Iowa Sciences Academy

Director

• Lori Adams (Biology)

Faculty: https://isa.uiowa.edu/people

Website: https://isa.uiowa.edu/

The Iowa Sciences Academy (ISA) is home to a range of programs that support the success of undergraduate students interested in research and scientific communication. Through ISA programs, students have access to hands-on research, professional development, and scientific outreach opportunities. The Iowa Sciences Academy strives to build a strong community of students, staff, and faculty that values diversity in the sciences.

The Science Alliance Internship Program supports qualified first- and second-year students interested in exploring research on campus. The program aims to enrich the undergraduate experience through coursework, mentor-matching, career guidance, and creating a cohort of students with similar interests in science and research. Competitive wages to carry out research in laboratories and access to a summer program for science alliance interns will be provided.

The Maximizing Access to Research Careers (UI-MARC) is a National Institutes of Health (NIH) funded program that supports the academic and personal success of qualified junior and senior students committed to pursuing a PhD in science. The goal of the UI-MARC research training program is to develop a diverse pool of undergraduates who complete their baccalaureate degree, and transition into and complete biomedical, research-focused higher degree programs (e.g., PhD). A yearly stipend, funding for conference travel, tuition support, and access to external summer research experiences are provided.

The mission of the National Science Foundation (NSF) funded Louis Stokes Alliance for Minority Participation (UI-LSAMP) program is to increase the number of underrepresented minority science, technology, engineering, and mathematics (STEM) graduates, and to build a foundation for greater increases in future years. UI-LSAMP facilitates professional development and finding laboratory experiences for underrepresented STEM majors transferring from community colleges. Selected students receive stipends for each term.

The Latham Science Engagement Initiative provides the opportunity for sophomore, junior, and senior students to interact with highly talented undergraduate students across science disciplines. The program prepares students to communicate science in the public sphere, work in multidisciplinary settings, and demonstrate the broader impact of scientific research. Students selected for the program complete two courses, design and implement science outreach projects, and participate in an event that highlights their achievements.

Admission

Students must apply for each program individually to be considered for admission. Requirements for admission vary from program to program. Admission to all programs requires an interview. For more information, including the online application forms, visit the Iowa Sciences Academy website.

In general, applicants should:

• have a strong interest in pursuing a research career;
• have a qualifying academic major;
• be in good academic standing (e.g., a grade-point average of at least 3.00); and
• meet additional requirements as specified by the individual program.

Courses

Iowa Sciences Academy Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISA:1040</td>
<td>Exploring Research</td>
<td>1 s.h.</td>
</tr>
<tr>
<td>ISA:1041</td>
<td>Entering Research</td>
<td>1 s.h.</td>
</tr>
<tr>
<td>ISA:2040</td>
<td>Professionalism in the Scientific Community</td>
<td>1 s.h.</td>
</tr>
<tr>
<td>ISA:2041</td>
<td>Career Exploration and Specification</td>
<td>1 s.h.</td>
</tr>
<tr>
<td>ISA:3040</td>
<td>Critical Analysis of Primary Literature</td>
<td>1 s.h.</td>
</tr>
<tr>
<td>ISA:3041</td>
<td>Pathways to Post-Undergraduate Education</td>
<td>1 s.h.</td>
</tr>
<tr>
<td>ISA:3992</td>
<td>Iowa Sciences Academy Undergraduate Research</td>
<td>0 s.h.</td>
</tr>
</tbody>
</table>

Registration in a section taught by student's research mentor. Requirements: participation in Iowa Sciences Academy.
ISA:4040 Teaching Your Undergraduate Research  1 s.h.
Scientific teaching principles (e.g., backwards design, active learning, formative assessment); students develop a teaching unit based on some aspect of their research and teach it to the class in preparation for future interviews where the ability to explain the background and significance for their research is a highly valued skill. Requirements: minimum of 60 s.h. earned, junior or senior standing, and undergraduate research experience.

ISA:4041 Senior Capstone Project  1 s.h.
Structure for development, planning, and implementation of a culminating project for the Iowa Sciences Academy; students dedicate three to five hours per week to the project and are encouraged to connect their projects to community issues or problem; integration of external learning experiences and activities including interviews, scientific observations, or internships.