**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 4 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.

**ADMISSION REQUIREMENTS**
(Competitive enrollment. Meeting minimum requirements does not guarantee admission.)

1. Students may satisfy the Academic Skills Assessment requirement for admission to the TEP by using any of the following options:
   - Qualifying scores on CASA (taken after Sept. 1, 2013)
   - Reading 220, Math 220, Writing 220
   - Qualifying scores on PRAXIS I (if taken before Sept. 1, 2013)
   - Reading 176, Writing 172, Math 175
   - PRAXIS I combined score of at least 527 (if taken before Sept. 1, 2013)
   - SAT combined score of at least 1100
   - ACT composite score of at least 24
   - SAT Subject Test MA + VE = 1100
   - ACT composite score of at least 24
   - SAT Subject Test 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 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>
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</thead>
<tbody>
<tr>
<td>EDUC-M 300 Teaching a Pluralistic Society (P)</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-P 312 Learning Theory into Practice AND</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 by October 1 for Spring Semester Block I courses.
6. Submit TEP Application Online: [https://info.educ.indiana.edu/teachered/](https://info.educ.indiana.edu/teachered/)

**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 “C” or higher grade may allow double counting within General Education, Professional Education &/or Content Field.)

**Oral Expression (Select one) (Grade of C or higher required)** 3 credits

<table>
<thead>
<tr>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CMCL-C 122 Interpersonal Communication (S&amp;H)</td>
<td>3</td>
</tr>
<tr>
<td>COLL-P 155 Public Oral Communication</td>
<td>3</td>
</tr>
<tr>
<td>EDUC-G 203 Comm. for Youth Serving Professionals (S&amp;H)</td>
<td>3</td>
</tr>
</tbody>
</table>

**English Composition (EC) (Select one) (Grade of C or higher required)** 0-3 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMLT-C 110 Writing the World</td>
<td>3</td>
</tr>
<tr>
<td>ENG-W 131 Elementary Composition 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 (Topic: Projects in Reading &amp; Writing)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Intensive Writing Course (IW) (Select one) (Grade of C or higher required)** 3 credits

<table>
<thead>
<tr>
<th>Course</th>
<th>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. Standing)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Mathematical Modeling (MM) (Select one) 3-4 credits**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MATH-M/S/V 118 Finite Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH-D 116 Intro to Finite Mathematics I AND</td>
<td>2</td>
</tr>
<tr>
<td>MATH-D 117 Intro to Finite Mathematics II (Note: D116 must have a grade of C- or higher &amp; D117 must have a passing grade to fulfill the MM requirement)</td>
<td>2</td>
</tr>
<tr>
<td>MATH-J 113 Intro to Calculus with Applications</td>
<td>3</td>
</tr>
<tr>
<td>MATH-M 119 Brief Survey of Calculus I</td>
<td>3</td>
</tr>
<tr>
<td>MATH-M 211 Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH-M 213 Accelerated Calculus</td>
<td>4</td>
</tr>
</tbody>
</table>

**Arts & Humanities (A&H) 6 credits**

Complete at least 2 courses for a total of at least 6 credits.

- _____________________________

**Social & Historical Studies (S&H) 6 credits**

Complete at least 2 courses for a total of at least 6 credits.

- _____________________________

**Natural & Mathematical Sciences (N&M) (Complete ONE of the following options.) 5+ credits**

**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.

- _____________________________

Note: (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.

- _____________________________

Program is under revision to meet the emerging Indiana Rules for Educator Preparation and Accountability (REPA) requirements. Please see an education advisor for more details.

This program sheet is effective for all students starting at IUB beginning summer 2014.

May 2014
Information Fluency (IF) 3 credits
EDUC-W 200 Using Computers in Education 3

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

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

II. PROFESSIONAL EDUCATION 48 credits/2.5 GPA
(C or higher grade is required in each course listed below.)

Prerequisite Education Courses 12 credits
These courses must be taken before admission to the TEP.
EDUC-M 300 Teaching in a Pluralistic Society (P: Soph. Standing) (D) 3
EDUC-P 312 Learning Theory into Practice (P: Soph. Standing) 3
EDUC-P 313 Adolescents in a Learning Community (P: Soph. Standing) 3
EDUC-W 200 Using Computers in Education (IF) 3

Required Non- Authorized Course 6 credits
EDUC-A 308 Legal & Ethical Issues for Teachers (P: Soph. Standing) 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. Standing) (IW) 3

Teacher Education Program 30 credits
Admission to TEP is required for remaining courses.
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/Sec. 1

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

III. EARTH/SPACE SCIENCE CONTENT
50 credits/2.5 GPA
(C or higher grade is required in each course listed below.)
(At least 5 credits of Biogeology are required. Check with the department regarding when courses will be offered.)

Required Science 19 credits
BIOL-E 111 Foundations of Biology: Diversity, Evolution & Ecology (N&M) OR 3
BIOL-E 112 Foundations of Biology: Biological Mechanisms (P: HS or college chemistry) (N&M) 3
CHEM-C 117 Principles of Chem & Biochem I (P: CHEM & MATH Placement & consent of Dept) (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 or G109 or consent of instructor) 3
HPSC-X 102 Revol in Science: Plato-NATO (S&H, WC) OR 3
HPSC-X 222 Big Science in 20th Century (S&H) OR 5
PHYS-P 201 General Physics I (P: MATH-M 26) (N&M) OR 3
PHYS-P 221 Physics I (C: MATH-M 211) 3

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 & 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: 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 (P: 1 GEOL or physical GEOG course) (Spring only) 3
GEOL-G 302 Dev. of the Global Environ (P: College AST, CHEM or PHYS & MATH-M 118 or higher) (Spring only) 3
GEOL-G 323 Structural Geol. (P: G 104, 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: G 334 & BIOL-L 111 or L 112) (Fall of odd # years) 3
GEOL-G 411 Inverte. Paleontology (P: Jr. Standing & Instructor permission) (Spring only) 3
GEOL-G 415 Geomorphology (P: G 222, College CHEM & MATH) (Fall only) 3
GEOL-G 417 Optical Mineralogy (P: G 222) (Fall only) 3
GEOL-G 418 Igneous & Metamorphic Petrology (P: G 222) (Fall only) 3
GEOL-G 424 Geological Information Systems (Fall & Spring) 3
GEOL-G 427 Intro to X-ray Mineralogy (P: G 221) (Spring) 3
GEOL-G 444 Methods in Analytical Geochemistry (Fall only) 1-2
GEOL-G 454 Fund of Plate Tectonics (P: G 323 & G 334) 3

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

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IV. ELECTIVES (To total 120 credits)