

## Graduate Program Assessment Plan – Department of Biology

Graduate students are assessed by several different methods that include course-based assessment and non-course-based assessment.

### **Course based assessment:**

1. Students are required to complete a collection of courses; the courses taken vary depending on concentration within the biology major and are decided upon with the input of the student's thesis advisor, who is a faculty member. The collection of courses, which contain graduate level courses and may contain upper-division undergraduate courses, include:

- a. Courses specific to their area of expertise
- b. Courses that expand their general knowledge of biological systems
- c. At least one seminar course, in which the student critically presents information from primary scientific literature in an oral presentation.

Students receive a letter grade in each of these courses. A student must achieve a cumulative GPA of 3.0 (B average) for the Master's Degree to be awarded.

### **Non-course based assessment:**

1. Thesis proposal

The student submits a written summary of the proposed Master's thesis research project to the thesis committee, which consists of at least three members of which at least two are faculty in the Department. The proposal includes background and significance of the project, a description of research methods to be employed, and a summary of how the data obtained will be evaluated. The thesis committee members evaluate the proposal critically and must approve of the proposal for the student to enroll for University Thesis units.

2. Students perform research under the direction of a faculty member.

In many cases the student receives unit credit for a portion of their research and receives a letter grade from the faculty advisor. In many cases, the student's research is presented at scientific conferences where it is disseminated to, and evaluated by, experts in the field.

3. Master's Thesis

The student writes a thesis based on his or her research findings. The thesis is read and critically evaluated by the thesis advisor and all other members of the thesis committee. A minimum of three knowledgeable individuals (the thesis committee) must agree that the thesis is of adequate quality, depth, and sophistication in order for it to be approved and submitted to the graduate division as partial fulfillment of the Master's degree.

4. Oral defense of the Master's Thesis

A formal oral presentation of his or her thesis research is required of the student; the audience for this presentation includes the thesis committee, other faculty members,

other students, and interested members of the community. Following the presentation the student completes an oral examination given primarily by the members of the thesis committee, though the examination is open to all faculty in the Department. Successful completion of the oral defense requires that the student's presentation and performance in the examination rise to a level that is commensurate with the Master's degree, as determined by a vote of all members of the thesis committee.