

PLNU Master of Science in General Biology Assessment Plan (revised 2022)

Each student completes either a thesis OR the comprehensive exam at the conclusion of the program, so this is where assessment of PLO's #1, 2, and 3 are assessed. Whenever students complete the program and take the comprehensive exam or defend their thesis, data will be collected.

In contrast, PLO #4 is assessed each fall as current students complete a signature assignment in BIO 6033. In addition, all students who graduated within the last 3 years are assessed using a survey once every 3 years.

Program Learning Outcome	Methods of Assessment	Measurement Tools	Assessors	Criteria for Success	When
PLO #1: Discuss major concepts and theories in biology.	Comprehensive Exam for MS Non-thesis option students (Direct)	PLNU MS in General Biology Comprehensive Exam rubric	3 bio. department professors who taught the summer courses taken by the student and the program director	100% at 3 or above on 4-point rubric	Whenever a Non-thesis option student completes the program
	Written thesis for MS Thesis option students (Direct)	PLNU MS in General Biology program written thesis rubric	The student's thesis committee (3 biology department professors)	100% at 3 or above on 4-point rubric	Whenever a Thesis option student completes the program
PLO #2: Carry out and communicate various experimental methods and types of data analysis.	Comprehensive Exam for MS Non-thesis option students (Direct)	PLNU MS in General Biology Comprehensive Exam rubric	3 bio. department professors who taught the summer courses taken by the student and the program director	100% at 3 or above on 4-point rubric	Whenever a Non-thesis option student completes the program
	Written thesis for MS Thesis option students (Direct)	PLNU MS in General Biology program written thesis rubric	The student's thesis committee (3 biology department professors)	100% at 3 or above on 4-point rubric	Whenever a Thesis option student completes the program

PLO #3: Demonstrate knowledge and skills in critical thinking, such as analysis and synthesis, as applied to primary literature in the field of biology, as well as in science education OR science leadership	Comprehensive Exam for MS Non-thesis option students (Direct)	PLNU MS in General Biology Comprehensive Exam rubric	3 bio. department professors who taught the summer courses taken by the student and the program director	100% at 3 or above on 4-point rubric	Whenever a Non-thesis option student completes the program
	Written thesis for MS Thesis option students (Direct)	PLNU MS in General Biology program written thesis rubric	The student's thesis committee (3 biology department professors)	100% at 3 or above on 4-point rubric	Whenever a Thesis option student completes the program
PLO #4: Distinguish between science and faith, and discuss the potential compatibility of the two domains.	Signature assignment in BIO 6033 (Direct)	PLNU MS in General Biology program PLO#4 rubric	Biology professors	80% at 3 or above on 4 point rubric	Every year
	Alumni Survey (Indirect)	Online survey	N/A	80% at 4 or above on 5-point Likert scale	Every 3 years (2015, 2018, 2021, etc.)