



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 4 year college plan requires completion of 15-16 credits each semester. A 2.5 GPA overall is required for retention and graduation.

General Education	36
Content	42
Professional Education	48
<u>Electives</u>	<u>XX</u>
Total (124 Minimum)	124

June 2009

ADMISSION TO TEACHER EDUCATION PROGRAM

1. Passing scores on the PRAXIS I test (175 Math, 176 Reading, 172 Writing). **Recommended:** Take the test during your Freshman year or as soon as you decide to become an Education major.
2. 2.5 GPA overall.
3. 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 or higher is required in each content field course.
4. Completion of or enrollment in prerequisites: Grade of C or higher is required in each EDUC course.

EDUC-M 300	<i>Teaching in a Pluralistic Society</i>	3
EDUC-P 312	<i>Learning Theory into Practice</i> AND	3
EDUC-P 313	<i>Adolescents in a Learning Community</i>	3
EDUC-W 200	<i>Using Computers in Education</i>	3
5. Apply by October 1 for Spring Semester Block I courses. NOTE: Competitive enrollment with a limited number of seats in Block I.
6. Submit TEP Application Online:
<https://info.educ.indiana.edu/teachered/>

OVERALL PROGRAM REQUIREMENTS (Retention, Student Teaching & Graduation)

- A "C" or higher grade in each professional education and content field course is required.
- All professional education courses must be completed before student teaching.
- A 2.5 GPA in the professional education and overall is required.
- A 2.0 GPA in the content field is required.
- A minimum of 124 college credits must be completed.

REMINDERS

- PRAXIS I scores take 4-6 weeks for results to be reported.
- Apply by October 1 for Spring Semester Block I courses.
- Register for Student Teaching 1 year in advance of enrollment.
- Apply for Graduation 1 year in advance of completion.
- Register with Education Careers Services during Senior Year.
- Attend Pre-Professional Mtg the semester before Student Teaching.
- Register for PRAXIS II in subject areas in Senior Year.
- Complete CPR/First Aid Requirement for State in Senior Year.
- Apply through IUB to State for License upon Graduation.

I. GENERAL EDUCATION

36 credits

(Careful selection & completion of courses with a "C" or higher grade may allow double counting in General Education & Content Field.)

ARTS & HUMANITIES

15 credits

ORAL EXPRESSION (C or higher)

3 credits

CMCL-C 121	<i>Public Speaking</i>	3
CMCL-C 122	<i>Interpersonal Communication</i>	3
EDUC-G 203	<i>Communication in the Classroom</i>	3

WRITTEN EXPRESSION (C or higher)

3 credits

ENG-W 131	<i>Elementary Composition</i>	3
ENG-W 170	<i>Projects in Reading and Writing</i>	3

INTENSIVE WRITING

3 credits

Refer to the online Schedule of Classes/Special Course Listings: Intensive Writing Courses.

REMAINING ARTS & HUMANITIES

6 credits

Select 6 credits from A&H* (Arts & Humanities) courses.

NATURAL & MATHEMATICAL SCIENCES

9 credits

Select 9 credits from N&M* (Natural & Mathematical) courses.

SOCIAL & HISTORICAL STUDIES

9 credits

Select 9 credits from S&H* (Social & Historical Studies) courses.

CULTURE STUDIES

3 credits

Select 3 credits from Culture Studies Requirement List A or B**.

*See College of Arts & Sciences Bulletin, Appendix II: Approved Distribution Courses and major specific planning sheet for recommended selections.

**See College of Arts & Sciences Bulletin, Appendix I: Cultural Studies Requirement Lists.

II. MATHEMATICS REQUIREMENTS**42 credits/2.0 GPA**
(C or higher grade is required in each course.)**ANALYSIS** **12 credits**

MATH-M 211	<i>Calculus I</i>	4
MATH-M 212	<i>Calculus II (P: M119 & X201 or M211)</i>	4
MATH-M 311	<i>Calculus III (P: M212 or M213)</i>	4

