

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 between summer 2011 and spring 2012.



INDIANA UNIVERSITY

SCHOOL OF EDUCATION
Office of Teacher Education
Bloomington

B.S. EDUCATION: SCIENCE (CHEMISTRY)

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 15-16 credits each semester. A 2.5 GPA overall is required for retention and graduation. A total of 124 credits are required for graduation.

May 2011-MD

ADMISSION REQUIREMENTS

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

- Students may satisfy the Academic Skills Assessment requirement for admission to the TEP by using any of the following options:
 - Qualifying scores on PRAXIS I
 - Reading 176, Writing 172, Math 175
 - PRAXIS I combined score of at least 527
 - Sum of Reading + Writing + Math scores = 527
 - 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.

Courses	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>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 & 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

CMCL-C 121 <i>Public Speaking (A&H)</i>	3
CMCL-C 122 <i>Interpersonal Communication (S&H)</i>	3
EDUC-G 203 <i>Communication in the Classroom (S&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>Elementary Composition OR</i>	3
ENG-W 131EX <i>Elementary Composition-Exempt</i>	0
ENG-W 170 <i>Intro to Argumentative Writing (Topic: Projects in Reading & Writing)</i>	3

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

EDUC-H 205 <i>Intro to Educational Thought (P: English Comp)</i>	3
(S&H)	
EDUC-H 340 <i>Education & American Culture (P: English Comp & 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 (Note: D116 must have a grade of C- or higher & D117 must have a passing grade to fulfill the MM requirement)</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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Information Fluency (IF)	3 credits
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EDUC-W 200	Using Computers in Education	3
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Diversity in the U. S. (D)	3 credits
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EDUC-M 300	Teach in a Pluralistic Society (P: Soph. Standing)	3
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Enriching Educational Experiences (EEE)	12 credits
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EDUC-M 480	Student Teaching: Secondary	12
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II. PROFESSIONAL EDUCATION

48 credits/2.5 GPA

(C or higher grade is required in each course listed below.)

Prerequisite Education Courses	12 credits
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These courses must be taken before admission to the TEP.

EDUC-M 300	Teaching in a Pluralistic Society (P: Soph. Standing) (D)	3
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EDUC-P 312	Learning Theory into Practice (P: Soph. Standing) AND	3
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EDUC-P 313	Adolescents in a Learning Community (P: Soph. Standing)	3
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EDUC-W 200	Using Computers in Education (IF)	3
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Required Non-Authorized Course	6 credits
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EDUC-A 308	Legal & Ethical Issues in Education	3
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EDUC-H 205	The Study of Education & Practice of Teaching (P: English Comp) (S&H) (IW) OR	3
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EDUC-H 340	Education & American Culture (P: English Comp & Soph. Standing) (IW)	3
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Teacher Education Program	30 credits
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Admission to TEP is required for remaining courses. 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).

Block I (Spring only)	8 credits
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EDUC-M 346	Exploring School Science Teaching	3
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EDUC-M 303	Field Experience I	2
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EDUC-M 469	Content Area Literacy	3
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Block II (Fall only)	6 credits
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EDUC-M 446	Methods of Teaching Jr/Middle/Sr High School Science	3
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EDUC-M 403	Field Experience II	2
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EDUC-S 303	Classroom Management/Sec.	1
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Block III (Student Teaching)	13 credits
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EDUC-M 420	Professional Development Seminar	1
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EDUC-M 480	Student Teaching (EEE)	12
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III. CHEMISTRY CONTENT

46 credits/2.5 GPA

(C or higher grade is required in each course listed below.)

(Check with the department regarding when courses will be offered.)

