

**BIOL 4690**  
**INDEPENDENT RESEARCH PROJECT**

**Course description:** Independent research with proposal and manuscript writing, conducted with the guidance of a faculty member.

Students must be juniors or seniors to enroll in this 3-credit course. This course is intended to be one of three possible options for Biology majors fulfilling their Senior Research Experience: students can enroll in BIOL 4690 (this course), or BIOL 4910 (Honors Research Thesis), or BIOL 4590 (Research Project Lab). In BIOL 4690, students will propose, design, execute, interpret, and report on an independent research project conducted in any area of biological sciences supported by a faculty member in the School of Biology.

This course acts as a pre- or co-requisite for BIOL 4450 Senior Seminar. In Senior Seminar, students will present their proposal and research findings from their BIOL 4690 project. Thus, it is preferable that students take BIOL 4450 during the same semester they take BIOL 4690, although as an alternative students may opt to take BIOL 4450 in the semester immediately after they have completed BIOL 4690.

In order to register for this course, a student must secure the agreement of a faculty mentor. Students are expected to spend at least 9 hours per week throughout a 15 week semester on research activities. During the first two weeks of the semester, each student will prepare and submit a brief (1 page) research proposal for grading by their mentor. Most of the work of the semester will involve conducting the research project, analyzing data, and interpreting results. At the end of the semester, each student will submit a manuscript in scientific style of their research findings for grading by their mentor and by one additional faculty member who has agreed to play this role.

**Proposed Grading Scheme:**

Research proposal	20%
Final manuscript reporting research results	40%
Course participation in lab	40%