

# Undergraduate Research Experiences

## Director

- Lon D. Moeller

Undergraduate Research Experiences includes areas of study that serve to enhance science, research, and laboratory experiences for undergraduate students: the Experimental Program to Stimulate Competitive Research (EPSCoR), Research Experience for Undergraduates in Microbiology, and the Summer Undergraduate MSTP Research Program.

## EPSCoR Research Internship

**Website:** <http://www.iowaepscor.org>

Iowa NSF EPSCoR (Experimental Program to Stimulate Competitive Research) supports summer research internships funded by the National Science Foundation for University of Iowa undergraduates. The EPSCoR program involves partnerships between the University of Iowa, Iowa State University, and the University of Northern Iowa for research on renewable energy (wind energy and biofuels), energy efficiency, and energy policy. The program's goals are to increase the number of students who choose careers in the STEM fields—science, technology, engineering, and mathematics—and to help the State of Iowa advance its capacity and competitiveness in research and technology.

Each intern is a member of a research group working on a specific project. Interns are mentored by the research group's faculty leader and graduate students and are expected to carry out research and to participate in weekly lab meetings and other scheduled activities of the group. At the end of the program, they have the opportunity to present their research findings in a poster session. Interns also interact with other student interns and participate in seminars, research lab tours, field trips, and social events.

Internships generally last eight to ten weeks, starting in late May or early June and ending in August. Most interns receive a stipend; in addition, room and board may be provided for students who live on campus during their internships. Application deadline is March 30 for the following summer.

Contact the Department of Chemical and Biochemical Engineering for more information.

## Research Experience for Undergraduates in Microbiology

**Website:** <https://medicine.uiowa.edu/microbiology/education/summer-research-experience-undergraduates-reu-microbiology>

The Department of Microbiology and Immunology offers URES:4130 Research Experience for Undergraduates in Microbiology, a 10-week summer program for qualified undergraduate students who are studying microbiology or other biological sciences and are interested in pursuing careers in science. Participants conduct research on a project they select, under the direct supervision of a faculty member.

Each participant receives a stipend and an allowance for incidental expenses. The program also pays for travel expenses and provides housing.

Applicants must be U.S. citizens or permanent residents who are enrolled in a university, college, or community college, and have at least one semester of undergraduate study remaining toward a bachelor's degree in the biological sciences. Application materials must include a completed online application, transcript, and two letters of recommendation. Application deadline is mid-February for the following summer.

Visit the program's website or contact the Department of Microbiology and Immunology, Carver College of Medicine, for more information.

## Summer Undergraduate MSTP Research Program

**Website:** <https://www.healthcare.uiowa.edu/mstp/summer/index.html>

The Summer Undergraduate MSTP Research Program is an intensive 10-week experience for undergraduates interested in becoming physician scientists. Participants gain experience in research laboratories and exposure to clinical medicine and medically relevant research in preparation for careers in academic medicine.

Students conduct research in any one of a variety of research areas, including the biomedical sciences, public health, and biomedical engineering. In addition, students shadow physician scientists in clinical settings, participate in career development seminars, and attend a weekly seminar series focusing on the intersection of science and medicine.

Participants receive a stipend and are reimbursed for most of their travel expenses. The program provides lodging on campus in University housing.

Applicants must be U.S. citizens or permanent residents who will have completed their junior year in a bachelor's degree program in the biological or physical sciences by the summer of entry. Applicants should submit an application (available on the program's website), an official college transcript, a curriculum vitae, and two letters of recommendation. Application deadline is early February for the following summer.

Contact the Medical Scientist Training Program, Carver College of Medicine, for more information.

## Courses

### Undergraduate Research Experiences Courses

**URES:2500 EPSCoR Undergraduate Research** 0 s.h.  
Participation in Experimental Program to Stimulate Competitive Research (EPSCoR) undergraduate research internship.

**URES:3100 Iowa Center for Research by Undergraduates Research Ambassador** 0-1 s.h.  
Promotion of undergraduate research from all disciplines within campus community; hosting various on-campus events, leading workshops, presentations at student organization meetings and in-class; leadership and public speaking; regular meetings with ICRU staff.

**URES:3200 Topics in Undergraduate Research 1-3 s.h.**

Upper-level, interdisciplinary seminar and undergraduate research leadership; discussion of research and creative work on a broad level. Requirements: current involvement in research or creative project with UI faculty or staff member for at least one full semester or one summer session prior to start of course.

**URES:3992 Undergraduate Research and Creative Projects 0 s.h.**

Independent research or pursuit of a creative project under mentorship of a faculty supervisor.

**URES:3993 Undergraduate Research and Creative Projects 1-4 s.h.**

Independent research or pursuit of a creative project under mentorship of a faculty supervisor.

**URES:3994 Undergraduate Research and Creative Projects 1-4 s.h.**

Independent research or pursuit of a creative project under mentorship of a faculty supervisor.

**URES:3995 ICRU Research Fellow 0 s.h.**

Recognition of undergraduates involved in scholarly efforts of UI faculty and research staff; work on specific research and/or creative projects under selected mentors; funded annually by the Iowa Center for Research by Undergraduates (ICRU) through a competitive application process. Requirements: selection as ICRU Fellow.

**URES:4130 Research Experience for Undergraduates in Microbiology 0 s.h.**

**URES:4150 Undergraduate MSTP Research 0 s.h.**

**URES:4170 Research Experience for Undergraduates in Nanoscience and Nanotechnology 0 s.h.**