

Course (circle one): Biology 460 Biology 490
Student: Advisor: Lance Barton Credit: 1.0 Semester/Term:

Project Title:

Research Description:

Course Description: A Directed or Independent Study as Research in Biology is intended for students with extensive previous undergraduate research experience. The expectation is that the student will work closely with a faculty member, but will develop at least some component of the research project themselves. Advanced research students are typically responsible for helping to develop the skills in a less experienced peer by mentoring them within the context of the research project. The student should model all aspects of the research process including communication of science in various forms through written and oral presentations. Since research projects often last more than one term, students may only complete written documents, oral presentations, and assessment instruments once per project.

Grading: S/D/U

Course expectations: The grade in this course will not be based solely on the results that the student accomplishes. In order to complete the expectations of this course and earn a satisfactory grade (S), the student is responsible for the following:

1. I will work a minimum of 150 hours over the course of the semester (including meetings with the faculty member).
2. I will keep a detailed laboratory notebook which describes my experiments, results, goals, conclusions, and difficulties. It will be organized as a daily log of my efforts.
3. I will submit a proposal outline (less than 3 pages typed and double-spaced) with clear hypotheses, key background literature summaries, and rationale for my project by the second Monday of the first semester of the project.
4. I will develop a literature summary and proposal for the research project by the start of the fifth week of the first semester of the project (It must be completed prior to the drop deadline).
5. I will present the results of my research publicly as a poster or seminar at least once during the project.
6. I will actively participate in group lab meetings, lead journal club, and help maintain a collegial work environment in the laboratory.
7. I will contribute to maintaining a clean, safe laboratory work environment. I understand that working in a shared laboratory space requires cooperation by all participants.
8. I will behave in a professional manner when in the laboratory AND representing the laboratory at public functions such as seminars and conferences.
9. I will follow all safety guidelines and training while working in the laboratory.
10. I will complete the SURE assessment program before the end of my project.
11. I will complete Responsible Conduct of Research (RCR) training once each year.
12. I will submit a journal-style scientific report explaining my results and the outcomes of this project by 12pm on the last day of finals for the term (typed and double-spaced).

It is expected that ALL written documents will be completed iteratively, with faculty member input and guidance, therefore:

1. A draft of the project proposal outline should be submitted no later than the end of the first week of classes (4 days before it is due).
2. A draft of the literature summary and full proposal should be submitted no later than the start of the fourth week of classes (1 week before it is due).
3. A draft of the project results report should be submitted no later than the start of the last week of classes (2 weeks before it is due).
4. Completed drafts of posters or powerpoint presentations must be submitted at least one full week in advance of the first scheduled practice presentation with the faculty advisor.

I understand that failure to complete my responsibilities listed above (including cleaning roles within the laboratory community) or behaving in an inappropriate manner may result in an unsatisfactory (U) grade, being dropped from the course, or losing the privilege to enroll in another research course with my faculty advisor.

Signature

Date