An EASTERN ILLINOIS UNIVERSITY

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

(updated 9/19/25)

Program Type: Non-Accredited Program

Program Name:	B.S w/ Teacher Licensure Science
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Submission Date:	Type here10/15/25

Review Cycle:

[ ] EVEN YEAR CYCLE

[X] ODD YEAR CYCLE

Review Round and Instructions

- Round A (Associate Dean review): Submit this cover sheet and the review sheets below to your Associate Dean by October 15th.
- Round B (Associate Dean + VPAA review): The Associate Dean will send the report to the VPAA Office for further 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. **While this is a biennial report, a program's assessment should be ongoing, throughout every academic year.**

Program Name: B.S w/ Teacher Licensure Science

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?
1. Preservice science teachers will a) use and apply the major concepts, principles, theories, laws, and interrelationships of their fields of licensure and supporting fields, b) demonstrate knowledge of crosscutting concepts, disciplinary core ideas, practices of science and engineering, the supporting role of science-specific	a) State Content Exam for Certification b) GPA from science content courses c) Unit Plan from BIO/PHS 3400	a) Passing score on the State Content Exam is a score of 240 overall Science content tests taken between fall 2023-fall 2025 (12 students took 20 tests) = (234 = average score) 10 passing scores averaging 250, range from 240-263. 7 (58%) students passed the exam the first time through 10 failing scores ranging from 188-233. 5 students had to retake the exam before passing. One student took the exam 3 times before passing. One student took the exam twice before graduating and scores have not	CT W S Q

technologies, and contributions of diverse populations to science, and c) demonstrate knowledge of how to implement science standards, learning progressions, and sequencing of science content for teaching their licensure level secondary students.		been reported to us for her since then. One student has taken the exam 4 times and has yet to pass. One student had 1 failed attempt before passing the next time. 7 students passed on the first try, some have to retake it, but eventually succeed. Most students who don't pass on the first try seem to need more than one more attempt to pass. **Goal is partially met.** a) Students must maintain a 2.65 GPA according to IBHE An average of 20 students have been enrolled in the Science Teacher Licensure Programs over the 4 semesters from Fall 2023-Spring 2025. In that time, 6 have graduated, 4 have switched majors out of the Science Teacher Licensure Program, and 5 have left the university or been dismissed for poor academic performance. Currently, there is 1 student who has not met the GPA requirement within the program. Overall students in the programs are **meeting** the GPA requirement. **Goal is met.**	

		b) Students will earn a score of at least 112.5/150 on the Unit Plan, with particular focus on #3,5,8,9,10, and 26 on the rubric. 15 students have completed the Unit Plan assignment. 13/15 have passed. Two students failed the assignment. One switched majors and one was dismissed from EIU for poor academic performance.. Fall 2023: 3 students. Scores of 130, 134, and 25. All but 1 student met the goal. The student who did not meet the goal was dismissed from EIU. For #3,5,8,9,10, 26 on the Unit Plan rubric, the student who failed the unit plan did not meet goals 3 and 9. All other goals were met by all students. Scores can range from 0-5. A minimum score of 2 is required to meet the goal. Average scores on all these requirements ranged from 3-4/5. Fall 2024: 12 students. 4 (33%) students did not meet the goal of scoring at least 112.5/150. The average score for the class was 119/150. The range was 68-143/150. For #3,5,8,9,10, 26 on the Unit Plan rubric, all students at least minimally (with a score of 2) met all goals, except 26. One student did not map lessons and the unit to the standards. Scores can range from 0-5. A minimum score of 2 is required to meet the requirement. For	

