

This program sheet is effective for all students starting at IUB beginning summer 2020.



## INDIANA UNIVERSITY

SCHOOL OF EDUCATION  
Office of Teacher Education  
Bloomington

## B.S. EDUCATION: MATHEMATICS

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 2020

### 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 2.0 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

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	<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 *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

### 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 EDUC course. The following courses must be successfully completed before student teaching.

**21 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-P 312	Learning Theory into Practice (P: Soph. status)	3
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 & Ethical Issues for Teachers (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)	3

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

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 321	Secondary School Mathematics Curriculum & Assessment	3
EDUC-M 303	Field Experience I	2
EDUC-M 469	Content Area Literacy	3

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

EDUC-M 422	Teaching Mathematics in the Secondary School	3
EDUC-M 403	Field Experience II	2
EDUC-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	1
EDUC-M 480	Student Teaching in the Secondary School (12 weeks) (EEE)	12

**III. MATHEMATICS CONTENT****42 credits/2.0 GPA**

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

**Analysis 12 credits**

MATH-M/S 211	Calculus I (MM)	4
MATH-M/S 212	Calculus II (P: MATH-M/S 211) (N&M)	4
MATH-M/S 311	Calculus III (P: MATH-M/S 212)	4

**Algebra 9 credits**

MATH-M 301	Linear Algebra and Applications (P: MATH-M/S 212; or both MATH-M 211 and CSCI-C 241) OR	3
MATH-M/S 303	Linear Algebra for Undergraduates (P: MATH-M/S 212; or both MATH-M 211 and CSCI-C 241)	3
MATH-M 391	Introduction to Mathematical Reasoning (P: MATH-M/S 212; or both MATH-M 211 and CSCI-C 241; and MATH-M 301 or MATH-M/S 303) (Spring)	3
MATH-M/S 403	Introduction to Modern Algebra (P: MATH-M 301 or M/S 303) (Fall) OR	3
MATH-T 403	Modern Algebra for Secondary Teachers (P: MATH-M 301 or M/S 303; and MATH-M 391) (Fall)	3

**Probability & Statistics 3 credits**

MATH-M 365	Introduction to Probability and Statistics (P: MATH-M/S 212)	3
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**Geometry 3 credits**

MATH-T 336	Topics in Euclidean Geometry (P: MATH-M/S 212 or MATH-M 213) (Fall)	3
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**Applied Mathematics 3 credits**

MATH-M 447	Mathematical Models and Applications I (P: MATH-M 301 or MATH-M/S 303; and MATH-M/S 311. P or C: MATH-M 365) (Fall)	3
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**Computer Programming 3 credits**

MATH-M 371	Elementary Computational Methods (P: MATH-M/S 212 or MATH-M 213) (Spring)	3
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**Math in Secondary Curriculum 3 credits**

EDUC-M 302	Algebra Throughout the Sec. Curriculum (P: MATH-M 301 or MATH-M/S 303) (C: MATH-T 403) (Fall)	1
EDUC-M 302	Calculus Throughout the Sec. Curriculum (C: MATH-M/S 212) (Spring)	1
EDUC-M 302	Probability & Statistics Throughout the Sec. Curriculum (C: MATH-M 365) (Spring)	1

**Electives to total 42 credits**

<b>Program must include at least one of the following:</b>		
MATH-M 321	Intuitive Topology (Spring) (P: MATH-M/S 212)	3
MATH-M/S 343	Introduction to Differential Equations with Applications I (P: MATH-M/S 212)	3
MATH-M 380	History of Mathematics (P: MATH-M/S 212)	3
MATH-M 405	Number Theory (P: MATH-M/S 212 or M213)	3
MATH-M/S 413	Introduction to Analysis I (P: MATH-M 301 or MATH-M/S 303; and MATH-M/S 311) (Fall)	3

Select any other mathematics course at the 300 level or above, but the following are recommended:

MATH-M 330	Exploring Mathematical Ideas (P: MATH-M/S 211)	3
MATH-M 415	Elementary Complex Variables with Applications (P: MATH-M/S 311) (Spring)	3
MATH-M 453	Cryptography (P: MATH-M 301 or MATH-M/S 303)	3

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