Science Education, BA

Requirements

The Bachelor of Arts with major in science education requires a minimum of 120 s.h., including a minimum of 43 s.h. in science education professional education courses, completion of an approved College of Liberal Arts and Sciences science degree, and science education content courses. Students must maintain a grade-point average of at least 2.70 in professional education course requirements. They also must complete the GE CLAS Core. The major requires admission to the Teacher Education Program (TEP). Application information can be obtained through the Office of Student Services.

Students must earn one of these majors at the University of Iowa, with a minimum of 36 s.h., in order to earn the BA in science education: a BA in biology, a BS in biology, a BA in chemistry, a BS in chemistry, a BA in environmental sciences, a BS in environmental sciences, a BA in geoscience, a BS in geoscience, a BA in physics, a BS in physics, or a BS in science studies; both degrees may be earned at the same time. Separate application to each degree program is required. Graduates who have earned one of these degrees at another institution and wish to earn the BA in science education should consult the Department of Teaching and Learning; additional coursework may be required.

An Iowa secondary teaching license qualifies holders to teach in grades 5-12. Additional subject area endorsements can be completed in any 5-12 licensure program. For more information and an advisor, contact the Department of Teaching and Learning.

For initial licensure, student teaching must be an all-day, full-semester experience. Most students are placed in a district within a 60-mile radius of Iowa City. Placements outside this area require special approval and are considered on an individual basis. Special site programs provide experience in districts with diverse populations and students also may apply to student teach at international sites for the second half of the semester.

Additional information about options for student teaching and application procedures is available from the Office of Student Services. Applications for student teaching must be submitted during the calendar year before the student teaching semester. The deadline for students planning to student teach the following fall semester is Nov. 15 and April 15 for the following spring semester.

The BA with a major in science education requires the following work.

Professional Education Course Requirements

Students complete 43 s.h. from the following.

Foundation Courses

Foundation courses may be completed before or after admission to the major.

Additional Licensure Courses

Student Teaching

Transfer students should consult their advisor since they must complete certain courses before they student teach.

Mathematics Course

Students complete a college-level math course. Most students complete this course as a part of their GE CLAS Core requirement in Quantitative or Formal Reasoning. For questions about how the math course can be applied to the licensure requirement, see Academic Advising on the College of Education website.

Course # | Title | Hours
--- | --- | ---
EDTL:4900 | Foundations of Special Education | 3
EPLS:3000 | Foundations of Education | 3
PSQF:1075 | Educational Psychology and Measurement | 3

| Course # | Title | Hours
--- | --- | ---
EDTL:3002 | Teaching and Learning Technologies | 2
EDTL:3091 | Secondary Education Program Orientation and Classroom Management | 3
EDTL:3095 | Teaching Reading in Secondary Content Areas | 1
EPLS:4180 | Human Relations for the Classroom Teacher | 3

EDTL:4750 | Assessment in Science, Technology, Engineering, and Mathematics (STEM) Classroom | 2
EDTL:4751 | Learning in the Science, Technology, Engineering, and Mathematics (STEM) Classroom | 2
EDTL:4752 | Secondary Science Methods II with Field Experience | 3
EDTL:4753 | Secondary Science Methods III with Field Experience | 3
EDTL:4779 | Secondary School Science Practicum | 2

| Course # | Title | Hours
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EDTL:4087 | Seminar: Curriculum and Student Teaching | 3
EDTL:4091 | Observation and Laboratory Practice in the Secondary School | 6
EDTL:4092 | Observation and Laboratory Practice in the Secondary School | 6

| Course # | Title | Hours
--- | --- | ---
CS:1110 | Introduction to Computer Science | 3
<table>
<thead>
<tr>
<th>Course #</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS:1210</td>
<td>Computer Science I: Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>STAT:1010</td>
<td>Statistics and Society</td>
<td>3</td>
</tr>
<tr>
<td>STAT:1020</td>
<td>Elementary Statistics and Inference</td>
<td>3</td>
</tr>
<tr>
<td>STAT:1030</td>
<td>Statistics for Business</td>
<td>4</td>
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</tbody>
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Any mathematics course (prefix MATH), except MATH:0100, MATH:1005, or MATH:1210

### Science Education Content Courses

Students select science courses that relate to their major field of study. In addition, students complete the broad field science block below:

### Broad Field Science Block

Students complete 12 s.h. from the following.

<table>
<thead>
<tr>
<th>Course #</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>This course:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIED:4135</td>
<td>The Nature of Science</td>
<td>4</td>
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<tr>
<td>At least two of these:</td>
<td></td>
<td></td>
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<tr>
<td>SIED:4102</td>
<td>Societal and Educational Applications of Earth Science and Environmental</td>
<td>4</td>
</tr>
<tr>
<td>SIED:4103</td>
<td>Societal and Educational Applications of Biological Sciences</td>
<td>4</td>
</tr>
<tr>
<td>SIED:4105</td>
<td>Societal and Educational Applications of Physical Sciences</td>
<td>4</td>
</tr>
<tr>
<td>SIED:4106</td>
<td>Societal and Educational Applications of Chemical Concepts</td>
<td>4</td>
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</table>