

Student Learning Outcomes (SLOs) Report for Non-Accredited Programs

(updated 9/19/23)

Program Type: **Non-Accredited Program**

Program Name: BS in Biological Sciences

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Review Cycle:

- Even Year**
- Odd Year

Review Round:

- Round A (Associate Dean review)**
- Round B** (Associate Dean + VPAA review)

All SLO reports are archived here: <https://www.eiu.edu/assess/majorassessment.php>

DUE: **October 15th** to your Associate Dean or designee

Each academic program is expected to prepare a Summary of the Assessment Data by Student Learning Outcome. This summary may take the form of a chart or other means of presentation that describes the annual data collected, when it is collected, in which course(s), through which assignment or activity, and by whom. This summary should clearly indicate what the program seeks to discover in its students' learning. The summary should correspond to the record-keeping documents maintained by the academic program.

Program Name: BS in Biological Sciences

PART 1. OVERVIEW OF STUDENT LEARNING OUTCOMES AND MEASURES

Student Learning Outcome (SLO)	What measures and instruments are you using? This could be an oral or written exam, a regularly assigned paper, a portfolio—administered early and later in coursework.	How are you using this info to improve student learning? What are you hoping to learn from your data? Include target score(s) and results , and specify whether these were met, not met, or partially met for each instrument.	Does your SLO correspond to an undergraduate learning goal (ULG) : writing, speaking, quantitative reasoning, critical thinking, responsible citizenship?
Students will be able to present a professional research poster or gave a talk.	Exit survey will ask about poster presentations and talks while at EIU (tallied by chair).	Target: At least 30% of graduating students will have presented at a research conference or fair. Results: 12% of students in FY23 and 15% in FY24 presented at a conference. The goal was not met for these years.	W,S,QR
Students will demonstrate knowledge of key concepts in molecular biology, ecology, genetics, molecular biology and statistics.	A pre-test will be administered in freshman BIO 1500 (General Biology) and a post-test given in BIO 3200 (Genetics) to assess gained proficiency.	Target: Students will demonstrate knowledge of key concepts demonstrated by at least a 50% increase in exam scores from pre- to post-tests. Results: Exams not administered in FY23 and FY24 due to faculty compliance issues. This is expected to improve in subsequent years.	W,QR
Students will enhance global citizenship by participation in biology clubs or professional organizations related to biology.	Exit survey will ask about club participation while at EIU (tallied by chair).	Target: At least 50% of graduating students will have participated in a department RSO (e.g. Botany, Fish and Wildlife, Earth Wise). Results: 55% of graduating students in FY23 and 47% in FY24 participated in a	RC

		department-related club. On average across the two years, the goal was met .	
Student will have participated in volunteering/service activities.	Exit survey asks students the number of volunteer activities involved in while enrolled at EIU (tallied by chair).	Target: >50% of students will have engaged in at least 2 volunteer activities while at EIU. Results: Questions relating to volunteerism were accidentally omitted from the survey.	RC
Research experiences will be considered beneficial by students.	Exit survey asks questions about research experiences and highlights (data compiled by chair).	Target: >90% of students who engage in laboratory will suggest that their research experience was beneficial. Results: 100% in FY23 and 100% in FY24 agreed that their research experiences were beneficial. The goal was met .	W,S,QR
Students will be accepted into a graduate program or professional school prior to graduation.	Exit survey asks students if they have been accepted to a graduate program or professional school (data compiled by chair).	Target: At least 20% of students applying to graduate/professional schools will have been accepted prior to graduation. Results: 17% in FY23 and 29% in FY24 were accepted to a graduate/professional school prior to graduation. On average across the two years, the goal was met .	N/A

PART 2. IMPROVEMENTS AND CHANGES BASED ON ASSESSMENT

- A. Provide a short summary (1-2 paragraphs) or bulleted list of any **curricular actions** (revisions or additions) that were approved over the past two years as a result of reflecting on the student learning outcomes data. Are there any additional future changes, revisions, or interventions proposed or still pending?
- In Fall of 2024, we broke our Biology Forum course (BIO 1150) into two sections to serve the pre-health and traditional populations. Our goal is to better prepare our pre-health students for acceptance into professional schools while better preparing our traditional biology students for graduate school (if they choose to follow that path). It is too early yet to see if this strategy helps with the acceptance target of 20% before graduation.
 - We are attempting to re-initiate the pre- and post-test assessment for our majors from BIO 1500 (General Biology I) to BIO 3200 (Genetics). This requires buy-in from faculty teaching those courses, which we feel will improve in the coming years.
 - Although non-curricular, in 2024 we started a department poster presentation night to encourage students to present their research, which should help us get to our 30% goal of student participation in research presentations.

B. Provide a brief description or bulleted list of **any improvements (or declines)** observed/measured in student learning. Be sure to mention any intervention made that has not yet resulted in student improvement (if applicable).

- Our best opportunity to measure improvements/declines in student learning is to re-initiate the pre- and post-tests from BIO 1500 (General Biology I) to BIO 3200 (Genetics). We are hoping to restart this assessment activity in the coming years.

C. HISTORY OF DATA REVIEW OVER THE PAST TWO YEARS

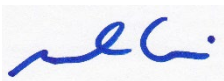
Please document annual faculty and committee engagement with the assessment process (such as the review of outcomes data, revisions/updates to assessment plan, and reaffirmation of SLOs).

Date of annual (or periodic) review	Individuals or groups who reviewed the assessment plan	Results of the review (i.e., reference proposed changes from any revised SLOs or from point 2.A. curricular actions)
August 17, 2023	Faculty Retreat (faculty and staff of the department)	Student research presentation opportunities were discussed with plan to implement the department poster fair. Discussions were had with faculty about needs that would help increase student research output.
August 16, 2024	Faculty Retreat (faculty and staff of the department)	Results of our new poster fair in 2024 was discussed. Discussions were had with faculty about needs that would help increase student research output.

Dean Review and Feedback

The Department of Biological Sciences 2-year assessment report draws from multiple data points to measure six SLOs. The instruments include an exit survey, pre- and post-testing in BIO 1500 and BIO 3200, and a chair’s analysis. The report indicates that five of the six SLOs are linked to EIU undergraduate learning goals. The most recent assessment results were shared at a faculty retreat at the beginning of fall semester, 2024. The results of the department’s new poster fair were addressed along with a discussion about increasing student research output. The department used assessment data to institute several curricular changes including breaking BIO 1150 into two sections to serve both pre-health and traditional populations, re-initiating pre- and post-testing in BIO 1500 and 3200, and establishing an undergraduate poster presentation session to enhance student participation in research.

Overall, program assessment of the BS in Biological Sciences is headed in the right direction. Data gleaned from the pre- and post-testing should bolster assessment data for future reports.



Dean or Designee

11/26/24

Date