

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 2016.



## INDIANA UNIVERSITY

SCHOOL OF EDUCATION  
Office of Teacher Education  
Bloomington

### 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 2016

#### PREREQUISITES FOR ADMISSION TO THE TEP

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

- 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 score of at least 1100
    - Sum of MA + VE = 1100
  - ACT composite score of at least 24
    - Sum of EN + MA + RE + SR scores divided by 4 = 24
- 2.5 GPA overall.
- 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.
- Completion of or enrollment in prerequisites: Grade of C or higher is required in each EDUC course.

| Course       |  | Credits |
|--------------|--|---------|
| • EDUC-M 300 | <i>Teaching in a Pluralistic Society (D)</i> | 3       |
| • EDUC-P 312 | <i>Learning Theory into Practice</i>         | 3       |
| • EDUC-P 313 | <i>Adolescents in a Learning Community</i>   | 3       |
| • EDUC-W 200 | <i>Using Computers in Education (IF)</i>     | 3       |

- Apply by October 1 for Spring Semester Block I courses.
- Submit TEP Application Online:  
<https://info.educ.indiana.edu/teachered/>

#### I. IUB & SCHOOL OF EDUCATION GENERAL EDUCATION REQUIREMENTS

<http://gened.iub.edu/courses/genedcourses.html>

(Careful selection and completion of courses with a grade of "C" or higher may allow double counting within General Education, Professional Education and/or Content Field.)

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

|            |  |   |
|------------|--|---|
| ANTH-A 122 | <i>Interpersonal Communication (S&amp;H)</i>           | 3 |
| COLL-P 155 | <i>Public Oral Communication</i>                       | 3 |
| EDUC-G 203 | <i>Comm. for Youth Serving Professionals (S&amp;H)</i> | 3 |

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

|             |   |   |
|-------------|---|---|
| CMLT-C 110  | <i>Writing the World</i>  | 3 |
| ENG-W 131   | <i>Reading, Writing &amp; Inquiry I OR</i>                              | 3 |
| ENG-W 131EX | <i>Elementary Composition-Exempt</i>                                    | 0 |
| ENG-W 170   | <i>Intro to Argumentative Writing-Projects in Reading &amp; Writing</i> | 3 |

#### Intensive Writing Course (IW) (Select one) 3 credits

|            |  |   |
|------------|--|---|
| EDUC-H 205 | <i>Intro to Educational Thought (P: English comp) (S&amp;H)</i>              | 3 |
| EDUC-H 340 | <i>Education &amp; American Culture (P: English comp &amp; Soph. status)</i> | 3 |

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

|                |   |   |
|----------------|---|---|
| MATH-M/S/V 118 | <i>Finite Mathematics</i>                       | 3 |
| MATH-D 116     | <i>Intro to Finite Mathematics I AND</i>        | 2 |
| MATH-D 117     | <i>Intro to Finite Mathematics II (P: D116)</i> | 2 |
| MATH-J 113     | <i>Intro to Calculus with Applications</i>      | 3 |
| MATH-M 119     | <i>Brief Survey of Calculus I</i>               | 3 |
| MATH-M/S 211   | <i>Calculus I</i>                               | 4 |

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

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

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

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

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#### 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.

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

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(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.

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

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**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.

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**Information Fluency (IF) 3 credits**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**II. PROFESSIONAL EDUCATION****48 credits/2.5 GPA****(A grade of C or higher is required in each course listed below.)****Prerequisite courses for admission to the TEP 12 credits**EDUC-M 300 *Teaching in a Pluralistic Society* 3*(P: Sophomore status) (D)*EDUC-P 312 *Learning Theory into Practice (P: Soph. status)* 3EDUC-P 313 *Adolescents in a Learning Community* 3*(P: Sophomore status)*EDUC-W 200 *Using Computers in Education (IF)* 3**Required Non-Authorized Course 6 credits**EDUC-A 308 *Legal & Ethical Issues for Teachers* 3*(P: Sophomore status)*EDUC-H 205 *Intro to Educational Thought (P: English comp)* 3**(S&H) (IW) OR**EDUC-H 340 *Education & American Culture* 3*(P: English comp & Soph. status) (IW)***Teacher Education Program (TEP) 30 credits**

Admission to the TEP is required.

These courses must be taken before student teaching.

