Program Overview

The NIU Chemistry licensure program prepares you to teach chemistry related science courses in grades 9-12 at any level (honors, accelerated, AP). You will also be qualified to teach introductory level biology, 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 chemistry must be enrolled in NIU and working toward a Chemistry bachelor’s degree with an emphasis in Secondary Teaching (emphasis 2). Typically, undergraduate students complete the licensure program during their last two years at NIU concurrently with their upper level content classes.

If you have already earned a B.S. in Chemistry or related discipline, 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 chemistry 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 2.5.

**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 chemistry, 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 chemistry content test (106) 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.
Required Coursework
Chemistry Licensure

You must complete 30-36 hours of chemistry, 8 hours of physics, 8 hours of mathematics and 3 hours of practical writing. Students must pass all coursework listed below with a grade of C or better.

Subject discipline courses: You may have some flexibility in your course selection as long as selections meet the requirements for chemistry educator licensure.

REQUIRED CHEMISTRY COURSES: 30-36 hours total

_____ CHEM 210, General Chemistry 1 (3)
_____ CHEM 212, General Chemistry I Lab (1)
_____ CHEM 211, General Chemistry II (3)
_____ CHEM 213, General Chemistry II Lab (1)
_____ CHEM 336, Organic Chemistry I (3)
_____ CHEM 338, Organic Chemistry I Lab (1)
_____ CHEM 337, Organic Chemistry II (3)
_____ CHEM 339, Organic Chemistry II Lab (1)
_____ CHEM 325, Analytical Chemistry (3)
_____ CHEM 440, Physical Chemistry (3)
_____ CHEM 442, Physical Chemistry Lab (1)

3-4 hours CHEM elective, choice of:
_____ CHEM 425(4), _____ CHEM 460 (3), or _____ CHEM 470 (3)

And
4-9 hours of CHEM electives at the CHEM 329 level or above, excluding CHEM 370.

REQUIRED PHYSICS COURSES: 8 hours total
_____ PHYS 210, General Physics I, including lab (4)
_____ PHYS 211, General Physics 2, including lab (4)

REQUIRED MATH COURSES: 8 hours total
_____ MATH 229, Calculus I (4)
_____ MATH 230, Calculus II (4)

REQUIRED ENGLISH COURSES:
_____ ENGL 350 - practical writing (3)

RECOMMENDED COURSES:
_____ BIOS 208, Fundamentals of Biology 1 (3) + BIOS 210 Lab (1)
_____ BIOS 209, Fundamentals of Biology 2 (3) + BIOS 211 Lab (1)
_____ CSCI 240, Computer Programming in C++ (4)
_____ GEOL 120 Introductory Geology (3) or GEOL 325 Solid Earth composition (4)

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 Program Director.

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)
Required Coursework
Chemistry Educator Licensure

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 at the same time. 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>ILAS 201 - Introductory Clinical Experience (30 hours observation; 1 cr)</td>
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<tr>
<td>ETT 402 - Use of Technology in Teaching (3 cr)</td>
</tr>
<tr>
<td>EPS 406 - Human Development and Learning, Middle School and High School (3 cr)</td>
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<td>CHEM 490x - Nature of Science (2 cr)</td>
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<tr>
<th>Second Semester (Spring only)</th>
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<tr>
<td>ILAS 301 - Second Clinical Experience (30 hours observation; 1 cr)</td>
</tr>
<tr>
<td>LTIC 420 - Methods and Materials for Teaching English to Speakers of Other Languages (3 cr)</td>
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<tr>
<td>CHEM 493x - 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>CHEM 401 - Pre-student teaching clinical (40+ hours obs; 2 cr)</td>
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<tr>
<td>CHEM 495x - Methods in Teaching Chemistry (3 cr)</td>
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<td>SESE 457 - 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>CHEM 496 - Student Teaching (10 cr)</td>
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<tr>
<td>CHEM 497 - Transition to Professional Teaching (2 cr)</td>
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Contact Information

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Webpage
http://www.niu.edu/elss/

NIU Secondary Science Licensure Program is professionally accredited through: