

Undergraduate Student SLOs

Student Learning Outcomes	Assessment Data-Collection Method
1. Students will be able to apply a scientific process. <ul style="list-style-type: none"> ➤ Design and conduct experiments ➤ Generate, test, and analyze hypotheses ➤ Develop laboratories techniques with laboratory safety 	<ul style="list-style-type: none"> ➤ Check students' laboratory notebooks. ➤ Observe students as they perform a laboratory practical on a specific technique
2. Students will be able to communicate about biological science. <ul style="list-style-type: none"> ➤ Write scientific laboratory reports, research proposal, and poster boards. <ul style="list-style-type: none"> ➤ Demonstrate ability to use scientific journals, periodicals, and electronic media to access current biological information. ➤ Demonstrate ability to evaluate journal articles from the primary literature. ➤ Prepare and deliver oral reports on scientific findings. 	<ul style="list-style-type: none"> ➤ Review students' written laboratory reports, research proposals, and poster boards. ➤ Evaluate students' oral presentations in various courses
3. Students will be able to recall foundational biological information necessary for entering post-baccalaureate school or entering a career in the biological sciences. <ul style="list-style-type: none"> ➤ Demonstrate understanding of cell structure, cell physiology, and molecular processes of cells. ➤ Demonstrate understanding of the principles of organismal physiology, evolution, and ecology. ➤ Demonstrate understanding of the relationship between cellular/molecular and supraorganismic principles. 	<ul style="list-style-type: none"> ➤ Students' answers on exams that are similar to the standardized tests. ➤ Obtain students' results on different standardized tests. ➤ Senior capstone experience <ul style="list-style-type: none"> ➤ Research papers ➤ Student portfolios

Graduate Student SLOs

The SLOs for M.S./Ph.D. degrees in Zoology are identical. The general objective is to produce outstanding research scientists who are capable of independent thought, development of experimental design and have the ability to conduct their own research to completion.

Assessment of their abilities in these areas is tested through:

- a) the writing of a research proposal, which is evaluated and approved by the student's research dissertation committee
- b) completion of the proposed research (in consultation with the major research professor)
- c) presentation of the completed research in an open forum seminar with question/answer session
- d) publication of research data/findings in top quality scientific journals

Placement of the M.S./Ph.D. graduates is also important and we actively track their professional progress.