Health Sciences with a concentration in Health Promotion. The dissertation is to be a scholarly achievement that demonstrates the student's thorough understanding of research techniques in health promotion and the ability to conduct independent research.

The student's dissertation research will be guided by, and the final product approved by, a dissertation committee, chaired by the student's faculty advisor, and appointed by the Dean of the Graduate School upon the advice of the Chair of the Department. The dissertation committee shall consist of five members, and must include one representative outside the Department. Once the student has completed work on the dissertation, the dissertation committee will schedule a date for the student's final examination during which the student will be asked to defend the dissertation and the supporting research. The dissertation must be approved by the committee and by the Chair of the Department.

The dissertation is to be submitted in completed form to the Chair of the Department at least thirty days before the end of the semester in which the candidate expects to graduate. One unbound copy of the dissertation, signed by the dissertation committee, must be deposited with the Graduate School before graduation.

## **Departmental Faculty**

### **Faculty of the School of Public Health and Information Sciences**

# Master of Science in Clinical Investigation Sciences

**Major:** ECIS

**Degree Awarded:** MSc.

**Unit:** GH

**Program Webpage:** <http://sphs.louisville.edu/academics.cfm>

## Program Information

The mission of the program is to equip students with the skills needed for independent clinical research.

### Objectives

Objectives of the program are to identify a research question, operationalize a hypothesis, formulate a study protocol, determine the necessary sample size for acceptable statistical power, select the appropriate statistical analysis techniques and be sufficiently familiar with SPSS and/or SAS to perform the statistical analysis (in consultation with a biostatistician), write their results for presentation and publication and prepare a grant application.

### Admission Procedures

Students seeking the M.Sc. degree must have a professional degree (e.g., D.M.D., D.O., M.D. or Ph.D.), a terminal degree in a health field, or a graduate degree with appropriate experience in health care or clinical research.

Applicants must complete all forms for admission to the University of Louisville Office of Graduate Admissions and must meet the Graduate School's requirements for admission which are:

- Formal application.
- Application fee.
- At least 2 letters of recommendation.
- Official transcripts of all college work.

NOTE- The GRE is not required if a terminal degree has already been completed.

These items are required no later than thirty days before the first day of classes of the semester in which the applicant plans to enroll.

Prospective students are also required to submit the following items with their application:

- Resume/CV.
- A statement describing the applicant's qualifications, including prior experience in clinical research or health care, proposed (general) area of research and career plans.

## Curriculum

The 25 credit-hours of required course work provide students with a broad base of knowledge in epidemiologic research methods, biostatistics, bioethics and the methodologies of health services and outcomes research. Early in their first semester M.Sc. students are required to identify a faculty member who will serve as a mentor. The M.Sc. in Clinical Investigation Sciences can be completed in two years. However, a three-year option is also available.

### **Year I Summer Semester**

- PHCI 501 - From Bench to Bedside:  
Introduction to Clinical Research 1

### **Fall Semester**

- PHCI 611 - Introduction to Clinical Epidemiology 2
- PHST 600 - Introduction to Biostatistics 3
- PHCI 631 - Social and Behavioral Science in Health Care 2
- PHCI 610 - New Drug and Device  
Development 2
- PHCI 699 - Mentored Research

### **Spring Semester**

- PHEP 602 -Epidemiological Methods 3
- PHCI 629 - Special Topics: Epidemiological Methods 1
- PHCI 624 - Clinical Trials I 2
- PHCI 632 - Ethical Conduct of Health Care Research 2
- PHCI 699 - Mentored Research

### **Year 2 Summer Semester**

- PHCI 601 - Evaluating the Health Care  
Literature 1
- PHCI 699 - Mentored Research

### **Fall Semester**

- PHCI 625 - Clinical Trials II 2
- PHCI 650 - Medical Decision Analysis 2
- PHCI 602 - Health Services and Outcomes Research 2
- PHCI 699 - Mentored Research

### **Spring Semester\***

- PHCI 699 - Mentored Research

## **Departmental Faculty**

**W. Paul McKinney, M.D.**

*Professor*

**Richard Baumgartner, Ph.D.**

*Professor*

**Carlton A. Hornung, Ph.D., M.P.H.**

*Professor*

**Rob Steiner, M.D., Ph.D., M.P.H.**

*Professor*

**Osborne P. Wiggins, Ph.D.**

*Professor*

**L. Jane Goldsmith, Ph.D.**

*Associate Professor*

**Ruth Carrico, Ph.D., R.N.**

*Assistant Professor*

**Frank Groves, MD**

*Assistant Professor*

**Steven McCabe, M.D., M.Sc.**

*Assistant Professor*

**Susan B. Muldoon, M.P.H., Ph.D.**

*Assistant Professor*

**Chenxi Wang, MD, M.Sc., Ph.D.**

*Assistant Professor*

**Cathy R. Whalen, Pharm D.**

*Assistant Professor*

# Master of Public Health

**Major:** MPH

**Degree Awarded:** MPH

**Unit:** GH

**Program Webpage:** <http://louisville.edu/sphis/>

## Program Information

### Introduction

The Master of Public Health (MPH) degree program is a School-based program designed to graduate students each with core competencies in public health and specialized competencies in one of the following concentrations: biostatistics, environmental and occupational health, epidemiology, health promotion and behavior, and health management.

Graduates of the MPH program are prepared for positions in the public health work force, in health-related industries, and in academic organizations and for further professional or academic education.

### Competencies

The MPH program has adopted the competencies published by the Association of Schools of Public Health. (ASPH Education Committee. \u201cMaster\u2019s Degree in Public Health Core Competency Development Project, Version 2.3.\u201d [www.asph.org/userfiles/version2.3.pdf](http://www.asph.org/userfiles/version2.3.pdf).)

The learning objectives for each course in the MPH curriculum are mapped to these ASPH competencies.