ALGEBRA **9 credits**

MATH-M 301	<i>Linear Algebra & Applications (P: M212) OR</i>	3
MATH-M 303	<i>Linear Algebra for Undergraduates (P: M212)</i>	
MATH-M 391	<i>Introduction to Mathematical Reasoning (P: M212) (Spring Only)</i>	3
MATH-T 403	<i>Modern Algebra for Secondary Teachers (Fall only) (P: M301 or M303 & M391)</i>	3

PROBABILITY & STATISTICS **3 credits**

MATH-M 365	<i>Introduction to Probability and Statistics (P: M212)</i>	3
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GEOMETRY **3 credits**

MATH-T 336	<i>Topics in Euclidean Geometry (Fall only) (P: M212)</i>	3
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APPLIED MATHEMATICS **3 credits**

MATH-M 447	<i>Math Models & Applications I (Fall only) (P: M301 or M303 & M311 & M365)</i>	3
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COMPUTER PROGRAMMING **3 credits**

MATH-M 371	<i>Elementary Computational Methods (Spring only) (P: M212)</i>	3
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MATHEMATICS EDUCATION LINKING COURSES **3 credits**

Select at least three of the following:

EDUC-M 302	<i>Algebra Throughout the Sec. Curriculum (P: M301 or M303) (C: T403) (Fall only)</i>	1
EDUC-M 302	<i>Math Modeling Throughout the Sec. Curriculum (C: M447) (Fall only)</i>	1
EDUC-M 302	<i>Calculus Throughout the Sec. Curriculum (C: M212) (Spring only)</i>	1
EDUC-M 302	<i>Probability & Statistics Throughout the Sec. Curriculum (C: M365) (Spring only)</i>	1

ELECTIVES **to total 42 credits**

Program must include at least one of the following:

MATH-M 321	<i>Intuitive Topology (Spring only) (P: M212)</i>	3
MATH-M 343	<i>Introductions to Differential Equations with Applications I (P: M212)</i>	3
MATH-M 405	<i>Number Theory (P: M212)</i>	3
MATH-M 413	<i>Introduction to Analysis I (P: M301 or M303 & M311) (Fall only)</i>	3

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

MATH-M 330	<i>Exploring Mathematical Ideas (Fulfills Intensive Writing Requirement) (Spring only)</i>	3
MATH-M 380	<i>History of Mathematics (P: M212) (Fulfills Intensive Writing Requirement) (Fall only)</i>	3
MATH-M 415	<i>Elementary Complex Variables with Applications (P: M311) (Spring only)</i>	3
MATH-M 448	<i>Mathematical Models and Applications II (P: M301 or M303 & M311 & M365) (Spring only)</i>	3
MATH-M 453	<i>Cryptograhly (P: M301 or M303)</i>	3

III. PROFESSIONAL EDUCATION**48 credits/2.5 GPA**
(C or higher grade is required in each course.)**REQUIRED NON-AUTHORIZED COURSES** **3 credits**

This course must be taken before student teaching:

EDUC-H 340	<i>Education & American Culture</i>	3
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PREREQUISITE EDUCATION COURSES **12 credits**

These courses must be taken before admission to TEP.

EDUC-M 300	<i>Teaching in a Pluralistic Society</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</i>	3

PRAXIS I Admission Tests (175 Math, 176 Reading, 172 Writing)

TEACHER EDUCATION PROGRAM **33 credits**

Admission to TEP is required for remaining courses.

These courses must be taken before student teaching.

(A308 may be taken with Block I or Block II. K306 is recommended with Block II.)

EDUC-A 308	<i>School Law: Secondary</i>	3
EDUC-K 306	<i>Teaching Students with Special Needs: Secondary Classrooms</i>	3

Courses must be taken in prescribed blocks. Successful completion of all courses in each Block is a prerequisite for the next Block and student teaching.

Block I and Block II must be successfully completed (C or Better) 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**

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

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

EDUC-M 422	<i>Teaching Mathematics in the Secondary School</i>	3
EDUC-M 403	<i>Field Experience II</i>	2
EDUC-S 303	<i>Classroom Management/Sec.</i>	1

BLOCK III (Student Teaching) **13 credits**

EDUC-M 420	<i>Professional Development Seminar</i>	1
EDUC-M 480	<i>Student Teaching</i>	12

IV. ELECTIVES (To Total 124 credits)