		these requirements average scores ranged from 3.8-4.5. **Goal Is met.**	
2. Preservice science teachers will design lessons a) using science standards and a variety of appropriate student-centered, and culturally relevant science disciplinary-based instructional approaches that follow safety procedures and incorporate science and engineering practices, disciplinary core ideas, and cross cutting concepts, b) incorporating appropriate differentiation strategies, wherein ALL students develop conceptual knowledge and an understanding of the nature of science. Lessons should engage students in applying science practices, clarifying relationships, and identifying natural patterns from empirical experiences, c) using engineering practices in support of science learning wherein all students design, construct, test, and optimize	Unit Plan and learning inquiry learning segment that accompanies the assignment from BIO/PHS 3400	a) Students will earn a score of at least 112.5/150 on the Unit Plan. Fall 2023: 3 students. Scores of 130, 134, and 25. All but 1 student met the goal. The student who didn't meet the goal was dismissed from EIU. Fall 2024: 12 students. 4 (33%) students did not meet the goal of scoring at least 112.5/150. The average score for the class was 119/150. The range was 68-143/150. b) 35/50 points on the accompanying lessons. Fall 2023: 3 students 2 students with average of 46/50. One student did not turn in accompanying lessons, thus earning a 0 on lesson plans.. Fall 2024: 12 students, 11/12 (92%) students met this goal. Scores ranged from 30-50/50. Average was 42/50. **This goal is met.**	CT Q R W

possible solutions to a problem, d) aligning instruction and assessment strategies to support instructional decision making that identifies and addresses student misunderstandings, prior knowledge, and naïve conceptions, and e) integrating science-specific technologies to support ALL students' conceptual understanding of science and engineering.		c)Students will earn scores of at least 3 on the Unit Plan rubric for #6,17,19,21,23,25,26. Fall 2023: For #6,17,21, 23, and 26- 2/3 students met all goals. The student who failed the unit plan and didn't turn in lesson plans did not meet any of these goals. For #19 (Analysis of problems) Only one student met this goal. Average scores on these requirements are as follows: #6 Instructional Methods 4/5 #17 Naïve concepts and preconceptions 2.3/5 #19 Analysis of Problems 1.6/5 (2 students didn't incorporate this into their unit) #21 Technology 3.3/5 #23 Safety 2.6/5 #25 Students' Learning 2.6 #26 State and National Curriculum Standards 4/5 Fall 2024: Average scores on the requirements: #6 Instructional Methods 4.3/5 (one student did not meet) #17 Naïve concepts and preconceptions 3.75/5 (one student did not meet)	

		#19 Analysis of Problems 3.75 (2 students did not meet) #21 Technology 3.3/5 (2 students did not meet) #23 Safety 4.2/5 (All met this requirement) #25 Students' Learning 3.9/5 (1 student did not meet) #26 State and National Curriculum Standards 4.5/5 (1 student did not meet) **This goal is met.**	
3. Preservice science teachers will a) plan a variety of lesson plans based on science standards that employ strategies that demonstrate their knowledge and understanding of how to select appropriate teaching and motivating learning activities that foster an inclusive, equitable, and anti-bias environment, b) plan learning experiences for ALL students in a variety of environments (e.g. the laboratory, field, and community)within their fields of licensure, and c) plan lessons in which all students have a variety of opportunities to investigate, collaborate, communicate, evaluate, learn from mistakes, and defend	Unit Plan from BIO/PHS 3400 and inquiry learning segment that accompanies the assignment form BIO/PHS 3400	a)Students will earn a score of at least 112.5/150 on the Unit Plan Fall 2023: 3 students. Scores of 130, 134, and 25. All but 1 student met the goal. The student who didn't meet the goal was dismissed from EIU. Fall 2024: 12 students. 4 (33%) students did not meet the goal of scoring at least 112.5/150. The average score for the class was 119/150. The range was 68-143/150. **Goal is met.** b) 35/50 points on the accompanying lessons Fall 2023: 3 students	R CT W

their own explanations of scientific phenomena, observations, and data.		2 students with average of 46/50. One student did not turn in accompanying lessons. Fall 2024: 12 students, 11/12 (92%) students met this goal. Scores ranged from 30-50. Average was 42/50. **This goal is met.** c)Students will earn scores of at least 3 on the Unit Plan rubric for # 2,3,4,5,6,7,8,9,10,12,13,15,16,22,24,25,26 For F23 n=3 For F24 n = 12 Average Scores on Requirements from the Unit Plan Rubric #2 Unit objectives F23 (2.3/5, 1 student did not meet), F24 (4/5, all students met the requirement) **14/15 students met the goal 93%** #3 Unit Content F23 (3/5, 1 student did not meet), F24 (4.5/5 all students met) **14/15 students met the goal 93%** #4 Human Development F23 (3.6/5, 1 student did not meet), F24 (4.2/5 all student met) **14/15 students met the goal 93%** #5 Curricular sequence F23 (3.6/5, 1 student did not meet), F24 (3.8/5 all student met) **14/15 students met the goal 93%**	

