

## Program Assessment Plan

**Program: M.S.**

**Department: Biology**

**College/School: Arts and Sciences**

**Date: 11-30-2017**

**Primary Assessment Contact: Dr. Thomas J. Valone**

**Note: Each cell in the table below will expand as needed to accommodate your responses.**

#	Program Learning Outcomes	Assessment Mapping	Assessment Methods	Use of Assessment Data
	<p>What do the program faculty expect all students to know, or be able to do, as a result of completing this program?</p> <ul style="list-style-type: none"> <li><i>Note: These should be measurable, and manageable in number (typically 4-6 are sufficient).</i></li> </ul>	<p>From what specific courses (or other educational/professional experiences) will artifacts of student learning be analyzed to demonstrate achievement of the outcome? Include courses taught at the Madrid campus and/or online as applicable.</p>	<p>What specific artifacts of student learning will be analyzed? How, and by whom, will they be analyzed?</p> <ul style="list-style-type: none"> <li><i>Note: the majority should provide direct, rather than indirect, evidence of achievement.</i></li> </ul> <p>Please note if a rubric is used and, if so, include it as an appendix to this plan.</p>	<p>How and when will analyzed data be used by faculty to make changes in pedagogy, curriculum design, and/or assessment work?</p> <p>How and when will the program evaluate the impact of assessment-informed changes <i>made in previous years</i>?</p>
1	<p>Students will be able to critically analyze primary literature articles by evaluating the scientific contributions of peer-reviewed publications in biology</p>	<p>BIOL 5820 Seminar in CMR BIOL 5840 Seminar in Ecology &amp; Evol BIOL 5860 Scientific Communication BIOL 5990 Thesis Research</p>	<p>Written assignments and oral presentations in all of these courses</p>	<p>Every other fall, the Program-level assessment committee will report findings to the faculty. The committee will lead a discussion about how the data can inform changes to the program to improve student learning of the outcome. After a change has been made, we will assess the impact on student learning over the next 2 years.</p>
2	<p>Students will be able to effectively communicate scientific ideas</p>	<p>BIOL 5820 Seminar in CMR BIOL 5840 Seminar in Ecology &amp; Evol BIOL 5860 Scientific Communication BIOL 5990 Thesis Research</p>	<p>Written assignments and oral presentations in all of these courses</p>	<p>Every other fall, the Program-level assessment committee will report findings to the faculty. The committee will lead a discussion about how the data can inform changes to the program</p>

				to improve student learning of the outcome. After a change has been made, we will assess the impact on student learning over the next 2 years.
3	Students will be able to demonstrate professional integrity	BIOL 5990 Thesis Research	Thesis	Every three years, the Program-level assessment committee will report findings to the faculty. The committee will lead a discussion about how the data can inform changes to the program to improve student learning of the outcome. After a change has been made, we will assess the impact on student learning over the next 3 years.
4	Students will be able to use appropriate instrumentation and analytical methods to collect data	BIOL 5990 Thesis Research	Thesis	Every 3 years, the Program-level assessment committee will report findings to the faculty. The committee will lead a discussion about how the data can inform changes to the program to improve student learning of the outcome. After a change has been made, we will assess the impact on student learning over the next 3 years.
5	Students will be able to draw statistically valid conclusions from quantitative data	BIOL 5990 Thesis Research	Thesis	Every 3 years, the Program-level assessment committee will report findings to the faculty. The committee will lead a discussion about how the data can inform changes to the program to improve student learning of the outcome. After a change has been made, we will assess the impact on student learning over the next 3 years.

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### Additional Questions

1. On what schedule/cycle will faculty assess each of the above-noted program learning outcomes? (*It is not recommended to try to assess every outcome every year.*)

Outcomes 1 and 2 will be assessed every other year. Outcomes 3-5 will be assessed every 3 years.

2. Describe how, and the extent to which, program faculty contributed to the development of this plan.

The Program-level assessment committee is comprised of 6 faculty members. The outcomes the committee developed were discussed at two faculty meetings and the faculty unanimously approved them.

3. On what schedule/cycle will faculty review and, if needed, modify this assessment plan?

Every other year, the program-level assessment committee will meet to discuss how the plan is working for these outcomes. Each year the committee reports to the faculty and can recommend changes to the plan.

***IMPORTANT: Please remember to submit any assessment rubrics (as noted above) along with this report.***