

Assessment Plan for Biology MA program: 2018-2024

| Student Learning Objectives | Courses Resulting in Achievement of Objectives* | Activities Resulting in Achievement of Objectives* | Measures of Achievement of Objectives* | Timetable |
|--|--|--|---|------------------|
| 1) Expertise in areas of biology related to course of study or thesis topic. | Biology electives in MA program or BIO695 | Course discussions, projects and papers and/or thesis research | Passing score on comprehensive exam (consisting of 5 subject areas identified by student and advisor) or thesis | 2018-2024 |
| 2) Analytical skills required to interpret and evaluate research literature | Biology electives in MA program and/or BIO695 | Course discussions, projects and papers and/or thesis research | Literature review component of thesis or capstone experience | 2018-2024 |
| 3) Proficiency in professional scientific writing | Biology electives in MA program and/or BIO695 | Written course assignments and/or thesis | Writing samples from three 600 level graduate electives or thesis | 2018-2024 |
| 4) Proficiency for effective oral communication of biological information. | BIO617 and/or BIO695 | Student presentations, reports and/or thesis defense | Final oral presentation of BIO617 or thesis defense seminar | 2018-2024 |
| Learning Objectives Specific to Thesis Option | | | | |
| 5) Ability to plan and conduct experimental research | BIO695 | Thesis research | Approval of thesis proposal and defense by thesis committee | 2018-2024 |
| 6) Apply accepted standards for ethical science | BIO695 | Thesis proposal and thesis research | Approval of thesis proposal and thesis by thesis committee | 2018-2024 |

* The Biology MA program has two options (thesis or capstone experience) that impact both learning outcomes and assessment of outcomes. For each learning outcome the thesis activities (research proposal, thesis defense and final thesis) represent the highest standard of student accomplishment and are the preferred measurement of achievement. The non-thesis measures are intended for those students in the comprehensive exam option. Learning objectives 5 and 6 are specific to thesis students who receive extensive training on the practice and standards of experimental investigation.

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