Program Overview

The NIU Biology licensure program prepares you to teach biology, microbiology, anatomy and physiology, and other life science courses in grades 9-12 at any level (honors, accelerated, AP). You will also be qualified to teach introductory level chemistry, earth and space, physics, and environmental science classes.

The program consists of 36 credits in science teaching methodology, clinicals, and professional education courses taken over four semesters.

Undergraduates or transfer students wanting to earn a professional educator license with an endorsement in biology must be enrolled in NIU and working toward a Biology bachelor’s degree. Typically, undergraduate students complete the licensure program during their last two years at NIU concurrently with their upper level content classes.

Individuals who have already earned a B.S. in Biology or related discipline should contact program advisors to help determine which specific course requirements are satisfied by your degree.

This document outlines program requirements, how to apply, and the courses needed to earn your Illinois Professional Educator License. For more information, please contact:

Paul Fix, Assistant Director  
Secondary Science Educator Licensure  
pfix@niu.edu  
(815) 753-6819  
http://www.niu.edu/elss/
Program Entry Requirements

Before applying to the program, make sure you satisfy these requirements:

✓ **Degree** - You must be pursuing, or planning on pursuing, a Biology B.S. at NIU or have already earned a B.S. in a related discipline. Previously earned degrees do not have to be from NIU.

✓ **Grade Point Average** - Cumulative GPA of at least 2.5 if you are an Undergraduate or 3.0 if you are a Graduate student. GPA in all science and math courses must also be at least 2.8.

How to Apply

New cohorts are accepted in the spring and begin their coursework in the fall semester each year. Applications must be submitted in electronic format from Jan 1st to March 1st of the spring semester prior to beginning in the fall. Applications submitted after March 1st may be considered based on clinical placement availability. All application materials can be found at [http://www.niu.edu/elss/how-to-apply](http://www.niu.edu/elss/how-to-apply). Contact program advisors if you have any questions after visiting the website.

Program Completion Requirements

In order to earn your PEL with an endorsement in biology, the following tests, checks, and coursework must be completed while in the program.


In lieu of the TAP test candidates may use their ACT+ or SAT scores if they meet the following requirements: Composite ACT score of 22 or higher AND a minimum of 6 on the Writing portion, OR Composite SAT score of 1110 or higher (critical reading and writing) AND minimum score of 26 on writing and language portion ([https://www.isbe.net/Documents/act-sat-testing-in-lieu-of-tap.pdf](https://www.isbe.net/Documents/act-sat-testing-in-lieu-of-tap.pdf)).

✓ **100 Hours of Observations** – During your clinical placements, you will be completing a minimum of 100 hours of observations in at least three different high school classrooms around the Northern Illinois region.

✓ **ILTS Subject Matter Test** - You must successfully pass the ILTS Biology content test (105) prior to student teaching. More information can be found at [http://www.il.nesinc.com/](http://www.il.nesinc.com/)

✓ **edTPA (Teacher Performance Assessment)** - You must successfully pass the edTPA during student teaching in order to receive an Illinois teaching license.

✓ **Criminal Background Checks** – Many area schools where you will be completing your clinicals require a criminal background check. Details on how to complete this will be provided to you in the clinical classes.

✓ **Health Checks** - All candidates must take and pass a TB test prior to their third semester in the program. TB tests are available for free to NIU students at the NIU Health Center and are good for one year.

✓ **Required Coursework** – All courses listed below must be completed in order to earn your license. Transfer students new to NIU should contact program advisors before applying to the program to determine which courses have been satisfied by prior coursework.

Students must pass all coursework listed with a grade of C- or better. All coursework with a D or F must be repeated in order to successfully complete the program.
You must complete 45 hrs of Biology Content courses, 14 hrs of Chemistry (including lab), 8 hrs of Physics (including lab) and 7 hrs of Math.

