The NIU Earth and Space Science licensure program prepares you to teach geology, astronomy, meteorology, and other earth and space science courses in grades 9-12 at any level (honors, accelerated, AP). You will also be qualified to teach introductory level biology, chemistry, 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 earth and space science must be enrolled in NIU and working toward a Geology and Environmental Geoscience degree, Emphasis 3: Earth and Space Science Education. Typically, 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 a 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 lists the necessary courses you need 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 geology and environmental geosciences B.S. with emphasis 3 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 2.7.


  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)).

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 earth and space science, the following tests, checks, and coursework must be completed while in the program.

- **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 Earth and Space Science content test 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 GEOLOGY COURSES: 32 hours total
    ____ GEOL 120/121 Introductory Geology/Introductory Geology Lab (3/1)
    ____ GEOL 322 Paleogeography, Paleoclimatology, Paleoecology (4)
    ____ GEOL 325 Solid Earth Composition (4)
    ____ GEOL 330 Global Cycles (4)
    ____ GEOL 335 Dynamics and Structure of the Earth (4)
    ____ GEOL 103 [or PHYS 162] Planetary and Space Science (3)
    ____ GEOL Specified Upper Division GEOL Earth Science Elective (see catalog) (3)
    ____ GEOL Specified Upper Division GEOL Earth Science Elective (see catalog) (3)
    ____ GEOL 429 Inquiry Based Field Experiences for Earth Science Teachers (3)

Outside of the Department: 3 hours total
    ____ GEOG 105/106 Introduction to the Atmosphere (3)

REQUIRED BIOLOGY COURSES: 8 hours total
    ____ BIOS 208, Fundamentals of Biology 1 (3) + BIOS 210 Lab (1)
    ____ BIOS 209, Fundamentals of Biology 2 (3) + BIOS 211 Lab (1)

REQUIRED CHEMISTRY COURSES: 8 hours total
    ____ CHEM 210 General Chemistry I (3)
    ____ CHEM 212 General Chemistry I Lab (1)
    ____ CHEM 211 General Chemistry II (3)
    ____ CHEM 213 General Chemistry II Lab (1)

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

REQUIRED MATH COURSES: 3 hours total
    ____ Math 229 Calculus (3)

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 Licensure Director.

General Education courses must include:
    ____ Oral Communication (3)
    ____ Written Communication (3-6 hrs) – ENGL 103/104 or ENGL 103/203 or ENGL 204
    ____ Psychology (3)
Earth and Space Science 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:

<table>
<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>
</tr>
<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>
</tr>
<tr>
<td><strong>GEOL 475</strong> - Nature of Science (2 cr)</td>
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<tr>
<th>Second Semester (Spring only)</th>
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</thead>
<tbody>
<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>
</tr>
<tr>
<td><strong>GEOL 483</strong> - Interdisciplinary Teaching of Science in Secondary Education (3 cr)</td>
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</tbody>
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<tr>
<th>Third Semester (Fall only)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GEOL 401</strong> - Pre-student teaching clinical (40+ hours obs; 2 cr)</td>
</tr>
<tr>
<td><strong>GEOL 495</strong> - Methods in Teaching Earth and Space Science (3 cr)</td>
</tr>
<tr>
<td><strong>SESE 457</strong> - Integrating Exceptional Students in the Regular Classroom (3 cr)</td>
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<tr>
<th>Fourth Semester (Spring only)</th>
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<tbody>
<tr>
<td><strong>GEOL 487</strong> - Student Teaching (10 cr)</td>
</tr>
<tr>
<td><strong>GEOL 482</strong> - Transition to Professional Teaching (2 cr)</td>
</tr>
</tbody>
</table>

Contact Information

**Dr. Nicole LaDue**, Director of Earth and Space Science Educator Licensure  
[ndlade@niu.edu](mailto:ndlade@niu.edu) or (815) 753-7935

**Paul Fix**, Assistant Director of Secondary Science Educator Licensure  
[pfix@niu.edu](mailto:pfix@niu.edu) or (815) 753-6819

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

NIU Secondary Science Licensure Program is professionally accredited through:

[CAEP](https://www.caep[l.edu/)
[ACADEMED](https://www.acmed.org/)
[NSTA](https://www.nsta.org/)