

Program Assessment Plan

Program: B.S.

Department: Biology

College/School: Arts and Sciences

Date: 1-29-2018

Primary Assessment Contact: Dr. Thomas 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"> Note: These should be measurable, and manageable in number (typically 4-6 are sufficient). 	<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"> Note: the majority should provide direct, rather than indirect, evidence of achievement. <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 made in previous years?</p>
1	Students will be able to effectively apply core biological concepts to solve problems	<p>BIOL 1245 & 1265 (freshmen)</p> <p>BIOL 3020 & 3040 (sophomores)</p> <p>BIOL 3010 (juniors & seniors)</p> <p>BIOL 4070 (seniors)</p> <p>BIOL 4480 (seniors)</p> <p>BIOL 4960; 4970 4980 (seniors)</p>	<p>Lab reports</p> <p>Embedded exam questions & pre-test post-test exams</p> <p>Quizzes and assignments</p> <p>Exam questions; written reports</p> <p>Written paper</p> <p>Lab notebooks; research posters</p> <p>-All of the above will be scored by the instructor AND at least 2 members of the Program-level assessment committee</p>	Each 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 in the next academic year.
2	Students will be able to critically	BIOL 1245 & 1265 (freshmen)	Lab reports	Each fall the Program-level assessment

	evaluate scientific information from multiple sources, including that from the primary literature	BIOL 3010 (juniors & seniors) BIOL 3030 (juniors & seniors) BIOL 4070 (seniors) BIOL 4360 (juniors & seniors) BIOL 4480 (seniors) BIOL 4960 4970 4980 (seniors)	Class assignments Class assignments Class assignments Written assignments Written paper Lab notebooks; research posters -All of the above will be scored by the instructor AND at least 2 members of the Program-level assessment committee	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 in the next academic year.
3	Students will be able to apply biological principles to global societal issues	BIOL 1245 & 1265 (freshman) BIOL 3010 (juniors & seniors) BIOL 4480 (seniors)	Lab reports Class assignments & discussions Written paper -All of the above will be scored by the instructor AND at least 2 members of the Program-level assessment committee	Each 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 in the next academic year.
4	Students will be able to draw valid conclusions from quantitative data	BIOL 3040 (sophomores)	On-line homework assignments -Scored by 2 instructors and 2 members of the Program-assessment committee	Each 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 in the next academic year.
5	Students will be able to formulate hypotheses that address research questions	BIOL 4250, 4980 (seniors)	Research papers/posters -Scored by 2 members of the Program-assessment committee	Each 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 in the next academic year.
6	Students will be able to correctly perform common laboratory and/or field techniques	BIOL 1245 & 1265 (freshmen) BIOL 3060, 4050, 3470, 4650 4750 (juniors and seniors)	Lab reports Lab reports -Scored by the instructor and 2 members of the Program-assessment committee	Each 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 in the next academic year.
7	Students will be able to effectively apply the scientific method to test hypotheses	BIOL 4980 (seniors)	Research papers/posters/presentations -Scored by 2 members of the Program-assessment committee	Each 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 in the next academic year.

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.*)

Each year, we will focus on 1-2 outcomes for the BS.

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?

Each semester, the program-level assessment committee will meet monthly to discuss how the plan is working. 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.