Secondary Teaching in Biology
Teacher Licensure Requirements

Individuals wishing to receive a license to teach biology at the secondary level have a number of program options. Although a Bachelor of Science Degree in Biology is required to qualify for the program, it is not necessary to complete a degree program at NIU at the same time as completing license requirements. With one or two possible exceptions, it is strongly suggested that all the professional education requirements be completed at NIU. Candidates successfully completing the teacher licensure program in biology will earn a license to teach secondary science (grades 6-12) with a primary endorsement in biology. An endorsement to teach middle school science is included in the program as well.

Admission to the Secondary Science Teacher 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. Before potential candidates can be officially admitted, they must pass the Test of Academic Proficiency (TAP). Information regarding the TAP may be found at the following web site www.icts.nesinc.com . Potential candidates have the following choices of student classification.

Undergraduate: Choose this option if not in possession of a college degree. Potential candidates must declare the biology major and pursue teacher certification in biology.

Post-Graduate: If potential candidates already have an appropriate bachelor’s degree in biology and intend to only pursue teacher certification, not an advanced degree, they may wish to enroll as a post-graduate. Post-graduates are classified as undergraduate students, thus 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 biology courses to fulfill academic or program deficiencies. It is possible to switch status from post-graduate to student at large or graduate student. Candidates cannot switch back once you have done so.

Student-at-Large: Choose this option if in possession of a bachelor’s degree and wish to be able to take some courses for graduate credit. Potential candidates 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. 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 graduate degree to complete the biology certification program.
Tests and Checks

✓ **Health Checks:** Candidates must take and pass a TB test each year that they are in the program. TB tests are available for free to NIU students at the NIU Health Center and are good for one year. Potential candidates will need to prove that they do not have TB before the clinical experiences (ILAS 201, ILAS 301, and BIOS 401) and student teaching. Because the typical certification program takes two years, most individual are able to have just two, one before the first clinical experiences and another before the third clinical experience.

✓ **Criminal Background Checks:** See the Secondary Science Teacher Licensure Coordinator.

✓ **Basic Competency:** Candidates must pass the Test of Academic Proficiency (TAP) to be eligible for admission to the certification program. You can find information about this test at Illinois Certification Testing System (http://www.il.nesinc.com/)

In lieu of the TAP test candidates may use their ACT or SAT scores if they meet the following requirements:

1. Composite **ACT Plus Writing** score of at least 22; or a composite (mathematics and critical reading) **SAT** score of 1030. Note that the writing subtest must have been taken for each test; however, the writing score is not included in the composite score requirement for either test.
2. The applicant **cannot have failed the TAP five times.**
3. The **official score cannot be more than ten years old** at the time of this application and submission to ISBE.

✓ **ICTS Subject Matter test**

- You must successfully pass the ICTS Subject matter test(s) appropriate to your program prior to student teaching. Illinois Certification Testing System

✓ **Aptitude for Professional Teaching Test (APT)**

- You must successfully pass the Aptitude for Professional Teaching test to receive an Illinois License to teach. Illinois Certification Testing System

✓ **Grade Point Average Requirements:** In order to become licensed through the NIU certification program in biology, potential candidates must have an overall NIU GPA of 2.5 if they are an undergraduate or 3.0 if they are a student at large or graduate student. In addition, a Science GPA of 2.8 for all biology, chemistry, and physics course work (3.0 for student at large or graduate student) is required. All coursework individually specified for certification including content, must have a grade of C or better.

**Contacts:**

Dr. Jon Miller, Biology Teacher Licensure Program Director
jmillner@niu.edu or 815 753-7828

**Webpage**

http://www.niu.edu/sstc

Required Coursework
Potential candidates 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. Students must pass all coursework listed below with a grade of C or better. In addition, candidates must pass the ICTS Biology Subject Matter Test.

**General Education Course Work:** Potential candidates must meet, or have met, the general education requirement for a bachelor’s degree from an accredited institution.

**Subject Discipline Courses**

**Required Biological Science Courses:**
- BIOS 208 Fundamentals of Biology 1, including lab (4 hrs)
- BIOS 209 Fundamentals of Biology 2, including lab (4 hrs)
- BIOS 308 Genetics (5 hrs)
- BIOS 300 Cell 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)

**Elective BIOS Science Courses** (300 or 400 level) to complete the 46 hrs requirement (9 hrs)

**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 (3hrs)
- 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 (6 hrs)
- Psychology (3 hrs) PSYC 102
**Professional Education**

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

- ILAS 201 Introductory Clinical Experience (1 hr)
- ILAS 301 Second Clinical Experience (2 hr)
- BIOS 401 Clinical High School Experience in Biology (2 hrs)
- BIOS 402 Interdisciplinary Teaching of Science in Secondary Education (3 hrs)
- BIOS 403 Methods in Teaching Biology (3 hrs)
- BIOS 484x The Nature of Science across Time and Cultures (2 hrs)
- BIOS 485 Student Teaching (10 hrs)
- BIOS 486 Transition to Professional Science Teaching (2 hrs)
- ETT 402 Use of Technology in Teaching (3 hrs)
- LTIC 420: Methods and Materials for Teaching English to Speakers of Other Languages in Content Areas (3)

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

**Educational Theory Courses:**
- EPS 406/508 Human Development and Learning, Middle School and High School (3 hrs)
- TLSE 457/557 Integrating Exceptional Students in the Regular Classroom (3 hrs)

**Time Line for Completion of Certification Courses:**

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<td>• ILAS 201 (1 hr)</td>
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<td>• BIOS 484 (2 hrs)</td>
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<td>• BIOS 403 (3 hrs)</td>
<td>• BIOS 486 (2 hr)</td>
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<td>• TLSE 457 (3 hrs)</td>
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**Note:** Identification of Exceptional Children (typically TLSE 457/557) and Human Development and Learning, Middle School and High School (EPS 406/508) may be taken any time after successfully completing ILAS 201. *(6hrs)*