Required Science	19 credits
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BIOL-E/L 111	Intro to Biol: Evolution & Diversity (N&M) OR	3
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BIOL-E/L 112	Intro to Biol: Biological Mechanisms (P: HS or college chemistry) (N&M)	3
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GEOL-G 103	Earth Science: Mat. & Processes (N&M) OR	3
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GEOL-G 104	Evolution of the Earth (N&M) OR	3
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GEOL-G 105	Earth: Our Habitable Planet (N&M) OR	3
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HPSC-X 102	Revolutions in Science: Plato-NATO (S&H) OR	3
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HPSC-X 222	Big Science in 20 th Century (S&H)	3
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PHYS-P 201	General Physics I (P: MATH-M026 or HS equiv.) (N&M) AND	5
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PHYS-P 202	General Physics II (P: P201 or HS equiv.) (N&M) OR	5
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PHYS-P 221	Physics I (C: MATH-M211) AND	5
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PHYS-P 222	Physics II (C: MATH-M/S212, P: P221)	5
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Chemistry Major	27 credits
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CHEM-C/S 117	Principles of Chem & Biochem I – (P: CHEM & MATH Placement & consent of Dept) (N&M)	5
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CHEM-C/S 341	Organic Chem I Lectures (P: C/S117 or C106)	3
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CHEM-C/S 342	Organic Chem II Lectures (P: C341) (R: C343 Concurrently)	3
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CHEM-C/S 343	Organic Chem I Lab (P: C341) (P/C: C342 Concurrently)	2
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CHEM-C 360	Intro to Physical Chem (P: C/S117 or 106; N330 strongly recommended. MATH-M119, PHYS-P201 or equiv.) OR	3
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CHEM-C 361	Physical Chem of Bulk Matter (P: C117, MATH-M212, PHYS-202 or P222) OR	3
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CHEM-C 362	Physical Chem of Molecules (P: C117, N330 strongly recommended. MATH-M212, PHYS-P202 or P222)	3
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Complete 11 credits from the following:

CHEM-C/S 118	Principles of Chem & Biochem (P: C/S117) OR	5
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CHEM-N 330	Intermediate Inorganic Chem (P: C/S342 or R340) (P: C/S343) (Strongly Recommended)	5
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CHEM-A 314	Biol. & Envir. Chemical Analysis (P: C/S341 or R340 & MATH-M119 or M211) OR	2
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CHEM-A 318	Analytical Chem (P/C: C/S341 or R340 & MATH-M211) OR	4
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CHEM-C 317	Equilibria and Electrochem (P/C: C/S341 & MATH-M211 or M215) AND	2
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CHEM-C 318	Spectrochem and Separations (P/C: C/S 341 and MATH-M211 or M215)	2
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CHEM-A 315	Chemical Measurements Lab (P: A318 or C317-C318 or A314)	2
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CHEM-A 316	Bioanalytical Chem Lab (P: A318 or C317 & C318 or P/C: A314)	2
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CHEM-C 344	Organic Chem II Lab (P C/S342 & C/S343)	2
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CHEM-C 364	Intro to Basic Measurements (P: C/S361) OR	3
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CHEM-P 364	Basic Measurements-Physical Chem (P: C/S361) AND	2
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CHEM-P 464	Advanced Measurements-Physical Chem (P: P364. P/C: C362)	2
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CHEM-C 430	Inorganic Chem (P: C/S106 or N/S330) (R: C362)	3
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CHEM-C 432	Spectroscopic Methods in Inorganic Chem (P: C360 or C361 & C430)	3
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CHEM-C 437	Inorganic Chem Lab (P: C/S343 & C430)	2
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CHEM-C 443	Organic Spectroscopy (P: C342 & C362)	3
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CHEM-C 460	Nuclear Chem (P/C: C360 & C/S361)	3
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CHEM-C 481	Physical Biochem (P: C361 & C484)	3
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CHEM-C 483	Biological Chem (P: C/S342 or R340) OR	3
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CHEM-C 484	Biomolecules and Catabolism (P: C/S342) AND	3
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CHEM-C 485	Biosynthesis and Physiology (P: C484)	3
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IV. ELECTIVES (To total 124 credits)

