

Checksheet: B.S. in Mathematics, Mathematics Education Option

This degree program leads to a **Purdue University Bachelor of Science Degree**.

Students graduating from our discipline-based mathematics teacher training program will have fulfilled the **Indiana Professional Standards Board's** requirements for teaching **Mathematics to Early Adolescent (ages 11 to 15), Adolescent (ages 11 to 18), and Young Adult (ages 18+) students.**

Part 1 General Requirements [46-50 credits]

First Year Experience Course [1 credit]

SCI	I120	1	
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(Not required if student transfers with 18 or more credit hours.)

English and Communication [12 credits]

ENG	W131 or W140 (honors)	3	
ENG		3	
COMM	R110	3	
EDUC	H341	3	

Grade of C or better required for each composition (ENG) course. For second ENG course select from: ENG W270, W231, W230, W320; or TCM 22000 or 32000.

Modern Foreign Language [8 credits]

American Sign Language is acceptable.

Arts & Humanities [3 credits]

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See General Education Common Core Course Options for Math Majors list for acceptable courses.

Social Sciences [3 credits]

PSY	B110	3	
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PSY B110 is the recommended course for math education majors. See attached list of acceptable courses.

Additional Arts & Humanities or Social Sciences [3 credits]

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See General Education Common Core Course Options for Math Majors list for acceptable courses.

Cultural Understanding [3 credits]

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May be satisfied through Modern Foreign Language Requirement.

See General Education Common Core Course Options for Math Majors list for acceptable courses.

Computer Science [3-4 credits]

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Grade of C or better required. Course must be in a higher level programming language.

Approved courses include CSCI 23000, N305, N311, N331, N335, N345.

CSCI 23000 recommended. See advisor for approval of course not on list.

Life and Physical Sciences [13 credits]

PHYS	15200	4	

At least 4 courses selected from BIOL, CHEM, GEOL, PHYS, or AST.

PHYS 15200 (or a more advanced physics course) must be one of the 4 required science courses. At least 1 course must contain a laboratory. See General Education Common Core Course Options for Math Majors list for acceptable courses.

Grade of C- or better required in each course, except for at most one grade of D+ or D.

The following courses are NOT acceptable: all AGR courses; AST A130;

BIOL N100, N120, N200; CHEM C100, C101, C102, C110; GEOL G130;

PHYS 01000, 10000, 14000, 20000, 21800, 21900.

Except for laboratory courses combined with corresponding lecture courses,

1 credit hour and, in general, 2 credit hour courses do not apply in this area.

A minimum of 120 credits must be completed for graduation. This total must include residence of at least 2 semesters at IUPUI and completion of at least 32 credits at IUPUI in courses at the 300-level or above.

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Part 2 Math Education Option Requirements

Major Area: A grade of C or better is required in each course.

GPA in major courses must be 2.5 or above.

Mathematics & Statistics

[42 credits]

MATH 16500 (F, S, SSI)	Anal. Geom. & Calculus I (P: 15400 or 15900)	4	
MATH 16600 (F, S, SSII)	Anal. Geom. & Calculus II (P: 16500)	4	
MATH 17100 (F, S, SSI, SSII)	Multidimensional Math (P: 15400 or 15900)	3	
MATH 26100 (F, S, SSI)	Multivariate Calculus (P: 16600 and 17100)	4	
MATH 26600 (F, S, SSII)	Differential Equations (P: 16600 and 17100, C: 26100)	3	
MATH 27600 (S)	Discrete Mathematics (P or C: 16500 and 17100- Take ASAP after completion of prereqs)	3	
MATH 30000 (F, S)	Logic & the Foundations of Algebra (P: 16500, 17100, & 27600- Take ASAP after completion of prereqs)	3	
MATH 35100 (F, S)	Linear Algebra (P: 26100)	3	
MATH 45300 (F)	Abstract Algebra (P: 27600, 30000 & 35100)	3	
MATH 46300 (S)	Intermed. Euclidean Geometry for Secondary Teachers (P: 30000)	3	
MATH 58300 (S even, SSII odd)	History of Mathematics (P: MATH 30000)	3	
STAT 35000 (F,S)	Introduction to Statistics (P: MATH 16600)	3	
EDUC M457 (S)	Methods of Teaching MS/HS Math (taken concurrently with either MS or HS block)	3	

A sample four-year plan of study is available at www.math.iupui.edu.

Applying to the Teacher Education Program

Admission to Teacher Education Program (TEP) is competitive because of the high number of applicants. Students must meet the minimum requirements to be considered for admission, but meeting these requirements does not guarantee admission. To be eligible for the program, a student must:

- * Attain a minimum overall GPA of 2.50.
- * Attain a C (2.0) or higher in the following courses: ENG W131, ENG W270, COMM R110, and EDUC H341.
- * Complete 3/4 of the General Education requirements.
- * Complete 1/2 of the Mathematics courses with a minimum overall GPA of 2.5.
- * Pass all parts of the CASA test and have an original score report. Alternatives to the CASA may be permitted. See advisor for details. Take test by November 15 for fall admission and July 15 for spring admission.

Visit www.in.nesinc.com to register for the CASA exam. Passing score is 220 for Reading, Writing, and Mathematics respectively. Scores must be released to IUPUI at the time of testing.

Deadline for application: September 7 for spring admission and February 7 for fall. Apply online at <http://education.iupui.edu>.

Education

[35 credits]

Block I (F, S)	Diversity and Learning	10	
MS Block (F, S)	Teaching and Learning in the Middle School	6	
HS Block (F, S)	Teaching and Learning in the High School	3	
Student Teaching (F, S)	Student Teaching in the MS and HS	16	

Each student is responsible for the following items (monitored by the School of Education):

1. Pass the CASA exam or sufficient alternative (see advisor for details)
2. Complete the application for the TEP.
3. File a student teaching application (1 to 1 ½ years before semester of student teaching).
4. Pass the Pedagogy and Content Area Tests
5. Complete the application for the Indiana Teaching License.