



## UNDERGRADUATE AND TEACHER EDUCATION

SCHOOL OF 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 2023

### PREREQUISITES FOR ADMISSION TO THE TEP

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

- 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 professional EDUC course.

#### Course

#### Credits

- EDUC-G 203 *Communication for Youth Serving Professionals (S&H)* 3
  - EDUC-M 300 *Teaching in a Pluralistic Society (P: English Comp.) (D)* 3
  - EDUC-I 251 *Learning Theories for Teachers AND* 3
  - EDUC-M 101 *Lab/Field Experience* 1
  - EDUC-P 313 *Adolescents in a Learning Community (P: Soph. status)* 3
  - EDUC-W 200 *Using Computers in Education (IF)* 3
- To enroll in I251 and M101, you must register for EDUC-BC 251.
4. Apply to TEP by October 1 to enroll in Spring term Block I and EDUC-K 306.
5. 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 *Writing the World* 3
- ENG-W 131 *Reading, Writing & Inquiry I OR* 3
- ENG-W 131EX *Elementary Composition-Exempt* 0
- ENG-W 170 *Intro to Argumentative Writing-Projects in Reading & Writing* 3

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

- EDUC-H 205 *Intro to Educational Thought (P: English Comp.) (S&H)* 3
- EDUC-H 340 *Education & American Culture (P: Soph. status)* 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 *Using Computers in Education* 3

### Diversity in the U. S. (D) 3 credits

- EDUC-M 300 *Teaching in a Pluralistic Society (P: English Comp.)* 3

### Sustainability Literacy (SL) 3 credits

- EDUC-M 469 *Content Area Literacy* 3

### Enriching Educational Experiences (EEE) 12 credits

- EDUC-M 480 *Student Teaching: Secondary (12 weeks)* 12

## II. PROFESSIONAL EDUCATION

**51 credits/2.5 GPA**

A grade of C or higher is required in each professional EDUC course. The following courses must be successfully completed before student teaching.

22 credits		
EDUC-G 203	Communication for Youth Serving Professionals (S&H)	3
EDUC-M 300	Teaching in a Pluralistic Society (P: English Comp.) (D)	3
EDUC-I 251	Learning Theories for Teachers AND	3
EDUC-M 101	Lab/Field Experience	1
To enroll in I251 and M101, you must register for EDUC-BC 251.		
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 and Ethical Issues in Education (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: Soph. status) (IW)	

<b>Admission to the Teacher Education Program (TEP) is required in order to enroll in the following courses:</b>	<b>29 credits</b>
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EDUC-K 306	Teaching Students with Special Needs: Secondary Classrooms	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	Exploring Secondary School Science Teaching	3
EDUC-M 303	Field Experience I	2
EDUC-M 469	Content Area Literacy (SL)	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) 12 credits		
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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)	11

## 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	Foundations of Biology: Diversity, Evolution & Ecology (N&M) OR	4
BIOL-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, CHEM-C 121; or CHEM-C 103; or chemistry and math placement examinations and consent of 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	3
HPSC-X 102	Science Revolutions: Plato to NATO (S&H) (WC)	3

PHYS-P 201	General Physics I (P: MATH-M 026) (N&M) OR	5
PHYS-P 221	Physics I (P/C: MATH-M/S 211 or consent of instructor)	5

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

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

Complete 3 credits from the following:

COLL-C 105	Topic: Earth Processes and Planets	3
COLL-C 105	Topic: Records of Global Climate Change	3
COLL-C 105	Topic: Extreme Weather and its Consequences	3
EAS-E 103	Earth Science: Materials and Processes (N&M)	3
EAS-E 104	Evolution of the Earth (N&M)	3
EAS-E 105	Earth: Our Habitable Planet (N&M)	3
EAS-E 111	Journey to the Center of the Earth (P: One high school or college course in chemistry) (N&M)	3
EAS-E 114	Dinosaurs and Their Relatives (N&M)	3
EAS-E 116	Our Planet and Its Future (N&M)	3
EAS-E 118	Sustainability in Water Resources (N&M)	3
EAS-E 121	Origin and Evolution of Mars and Rocky Planetary Bodies (N&M)	3

EAS-E 122	Earth's Dynamic Atmosphere (N&M)	3
EAS-E 131	Oceans and Our Global Environment (N&M)	3
EAS-E 138	Geology of State and National Parks Revealed	3
EAS-E 141	Earthquakes and Volcanoes (N&M)	3
EAS-E 144	Extreme Weather and Its Impacts (N&M)	3
EAS-E 171	Environmental Geology in the Twenty-first Century (N&M)	3
EAS-E 188	Volcanoes of the Sierra Nevada (P: Consent of instructor)	3
EAS-E 227	Earth Climate and History (Spring)	3

Complete the following:

EAS-E 225	Earth Materials (Fall)	4
EAS-E 226	Earth Processes (Fall)	3

Complete 6-7 credits from the following:

EAS-E 308	Paleontology and Geology of Indiana	3
EAS-E 333	Sedimentation and Tectonics (P: One of EAS-E 225 or GEOL-G 225; and one of EAS-E 226 or GEOL-G 226) (Spring)	4
EAS-E 351	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)	3

Complete 3 credits from the following:

EAS-A 476	Climate Change Science (P: At least two undergraduate physical science courses or consent of instructor) (Spring) (IW)	3
EAS-E 411	Invertebrate Paleontology (P: One course from the General Education Natural and Mathematical Sciences course list) (Fall)	3
EAS-E 412	Introduction to Vertebrate Paleontology (P: One course from the General Education Natural and Mathematical Sciences course list)	3
EAS-E 415	Principles of Geomorphology (P: EAS-E 226 or GEOL-G 226; and EAS-E 227 or GEOL-G 227)	3-4
EAS-E 418	Igneous and Metamorphic Petrology (P: EAS-E 225 or GEOL-G 225)	3
EAS-E 451	Principles of Hydrogeology (P: CHEM-C 117 or CHEM-S 117; and MATH-M 211 or MATH-S 211)	2-4
EAS-E 454	Fundamentals of Plate Tectonics (P: EAS-E 333 or GEOL-G 333)	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)