EDUC-K 306 *Teaching Students with Special Needs:* 3*Secondary Classrooms***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 346 *Exploring Secondary School Science Teaching* 3EDUC-M 303 *Field Experience I* 2EDUC-M 469 *Content Area Literacy* 3**Block II (Fall only) 6 credits**EDUC-M 446 *Methods of Teaching Jr/Middle/Sr High School Science* 3EDUC-M 403 *Field Experience II* 2EDUC-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* 1EDUC-M 480 *Student Teaching in the Secondary School* 12**(EEE)****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* 3BIOL-E/L 112 *Foundations of Biology: Biological Mechanisms* 3*(P: HS or college chemistry) (N&M)*CHEM-C 117 *Principles of Chem & Biochem I (P: CHEM-C 101- 3**C 121 or C 103 or chemistry and math placement**exams or consent of the department) (N&M) AND*CHEM-C 127 *Principles of Chem & Biochem I Lab OR* 2CHEM-S 117 *Principles of Chem & Biochem I-Honors* 5GEOG-G 304 *Physical Climatology (P: G107, G109, G185 or 3**G208; or consent of instructor)*HPSC-X 102 *Science Revolutions: Plato to NATO (S&H, WC) 3***OR**HPSC-X 222 *Big Science in 20<sup>th</sup> Century (S&H)* 3PHYS-P 201 *General Physics I (P: MATH-M 26) (N&M) OR* 5PHYS-P 221 *Physics I* 3*(P/C: MATH-M/S 211 or consent of instructor)***Earth/Space Science Major 31 credits****Complete 6 credits from the following:**AST-A 100 *The Solar System (N&M)* 3AST-A 102 *Gravity, the Great Attractor: Evolution of Planets, 3**Stars & Galaxies (N&M)*AST-A 103 *The Search for Life in the Universe (N&M)* 3AST-A 105 *Stars & Galaxies (N&M)* 3AST-A 115 *Birth & Death of the Universe (N&M)* 3**Complete 3 credits from the following:**GEOLOG-S 103 *Earth Science: Materials & Processes (N&M)* 3GEOLOG-G 104 *Evolution of the Earth (N&M)* 3GEOLOG-G 105 *Earth: Our Habitable Planet (N&M)* 3GEOLOG-G 111 *Physical Geology (P: HS or College CHEM) (N&M)* 3GEOLOG-G 114 *Dinosaurs & Their Relatives (N&M)* 3GEOLOG-G 116 *Our Planet & Its Future (N&M)* 3GEOLOG-S 121 *Meteorites & Geological Processes in Planets 3***(N&M)**GEOLOG-G 131 *Oceans & Our Global Environment (N&M)* 3GEOLOG-G 141 *Earthquakes & Volcanoes (N&M)* 3GEOLOG-G 171 *Environmental Geology (N&M)* 3**Complete the following:**GEOLOG-G 221 *Intro to Mineralogy (P/C: College CHEM) (Fall only)* 4GEOLOG-G 222 *Intro to Petrology (P: G 221) (Spring only)* 4**Complete 3 credits from the following:**GEOLOG-G 300 *Environmental & Urban Geology 3**(P: 1 GEOL or physical GEOG course)*GEOLOG-G 302 *Dev of the Global Environ (P: College AST, CHEM or 3**PHYS & MATH-M 118 or higher)*GEOLOG-G 323 *Structural Geol. (P: G 104 or G 112 P/C: G 222) 4**(Spring only)*GEOLOG-G 334 *Principles of Sedimentology & Stratigraphy (P: G 222) 4**(Fall only)***Complete 3 credits from the following:**GEOLOG-G 404 *Geobiology (P: One of BIOL-L 111, GEOL-G 308 3**or GEOL-G 334 or consent of instructor)*GEOLOG-G 411 *Invert. Paleontology (P: BIOL-L 111 or L112 and 3**one 300 or 400 level BIOL or GEOL)*GEOLOG-G 415 *Principles of Geomorphology (P: G 222, College 3**CHEM & MATH or consent of instructor)*GEOLOG-G 417 *Optical Mineralogy (P: G 222)* 3GEOLOG-G 418 *Igneous & Metamorphic Petrology 3**(P: G 222 or equivalent)*GEOLOG-G 424 *Geological Information Systems* 3GEOLOG-G 427 *Intro to X-ray Mineralogy (P: G 221)* 3GEOLOG-G 444 *Methods in Analytical Geochemistry* 1-2GEOLOG-G 454 *Fund of Plate Tectonics* 3*(P: G 323 & G 334 or consent of instructor)***Complete at least 8 additional credits of GEOL at the 300 or 400 level.**

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**IV. ELECTIVES (To total 120 credits)**