Undergraduate Research Experiences

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Website: https://icru.research.uiowa.edu

Undergraduate Research Experiences (URES) courses enhance research and creative scholarship experiences for undergraduate students. These courses are administered through the Iowa Center for Research by Undergraduates (ICRU), which seeks to provide a broad range of research and professional development opportunities for undergraduates and their mentors.

URES Independent Study Courses

URES Independent Study courses provide opportunities for students to earn academic credit or transcript recognition for their research/creative scholarship involvement. These courses are intended to promote recognition of ongoing research participation. They are available to all undergraduates in any academic session other than winter session.

Collegiate and department-based research courses also may be available. Students are encouraged to consult their mentors or academic advisors regarding which option is most suited to their circumstances.

First-Year Seminars

First-Year Seminars (FYS) designated as research focused are offered through URES. Research-focused FYS introduce students to research in an instructor’s field. These courses often involve visits to research sites, hands-on projects, and exposure to disciplinary-based research. These are typically 10-week courses that meet for 75 minutes per week. An optional poster session is held during the last week of the course for students to display what they have learned during the semester.

Summer Research Programs

Many University of Iowa summer research programs enroll students for 0 s.h. in courses that provide transcript recognition of participation in the program. These are available to both current University of Iowa students and students who visit from other institutions to develop their research skills; see Summer Research Experiences for Undergraduates in the Catalog for more information.

Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>URES:1000</td>
<td>First-Year Seminar</td>
<td>1 s.h.</td>
</tr>
<tr>
<td>URES:2100</td>
<td>Louis Stokes Alliances for Minority Participation STEM Scholars</td>
<td>1 s.h.</td>
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<tr>
<td>URES:2200</td>
<td>Discover Research</td>
<td>1 s.h.</td>
</tr>
<tr>
<td>URES:3001</td>
<td>Introduction to Translational Research</td>
<td>0-3 s.h.</td>
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<tr>
<td>URES:3002</td>
<td>Practicum in Clinical and Translational Science</td>
<td>0-3 s.h.</td>
</tr>
<tr>
<td>URES:3100</td>
<td>Iowa Center for Research by Undergraduates Research Ambassador</td>
<td>0-1 s.h.</td>
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**URES:3500 Skill Development for Undergraduate Researchers** 0-2 s.h.
Introduction to research across disciplines, research communication (i.e., poster preparation, research presentation), curriculum vitae and résumé development, letters of recommendation, institutional structure, and more; focus on soft skill development for undergraduates currently involved in mentored research and creative scholarship.

**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:3996 Research Fellow** 0 s.h.
Involvement in scholarly efforts of UI faculty and research staff; students work on specific research and/or creative projects under selected mentors; funded by various strategic initiatives through competitive application processes. Requirements: selection by department or faculty mentor.

**URES:4110 Computational Bioengineering Summer Research Experience for Undergraduates** 0 s.h.
Immersive research experience focused on fundamental concepts of computational bioengineering and application of concepts to solve challenging biomedical problems; work on mentored research projects and showcase research at a University-wide presentation opportunity.

**URES:4120 Research Experience for Undergraduates: Computing for Health and Well-Being** 0 s.h.
Research experience in using computer science methods to study and solve current problems in health, well-being, and health care systems; work on mentored research projects and showcase research at a UI presentation opportunity.

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

**URES:4140 Research Experiences for Undergraduates in Evolutionary Biology** 0 s.h.
Intensive hands-on experience in a research lab; students create digital exhibits in collaboration with the UI Museum of Natural History and present their research at a University-wide poster presentation.

**URES:4150 Undergraduate Medical Scientist Training Program Research** 0 s.h.

**URES:4160 Research Experiences for Undergraduates in Geospatial Approaches to Watershed Science** 0 s.h.
Intensive hands-on experience in research for students in environmental fields.

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

**URES:4180 Edge of Space Academy** 0 s.h.
Summer research experience centered around space-based instrumentation for observing Earth and space; students build small instrument payloads that are integrated onto drone and high-altitude aerial platforms to take measurements of the Earth below and the atmosphere and space environment above; hands-on experience for students who have an interest in Earth, atmospheric, solar, and space science. Requirements: application and acceptance to program.

**URES:4220 University of Iowa Premed Student Summer Research Internship** 0 s.h.
Immersive medical research experience with focus on gathering, analyzing, and interpreting health data; writing a manuscript for publication.

**URES:4240 Fostering Undergraduate Talent: Uniting Research and Education (FUTURE) in Biomedicine** 0 s.h.
Mentored research experience to create new discoveries in biomedicine; preparation to pursue careers in science and clinical practice; translation of current knowledge into new educational materials; discussions, conferences, workshops, training sessions, lectures; university-wide presentation opportunity and a FUTURE in biomedicine symposium.

**URES:4260 Cancer Summer Undergraduate Research** 0 s.h.
Holden Comprehensive Cancer Center faculty-mentored cancer biology research; cancer research education; lectures and seminars; oral poster presentation experience; career counseling; extended mentoring.

**URES:4500 Summer Policy Research Institute** 1 s.h.
Exposure and enhancement of fluency with policy research through mentored, team-based experience; students choose between two tracks depending on their experience level.

**URES:4900 Topics in Engagement** 1 s.h.
Exploration of topics in undergraduate research, academic, social, and community engagement; small discussion class; topics selected by instructor.