Biology Graduate Program Assessment Plan
Version 1.0, December 2015

Goals

The faculty of the Biology Department at Western Washington University expects students that graduate from the Master’s program in Biology or MESP to have acquired the knowledge and skills to:

1. complete independent biological research
   a. understand the scientific process
   b. understand the foundational, biological concepts that related to thesis topic
   c. design and draw conclusions from biological studies
   d. troubleshoot and persist when issues arise during research
   e. to ethically complete biological research

2. understand and critically evaluate the primary literature in biology and other related fields

3. understand the current state of their chosen research topic

4. effectively communicate scientific information in written and oral form

5. use technical equipment and methods for collecting and analyzing biological data

Objectives

Students that are granted a Master’s degree from the Biology Department at Western Washington University can:

- complete and successfully defend their thesis research
- read articles from the primary literature and demonstrate that they understand the strengths and weaknesses of the study
- summary and synthesize the literature that relates to their thesis tropic
- coherently write a thesis and present their research
- demonstrate they can successfully use technical equipment and methods for biological research

Students are assessed by the faculty at Western Washington University during courses, interactions with their committee, research seminar, and thesis defense to determine whether students are achieving the above objectives. The department has develop a graduate curriculum that includes core, required courses that help students gain the knowledge and skills needed to achieve the objectives of our program and graduate with a Master’s degree from the Biology Department at Western Washington University.
Program Assessment

To determine whether the graduate program in the Biology Department is effectively helping students meet the objectives needed to graduate, the faculty of the Biology Department will annually review the graduate program and evaluate the following evidence.

Evidence of Success*

Direct methods

- Quality of research seminars
- Quality of thesis defenses
- Quality of thesis
- The proportion of students who leave the program with a Master’s degree
- The time to graduation
- Published research with graduate students

Indirect methods

- Feedback from faculty
- Feedback from students
- Student performance in courses (specifically the core, required courses in the program).

*The small number of students in the program (typically 10 or fewer) will result in larger natural variation in these metrics than programs with more students. Thus, when compiling, analyzing, and evaluating these data, we will look at the five previous years.

Each spring the graduate committee will compile and summarize the evidence of success. The graduate chair will then present the summarized information to the faculty. The faculty will discuss the information and the graduate committee will follow up on any recommendations by the faculty to address issues with the program.