

# Master of Science - Biology MS

## *Expanded Statement of Institutional Purpose*

### **Institutional Mission Reference**

The Master of Science - Biology program offers graduate students a high quality degree program in biological sciences that meets national standards of excellence. Program faculty are committed to quality teaching and the discovery of new knowledge. The Master of Science - Biology program supports the University's mission of providing advanced professional education for the Hampton Roads area and the Commonwealth.

### **Institutional Goal(s) Supported**

The Master of Science - Biology program supports the University goals of quality graduate academic programs, quality teaching, discovery of new knowledge, and community service. (See pages 8-9 of the Strategic Plan) The program also supports Strategic Initiative 2 (excellent graduate programs). (See the Old Dominion University Strategic Plan)

## *Intended Educational (Student) Outcomes, Methods for Assessment, Criteria for Success, Assessment Results, and Use of Results*

### **Intended Outcome 1**

Students will communicate scientific information effectively through writing.

**Method for Assessing Outcome 1 and Criterion for Success:** 90% of students will achieve scores of "Acceptable" or higher in the "Quality of Writing" sub-score on the "Graduate Student Research Assessment Form", as determined by three or more graduate faculty reviewers of the students' thesis or non-thesis research paper.

**Summary of Assessment Data Collected for Outcome 1:** Not used

**Alternate Method for Assessing Outcome 1 and Criterion for Success:** 90% of the students will complete an acceptable thesis or non-thesis research paper, as determined by three or more graduate faculty reviewers.

### **Summary of Assessment Data Collected, Alternate Method for Outcome 1:**

In the academic year (Su00 to S01), 11 students successfully completed the requirements for the thesis Master's Program and there were no students who attempted but failed. All graduating students passed the writing requirement.

**Alternate Method for Assessing Outcome 1 and Criterion for Success:** 90% of students will achieve a "pass" score on their written comprehensive examination, as determined by three or more faculty.

**Summary of Assessment Data Collected, Alternate Method for Outcome 1:** Not used.

**Use of Assessment Results from Intended Outcome 1 to Improve Academic Program:** As we accumulate more data, we will use this information to determine our students' progression through the program by tracking the length of time it is taking our students to meet this requirement.

**Intended Outcome 2**

Students will orally communicate scientific information effectively.

**Method for Assessing Outcome 2 and Criterion for Success:** Students in the Masters of Science in Biology program are required to provide a formal oral presentation to faculty and peers via participation in: Graduate Seminar (BIOL 608, Professional Meeting Presentation (BIOL 661), Biotechnology Seminar (BIOL 688), or Biomedical Sciences Seminar (BIOL 702/802). 90% of students will achieve scores of "Acceptable" or higher on the "Oral Presentation Assessment Form", as determined by the faculty member supervising the appropriate course and at least one additional faculty member.

**Summary of Assessment Data Collected for Outcome 2:** In the academic year (Su00 to S01), 11 students successfully completed the requirements for the Master's Program and there were no students who attempted but failed. All graduating students passed their seminar requirement.

**Alternate Method for Assessing Outcome 2 and Criterion for Success:** 90% of students will achieve a "pass" score on the oral defense of their thesis, as determined by three or more faculty.

**Summary of Assessment Data Collected, Alternate Method for Outcome 2:** Not used.

**Alternate Method for Assessing Outcome 2 and Criterion for Success:** 90% of students will a "pass" score on their oral comprehensive examination, as determined by three or more faculty.

**Summary of Assessment Data Collected, Alternate Method for Outcome 2:** Not used.

**Use of Assessment Results from Intended Outcome 2 to Improve Academic Program:** As we accumulate more data, we will use this information to determine our students' progression through the program by tracking the length of time it is taking our students to meet this requirement.

**Intended Outcome 3**

Students will develop proficiency in the conduct of scientific research and will demonstrate knowledge of the major theories, empirical findings, and key scientific techniques and procedures relevant to modern biological sciences.

**Method for Assessing Outcome 3 and Criterion for Success:** 90% of students will achieve scores of acceptable or higher in the "Statistical or Analytical Analysis", "Literature Review/Documentation", "Research Design", "Hypotheses & Interpretations", and "Overall" sub-score on the "Graduate Student Research Assessment Form", as determined by three or more faculty reviewers of the students' thesis or non-thesis research paper.

**Summary of Assessment Data Collected for Outcome 3:** Not used.

**Alternate Method for Assessing Outcome 3 and Criterion for Success:** 90% of students will a "pass" score on their written or oral comprehensive examination, as determined by three of more faculty.

**Summary of Assessment Data Collected, Alternate Method for Outcome 3:** In the academic year (Su00 to S01), 11 students successfully completed the requirements for the Master's Program and there were no students who attempted but failed . All graduating students passed their comprehensive exams.

**Use of Assessment Results from Intended Outcome 3 to Improve Academic Program:** As we accumulate more data, we will use this information to determine our students' progression through the program by tracking the length of time it is taking our students to meet this requirement.