B.S. EDUCATION: SCIENCE (EARTH/SPACE SCIENCE)

This Bachelor of Science in Education degree enables you to teach Middle School/Junior High or High School students. Course requirements for this program are valid at IUB as reflected in the School of Education Bulletin. A four year college plan requires completion of 15 credits each semester. A 2.5 GPA overall is required for retention and graduation. A total of 120 credits are required for graduation.

May 2017

PREREQUISITES FOR ADMISSION TO THE TEP

Competitive enrollment. Meeting minimum requirements does not guarantee enrollment in authorized courses.

1. Complete the basic skills testing requirement by using any of the following options:
   - Qualifying scores on CASA
   - Reading 220, Math 220, Writing 220
   - SAT combined MA+VE score of at least 1100 if test taken prior to March 1, 2016
   - SAT combined MA+VE score of at least 1170 if test taken on or after March 1, 2016
   - ACT composite score of at least 24
   - Sum of EN + MA + RE + SR scores divided by 4 = 24
2. 2.5 GPA overall.
3. 21 credits and a 2.5 GPA in the content field with at least 15 credits completed and 6 credits in progress. Grade of C minus or higher is required in each content field course.
4. Completion of or enrollment in prerequisites: Grade of C or higher is required in each EDUC course.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC-M 300 Teaching in a Pluralistic Society (D)</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-P 312 Learning Theory into Practice</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-P 313 Adolescents in a Learning Community</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-W 200 Using Computers in Education (IF)</td>
<td>3</td>
</tr>
</tbody>
</table>

5. Apply to TEP by October 1 to enroll in Spring term Block I and EDUC-K 306.

I. IUB & SCHOOL OF EDUCATION

GENERAL EDUCATION REQUIREMENTS

[http://gened.iub.edu/courses/genedcourses.html](http://gened.iub.edu/courses/genedcourses.html)

Careful selection & completion of courses with a grade of "C" or higher may allow double counting within General Education, Professional Education &/or Content Field. If you earn a grade lower than a C, please consult with an academic advisor.

**Oral Expression (Select one)**

<table>
<thead>
<tr>
<th>Grade of C or higher required</th>
<th>3 credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH-A 122</td>
<td>3</td>
</tr>
<tr>
<td>COLL-P 155</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-G 203</td>
<td>3</td>
</tr>
</tbody>
</table>

**English Composition (EC) (Select one)**

<table>
<thead>
<tr>
<th>Grade of C or higher required</th>
<th>0-3 credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMLT-C 110 Writing the World</td>
<td>3</td>
</tr>
<tr>
<td>ENG-W 131 Reading, Writing &amp; Inquiry / OR</td>
<td>3</td>
</tr>
<tr>
<td>ENG-W 131EX Elementary Composition-Exempt</td>
<td>0</td>
</tr>
<tr>
<td>ENG-W 170 Intro to Argumentative Writing-Projects in Reading &amp; Writing</td>
<td>3</td>
</tr>
</tbody>
</table>

**Intensive Writing Course (IW) (Select one)**

<table>
<thead>
<tr>
<th>Grade of C or higher required</th>
<th>3 credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC-H 205 Intro to Educational Thought (P: English comp) (S&amp;H)</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-H 340 Education &amp; American Culture (P: English comp &amp; Soph. status)</td>
<td>3</td>
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</tbody>
</table>

**Mathematical Modeling (MM) (Select one)**

<table>
<thead>
<tr>
<th>3-4 credits</th>
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<tbody>
<tr>
<td>MATH-M/S/V 118 Finite Mathematics</td>
</tr>
<tr>
<td>MATH-D 116 Intro to Finite Mathematics I AND</td>
</tr>
<tr>
<td>MATH-D 117 Intro to Finite Mathematics II (P: D116)</td>
</tr>
<tr>
<td>MATH-M 106 Math of Decision and Beauty</td>
</tr>
<tr>
<td>MATH-J 113 Intro to Calculus with Applications</td>
</tr>
<tr>
<td>MATH-M 119 Brief Survey of Calculus I</td>
</tr>
<tr>
<td>MATH-M/S 211 Calculus I</td>
</tr>
</tbody>
</table>