**Required Biological Science Courses:**
- BIOS 208, Fundamentals of Biology 1 (3 hrs) + BIOS 210 Lab (1 hr)
- BIOS 209, Fundamentals of Biology 2 (3 hrs) + BIOS 211 Lab (1 hr)
- BIOS 308 Genetics (5 hrs)
- BIOS 303 Cell Biology (4 hrs) or BIOS 302 Molecular Biology (4 hrs)
- BIOS 305 Biology of Land Plants (4 hrs)
- BIOS 313 Microbiology (4 hrs)
- BIOS 316 General Ecology (4 hrs)
- BIOS 317 Evolution (3 hrs)
- BIOS 355 Human Physiology (4 hrs)

+ PLUS 9 hrs of elective BIOS courses (300 or 400 level) to complete the 45 hrs requirement

**Required Chemistry Courses:**
- CHEM 210 General Chemistry I, including lab (4 hrs)
- CHEM 211 General Chemistry II, including lab (4 hrs)
- CHEM 330 or 336 Organic Chemistry I (3 hrs)
- CHEM 331 or 337 Organic Chemistry II (3 hrs)

**Required Physics Courses:**
- PHYS 210 General Physics 1, including lab (4 hrs)
- PHYS 211 General Physics 2, including lab (4 hrs)

**Required Math Courses:**
- MATH 211 Calculus for Business and Social Science (3 hrs)
- STAT 301 Elementary Statistics (4 hrs)

**Note:** Detailed course descriptions can be reviewed from the current NIU Course Catalog. Course equivalents from other accredited institutions may be substituted at the discretion of the Certification Advisor.

**GENERAL EDUCATION COURSES MUST INCLUDE:**
- Oral Communication (3 hrs)
- Written Communication (3-6 hrs) – ENGL 103/104 or ENGL 103/203 or ENGL 204
- Psychology (3 hrs) - PSYC 102
Biology Licensure Courses

Licensure courses are usually taken during a student’s last four semesters before graduation (36 cr. total) and all courses must be completed with a C- or better. Only 7-9 credits of education courses will be taken per semester allowing undergraduates to take upper level content courses concurrently. However, during the final semester in the program, student teaching will occupy your entire schedule.

The schedule of courses in professional education usually look as follows:

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<thead>
<tr>
<th>First Semester (Fall only)</th>
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<tbody>
<tr>
<td><strong>ILAS 201</strong> - Introductory Clinical Experience (30 hours observation; 1 cr)</td>
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<tr>
<td><strong>ETT 402</strong> - Use of Technology in Teaching (3 cr)</td>
</tr>
<tr>
<td><strong>EPS 406</strong> - Human Development and Learning, Middle School and High School (3 cr)</td>
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<td><strong>BIOS 484</strong> - Nature of Science (2 cr)</td>
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<tr>
<th>Second Semester (Spring only)</th>
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<tr>
<td><strong>ILAS 301</strong> - Second Clinical Experience (30 hours observation; 1 cr)</td>
</tr>
<tr>
<td><strong>LTIC 420</strong> - Methods and Materials for Teaching English to Speakers of Other Languages (3 cr)</td>
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<td><strong>BIOS 402</strong> - Interdisciplinary Teaching of Science in Secondary Education (3 cr)</td>
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<th>Third Semester (Fall only)</th>
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<tr>
<td><strong>BIOS 401</strong> - Pre-student teaching clinical (40+ hours obs; 2 cr)</td>
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<tr>
<td><strong>BIOS 403</strong> - Methods in Teaching Biology (3 cr)</td>
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<td><strong>SESE 457</strong> - Integrating Exceptional Students in the Regular Classroom (3 cr)</td>
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<th>Fourth Semester (Spring only)</th>
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<tr>
<td><strong>BIOS 485</strong> - Student Teaching (10 cr)</td>
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<tr>
<td><strong>BIOS 486</strong> - Transition to Professional Teaching (2 cr)</td>
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Contact Information

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Webpage
[http://www.niu.edu/elss/](http://www.niu.edu/elss/)

NIU Secondary Science Licensure Program is professionally accredited through: