



## II. Defined Expected Student Learning Outcomes:

### A. UOG Institutional Defined Expected Student Learning Outcomes (ILOs):

Some of the **expected** fundamental knowledge, skills, and values that the University of Guam student will have demonstrated upon completion of *any* degree are:

- **ILO-1:** Mastery of critical thinking and problem solving;
- **ILO-2:** **Mastery of quantitative analysis;**
- **ILO-3:** Effective oral and written communication;
- **ILO-4:** Understanding and appreciation of culturally diverse people, ideas and values in a democratic context;
- **ILO-5:** Responsible use of **knowledge**, natural resources, and technology;
- **ILO-6:** An appreciation of the **arts and sciences;**
- **ILO-7:** An interest in personal development and lifelong learning

### B. Biology Degree Program Expected Student Learning Outcomes (PLOs):

- **BI PR-1:** Disciplinary knowledge and skills: Graduates use their knowledge & understanding of essential concepts to solve problems in ecology, genetics, molecular biology, systematic, & evolution. They can apply their biology knowledge & skills to locally important issues such as island biogeography, conservation, & endangered species problems. They apply relevant concepts from chemistry & physics to biology problems.
- **BI PR-2:** Quantitative skills: Graduates apply numerical methods in research design, and use computers for analysis manipulating and modeling biological data.
- **BI PR-3:** Research/Laboratory skills: Graduates are competent in basic biology procedures & safety in the laboratory & the field; they formulate testable hypotheses & create effective experimental designs using their knowledge, understanding, & practical experience of scientific instruments.
- **BI PR-4:** Communication skills: Graduates use scientific literature & diagrams as a source of information, properly cite sources & avoid plagiarism, & create text & graphics to communicate results effectively through print & oral presentations. They collect & assess evidence & use it to create effective arguments in writing scientific reports & proposals.
- **BI PR-5:** Digital Literacy: Graduates use & process information in multiple formats via computer. Graduates are competent in the following computer skills as related to their science work: desktop competencies, work processing, presentation, and data retrieval and manipulation. Graduates effectively judge the usefulness and accuracy of external sources of information.
- **BI PR-6:** Professionalism: Graduates work effectively together in teams in a laboratory and field settings and follow ethical principles underlying scientific research and publication. Graduates understand and apply the values and limitations of scientific research in addressing public policy issues.

### C. Biology Nursing Support Program Expected Student Learning Outcomes (BI NU SLOs):

- **BI NU-1:** Disciplinary knowledge and skills: students will be able to demonstrate their foundational knowledge of the major fields of biology, through their focus on anatomy, physiology, and microbiology. They will be able to apply their knowledge as health care consumers or concerned citizens with regard to public health issues.
- **BI NU-2:** Laboratory skills: students will demonstrate competency in a range of biological laboratory skills, use of scientific instruments, and safety in the laboratory.
- **BI NU-3:** Quantitative and analytical skills: students will demonstrate their ability to test hypotheses, collect scientific data, analyze those data, and interpret results using critical thinking.
- **BI NU-4:** Communication skills: students will demonstrate their ability to communicate by writing in a clear and concise manner, through a combination of lab reports, lab review exercises, and written exams.

D. Science General Education Expected Student Learning Outcomes (Science GE SLOs):

- **SC GE-1:** observe, describe, and interpret natural and experimental phenomena within the context of a scientific paradigm;
- **SC GE-2:** develop and employ skills of logical and critical thinking to collect and analyze data, interpret results, and write reports;
- **SC GE-3:** characterize scientific knowledge as theories and principles that result from experimentation that are subject to revision based on new observations and discoveries;
- **SC GE-4:** apply basic scientific principles and methods to explore the workings of the natural world, particularly in this region;
- **SC GE-5:** apply basic scientific principles and methods to solve real-world problems, and make appropriate use of science in their choices as citizens.
- **SC GE-6:** identify the capabilities and limitations of science, and distinguish science from pseudoscience;
- **SC GE-7:** identify how scientific ideas and values have been integrated into society and how other aspects of society affect science as a human activity.

E. If Course-Level Assessment, complete below:

- Course Selected for Assessment:
- Course SLO Selected for Assessment:

F. If other, state the assessment activity being conducted below:

III. Assessment Tool Used:

Recommended by CNAS Assessment Committee:

- **TOOL-1:** Pre/Post Test;
- **TOOL-2:** Course Embedded Questions;
- **TOOL-3:** Standardized exams;
- **TOOL-4:** Portfolio Evaluation;
- **TOOL-5:** Direct Observation;
- **TOOL-6:** Capstone Course Evaluation;

Other Assessment Tools Used by Faculty: (Describe Tool Used Below):