### Admission

The ideal candidate for admission to the MPH program has received the equivalent of a bachelor\u2019s degree or higher, has education or training in one or more health-related fields, has worked or studied in a public health-related situation, can comprehend and communicate effectively in English, has the recommendations of at least three persons in a health-related or advanced education field, has performed satisfactorily in one or more standardized test, and is very interested in pursuing a career in public health or a related field.

The requirements for admission to the MPH program are:

- Bachelor\u2019s degree from an accredited institution or its equivalent.
- Recommended minimum GPA of 3.0 on a 4.0 scale.
- If applicable, Test of English as a Foreign Language (TOEFL) exam with a minimum score of 250 on the computer-based version or a minimum score of 600 on the paper-based version.

An application is considered once all of the following requirements have been received:

- Application to the Graduate School and payment of application fee.
- Three letters of recommendation written within the last twelve months.
- Official transcripts of all degrees.
- Resume or curriculum vitae.
- One-page personal statement written by the application that is a clear, substantive description of his or her goals in public health, noting any professional or research experience.
- Official score from any of the following standardized tests: GRE, MCAT, DAT, GMAT, or LSAT.
- International applicants: Foreign credential evaluation of all degrees from non-US institutions. Please contact the MPH program prior to completing this requirement.

For information on the application process, please contact:

***MPH Program  
School of Public Health and Information  
Sciences  
University of Louisville  
555 South Floyd Street, Suite 4026  
Louisville , KY 40202***

sphismph@louisville.edu

Phone: 502-852-3299

Fax: 502-852-3294

### **Concentrations**

Concentrations are offered in each of the five basic areas of public health by the department that focuses on the area. Each concentration is designed to develop the competencies needed by a public health worker in the corresponding area.

- **Biostatistics:** Department of Bioinformatics and Biostatistics, John A. Myers, PhD, Coordinator
- **Environmental and Occupational Health:** Department of Environmental and Occupational Health Sciences, Irma N. Ramos, MD, Coordinator
- **Epidemiology:** Department of Epidemiology and Population Health, Frank Groves, MD, MPH, Coordinator
- **Health Promotion and Behavior:** Department of Health Promotion and Behavioral Sciences, Ruth L. Carrico, RN, PhD, Coordinator
- **Health Management:** Department of Health Management and Systems Sciences, Raymond E. Austin, PhD, Coordinator

Requirements for acceptance to the concentrations in the MPH program are:

All concentrations:

- Student in good standing in MPH program
- Successful completion of core courses

Biostatistics:

- Grade from PHST-600 Biostatistics I
- Current grade from PHST 610 Biostatistics II
- Other evidence of analytic ability, for example:
  - Quantitative score from at least one of these exams: GRE, GMAT or DAT
  - Transcripts showing other college-level mathematics or statistics course
  - Instructor recommendation
  - Participation in or successful completion of a research project with analytical component
- Exceptions may be granted.

Environmental and occupational health:

- No additional requirements.

Epidemiology:

- Grade from PHEH-601 Introduction to Epidemiology
- Grade from PHST-600 Biostatistics I
- Exceptions may be granted.

Health Promotion and Behavior:

- No additional requirements.

Health management:



- No additional requirements

## Curriculum

The curriculum consists of courses in four areas: core (6 courses), concentration (5), practicum experience (2), and integrating experience (3). Core courses and two integrating experience courses are completed prior to taking courses in other areas. Toward the end of taking these courses, each student identifies his or her area of concentration and seeks admission to the department offering the concentration. Once admitted into the concentration, the student takes concentration course, completes the practicum experience, and takes the remaining integrating experience course, which includes a comprehensive written examination focused on the School's core MPH competencies.

Full-time students are expected to complete the program and graduate in two years. Part-time students are required to complete the program and graduate within six years.

### Faculty Advisor

On matriculation, each student is assigned a faculty advisor and is required to meet at least twice each semester with his or her advisor. The pool of faculty advisors includes the concentration coordinators and the core course instructors. Advisors are available to address general academic and public health questions and to assist the student in declaration of his or her area of concentration for the MPH degree.

After admission into a concentration, each student is assigned a faculty advisor from the concentration department who serves as academic practicum advisor and counselor on career and employment opportunities, professional development, and opportunities beyond graduate school.

### Program of Study

The program of study is predetermined for courses in core, practicum experience, and integrating experience areas and the majority of the concentration area. Concentrations have one or two elective courses.

### Degree Requirements

Requirements for the MPH degree are:

- Successful completion of core, concentration, practicum experience, and integrating experience coursework
- Completion of all deliverables for the practicum experience
- Comprehensive written examination on the core MPH competencies

### Coursework

47 total credit-hours:

- 18 credit-hours of core coursework
- 6 credit hours of practicum experience
- 8 credit-hours of integrating experience
- 15 credit-hours of concentration coursework

### Required Coursework - Fall I

- PHEP-601 Introduction to Epidemiology (core) 3
- PHST-600 Introduction to Biostatistics I (core) 3
- PHMS-601 Introduction to Public Health Practice and Administration (core) 3
- PHPB-696 Issues in Public Health 2

- Semester Total 11

### **Required Coursework - Spring I**

- PHEH-600 Introduction to Environmental Health Sciences (core) 3
- PHPB-601 Introduction to Health Behavior (core) 3
- PHST-610 Statistical Computing and Data Management for Public Health (core) 3
- PHPB-614 Critical Thinking and Program Evaluation 3
- Semester Total 12

### **Required Coursework - Fall II**

- Concentration course 3

Concentration course 3

Concentration course 3

PHxx-679 Practicum Experience 3

Semester Total 12

### **Required Coursework Spring II**

Concentration course 3

Concentration course 3

PHxx-679 Practicum Experience 3

PHMS-697 Integrating Learning and Experience in Public Health 3

Semester Total 12

Degree Total 47

### **PHPB-696 Issues in Public Health**

The Issues in Public Health course is part of the integrating experience and is a trans-disciplinary course designed to integrate what students learned in other coursework and experiences and the application of these lessons to the broader scope of public health. Working in teams and on selected public health projects or initiatives are the focus of the course.

