

Program Assessment Plan

Program: Ph.D.

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"> <i>Note: These should be measurable, and manageable in number (typically 4-6 are sufficient).</i> 	<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"> <i>Note: the majority should provide direct, rather than indirect, evidence of achievement.</i> <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 & Evol BIOL 5860 Scientific Communication BIOL 6990 Dissertation 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 & Evol BIOL 5860 Scientific Communication BIOL 6990 Dissertation 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 6990 Dissertation Research	Dissertation	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 6990 Dissertation Research	Dissertation	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 6990 Dissertation Research	Dissertation	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.
6	Students will be able to design novel research that advances knowledge of their field		Dissertation proposal	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.
7	Students will be able to conduct self-directed research	BIOL 6990 Dissertation Research	Dissertation proposal and Dissertation	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.

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 3-7 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.