**Arts & Humanities (A&H)**

<table>
<thead>
<tr>
<th>6 credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete at least 2 courses for a total of at least 6 credits.</td>
</tr>
<tr>
<td>* _____________________________</td>
</tr>
</tbody>
</table>

**Social & Historical Studies (S&H)**

<table>
<thead>
<tr>
<th>6 credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete at least 2 courses for a total of at least 6 credits.</td>
</tr>
<tr>
<td>* _____________________________</td>
</tr>
</tbody>
</table>

**Natural & Mathematical Sciences (N&M)**

| 5+ credits |
| Complete ONE of the following options. |
| * _____________________________ |

**Option I:** Complete at least 2 courses for a total of at least 5 credits. At least 1 of these courses must be a Natural Science (”) course.
| * _____________________________ |

**Option II:** Complete a 5 credit science course.
| * _____________________________ |

(The class taken to fulfill the Mathematical Modeling requirement cannot be counted towards the 5+ credits needed to fulfill the N&M requirement.)

**World Languages (WL)/World Cultures (WC)**

| 6 credits |
| Complete ONE of the following options. |
| * _____________________________ |

**Option I:** Language Study (WL): Complete the study of an approved single language through the second semester of the second-year level of college-level coursework.
| * _____________________________ |

**Option II:** World Culture (WC): Complete at least 2 courses for a total of at least 6 credits.
| * _____________________________ |

**Option III:** International Experience (IE): Complete an approved study abroad program or internship of at least 6 credits & at least 6 weeks abroad in duration.
| * _____________________________ |
EDUC-W 200 Using Computers in Education 3

Diversity in the U. S. (D) 3 credits
EDUC-M 300 Teaching in a Pluralistic Society (P: Soph. status) 3

Enriching Educational Experiences (EEE) 12 credits
EDUC-M 480 Student Teaching: Secondary (12 weeks) 12

II. PROFESSIONAL EDUCATION 48 credits/2.5 GPA
A grade of C or higher is required in each EDUC course. The following courses must be successfully completed before student teaching. 18 credits
EDUC-M 300 Teaching in a Pluralistic Society (P: Soph. status) 3
EDUC-P 312 Learning Theory into Practice (P: Soph. status) 3
EDUC-P 313 Adolescents in a Learning Community (P: Soph. status) 3
EDUC-W 200 Using Computers in Education (IF) 3
EDUC-A 308 Legal & Ethical Issues for Teachers (P: Soph. status) 3
EDUC-H 205 Intro to Educational Thought (P: English comp) (S&H) (IW) OR 3
EDUC-H 340 Education & American Culture (P: English comp & Soph. status) (IW) 3

Admission to the Teacher Education Program (TEP) is required in order to enroll in the following courses: 30 credits
EDUC-K 306 Teaching Students with Special Needs: Secondary Classrooms 3

Courses must be taken in prescribed blocks. Successful completion (C or higher) of all courses in each block is a prerequisite for the next block and student teaching.

Block I and Block II must be completed in sequence, without interruption, from one semester to the next. Students may add an additional semester(s) between the completion of Block II and Student Teaching (Block III).

Block I (Spring only) 8 credits
EDUC-M 303 Field Experience I 2
EDUC-M 469 Content Area Literacy 3

Block II (Fall only) 6 credits
EDUC-M 446 Methods of Teaching Jr/Middle/Sr High School Science 3
EDUC-M 403 Field Experience II 2
EDUC-S 303 Classroom Management 1

Block III (Student Teaching) 13 credits
Students may not enroll in other classes while completing student teaching. Exception: EDUC-M 202 Job Search Strategies for Educators
EDUC-M 420 Student Teaching Seminar 1
EDUC-M 480 Student Teaching in the Secondary School (12 weeks) (EEE) 12

