

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 2015.



## 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 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.

May 2015

#### PREREQUISITES FOR AUTHORIZED COURSES

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

- Students may satisfy the Academic Skills Assessment requirements 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 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 AND</i>	3
• EDUC-P 313	<i>(To enroll in P312 and P313 you must register for EDUC-BE 312)</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 & 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

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) (Grade of C or higher required) 0-3 credits

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. standing)</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 211	<i>Calculus I</i>	4
MATH-M 213	<i>Accelerated Calculus</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) (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.

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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) (Complete ONE of the following options.) 6 credits

**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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<b>Information Fluency (IF)</b>	<b>3 credits</b>
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EDUC-W 200	Using Computers in Education	3
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<b>Diversity in the U. S. (D)</b>	<b>3 credits</b>
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EDUC-M 300	Teach in a Pluralistic Society (P: Soph. standing)	3
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<b>Enriching Educational Experiences (EEE)</b>	<b>12 credits</b>
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EDUC-M 480	Student Teaching: Secondary	12
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<b>II. PROFESSIONAL EDUCATION</b>
<b>48 credits/2.5 GPA</b>
<b>(C or higher grade is required in each course listed below.)</b>

<b>TEP Prerequisite Education Courses</b>	<b>12 credits</b>
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EDUC-M 300	Teaching in a Pluralistic Society (P: Soph. standing) <b>(D)</b>	3
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EDUC-P 312	Learning Theory into Practice (P: Soph. standing) <b>AND</b>	3
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EDUC-P 313	Adolescents in a Learning Community (P: Soph. standing) <b>(To enroll in P312 and P313 you must register for EDUC-BE 312)</b>	3
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EDUC-W 200	Using Computers in Education <b>(IF)</b>	3
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<b>Required Non-Authorized Course</b>	<b>6 credits</b>
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EDUC-A 308	Legal & Ethical Issues for Teachers (P: Soph. standing)	3
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EDUC-H 205	Intro to Educational Thought (P: English comp) <b>(S&amp;H) (IW) OR</b>	3
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EDUC-H 340	Education & American Culture (P: English comp & Soph. standing) <b>(IW)</b>	3
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<b>Teacher Education Program (TEP)</b>	<b>30 credits</b>
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Completion of TEP prerequisites is required. These courses must be taken before student teaching.

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, 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).

<b>Block I (Spring only)</b>	<b>8 credits</b>
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EDUC-M 346	Exploring Secondary School Science Teaching	3
EDUC-M 303	Field Experience I	2
EDUC-M 469	Content Area Literacy	3

<b>Block II (Fall only)</b>	<b>6 credits</b>
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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

<b>Block III (Student Teaching)</b>	<b>13 credits</b>
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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 <b>(EEE)</b>	12

<b>III. EARTH/SPACE SCIENCE CONTENT</b>
<b>50 credits/2.5 GPA</b>

(C or higher grade is required in each course listed below.)  
(Check with the department regarding when courses will be offered.)

<b>Required Science</b>	<b>19 credits</b>
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BIOL-E/L 111	Foundations of Biology: Diversity, Evolution & Ecology <b>(N&amp;M) OR</b>	3
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BIOL-E/L 112	Foundations of Biology: Biological Mechanisms (P: HS or college chemistry) <b>(N&amp;M)</b>	3
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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) <b>(N&amp;M) AND</b>	3
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CHEM-C 127	Principles of Chem & Biochem I Lab <b>OR</b>	2
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CHEM-S 117	Principles of Chem & Biochem I-Honors	5
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GEOG-G 304	Physical Climatology (P: G107, G109, G185 or G208; or consent of instructor)	3
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HPSC-X 102	Science Revolutions: Plato to NATO <b>(S&amp;H, WC)</b>	3
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HPSC-X 222	Big Science in 20 <sup>th</sup> Century <b>(S&amp;H)</b>	3
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PHYS-P 201	General Physics I (P: MATH-M 26) <b>(N&amp;M) OR</b>	5
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PHYS-P 221	Physics I (P/C: MATH-M 211 or consent of instructor)	3
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<b>Earth/Space Science Major</b>	<b>31 credits</b>
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Complete **6 credits** from the following:

AST-A 100	The Solar System <b>(N&amp;M)</b>	3
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AST-A 102	Gravity, the Great Attractor: Evolution of Planets, Stars & Galaxies <b>(N&amp;M)</b>	3
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AST-A 103	The Search for Life in the Universe <b>(N&amp;M)</b>	3
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AST-A 105	Stars & Galaxies <b>(N&amp;M)</b>	3
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AST-A 115	Birth & Death of the Universe <b>(N&amp;M)</b>	3
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Complete **3 credits** from the following:

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

GEO-L-G 221	Intro to Mineralogy (P/C: College CHEM) (Fall only)	4
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GEO-L-G 222	Intro to Petrology (P: G 221) (Spring only)	4
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Complete **3 credits** from the following:

GEO-L-G 300	Environmental & Urban Geology (P: 1 GEOL or physical GEOG course)	3
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GEO-L-G 302	Dev of the Global Environ (P: College AST, CHEM or PHYS & MATH-M 118 or higher)	3
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GEO-L-G 323	Structural Geol. (P: G 104 or G 112 P/C: G 222) (Spring only)	4
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GEO-L-G 334	Principles of Sedimentology & Stratigraphy (P: G 222) (Fall only)	4
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Complete **3 credits** from the following:

GEO-L-G 404	Geobiology (P: One of BIOL-L 111, GEOL-G 308 or GEO-L-G 334 or consent of instructor)	3
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GEO-L-G 411	Invert. Paleontology (P: BIOL-L 111 or L112 and one 300 or 400 level BIOL or GEOL)	3
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GEO-L-G 415	Principles of Geomorphology (P: G 222, College CHEM & MATH or consent of instructor)	3
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GEO-L-G 417	Optical Mineralogy (P: G 222)	3
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GEO-L-G 418	Igneous & Metamorphic Petrology (P: G 222 or equivalent)	3
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GEO-L-G 424	Geological Information Systems	3
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GEO-L-G 427	Intro to X-ray Mineralogy (P: G 221)	3
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GEO-L-G 444	Methods in Analytical Geochemistry)	1-2
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GEO-L-G 454	Fund of Plate Tectonics (P: G 323 & G 334 or consent of instructor)	3
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Complete at least **8 additional credits** of GEOL at the 300 or 400 level.

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<b>IV. ELECTIVES (To total 120 credits)</b>
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