

Undergraduate Research Mentorship Program

Sponsored by the



Student-Mentor Guidelines

1. The applicant should have successfully completed a significant amount of upper-class credit in his or her major at MU.
2. Students must apply in partnership with tenured or tenure-track faculty mentors in their A&S major departments. The student proposal and mentor recommendation should be configured in accordance with the standards of the individual discipline. Larger teams of investigators (sometimes including graduate students), for example, often conduct research projects in the sciences, while projects in the humanities regularly involve only the student and mentor. A graduate student should not serve in the primary mentorship role.
3. The student applicant must write a proposal to the URM program. He or she should consult the faculty mentor during preparation, but the committee expects the framing of the proposal to be the student's responsibility.
4. The URM committee reserves the right to review proposals from non-traditional students in accordance with each student's unique academic history.

Procedures, Summer Schedule, and Expectations

Application is comprised of a cover sheet and instructions on assembling a full application packet. The application may be copied as necessary; additional forms are available from the Office of the Dean of Arts and Science, 317 Lowry Hall. Normally, only rising juniors with 50-75 hours and at least a 3.25 G.P.A. are eligible for the program; a letter will be sent in January to all A&S students who meet these criteria. However, instances of delayed credits, transferred courses, or the like may cause eligible students not to be identified by the

computer search. If faculty, especially undergraduate directors, are aware of such cases, and if the students wish to apply, please clear individual situations with Associate Dean Ted Tarkow.

Important note: Students may apply for a summer, or a one term, or an academic-year mentorship.

Academic Credit *For the summer program*, students must be enrolled at the University, for a minimum of one credit hour, so that they have access to the library, computers, and recreational facilities. Additional hours for credit may be available at student and faculty discretion, and in all cases will be funded by the student. For the ordinary academic term or academic-year program, credit will be arranged through the department as part of the student's semester schedule and funded by the student (who may use the URM stipend to offset those charges).

Schedule The primary eight-week period for summer mentorships corresponds with the dates for the eight-week summer session; alternate periods can be arranged if cleared through the committee. Academic term or academic-year mentorships will take place in either the fall or the winter semester or over the course of the entire year.

Report The URM committee requires two forms of report from student participants: (1) *summer* participants give an oral presentation before the URM community, and (2) *all participants* must submit a written account of approximately 1500 words, on disk and in hard-copy, suitable for publication in a volume of research mentorship reports.

For further information, contact

Dean Ted Tarkow
A&S Dean's Office
317 Lowry Hall
Columbia MO 65211
(573) 882-4421
TarkowT@missouri.edu

Overview

The Undergraduate Research Mentorship Program aims to encourage and support undergraduate participation in faculty research in A&S departments. Funded jointly by the College of Arts and Science and the Provost and administered by a faculty committee, the URM Program is an opportunity for rising juniors to cooperate actively with faculty mentors, learning firsthand about the natural integration of research and teaching. **All Arts and Science students with 50-75 hours of course work and at least a 3.25 GPA are eligible to apply for either a summer mentorship, or a fall or winter semester mentorship.**

MU is unique in the state in being able to offer its undergraduates an introduction to national- and international-level research in a wide variety of disciplines. It is something only our campus can do, as we seek to enrich the undergraduate career of our brightest and most promising students. Expansion of the URM program from the summer into the regular academic year makes this nationally unique opportunity a part of the experience of as many undergraduate students as possible. The program also melds together the two chief missions of MU: research/creative achievement and teaching. It thus counters the artificial notion—embraced too often by students, faculty, and the general public alike—that research/creative achievement and teaching are somehow mutually exclusive activities.

Faculty Mentor's Role

Faculty members who agree to participate in this program have the opportunity to involve some of our most talented undergraduates in their personal research. This involvement will of course take different shapes according to the individual demands of the discipline, the specialty, the individual mentor, and the particular project.

For a summer mentorship, regular and frequent meetings—biweekly for at least an hour—should be scheduled over the eight weeks to discuss challenges and assess progress. For an academic-semester mentorship, weekly meetings of at least an hour would be appropriate. Of course, the faculty member and student are in the best position to determine the length and frequency of meetings appropriate to the discipline and to the specific research project. The core

activity that this program seeks to foster, in whatever particular shape, is a partnership that allows the undergraduate an inside look at the process of research/creative achievement that lies at the foundation of academic life.