III. EARTH/SPACE SCIENCE CONTENT 50 credits/2.5 GPA
A grade of C minus or higher is required in each course. Check with the department regarding when courses will be offered.
Required Science 19 credits
BIOL-E/L 111 Foundations of Biology: Diversity, Evolution & Ecology (N&M) OR 4
BIOL-E/L 112 Foundations of Biology: Biological Mechanisms (P: HS or college chemistry) (N&M) 4
CHEM-C 117 Principles of Chem & Biochem I (P: CHEM-C 101-C 121 or C 103 or chemistry and math placement exams or consent of the department) (N&M) AND 3
CHEM-C 127 Principles of Chem & Biochem I Lab OR 2
CHEM-S 117 Principles of Chem & Biochem I-Honors 5
GEOG-G 304 Physical Climatology (P: G107, G109, G185 or G208; or consent of instructor) 5
HPSC-X 102 Science Revolutions: Plato to NATO 3
HPSC-X 222 Big Science in 20th Century (S&H) 3
PHYS-P 201 General Physics I (P: MATH-M 26) (N&M) OR 5
PHYS-P 221 Physics I (P: MATH-M/ S 211 or consent of instructor) 5

Earth/Space Science Major 31 credits
Complete 6 credits from the following:
AST-A 100 The Solar System (N&M) 3
AST-A 102 Gravity, the Great Attractor: Evolution of Planets, Stars & Galaxies (N&M) 3
AST-A 103 The Search for Life in the Universe (N&M) 3
AST-A 105 Stars & Galaxies (N&M) 3
AST-A 115 Birth & Death of the Universe (N&M) 3

Complete 3 credits from the following:
GEOL-G/S 103 Earth Science: Materials & Processes (N&M) 3
GEOL-G 104 Evolution of the Earth (N&M) 3
GEOL-G 105 Earth: Our Habitable Planet (N&M) 3
GEOL-G 111 Physical Geology (P: HS or College CHEM) (N&M) 3
GEOL-G 114 Dinosaurs & Their Relatives (N&M) 3
GEOL-G 116 Our Planet & Its Future (N&M) 3
GEOL-G/S 121 Meteorites & Geological Processes in Planets (N&M) 3
GEOL-G 131 Oceans & Our Global Environment (N&M) 3
GEOL-G 141 Earthquakes & Volcanoes (N&M) 3
GEOL-G 171 Environmental Geology (N&M) 3

Complete the following:
GEOL-G 221 Intro to Mineralogy (P/C: College CHEM) (Fall only) 4
GEOL-G 222 Intro to Petrology (P: G 221) (Spring only) 4

Complete 3 credits from the following:
GEOL-G 300 Environmental & Urban Geology 3
GEOL-G 302 Dev of the Global Environ (P: College AST, CHEM or PHYS & MATH-M 118 or higher) 3
GEOL-G 323 Structural Geol. (P: G 104 or G 112 P/C: G 222) (Spring only) 4
GEOL-G 334 Principles of Sedimentology & Stratigraphy (P: G 222) (Fall only) 4

Complete 3 credits from the following:
GEOL-G 404 Geobiology (P: One of BIOL-L 111, GEOL-G 308 or GEOL-G 334 or consent of instructor) 3
GEOL-G 411 Invert. Paleontology (P: BIOL-L 111 or L112 and one 300 or 400 level BIOL or GEOL) 3
GEOL-G 415 Principles of Geomorphology (P: G 222, College CHEM & MATH or consent of instructor) 3
GEOL-G 417 Optical Mineralogy (P: G 222) 3
GEOL-G 418 Igneous & Metamorphic Petrology (P: G 222 or equivalent) 3
GEOL-G 424 Geological Information Systems 3
GEOL-G 427 Intro to X-ray Mineralogy (P: G 221) 3
GEOL-G 444 Methods in Analytical Geochemistry 1-2
GEOL-G 454 Fund of Plate Tectonics 3

Complete at least 8 additional credits of GEOL at the 300 or 400 level.

IV. ELECTIVES (To total 120 credits)