

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 |

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