### **PHPB-614 Critical Thinking and Program Evaluation**

The Critical Thinking and Program Evaluation course is an integrating experience course and focuses on the identification of public health problems and planning appropriate responses and evaluations. Planning and evaluation skills are considered pivotal learning concepts for the MPH degree and for successful public health practice.

### **PHxx-679 Practicum Experience**

The Practicum Experience places the student in a non-academic organization providing services in or closely related to the public health concentration selected by the student. The Practicum Experience and its required deliverables must be completed to fulfill degree program requirements.

### **PHMS-697 Integrating Learning and Experience in Public Health**

The Integrating Learning and Experience in Public Health course is the capstone of the integrating experience and is designed to synthesize and integrate knowledge acquired in course work and other learning experiences and to apply theory and principles in a situation that approximates some aspect of professional practice. Through the presentation and analysis of actual cases presented by public health practitioners, student evaluation of existing cases, and the development of a new case from current and emerging areas of public health, students working in multi-disciplinary groups demonstrate their ability to apply the general and specific public health knowledge they have learned through their

courses of study and effectively apply that knowledge across disciplines to the effective resolution of a public health problem.

## **Biostatistics Concentration Coursework**

### **Fall II**

- PHCI-624 Clinical Trials I 2
- PHST-726 Clinical Trials Statistics Laboratory 1
- PHST-620 Introduction to Statistical Computing 3
- Concentration elective course 3
- PHST-679 Practicum Experience: Biostatistics 3

Semester Total 12

### **Spring II**

- PHST-640 Statistical Methods for Research Design in Health Studies 3
- PHST-681 Biostatistical Methods II 3
- PHST-679 Practicum Experience: Biostatistics 3
- PHMS-697 Integrating Learning and Experience in Public Health 3

Semester Total 12

Concentration Total 24

### **Electives**

The elective course in the biostatistics concentration may be selected from any 3 credit-hour, graduate-level course in the University with approval of the student's faculty advisor and the concentration coordinator.

## **Environmental and Occupational Health Concentration Coursework**

### **Fall II**

- PHEH-610 Occupational Health and Safety 3
- PHEH-650 Advanced Topics in Environmental Health 3
- Concentration elective course 3
- PHEH-679 Practicum Experience: Environmental and Occupational Health 3

Semester Total 12

### **Spring II**

- PHEH-620 Global Issues on Environmental and Occupational Health 3
- Concentration elective course 3
- PHEH-679 Practicum Experience: Environmental and Occupational Health 3
- PHMS-697 Integrating Learning and Experience in Public Health 3

Semester Total 12

Concentration Total 24

### **Electives**

The elective courses in the environmental and occupational health concentration may be selected from any 3 credit-hour, graduate-level course in the University with approval of the student's faculty advisor and the concentration coordinator.

# **Epidemiology Concentration Coursework**

## **Fall II**

- PHEP-602 Epidemiologic Methods 3
- PHEP-616 Disease Surveillance 3
- Concentration elective course 3
- PHEP-679 Practicum Experience: Epidemiology 3

Semester Total 12

## **Spring II**

- PHEP-617 Field Epidemiology 3
- PHEP-650 Advanced Topics in Epidemiology 3
- PHEP-679 Practicum Experience: Epidemiology 3
- PHMS-697 Integrating Learning and Experience in Public Health 3

Semester Total 12

Concentration Total 24

## **Electives**

The elective courses in the epidemiology concentration may be selected from any 3 credit-hour, graduate-level course in the University with approval of the student's faculty advisor and the concentration coordinator.

# **Health Promotion and Behavior Concentration Coursework**

## **Fall II**

- PHPB-604 Health Decision and Risk Analysis 3
- PHPB-615 Public Health Program Evaluation 3
- Concentration elective course 3
- PHPB-679 Practicum Experience: Health Promotion and Behavior 3

Semester Total 12

## **Spring II**

- PHMS-607 Managing Healthy Communities 3
- PHPB-612 Health Communication Campaigns 3
- PHPB-679 Practicum Experience: Health Promotion and Behavior 3
- PHMS-697 Integrating Learning and Experience in Public Health 3

Semester Total 12

Concentration Total 24

## **Electives**

The elective course in the health promotion and behavior concentration may be selected from any 3 credit-hour, graduate-level course in the University with approval of the student's faculty advisor and the concentration coordinator.

# **Health Management Concentration Coursework**

## **Fall II**

- PHMS-603 Legal and Bioethical Aspects of Public Health 3

- PHMS-615 Introduction to Health Systems 3
- Concentration elective course 3
- PHMS-679 Practicum Experience: Health Management 3

Semester Total 12

## **Spring II**

- PHMS-605 Governance and Management of Healthcare Organizations 3
- PHMS-607 Managing Healthy Communities 3
- PHMS-679 Practicum Experience: Health Management 3
- PHMS-697 Integrating Learning and Experience in Public Health 3

Semester Total 12

Concentration Total 24

## **Electives**

The elective course in the health management concentration may be selected from any 3 credit-hour, graduate-level course in the University with approval of the student's faculty advisor and the concentration coordinator.

# **Departmental Faculty**

**Robert R. Jacobs, Ph.D.**

**Director**

Faculty of Department of Bioinformatics and Biostatistics

Faculty of Department of Environmental and Occupational Health Sciences

Faculty of Department of Epidemiology and Population Health

Faculty of Department of Health Management and Systems Sciences

Faculty of Department of Health Promotion and Behavioral Sciences

# Graduate Certificate in Clinical Investigation Sciences

**Major:** GCPHCI

**Degree Awarded:** CERT

**Unit:** GH

**Program Webpage:** <http://louisville.edu/sphis/academics/certificate-in-clinical-investigation-sciences.html>

## Program Information

The Graduate Certificate in Clinical Investigation Sciences includes 16 credit-hours of didactic instruction with required courses in epidemiology, biostatistics, the responsible conduct of research, evaluating the health care literature and an elective in behavioral and social science, health economics or health services and outcomes research plus a one credit hour research paper. The Certificate Program can be completed in one year and is designed for those who want a career in a clinical research setting as well as those who want to upgrade their research skills. Courses taken in the certificate program can be applied toward the M.Sc. degree.