		#6 Instructional Methods F23 (4/5, 1 student did not meet), F24 (4.3/5, 1 student did not meet) **13/15 student met the goal 87%** #7 Assessment F23 (4/5, 1 student did not meet), F24 (4.1/5, 1 student did not meet) **13/15 student met the goal 87%** #8 Science concepts and principles F23 (3.6/5, 1 student did not meet), F24 (3.9/5, 1 student did not meet) **13/15 student met the goal 87%** #9 Scientific Theories F23 (3/5, 1 student did not meet), F24 (3.8/5, 1 student did not meet) **13/15 student met the goal 87%** #10 Scientific Laws F23 (3.3/5, 1 student did not meet), F24 (3.8/5 (1 student did not meet) #12 Inquiry F23 (3.3/5, 1 student did not meet), F24 (4.25/5, 1 student did not meet) **13/15 student met the goal 87%** #13 Active Inquiry F23 (3/5, 1 student did not meet), F24 (3.8/5, 1 student did not meet) **13/15 student met the goal 87%** #15 Lab and Field Settings F23 (3.6/5, 1 student did not meet), F 24 (4.4/5, all students met) **14/15 students met the goal 93%**	

		#16 Socially Important Issues F23 (2.6/5, 1 student did not meet), F24 (3.6/5, 1 student did not meet) **13/15 student met the goal 87%** #22 Higher Level Cognitive Skills F23 (3.3/5, 1 student did not meet), F24(3.7/5, 2 students did not meet) **12/15 students met the goal 80%** #25 Students' Learning F23 (2.6/5, 1 student did not meet), F24 (3.9/5, 1 student did not meet) **13/15 student met the goal 87%** #26 State and National Curriculum Standards F23 (4/5, 1 did not meet), F24 (4.5/5, 1 did not meet) **13/15 student met the goal 87%** **The goal is met.**	
4. Preservice teachers will a) implement activities appropriate for the abilities of ALL students that demonstrate safe techniques for the procurement, preparation, use, storage, dispensing, supervision, and disposal of all chemicals/materials/equipment used within their fields of licensure, b) demonstrate an ability to recognize hazardous situations including overcrowding; implement emergency procedures;	a)Student Teaching Safety Addendum b)Safety Module in BIO/PHS 3400 c)Safety Exam in BIO/PHS 3400	a) Student Teaching Safety Addendum- All students returned them and teachers received at least meets in all categories 6 students have student taught between Fall 2023-Spring 2025 **All were rated as either Professional or Meets Expectations in all categories.** **Goal Met**	N/A

maintain safety equipment; provide adequate student instruction and supervision; and follow policies and procedures that comply with established state and national guidelines, appropriate legal state and national safety standards (E.G. OSHA, NFPA, EPA) and best professional practices (e.g., NSTA, NSELA), and c) demonstrate ethical decision-making with respect to safe and humane treatment of all living organisms in and out of the classroom, and comply with the legal restrictions and best professional practices on the collection, care, and use of living organisms as relevant to their fields of licensure.		b) Students score at least a C on the safety module assignment in BIO/PHS 3400. 15 students all scored at least a C on the assignment. Grades ranged from 80-100, average was 90%. **This goal is met.** a) Students score at least a C on the safety exam in BIO/PHS 3400. All 15 students scored better than a C on the safety exam. **This goal is met.**	
5. Preservice teachers will a)implement assessments that show ALL students have learned and can apply disciplinary knowledge, nature of science, science and engineering practices, and crosscutting concepts in practical, authentic, and real-world situations, b) collect, organize, analyze, and reflect on formative and summative	P12 Impact assignment for student teachers	Student teachers must complete the P12 Science Impact on Students assignment, beginning in fall 2024. Student Teaching in Fall 23: 2 edTPA suspended. The alternate assignment had not yet been implemented. Student teaching in Spring 24: 0. Student Teaching in Fall 24: 3 Student Teaching in Spring 25: 1	CT Q W R

