

Biology Honors, BIOL 393

Honors in biology is earned by students completing BIOL 393 (one or two semesters), a written thesis, and presenting an oral presentation of original research. The research must occur within 12 months of graduation. The thesis should be structured in a style typical of primary literature publications in the student's area of research.

To apply for honors, students are required to have completed a formal research experience at SUNY Geneseo (e.g., substantial research during the summer or through at least one semester of BIOL 399) or complete an extramural research program. Students need to have and maintain a Biology GPA and overall GPA of at least 3.3, have completed 21 hours of Biology coursework, and have the support of a biology faculty advisor. An application must be submitted and approved by the Biology Undergraduate Committee. For projects conducted at SUNY Geneseo, BIOL 393 will be taken twice during the calendar year before graduation for a total of 6 credit hours. If all data collection and analyses were conducted during an extramural summer research program, BIOL 393 may need to be taken only during the fall semester, for a total of 3 credit hours, at the discretion of the Biology Undergraduate Committee. Credit for BIOL 393 requires a grade of A. Students working toward completing College Honors are not allowed to pursue honors in biology.

Purpose: The purpose of this program is to provide students an opportunity to pursue a focused, scientific research project, unavailable through standard coursework, under the direct supervision of a Biology faculty advisor. Honors students become actively involved in the process of scientific thinking and reasoning, experimental design, experimentation, and scientific writing.

Description: Content will vary with each instructor, but will include original research into a contemporary biological question. Before enrolling in BIOL 393, students must have engaged in one of the following experiences: at least one semester conducting research for credit (BIOL 399), participating in independent research at SUNY Geneseo during the summer, or participating in an extramural summer research program involving independent research. Those students who have the necessary GPA, the support of a faculty advisor, and the approval of their thesis project by the Biology Undergraduate Committee will be allowed to enroll in BIOL 393. The application form for approval of BIOL 393 should be submitted to the Biology Department (Undergraduate Committee) no later than April 30th (May graduation of the following year) or November 31st (December graduation the following year). For students completing summer research toward Biology Honors need to submit the application by August 15th.

Honors students will register for BIOL 393 during their last two semesters (generally the senior year), unless the research was completed during a summer research experience, in which case only one semester of BIOL 393 is required. BIOL 393 will consist of individual research and writing, directed by a member of the Biology Department, for the purpose of composing of the honors thesis. The thesis will be presented in a style typical of primary literature publications in the student's area of research. The faculty advisor must be secured by the honors student at the time of application to the program. In addition, students must arrange for one additional faculty member to serve as a reader. The Biology Undergraduate Committee will assign a third faculty member to serve as a reader. The readers should be identified no later than two weeks into their first semester of the honors program.

Evaluation Procedure: A first draft of the thesis must be submitted to the faculty advisor and two faculty readers no later than four weeks prior to the last day of classes of the last semester of the program. The final draft of the thesis is to be submitted to the faculty advisor and two readers no later than one week before the final day of classes. The final thesis must be approved by the faculty advisor and two readers by the last day of final exams. Honors students are required to complete a public, oral presentation near the completion of the project (e.g., during GREAT Day or other on-campus venue). Honors officially will be bestowed upon the student by the Biology Department upon receiving the grade of A in BIOL 393 and the approval of the honors thesis and the public presentation of the thesis research.

Biology Honors Timeline and Checklist

For students conducting research at Geneseo

Spring semester of junior year

Application form due to Biology Undergraduate Committee on or before April 30th

Requirements for application:

- ☐ Biology GPA of ≥ 3.3
- ☐ at least 1 semester of BIOL 399, or significant SUNY Geneseo summer research
- ☐ secure a faculty sponsor

Fall semester of senior year

- ☐ enroll in BIOL 393 (3 credits)
- ☐ arrange for faculty member to be a thesis reader, no later than two weeks into the semester
- ☐ Biology Undergraduate committee will assign an additional thesis reader, no later than two weeks into the semester

Spring semester of senior year

- ☐ enroll in BIOL 393 (3 credits)
- ☐ first draft of thesis due to readers, no later than four weeks prior to final day of classes
- ☐ oral, public presentation at GREAT day or departmental seminar
- ☐ completed thesis due one week before final day of classes

For students conducting extramural research

Application form due to Biology Undergraduate Committee on or before August 15th

Requirements for application:

- ☐ Biology GPA of ≥ 3.3
- ☐ must have completed significant extramural summer research
- ☐ secure a faculty sponsor

Fall semester of senior year

- ☐ enroll in BIOL 393 (3 credits)
- ☐ arrange for faculty member to be a thesis reader, no later than two weeks into the semester
- ☐ Biology Undergraduate committee will assign an additional thesis reader, no later than two weeks into the semester
- ☐ first draft of thesis due to readers, no later than four weeks prior to final day of classes
- ☐ oral, public presentation, (e.g., at Tri-Beta or departmental seminar)
- ☐ completed thesis due one week before final day of classes

Biology Honors Application

This form should be submitted to the Biology Department Undergraduate Committee no later than **April 30th** (graduation in May of following year) or **November 31st** (graduation December of following year). For those students who are completing a summer research experience away from Geneseo and will use that as a basis for an Honor's Thesis, the application is due by **August 15th**.

Applicant's name: _____

Date of application: _____

Honors thesis faculty advisor: _____

Student's choice of faculty thesis reader (if known): _____

Title of research project: _____

Location of research and name of supervisor (if completed elsewhere): _____

Previous research experience (summer research experience and/or BIOL 399): _____

Current GPA: _____

Expected graduation date: _____

Please attach a description of the research project, including:

- Hypothesis
- Objectives
- Background information
- Basic Experimental procedures to be used
- Expected needs (materials and resources)
- Timetable for research
- Please also include any relevant citations

Signature of applicant

Date

Signature of honors thesis faculty advisor

Date