### Mission Statement of Program

The mission of the program is to cover the core material for personnel in the clinical research infrastructure.

### Objectives

The objective of the program is to train research associates, study coordinators, and research coordinators, for residency and fellowship programs. In addition, to assist faculty, fellows and residents with the design of a research project, insuring human subject protection, and basic quantitative analysis of data. The Certificate is also a mechanism for experienced clinical researchers and mid to senior level faculty to upgrade their skills in the clinical investigation sciences.

### Admission Procedures

Students seeking the Certificate should have a degree in a health field, or a graduate degree with appropriate experience in health care or clinical research.

Applicants must complete all forms for admission to the University of Louisville Graduate School and must meet the Graduate School's requirements for admission which are:

- Formal application.
- Application fee.
- At least 2 letters of recommendation.
- Official transcripts of all college work.

NOTE- The GRE is not required.

These items are required no later than thirty days before the first day of classes of the semester in which the applicant plans to enroll.

Prospective students are also required to submit the following items with their application:

- Resume/CV.
- A statement describing the applicant's qualifications, including prior experience in clinical research or health care, proposed (general) area of research and career plans.

## **Foundation Course Content**

Not applicable.

# **Curriculum**

## **Certificate in Epidemiology and Clinical Investigation Sciences Course Requirements**

### **Fall Semester**

- PHCI 611- Introduction to Clinical Epidemiology 2
- PHST 600 - Introduction to Biostatistics 3

### **Elective Courses (Select One)**

- PHCI 631 - Behavioral and Social Science in Health Care 2
- PHCI 650 - Medical Decision Analysis 2
- PHCI 602 - Health Services and Outcomes Research 2

### **Spring Semester**

- PHEP602 - Epidemiological Methods 3
- PHCI 629 - Special Topics: Epidemiological Methods 1
- PHCI 624 - Clinical Trials I 2
- PHCI 632 - Ethical Conduct of Health Research 2

### **Summer Semester**

- PHCI 601 - Evaluating Health Care Literature 1
- PHCI 699 - Mentored Research Paper 1

## **Departmental Faculty**

**W. Paul McKinney, M.D.**

*Professor*

**Richard Baumgartner, Ph.D.**

*Professor*

**Carlton A. Hornung, Ph.D., M.P.H.**

*Professor*

**Rob Steiner, M.D., Ph.D., M.P.H.**

*Professor*

**Osborne P. Wiggins, Ph.D.**

*Professor*

**L. Jane Goldsmith, Ph.D.**

*Associate Professor*

**Ruth Carrico, Ph.D., R.N.**

*Assistant Professor*

**Frank Groves, MD**

*Assistant Professor*

**Steven McCabe, M.D., M.Sc.**

*Assistant Professor*

**Susan B. Muldoon, M.P.H., Ph.D.**

*Assistant Professor*

**Chenxi Wang, MD, M.Sc., Ph.D.**

*Assistant Professor*

**Cathy R. Whalen, Pharm D.**

*Assistant Professor*



# Speed Professional

Bioengineering - MEng.

Chemical Engineering MEng.

Civil Engineering - MEng.

Computer Engineering Computer Science - MEng.

Electrical Engineering - MEng.

Engineering Management - MEng.

Industrial Engineering - MEng.

Mechanical Engineering - MEng.

# Master of Engineering in Bioengineering

**Major:** BE

**Degree Awarded:** MEng.

**Unit:** SP

**Program Webpage:** <http://www.louisville.edu/speed/bioengineering/>

## Program Information

The Master of Engineering with specialization in Bioengineering (M.Eng. BE) is an integrated five-year degree program that includes a year of cooperative education experience. The first four (4) years of the program leads to a Bachelor of Science degree in Bioengineering which is described in the University's Undergraduate Catalog.

### Admission Requirements

Requirements for admission or readmission include:

- Completion of a program of studies equivalent to that obtained through the Division of Pre-Engineering and Basic Studies for the field of Bioengineering; this includes one calendar year of cooperative education, or the equivalent in full-time employment, within the biomedical or bioengineering device or process industries.
- Recommendations by the faculty and chair of the Department of Bioengineering for admission or readmission to the Division of Higher Studies.
- A cumulative baccalaureate program grade-point average of 3.00/4.00 for unconditional acceptance. However, those students with cumulative baccalaureate GPAs of 2.5-3.0 may be admitted on a provisional basis by submitting a formal petition to the faculty of the Bioengineering Department.
- Applications for admission to the M.Eng. BE degree program should be submitted directly to the Admissions Office of the JB Speed School of Engineering rather than the Graduate School.

### Prerequisite Requirements

Since the M.Eng. BE is part of a five-year program, the requirements stipulated in item (1) above in the Admission Requirements section must be completely and precisely satisfied. Typically, this is very difficult for students who have not matriculated through the preceding four years at the Speed School, but each student will be evaluated on a case-by-case basis.

## Curriculum

Upon entering the Professional School, the student chooses an area of concentration for the master's thesis and selects a sequence of program elective courses for the thesis concentration (list of courses available in the Department of Bioengineering). The M.Eng. BE degree requires the following over and above the Bachelor of Bioengineering Degree:

<b>Semester</b>	<b>Hours</b>	<b>Total</b>
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## Higher Studies Division

BE 621, 691; ME 637; PHCI 621; XXX<sup>1</sup>, XXX<sup>1</sup>,  
XXX<sup>1</sup>, XXX<sup>1</sup>, XXX<sup>1</sup> 27

Thesis<sup>2</sup> 6

Minimum Total 33<sup>3</sup>

<sup>1</sup> A student specializing in BE is required to select five approved electives (500 or 600 Level) totaling at least 15 semester hours. By proper choice of these electives, a student may develop specific strengths in areas such as bioelectronics, biomedical devices, bioinformatics, bioimaging, biomechanics, rehabilitation engineering, molecular engineering, cellular engineering or tissue engineering. However, depending on faculty availability and other departmental needs, sufficient courses may not be offered in any one or two year period to allow a student to specialize in some of these areas. Therefore, these electives need not necessarily be BE courses, but the student's research advisor and academic advisor must approve non-Bioengineering courses from a list of appropriate engineering design and engineering science courses available in the BE Department.

