

This program sheet is effective for all students starting at IUB beginning summer 2019.



# 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 2019

### 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 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
- 2.5 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 (C-) 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-G 203	<i>Communication for Youth Serving Professionals (S&amp;H)</i>	3
• EDUC-M 300	<i>Teaching in a Pluralistic Society (P: English Comp.) (D)</i>	3
• EDUC-P 312	<i>Learning Theory into Practice (P: Soph. status)</i>	3
• EDUC-P 313	<i>Adolescents in a Learning Community (P: Soph. status)</i>	3
• EDUC-W 200	<i>Using Computers in Education (IF)</i>	3

- Apply to TEP by October 1 to enroll in Spring term Block I and EDUC-K 306.
- Access TEP Application at: <https://education.indiana.edu/>

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

<https://gened.indiana.edu/approved-courses/index.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.

#### 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: Soph. status)</i>	3

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

Complete at least 1 course for at least 3 credits.

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#### 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	<i>Using Computers in Education</i>	3
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#### Diversity in the U. S. (D) 3 credits

EDUC-M 300	<i>Teaching in a Pluralistic Society (P: English Comp.)</i>	3
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#### Enriching Educational Experiences (EEE) 12 credits

EDUC-M 480	<i>Student Teaching: Secondary (12 weeks)</i>	12
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**II. PROFESSIONAL EDUCATION****51 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.

**21 credits**

EDUC-G 203	<i>Communication for Youth Serving Professionals (S&amp;H)</i>	3
EDUC-M 300	<i>Teaching in a Pluralistic Society (P: English Comp.) (D)</i>	3
EDUC-P 312	<i>Learning Theory into Practice (P: Soph. status)</i>	3
EDUC-P 313	<i>Adolescents in a Learning Community (P: Soph. status)</i>	3
EDUC-W 200	<i>Using Computers in Education (IF)</i>	3
EDUC-A 308	<i>Legal and Ethical Issues for Teachers (P: Soph. status)</i>	3
EDUC-H 205	<i>Intro to Educational Thought (P: English Comp.) (S&amp;H) (IW) OR</i>	3
EDUC-H 340	<i>Education &amp; American Culture (P: Soph. status) (IW)</i>	3

**Admission to the Teacher Education Program (TEP) is required in order to enroll in the following courses: 30 credits**

EDUC-K 306	<i>Teaching Students with Special Needs: Secondary Classrooms</i>	3
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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 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	<i>Exploring Secondary School Science Teaching</i>	3
EDUC-M 303	<i>Field Experience I</i>	2
EDUC-M 469	<i>Content Area Literacy</i>	3

**Block II (Fall only) 6 credits**

EDUC-M 446	<i>Methods of Teaching Jr/Middle/Sr High School Science</i>	3
EDUC-M 403	<i>Field Experience II</i>	2
EDUC-S 303	<i>Classroom Management</i>	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	<i>Student Teaching Seminar</i>	1
EDUC-M 480	<i>Student Teaching in the Secondary School (12 weeks) (EEE)</i>	12

**III. EARTH/SPACE SCIENCE CONTENT****51-52 credits/2.5 GPA**

A grade of C minus (C-) or higher is required in each course.  
Check with the department regarding when courses will be offered.

**Required Science 20 credits**

BIOL-L 111	<i>Foundations of Biology: Diversity, Evolution &amp; Ecology (N&amp;M) OR</i>	4
BIOL-L 112	<i>Foundations of Biology: Biological Mechanisms (P: HS or college chemistry) (N&amp;M)</i>	4
CHEM-C 117	<i>Principles of Chem &amp; Biochem I (P: CHEM-C 101, CHEM-C 121; or CHEM-C 103; or chemistry and math placement examinations and consent of department) (N&amp;M) AND</i>	3
CHEM-C 127	<i>Principles of Chem &amp; Biochem I Lab OR</i>	2
CHEM-S 117	<i>Principles of Chem &amp; Biochem I-Honors</i>	5
GEOG-G 304	<i>Physical Climatology</i>	3
HPSC-X 102	<i>Science Revolutions: Plato to NATO (S&amp;H) (WC)</i>	3
PHYS-P 201	<i>General Physics I (P: MATH-M 026) (N&amp;M) OR</i>	5
PHYS-P 221	<i>Physics I (P/C: MATH-M/S 211 or consent of instructor)</i>	5

