

## BIOL 386 Independent Research – Guidelines

Please read the following guidelines, fill out this form, and return to the Biology Advisor (LSB 3139)

APPROVAL FOR BIOLOGY 386 – MUST BE COMPLETED BEFORE REGISTRATION

Student Name \_\_\_\_\_ Student # \_\_\_\_\_

Biology GPA \_\_\_\_\_

Is this request for the honors section? \_\_\_\_\_

Research Mentor Name \_\_\_\_\_ Department \_\_\_\_\_

Brief description of research:

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Semester/Year of Enrollment \_\_\_\_\_

Hours Credit \_\_\_\_\_ (Credit can be 1-4 hours, College guidelines of 3-4 “contact” hours per credit hour; this means 3-4 hours in the lab per week for every credit earned.)

**Student:** I have read the 386 guidelines and understand that I need to:

1. Work with the faculty mentor to write a research proposal (typically 1-3 pages).
2. Submit the written proposal to the Chair within the first 2 weeks of start of the semester.
3. Perform the supervised laboratory research.
4. Submit an end of semester formal written report on your project to the Chair (typically ~7 pages).

Proposal and final report should be sent to the Chair using email.

Student Signature \_\_\_\_\_ Date \_\_\_\_\_

**Research Mentor:** I agree to mentor this student’s independent research and understand that I need to:

1. Work with the student to develop a research project and proposal (typically 1-3 pages).
2. Supervise the student’s research.
3. Work with the student on their formal written report (typically ~7 pages).
4. Submit a grade (A-F) during exam week for your student’s performance to the Chair of Biology.

Mentor Signature \_\_\_\_\_ Date \_\_\_\_\_

Final approval:

Chair of Biology Signature \_\_\_\_\_ Date \_\_\_\_\_

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Requirements:

- A minimum 2.7 GPA in Biology,
- Biology 115 with a minimum B grade
- Written consent of the Chair.

### Procedures for Biology 386

- 1) Biology 386 (1-4 credits/semester) with a maximum of four credit hours counting toward the Biology elective requirements and additional hours can be counted toward graduation.
- 2) A second semester Freshman must have taken Biology 115 and made a minimum grade of “B” in the course.
- 3) Biology 386 is open to Biology majors and advanced students from other disciplines on a case-by-case basis. Participating faculty must provide the chair a brief description of their research for students to review at pre-registration. Interested students must complete the following:
  - a) Identify a faculty mentor and discuss a research project in your area of interest,
  - b) Fill out and have the faculty mentor sign the “BIOLOGY 386 APPROVAL” form (first page of these guidelines)
  - c) Submit this form to the Department Advisor for course approval.
  - d) Work with the faculty mentor to draw up a written research proposal (typically one-to-three page/s)
  - e) Perform supervised laboratory research. The amount of time a student is required to work in the laboratory can vary based on the nature of the research but should be based on the following College guidelines of 3-4 “contact” hours per credit hour; this means 3-4 hours in the lab per week for every credit earned.
  - f) Submit the written proposal to the Chair; this must be completed within the first 2 weeks of start of the semester. Students not submitting a proposal within this time frame will be administratively dropped from Bio 386. Upon approval by the mentor, the student can submit an appended (updated) proposal for semesters subsequent to the first.
  - g) The proposal should include background information about the field of study, study objectives and a brief description of anticipated methods and a proposed timeline.
  - h) Submit an end of semester written report is required for each project. The formal report must follow a generally acceptable scientific format and be at least seven typed pages in length. References must be included as part of the report.

In cases where a research project spans two or more semesters, student must still submit a written progress report to their supervising faculty member at the end of each semester. The report must follow the basic scientific format described in section 3g. It should describe what research has been performed, any preliminary results, and a statement of future directions. The progress report must be submitted to the Chair in the same manner as a final report. The progress report will serve as a tangible basis for evaluation, which also includes an evaluation of work performed.

As part of the learning experience, the student is expected to gain proficiency in scientific writing. This will require involvement by the supervisor in the editing and grading of the writing process. It is expected that the final report submitted to the Chair will be the direct result of some corrected revisions.

- 4) The faculty mentor submits grades to the chair’s office by the last day of final exams. A grade is to be given whether the project is completed or not, and that grade is based on the work that the student has already performed. A grade of “I” is inappropriate (except in the case where a student is unavoidably absent). A grade of “F” will be submitted for any student who has not submitted his/her final report to their faculty mentor; the mentor will submit the graded report to the Biology Chair with a final grade. Grades may be communicated by phone by 5:00 PM on the last day of finals week but the grade must be submitted in writing by 9:00 AM on the Monday following the end of finals week.
- 5) **For summer, students have two options.** If you take one 6-week term, the student must turn in a proposal after one week, conduct the research, and turn in a final report at the end of the 6-week period. If the student is signed up for two 6-week terms, the proposal is due after one week, a short report is due at the first 6 weeks; During the second 6 weeks, no proposal is required, but the final report is due at the end of this 6-week period. The Research Mentor must email grades for both terms to the Chair by the last day of the 6-week term.