<sup>2</sup> A full-time student is required to have selected both an approved M.Eng. thesis topic and the director and members of the thesis committee during the first term of the graduate/professional year. Six (6) semester hours of BE 697 are required to satisfy the minimum M.Eng. thesis requirements.

<sup>3</sup> The five-year total for the M.Eng. degree in Bioengineering is 171 semester hours.

## Departmental Faculty

### **Robert S. Keynton**

*Associate Professor*  
Chair

### **Andrea S. Gobin**

*Assistant Professor*

### **Aoy Tomita-Mitchell**

*Assistant Professor*

### **Palaniappan Sethu**

*Assistant Professor*

### **Guruprasad A. Giridharan**

*Assistant Professor (Term)*

### **Steven C. Koenig**

*Associate Professor*

Joint Appointment with Department of Surgery

### **George Pantalos**

*Professor*

Joint Appointment with Department of Surgery

# Master of Engineering in Chemical Engineering

**Major:** CHE

**Degree Awarded:** MEng.

**Unit:** SP

**Program Webpage:** <http://www.louisville.edu/speed/chemical>

## Program Information

The Master of Engineering with specialization in Chemical Engineering (M.Eng.Ch.E.) is a degree offered by the Speed School of Engineering. It is accredited at the advanced level by ABET, Inc.

### Admission Requirements

Requirements for admission or readmission include:

1. Completion of a program of studies equivalent to that obtained through the Division of Pre-Engineering and Basic Studies for the field of Chemical Engineering; this includes one calendar year of cooperative education, or the equivalent in **full-time** employment, within the Chemical Process Industries.
2. Recommendation by the faculty and chair of the Department of Chemical Engineering
3. A cumulative baccalaureate program grade-point average of 2.50/4.00 for unconditional acceptance.
4. Applications for admission to the M.Eng.Ch.E. degree program should be submitted directly to the Admissions Office of the JB Speed School of Engineering rather than to the Graduate School.

### Prerequisite Requirements

Since the M.Eng.Ch.E. is accredited as part of a five year program, the requirements of item (1) above in the section of Admissions must be satisfied exactly. This is very difficult for students who have not matriculated through the preceding four years at the Speed School. Therefore, almost all students who earn an ABET accredited undergraduate degree pursue the MSChE or Ph.D. degrees.

## Curriculum

The M.Eng.Ch.E. degree requires the following over and above the Bachelor of Chemical Engineering Degree.

	<b>Semester Hours</b>	<b>Total</b>
Higher Studies Division <sup>1</sup> ChE 595, 610, 620, 641, 686, XXX <sup>2</sup> , XXX <sup>2</sup> , XXX <sup>2</sup> , XXX <sup>2</sup>	25	
Thesis Alternative - ChE 697 <sup>3</sup> OR Course Work And Project Alternative - ChE 698, 699 <sup>5</sup>	6	
<b>Minimum Total</b>		<b>31 <sup>4</sup></b>

<sup>1</sup> A student entering the Division of Higher Studies will be required to select either the thesis alternative path or the course work and project alternative path for the degree program.

<sup>2</sup> A student specializing in ChE is required to select four approved electives (500 or 600 level) totaling at least 12 semester hours. By proper choice of these electives, a student may develop specific strengths in areas such as materials, process control, mass transfer and separations, pollution prevention, or biochemical engineering. However, depending on faculty availability and other departmental needs, sufficient courses may not be offered in any one or two year period to allow a student to specialize in some of these areas. These electives need not necessarily be Chemical Engineering courses, but the student's research advisor and academic advisor must approve non-Chemical Engineering courses.

<sup>3</sup> A regularly enrolled student selecting the thesis alternative is required to select both an approved M.Eng. thesis topic and the members of the thesis committee during the first term of the graduate/professional year. Six (6) semester hours of ChE 697 are required to satisfy the minimum M.Eng. thesis requirements.

<sup>4</sup> The five-year total for the M.Eng. degree is 170 semester hours.

<sup>5</sup> A student selecting the course work alternative will substitute ChE 698 and ChE 699 for 6 hours of MEng thesis.

## Departmental Faculty

### **Kyung A. Kang**

*Professor*

Graduate Program Director

### **Walden L.S. Laukhuf**

*Professor*

Associate Chair

### **Mahendra K. Sunkara**

*Professor*

### **Thomas L. Starr**

*Professor*

Associate Dean for Research and Facilities

### **James C. Watters**

*Professor*

Chair

Undergraduate Student Advisor

### **R. Eric Berson**

*Assistant Professor*

### **Moises Carreon**

*Assistant Professor*

### **Gerold A. Willing**

*Assistant Professor*

### **Richard P. Baldwin**

Associate

*Professor of Chemistry*

**Lawrence Gettleman**

*Associate*

*Professor of Prosthodontics and Biomaterials*

**Patricia A. S. Ralston**

*Associate*

*Professor of Engineering Fundamentals*

**Richard A. Ward**

*Associate*

*Professor of Medicine, Division of Nephrology*

**Duane F. Bruley**

*Adjunct Professor*

**Garrett Cawthon**

*Adjunct Professor*

**Britton Chance**

*Adjunct Professor*

**David W. Wheatley**

*Adjunct Professor*

**Joseph A. Zimlich**

*Adjunct Assistant Professor*

**Dermot J. Collins**

*Emeritus Professor*

**Pradeep B. Deshpande**

*Emeritus Professor*

**Marvin Fleischman**

*Emeritus Professor*

**Earl R. Gerhard**

*Emeritus Dean and Professor*

**Dean O. Harper**

*Emeritus Professor*



# Master of Engineering in Civil Engineering

**Major:** CE

**Degree Awarded:** MEng.

**Unit:** SP

**Program Webpage:** <http://speed.louisville.edu/civil/>

## Program Information

The Department of Civil and Environmental Engineering of the Speed School of Engineering, the school of engineering and applied science of the University of Louisville, offers programs of study leading to the degrees of Master of Science and Doctor of Philosophy in Civil Engineering. It also offers an integrated five-year program of cooperative education leading to the professional degree of Master of Engineering.

