Learning Goals for the Biology M.S. Program

Students will

1. demonstrate a deep knowledge of biology and develop advanced competency in specific areas of interest consistent with the primary focus of the program that the students develop with their faculty-based committee;
2. demonstrate a deep knowledge of how to use an empirical approach (with appropriate methods, experimental design, and data analysis) to evaluate biological phenomena in new ways;
3. communicate new biological knowledge (typically obtained during thesis research) effectively in written, oral, and visual formats; and
4. demonstrate the ability to conceive, design, implement, and complete original scientific research.

Alignment with Graduate Studies Learning Goals

Graduates will	1	2	3	4
Demonstrate an integrative knowledge of the of the discipline that extends beyond that attained at the undergraduate level;	X	X		
Develop habits of critical analysis that can be applied to essential questions, issues, and problems within the field;	X	X		
Apply creative and innovative thinking to critical issues in the field;	X	X	X	
Communicate skillfully in multiple forms of expression;			X	
Understand and promote social justice;				
Apply a framework for examining ethical dilemmas of a particular field of study;				
Employ leadership and collaborative skills.		X		X

Alignment with Assessment Measures

Measure	1	2	3	4
Performance on Specified Exam Questions from Courses	Direct			
Course-Embedded Assessment: Biological Knowledge	Direct			
Course-Embedded Assessment: Experiment Design/Evaluation		Direct		
Course-Embedded Assessment: Scientific Communication			Direct	
BL598 (Master's Thesis Proposal) completion			Direct	Direct
Thesis Defense			Direct	Direct
Grant Proposal submission				Direct
Comprehensive Exam				Direct
Exit Interview	Indirect	Indirect	Indirect	Indirect