evidence and use those data to inform future planning and teaching, c) analyze science-specific assessment data based upon student demographics, categorizing the levels of learner knowledge, and reflect on results for subsequent lesson plans.		The assignment has a rubric with 5 requirements: **Content**: F24 (3 received acceptable rating) Sp25 (1 received exceptional rating) All scored acceptable or better **Assessment**: F24 (1 scored acceptable, 2 exceptional), Sp25 (1 exceptional) All scored acceptable or better **Data and Visualization**: all scored as acceptable (4/4) **Reflection**: F24 (3 acceptable), Sp25 (1 exceptional) All scored acceptable or better **Investigation of Specialty Group**: F24 (2 acceptable, 1 exceptional), Sp25 (1 acceptable) All scored at acceptable or better **Goal is Met**	
6. Preservice teachers will a) engage in critical reflection on their own science teaching to continually improve their instructional effectiveness, b) participate in professional development opportunities to deepen their science content knowledge and practices, and c) participate in professional development opportunities to expand their science-specific pedagogical knowledge.	a) Professional Development Survey b) Reflection paper after microteaching assignments in BIO/PHS 3400 c) P-12 Science Impact Assignment	a) Along with opportunities offered as a part of BIO/PHS 3400 (field trip to Douglas-Hart Nature Center, etc.), students will show that over the course of their time at EIU, they have attended at least 1 discipline-specific (science) talk or event and 1 education-focused event. All students (6) completing the program between Fall 2023-Spring 2025 have done at least 1 professional development event focusing on their science discipline and 1 focusing on pedagogy/education.	

		This goal is met. b) Students complete reflection paper after both microteaching assignments in BIO/PHS 3400 All students in BIO/PHS 3400 (n=15) successfully completed reflection papers after both microteaching assignments. **This goal is met.** c) Reflection on teaching is evident in P-12 Science Impact assignment submitted during student teaching. 3 students' P12 assignments were scored as acceptable on the Reflection section. 1 student's P12 Science Impact Assignment was scored as Exceptional in the Reflections Section **This goal is met.**	

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?

- The safety exam in BIO/PHS 3400 has been phased out in favor of the safety module assignment.
- The edTPA has been paused in IL. I have revised the old P-12 Science Impact Assignment to better fit our current needs.
- The Professional Development Survey is being developed and tweaked .

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).

- The content test can be very challenging for some students. As shown in the data section, some students have to take the test 2-4 times before passing. I encourage them to look at the test framework, to hold off taking the test until they finish their content exams, and to take practice tests. 58% did pass the content test the first time taken. Passing the content test is not required for the degree, but it is required for licensure.
- The P12 Science Impact assignment shows improved results compared to the edTPA results from earlier. It is a shorter, more targeted assignment and the stakes are lower, so the students feel more comfortable with it. The students were very successful during this period of investigation.
- The safety module works better to see if students really understand how implement safe practices into the science classroom, as opposed to giving a safety exam.

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)
November 2023	**Department chairs and advisers for Science Teacher Licensure and the Teacher Licensure Coordinator (Jim Davis, Tom Canam, Ed Treadwell, Steve Daniels, Katie Lewandowski, Ruth Chesnut, Don Pakey)**	**The results were accepted. No changes were proposed.**

Dean Review and Feedback

Dean or Designee Signature and Date: Michael Cornebise, Associate Dean
11/25/2025

The BS in Science Teacher Licensure program was formerly accredited by the NSTA and met all the SPA standards. SLOs continue to be linked to SPA assessment requirements, and the data indicate that program learning goals are either fully or partially met. The Science Impact Assignment has been revised to better fit the needs of student assessment, and the Professional Development Survey is under development. The assessment review committee met in 2023 and no changes to the instrument were proposed at that time. The report notes that the updated Science Impact Assignment showed improved results compared to edTPA, and the safety module is also an improvement over the previous safety exam. Overall, the program report is comprehensive and well presented.

VPAA Office Review and Feedback
(for "Round B" SLO report only)

VPAA Signature and Date: Type Electronic Signature and Date

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