## Curriculum

### Higher Studies Division

CEE 680, 697 <sup>1</sup>(9)

In addition, at least 21 semester hours of course work must be completed in one of the following specialty areas <sup>2</sup>:

### Facilities Engineering (including courses in geotechnical/structural)

CEE 520, 522, 550, 552, 604, 620, 621, 625, 652, 653, 654 (21 hours)

### Public Works Engineering (includes courses in geotechnical/transportation/water resources)

CEE 550, 552, 560, 570, 571, 572, 604, 652, 653, 654, 660, 662, 665, 670, 673, 674 (21 hours)

At the discretion of the student's advisor, the following Environmental courses may be selected to fulfill program elective requirements for either Facilities Engineering or Public Works Engineering.

CEE 509, 534, 535, 561, 573, 675, 694

Minimum Total..... **30** <sup>3</sup>

### Notes:

1. A regularly enrolled full-time student is required to select an approved M.Eng. thesis topic and the members of the thesis committee during the first term of the graduate/professional year.
2. Both specialty areas meet the engineering topics criteria of the EAC/ABET.
3. The five-year total for the M.Eng. degree is 163 semester hours.

## Departmental Faculty



**Chair**

J. P. Mohsen , Professor

**Professors**

N. R. Bhaskar

Louis F. Cohn

Mark French

D. Joseph Hagerty

R. A. Harris

Thomas Holloman

Arthur C. Parola

Mario Paz

Charles R. Ullrich

Terence A. Weigel

**Professors Emeritus**

Michael A. Cassaro

C. Eugene Miller

# Master of Engineering in Computer Engineering Computer Science

**Major:** CECS

**Degree Awarded:** MEng.

**Unit:** SP

**Program Webpage:** <http://www.louisville.edu/speed/cecs/>

## Program Information

The Department of Computer Engineering and Computer Science at the Speed School of Engineering, offers an integrated five-year program of cooperative education leading to the professional degree of Master of Engineering with a specialization in Computer Engineering and Computer Science. The first four (4) years are described in the University's Undergraduate Catalogue.

The Department also offers a program of study leading to the degree of Master of Science in Computer Science and a doctoral program in cooperation with the Department of Electrical and Computer Engineering. For more information on the doctoral program refer to the program section of this link- <http://www.louisville.edu/speed/cecs/>

## Curriculum

On entering the Professional School, the student chooses an area of concentration for the master's thesis and selects a sequence of program elective courses for the thesis concentration. The Master of Engineering degree is accredited by EAC/ABET under the criteria for Computer Engineering. Students with ABET accredited Bachelors degrees in Engineering will also be considered for this degree.

	<b>Semester Hours</b>	<b>Total</b>
Higher Studies Division <sup>1,3</sup>		
CECS 502, 510, 530	7	
CECS 619, 622, 630, 697 <sup>3</sup>	17	
Approved CECS Electives <sup>2,4</sup>	6	
CECS 511	1	

<sup>1</sup>CECS students are required to take the "C++" and "JAVA" programming language course. "C++" and "JAVA" programming is used in several CECS courses.

<sup>2</sup>The CECS elective may be chosen from the following approved list: CECS 522, 530, 542, 545, and 5463

<sup>3</sup>A full-time student is required to have selected both an approved M.Eng. thesis topic and the director of the thesis committee during the first term of the graduate/professional year.

<sup>4</sup>Required CECS program elective courses may be chosen from CECS 600-level courses to provide concentration at the Master of Engineering level in the areas of research focus in the department. Lists of appropriate engineering design courses and engineering science courses are available in the CECS Department.

\*The five-year total for the M.Eng degree is 164 semester hours.

## Departmental Faculty

**Adel S. Elmaghraby**

*Professor*

Chairman

**James H. Graham**

*Professor*

**Anup Kumar**

*Professor*

**Melvin J. Maron**

*Professor*

EM-Core Coordinator

**Rammohan K. Ragade**

*Professor*

CSE, Ph.D. Coordinator

**Peter B. Aronhime**

*Professor*

**Darrel L. Chenoweth**

*Professor*

**Thomas G. Cleaver**

*Professor*

**Robert W. Cohn**

*Professor*

**Joseph D. Cole**

*Professor*

**Aly A. Farag**

*Professor*

**Barry R. Horowitz**

*Professor*

**Jacek M. Zurada**

*Professor*

**Dar-jen Chang**  
*Associate Professor*

**Ahmed H. Desoky**  
*Associate Professor*  
MEng Coordinator

**Ibrahim N. Imam**  
*Associate Professor*

**Mehmed M. Kantardzic**  
*Associate Professor*

**Antonio Badia**  
*Assistant Professor*

**Khaled A. Kamel**  
*Emeritus/Emerita*

**Arthur M. Riehl**  
*Emeritus/Emerita*

# Master of Engineering in Electrical Engineering

**Major:** EE

**Degree Awarded:** MEng.

**Unit:** SP

**Program Webpage:** <http://www.ece.louisville.edu/>

## Program Information

The mission of the electrical engineering program is to educate students in a professional school context, with the students completing a five-year program including cooperative education assignments and a major design experience.

The Department of Electrical and Computer Engineering offers an integrated five-year program of cooperative education leading to the professional degree Master of Engineering.

The department also offers programs leading to Master of Science and Ph.D. degrees in electrical engineering and participates in the Ph.D. program in Computer Science and Engineering, offered jointly with the Computer Engineering and Computer Science Department.

