This program sheet is effective for all students starting at IUB beginning summer 2022.

UNDERGRADUATE AND TEACHER EDUCATION
SCHOOL OF 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 2022

PREREQUISITES FOR ADMISSION TO THE TEP

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

1. 2.5 GPA overall.
2. 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.
3. Completion of or enrollment in prerequisites: Grade of C or higher is required in each 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-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

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.

• _____

Arts & Humanities (A&H) — 6 credits

Complete at least 2 courses for a total of at least 6 credits.

• _____ • _____

Social & Historical Studies (S&H) — 6 credits

Complete at least 2 courses for a total of at least 6 credits.

• _____ • _____

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.

• _____ • _____

Option II: Complete a 5 credit science course.

• _____

(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.

• _____ • _____

Option II: World Culture (WC): Complete at least 2 courses for a total of at least 6 credits.

• _____ • _____

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.

• _____ • _____

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

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

Geometry — 3 credits

MATH-T 336	*Topics in Euclidean Geometry (P: MATH-M/S 212) (Fall)*	3

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

Computer Programming — 3 credits

MATH-M 371	*Elementary Computational Methods (P: MATH-M/S 212) (Spring)*	3

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

Program must include <u>at least one</u> of the following:

MATH-M 321	*Intuitive Topology (P: MATH-M/S 212) (Fall)*	3
MATH-M/S 343	*Introduction to Differential Equations with Applications I (P: MATH-M/S 212, R: MATH-M 301 or MATH-M/S 303)*	3
MATH-M 380	*History of Mathematics (P: MATH-M/S 212)*	3
MATH-M 405	*Number Theory (P: MATH-M/S 212) (Spring, odd years)*	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) (Spring, odd years)*	3

IV. ELECTIVES (To total 120 credits)