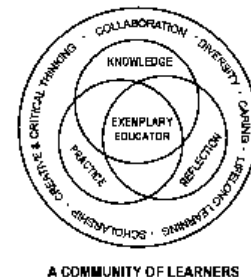




Northern Illinois University



Secondary Teaching in Physics Educator Licensure Requirements

The Physical Science licensure programs have been designed to prepare exemplary educators. The experiences candidates are provided will enable them to demonstrate that they meet the Illinois and National Science Teachers Association standards. Individuals completing the programs are sought after as science educators.

It is **NOT** necessary to complete a degree program at NIU at the same time as completing license requirements but you must have a bachelor's degree and the equivalent of a degree in the subject area in which you seek licensure. With one or two possible exceptions (indicated below) it is strongly suggested that all the professional education requirements are completed at NIU. Candidates successfully completing the educator licensure program in chemistry will earn a secondary license (grades 9-12) with a primary endorsement in physics.

Admission to the Secondary Science Educator Licensure Program

Potential candidates must be admitted to NIU to be admitted to the Licensure program. If they are not admitted to the program, they cannot take the required courses in the program nor can they be recommended by NIU for licensure. Potential candidates have the following choices of student classification:

Undergraduate - Choose this option if you do not have a college degree. You should declare to be a physics major but do not have to select the physics teaching emphasis. Approximately half the students becoming licensed in physics are not in an education degree emphasis.

Post-graduate - If you already have an appropriate bachelor degree you may wish to enroll as a post-graduate. Post-graduates are classified as undergraduate students. They may be pursuing a second bachelor's degree or simply be pursuing a teaching license. They do not have the ability to enroll in graduate level courses. Potential candidates may choose to pursue this option if they need to take undergraduate courses to fulfill academic or program deficiencies. It is possible to switch status from post-graduate to either student-at-large or graduate student. You may not switch back once you have done so.

Student-at-Large - Choose this option if you have a bachelor's degree and wish to be able to take some courses for graduate credit. Students pursue this option when they are unsure of whether or not they wish to pursue a Masters Degree or if they don't have time to complete the lengthy application process for admission to a graduate program as a graduate student. Due to recent NIU policies regarding order of registration for classes, this is the least desirable choice. It is always possible to switch status from student-at-large to graduate student.

Graduate student - A graduate student is someone who is pursuing a graduate degree, either masters or doctorate. It is not necessary to complete the degree to complete the educator license program.

To apply to the program please go to: <http://www.niu.edu/elss/how-to-apply/index.shtml>

Applications are accepted January 1st through May 30th, however we prefer to receive them by March 31st.

Tests and Checks

In addition to taking courses, you must do the following:

- ✓ **Basic Competency** - Candidates must pass the Test of Academic Proficiency (TAP) to be eligible for admission to the Licensure program. You can find information about this test at [Illinois Licensure Testing System - TAP test website](#).

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 16 on the Writing portion, OR Composite **SAT** score of 1030 or higher (critical reading and writing) AND minimum score of 450 on Writing portion.

- ✓ **Health Checks** - All candidates must take and pass a TB test prior to visiting schools. TB tests are available for free to NIU students at the NIU Health Center and are good for one year. You will need to prove that you do not have TB before your clinical experiences. Because the typical license program takes two years, most students are able to have just two, one before the first clinical experience and another before the third experience.
- ✓ **Criminal Background Checks** - You will need to contact the schools where you will be completing your clinicals to find out the criminal background check procedure for those districts.
- ✓ **ILTS Subject Matter test** - You must successfully pass the ILTS Subject matter test(s) appropriate to your program prior to student teaching. [Illinois Licensure Testing System](#)
- ✓ **edTPA (Teacher Performance Assessment)**- You must successfully pass the **edTPA** during student teaching in order to receive an Illinois teaching license.
- ✓ **Grade Point Average Requirements** - You must have a cumulative GPA of at least 2.5 if you are a Physics Undergraduate or 3.0 if you are a Graduate student. All coursework individually specified for licensure including content, must have a grade of C or better.

Contact Information

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Webpage

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Required Coursework
Emphasis 2: Physics Secondary School Teaching

Completing the following courses should provide you with the evidence necessary to demonstrate that you have met standards. You must **complete at least 31-33 hours in physics, 8 hours of chemistry and 16 hours of mathematics** to become licensed. Students must pass all coursework listed below with a grade of C or better. In addition, candidates must pass the ICTS Physics Subject Matter Test.

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

REQUIRED PHYSICS COURSES: 31-33 hours total

- _____ PHYS 253 Fundamentals of Physics 1: Mechanics (4)
- _____ PHYS 273 Fundamentals of Physics 2: Electromagnetism (4)
- _____ PHYS 283 Fundamentals of Physics 3: Quantum Phys. (3)
- _____ PHYS 284 Lab (1)
- _____ PHYS 300 Analytical Mechanics (3)
- _____ PHYS 320 Thermodynamics and Statistical Physics (3)
- _____ PHYS 367 Waves and Vibrations (3)
- _____ PHYS 370 Electricity and Magnetism (3)
- _____ PHYS 374 Introduction to Experimental Physics (3)
- _____ PHYS 383 Intermediate Quantum Physics (3)
- _____ PHYS 498 Senior Seminar (1) or 499H Senior Project (3)

REQUIRED CHEMISTRY COURSES: 8 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)

REQUIRED MATH COURSES: 12 hrs total

- _____ MATH 229 Calculus I (4)
- _____ MATH 230 Calculus II (4)
- _____ MATH 232 Calculus III (4)
- _____ MATH 336 Differential Equations (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 Licensure 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)

Professional Education

Professional education courses are usually taken during a student's last four semesters before licensure.

- _____ ILAS 201 Introductory Clinical Experience (1hrs)
- _____ ILAS 301 Second Clinical Experience (2hrs)
- _____ PHYS 401 Clinical High School Experience in physics (2hrs)
- _____ PHYS 493 Interdisciplinary Teaching of Science in Secondary Education (3hrs)
- _____ PHYS 495/595 Methods in Teaching Physics (3hrs)
- _____ PHYS 490x The Nature of Science Across Time and Cultures (2hrs)
- _____ PHYS 497/597 Student Teaching (10hrs)
- _____ PHYS 496 Transition to Professional Science Teaching (2hrs)
- _____ ETT 402 Technology in the Classroom (3hrs)
- _____ LTIC 420/520: Methods and Materials for Teaching English to Speakers of Other Languages (3 hrs)

Note: These courses require formal application to enter. **Licensure candidates must pass all course work with a grade of C or better in order to continue in the program.**

Educational Theory Courses:

- _____ EPS 406/507 Human Development and Learning, Middle School and High School (3hrs)
- _____ SESE 457/557 Integrating Exceptional Students in the Regular Classroom (3hrs)

The schedule of courses in professional education would usually look as follows.

Fall	Spring
Semester 1 <ul style="list-style-type: none">• ILAS 201 (1)• PHYS 490 (2)• ETT 402 (3)• EPS 406 (3)	Semester 2 <ul style="list-style-type: none">• ILAS 301 (2)• PHYS 493 (3)• LTIC 420 (3)
Semester 3 <ul style="list-style-type: none">• PHYS 401 (2)• PHYS 495 (3)• TLSE 457 (3)	Semester 4 <ul style="list-style-type: none">• PHYS 497 (10)• PHYS 496 (2)

Contact Information

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