## Curriculum

### Master of Engineering in Electrical Engineering

#### Thesis or Paper Alternative

Minimum Curricular Requirements of the Program--Semester Hours

#### Higher Studies Division<sup>1</sup>

ECE 500-level Program Electives <sup>2</sup> -----9

ECE 600-level Program Electives <sup>2</sup>-----9

XXX 500-level Technical Elective<sup>3</sup>-----3

XXX 600-level Technical Elective<sup>3</sup>-----3

ECE 697 or ECE 698-----8

**Minimum Total** -----32<sup>4</sup>

### Master of Engineering in Electrical Engineering

#### Course Only Option

Minimum Curricular Requirements of the Program--Semester Hours

#### Higher Studies Division<sup>1</sup>

ECE 500-level Program Electives <sup>2</sup> -----13

ECE 600-level Program Electives <sup>2,5</sup> -----13

XXX 500-level Technical Elective<sup>3</sup> -----3

XXX 600-level Technical Elective<sup>3</sup> -----3

**Minimum Total** -----32<sup>4</sup>

### Notes:

1. A total of nine semester hours of design electives is required in the Higher Studies Division. A list of approved Design Electives is available in the Department.
2. Courses selected to meet the 500 and 600 level Program Electives require the approval of the student's thesis director. Note that 600 level courses may be substituted for 500 level courses.
3. Courses selected to meet the 500 and 600 level Technical Electives require the approval of the student's thesis advisor. Note that 600 level courses may be substituted for 500 level courses.
4. The five-year total for the M.Eng. degree is 168 semester hours.
5. Must include ECE 699 or a course from a list of approved research/project courses, maintained by the Department, and ECE 696.

ECE Graduate Students are allowed to take only six (6) hours of Independent Study (ECE 593 or 693) and/or Projects (ECE 505 or 605). These courses may be taken in any combination, but the total number of hours is NOT to exceed six (6) hours.

Program electives are selected from ECE courses. Technical electives are selected, with the advisor's approval, from courses in related fields, such as other engineering disciplines, computer science, mathematics, and physical and biological sciences.

## Departmental Faculty

James H. Graham  
Chairman  
*Professor*

Amir A. Amini  
*Professor*

Bruce W. Alphenaar  
*Professor*

Robert W. Cohn  
*Professor*

Joseph D. Cole  
*Professor*

Aly A. Farag  
*Professor*

Barry R. Horowitz  
*Professor*

John H. Lilly  
*Professor*

Kevin M. Walsh

*Professor*

Jacek M. Zurada

*Professor*

Hollace L. Cox

*Associate Professor*

Xiangqian Liu

*Associate Professor*

John F. Naber

*Associate Professor*

Cindy K. Harnett

*Assistant Professor*

Tamer Inanc

*Assistant Professor*

Shamus McNamara

*Assistant Professor*

Peter B. Aronhime

*Emeritus*

Samuel V. Bell, Jr

*Emeritus*

Kiron C. Bordoloi

*Emeritus*

Darrel L. Chenoweth

*Emeritus*

Thomas G. Cleaver

*Emeritus*

J. Carroll Hill

*Emeritus*

Leo B. Jenkins, Jr.

*Emeritus*

Donald J. Scheer

*Emeritus*

# Master of Engineering in Engineering Management

**Major:** EM

**Degree Awarded:** MEng.

**Unit:** SP

**Program Webpage:** <http://www.louisville.edu/speed/industrial/>

## Program Information

The Master of Engineering with specialization in Engineering Management (MEngEM) is a professional degree offered by the Speed School of Engineering. It is a part-time, evening degree program open only to those students who have graduated from an ABET-accredited engineering degree program.

### Admission

A requirement for admission to the program is that the applicant possess a bachelor's degree in engineering from a college or university offering programs which are accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology. In addition, it is expected that the student be actively engaged in full-time professional employment during the period of enrollment in the degree program.

### Prerequisite Requirements

The assumption is made that entering students are reasonably competent in a computer programming language such as Visual Basic, C, C++ or Java.

## Curriculum

### Degree Requirements

The following core of graduate course credits are required for the MEngEM:

### Required Courses

- EM 513- Operations Management (3)
- EM 525- Project Management (3)
- EM 561- Engineering Statistics I<sup>1</sup> (3)
- EM 582- Management of Human Systems (3)
- EM 628- Engineering Management (3)
- EM 670- Engineering Financial Management (3)
- EM xxx- Engineering Management electives<sup>2</sup> (6)

### Thesis Options

- EM 697- Engineering Management Thesis (6) or
- EM 699- Engineering Management Project (3) *and* EM xxx, Engineering Management electives<sup>2</sup> (3)



**TOTAL = 30** semester credits

### **Advising**

Entering MEngEM candidates will be advised by the MEngEM Program Coordinator, Dr. William E. Biles. The candidate should select a thesis/project advisor prior to registering for his or her third semester.

<sup>1</sup> If a student has previously taken a Probability and Statistics course comparable to EM 561, he or she is required to take EM 661 – Engineering Statistics II

<sup>2</sup> Electives may be selected from Engineering Management, Industrial Engineering, or any of the engineering disciplines offered in the Speed School of Engineering. Six credits of courses in one of the programs in Business Administration may also be selected.

## **Departmental Faculty**

John S. Usher

*Professor*

Chair

William E. Biles

*Professor*

Clark Professor of Computer-Aided Engineering

Sunderesh S. Heragu

*Professor*

Duthie Chair in Engineering Logistics

Suraj M. Alexander

*Professor*

Gail W. DePuy

*Professor*

Gerald W. Evans

*Professor*

Herman R. Leep

*Professor*

Scherrill G. Russman

*Professor and Assistant Dean*

Mickey Wilhelm

*Professor and Dean*

Naira Campbell-Kyureghyan

*Assistant Professor*

Lijian Chen

*Assistant Professor*

# Master of Engineering in Industrial Engineering

**Major:** IE

**Degree Awarded:** MEng.

**Unit:** SP

**Program Webpage:** <http://www.louisville.edu/speed/industrial/>

## Program Information

The Master of Engineering with specialization in Industrial Engineering (MEngIE) is a professional degree offered by the Speed School of Engineering. It is accredited at the advanced level by the Accreditation Board for Engineering and Technology (ABET).