Participating faculty mentors thus undertake to engage students directly in their research, not just to employ them as assistants. Accordingly, the URM Committee believes it is crucial to acknowledge the student fully (as co-author, associate investigator, or in some other appropriate capacity) in any publication or public presentation that results from the project and reports an activity in which the student has made a professional contribution.

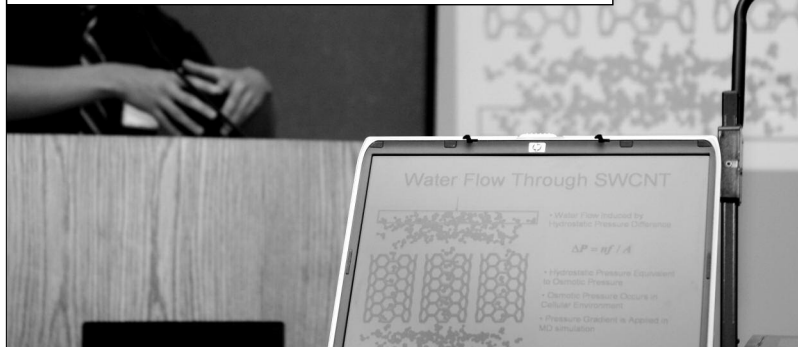


Departmental Role

The URM Committee feels strongly that the research mentorship experience should acquaint the student with the fundamental process of critical thinking and imaginative exploration that is the basis of all solid research/creative achievement, whatever the field of inquiry. Thus the activities pursued under this program must have at least two distinguishing characteristics: (1) they must involve the student in conceptualization and interpretation, and (2) they must be pre-approved by both the department

involved and the individual faculty member who serves as mentor.

Only the department and the individual mentor are in a position to direct the student's participation in a professionally responsible manner. Thus, while the URM Committee will offer guidance in developing procedures and will select participants from the applicant pool, it will be the student and mentor who design, carry out, and report on their research/creative achievement.



Sample Undergraduate Research Mentorship Projects

Art

A Study of Traditional Weaving Techniques with Modern Materials for a Large Scale Interactive Sculpture

Alisa "Joey" Los
Professor Jo Stealey

Biological Sciences

Cell Death vs. Tracer Leakage in Retrogradely Labeled Descending Brain Neurons in the Lamprey

Alisa Ash
Professor Andrew McClellan

Classical Studies

Oral Tradition and Typical Scenes in Homer's Iliad

Scott Garner
Professor John Miles Foley

English

Film Noir and the Crimes of Photography

Bryan Crockett
Professor Nancy West

Geological Sciences

An Evaluation of Methane Cycling in Mid-Continental Environments

Matthew Smith
Professor Cheryl Kelley

Russian

Konstantin Batyushkov and the Italian Influence on Russian Poetry

Erica Walker
Professor Timothy Langen

History

Patronage Patterns of England's Anglo-Norman Queens: Women's Use of Royal Resources, 1066-1154

Kristi Keuhn
Professor Lois Huneycutt

Mathematics

Graph Theory and Mathematical Models

Nathanael Ringer
Professor Ira Papick

Music

Coverage of the Music of South Africa in Selected American Newspapers and Magazines Since 1993

Sonia Palmer
Professor Michael Budds

Physics

Water Transport through Carbon Nanotubes: A Molecular Dynamics Study

Christopher Volz
Professor Ioan Kosztin

Psychology

Potential Factors that Influence Eyewitness Testimony Fallibility

Jenny Flat
Professor Moshe Naveh-Benjamin

Religious Studies

Sr. Thea Bowman and Her Impact on Predominately African-American Catholic Parishes

Marcia Chatelain
Professor Jill Raitt

Sociology

Women in Information Technology: Factors Associated with Career Persistence

Sarah Reedy
Professor Joan Hermsen

Theatre

Student Perception of Significant Acting Experience: A Grounded Theory Analysis

William Reardon
Professor Suzanne Burgoyne