**Earth/Space Science Major****31-32 credits****Complete 6 credits from the following:**

AST-A 100	<i>The Solar System (N&amp;M)</i>	3
AST-A 102	<i>Gravity, the Great Attractor (N&amp;M)</i>	3
AST-A 103	<i>The Search for Life in the Universe (N&amp;M)</i>	3
AST-A 105	<i>Stars and Galaxies (N&amp;M)</i>	3
AST-A 115	<i>Birth and Death of the Universe (N&amp;M)</i>	3

**Complete 3 credits from the following:**

COLL-C 105	<i>Topic: Earth Processes and Planets</i>	3
COLL-C 105	<i>Topic: Records of Global Climate Change</i>	3
COLL-C 105	<i>Topic: Extreme Weather and its Consequences</i>	3
EAS-E 103	<i>Earth Science: Materials and Processes (N&amp;M)</i>	3
EAS-E 104	<i>Evolution of the Earth (N&amp;M)</i>	3
EAS-E 105	<i>Earth: Our Habitable Planet (N&amp;M)</i>	3
EAS-E 111	<i>Journey to the Center of the Earth (P: One high school or college course in chemistry) (N&amp;M)</i>	3
EAS-E 114	<i>Dinosaurs and Their Relatives (N&amp;M)</i>	3
EAS-E 116	<i>Our Planet and Its Future (N&amp;M)</i>	3
EAS-E 118	<i>Sustainability in Water Resources (N&amp;M)</i>	3
EAS-E 121	<i>Origin and Evolution of Mars and Rocky Planetary Bodies (N&amp;M)</i>	3
EAS-E 122	<i>Earth's Dynamic Atmosphere (N&amp;M)</i>	3
EAS-E 131	<i>Oceans and Our Global Environment (N&amp;M)</i>	3
EAS-E 138	<i>Geology of State and National Parks Revealed</i>	3
EAS-E 141	<i>Earthquakes and Volcanoes (N&amp;M)</i>	3
EAS-E 144	<i>Extreme Weather and Its Impacts (N&amp;M)</i>	3
EAS-E 171	<i>Environmental Geology in the Twenty-first Century (N&amp;M)</i>	3

EAS-E 188	<i>Volcanoes of the Sierra Nevada (P: Consent of instructor)</i>	3
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EAS-E 227	<i>Earth Climate and History (Fall only)</i>	3
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**Complete the following:**

EAS-E 225	<i>Earth Materials</i>	4
EAS-E 226	<i>Earth Processes (Spring only)</i>	3

**Complete 6-7 credits from the following:**

EAS-E 308	<i>Paleontology and Geology of Indiana</i>	3
EAS-E 333	<i>Sedimentation and Tectonics (P: One of EAS-E 225 or GEOL-G 225; and one of EAS-E 226 or GEOL-G 226)</i>	4
EAS-E 351	<i>Elements of Hydrology (P: CHEM-C 103, CHEM-C 105, CHEM-C 117, or CHEM-S 117; and PHYS-H 221, PHYS-P 201, or PHYS-P 221)</i>	3

**Complete 3 credits from the following:**

EAS-A 476	<i>Climate Change Science (P: At least two undergraduate physical science courses or consent of instructor)</i>	3
EAS-E 412	<i>Introduction to Vertebrate Paleontology (P: One course from the General Education Natural and Mathematical Sciences course list)</i>	3
EAS-E 415	<i>Principles of Geomorphology (P: EAS-E 226 or GEOL-G 226; and EAS-E 227 or GEOL-G 227)</i>	3-4
EAS-E 418	<i>Igneous and Metamorphic Petrology (P: EAS-E 222 or GEOL-G 222)</i>	3
EAS-E 451	<i>Principles of Hydrogeology (P: CHEM-C 117 or CHEM-S 117; and MATH-M 211 or MATH-S 211)</i>	2-4
EAS-E 454	<i>Fundamentals of Plate Tectonics (P: EAS-E 333 or GEOL-G 333)</i>	3

**Complete at least 6 additional credits of Earth and Atmospheric Sciences at the 300-400 level.**

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