### Admission

Requirements for admission or readmission include:

1. Completion of a program of studies equivalent to that obtained through the Speed School of Engineering Division of Pre-Engineering and Basic Studies for the field of Industrial Engineering.
2. A cumulative baccalaureate program grade-point average of 2.50/4.00 for unconditional admission.

### Prerequisite Requirements

Because the MEngIE is accredited as part of a five year program, the requirements of item (1) above in the section of Admissions must be satisfied exactly. This is very difficult for students who have not matriculated through the preceding four years at the Speed School. Therefore, almost all students who earned an ABET accredited undergraduate degree elsewhere pursue the MSIE or Ph.D. degrees.

## Curriculum

### Degree Requirements

To earn the MEngIE degree, students must complete the academic courses and three cooperative internships (135 credit hours total) required for the BSIE degree within the Divisions of Pre-Engineering and Basic Studies (or equivalent) and the following 30 credit hours of study:

### Required Courses

- IE 581- Ergonomic Techniques in the Workplace (3)
- IE 630- Advanced Production Systems Design (3)
- IE 640- Applied Systems Analysis (3)
- IE 650- Material Flow Systems Design (3)
- IE 657- Models for Design and Analysis of Logistical Systems (3)
- IE xxx- Industrial Engineering electives (9)

### Thesis Options

- IE 697- M.Eng. Thesis in Industrial Engineering (6)

- IE 699- Industrial Engineering Master's Project *and* IE xxx, Industrial Engineering elective (3)

**TOTAL = 165**

### **Advising**

MEngIE candidates are advised by the department chairman or research advisor.

## **Departmental Faculty**

John S. Usher

*Professor*

Chair

William E. Biles

*Professor*

Clark Professor of Computer-Aided Engineering

Sunderesh S. Heragu

*Professor*

Duthie Chair in Engineering Logistics

Suraj M. Alexander

*Professor*

Gail W. DePuy

*Professor*

Gerald W. Evans

*Professor*

Herman R. Leep

*Professor*

Scherrill G. Russman

*Professor and Assistant Dean*

Mickey Wilhelm

*Professor and Dean*

Naira Campbell-Kyureghyan

*Assistant Professor*

Lijian Chen

*Assistant Professor*

# Master of Engineering in Mechanical Engineering

**Major:** ME

**Degree Awarded:** MEng.

**Unit:** SP

**Program Webpage:** <http://www.louisville.edu/speed/mechanical/>

## Program Information

The Mechanical Engineering Department in the J.B. Speed School of Engineering at the University of Louisville offers programs of study leading to the degrees of Master of Science and Doctor of Philosophy in Mechanical Engineering. It also offers an integrated five-year program with a cooperative education component that culminates in the Master of Engineering degree and is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (EAC/ABET).

### Master of Science

In addition to the Master of Engineering program, the Mechanical Engineering Department offers a Master of Science degree in Mechanical Engineering through the Graduate School. This program is appropriate for students not holding a mechanical engineering baccalaureate degree from the University of Louisville. Both thesis and non-thesis options are available.

### Doctor of Philosophy in Mechanical Engineering

Through the Graduate School, the Mechanical Engineering Department offers a program of study leading to the Doctor of Philosophy degree in Mechanical Engineering. This program provides an opportunity for students to complete advanced course work and conduct independent research in one of a number of specialization areas. Those interested in the Ph.D. program should consult the Graduate School catalog for requirements and contact information.

## Curriculum

### Higher Studies Division

ME 644 (3)

ME 697 1, 2 (6)

ME Program Electives 3, 4, 5 (21)

1. Upon admission into the Higher Studies Division, M.Eng. candidates are assigned a faculty academic advisor. Thesis students are encouraged to select a thesis topic and advisor during the first term of the graduate/professional year. The thesis advisor then serves as the student's academic advisor. Students must obtain the consent of their thesis advisor prior to enrolling in ME 697.

2. The faculty of the Mechanical Engineering Department has approved a non-thesis M.Eng. curriculum alternative that permits students to satisfy EAC/ABET accreditation criteria by replacing the six M.Eng. thesis hours (ME 697) with one three-hour 600-level course selected from the list of approved Mechanical Engineering Program Electives, and a three-hour structured research project (ME 645).

3. At least nine of the 21 program elective credit hours must be at the 600 level or above.
4. Courses to meet the program elective requirements are selected with the assistance of the student's advisor.
5. The Mechanical Engineering Department's B.Sc. curriculum includes 14.0 EAC/ABET design hours. The 500 and 600 level M.Eng. Program Electives must contain a minimum of 6.0 additional design hours.
6. The five-year total for the M.Eng. degree is 163 semester hours.

## **Departmental Faculty**

### **Professor and Chair**

Glen Prater, Jr.

### **Professors**

W. Geoffrey Cobourn

Michael L. Day, Assistant Dean

William P. Hnat

Ronald A. Mann

M. Keith Sharp

Larry D. Tyler

Julius P. Wong

### **Associate Professors**

Gina Bertocci, Endowed Chair of Biomechanics

Ellen G. Brehob, Associate Chair

Timothy E. Dowling

Peter Quesada

### **Assistant Professors**

Roger D. Bradshaw

Andrea L. Knox-Kelecy (term)

Christopher M. Richards

Ali M. Shahhosseini (term)

Joris Leijnse (term)

### **Associate Professor**

Michael J. Voor

### **Adjunct Assistant Professors**

Claudia Angeli

Surya S. Patel

### **Instructor**

Lubov P. Andrusiv

### **Emeritus Faculty**

Hsing Chuang

Robert L. Collins

George C. Lindauer

Robert E. Stewart