

# Mathematics Education Master of Arts in Teaching (MAT) Teacher Education Program 5-12

Student Name:

UID:

This program of the University of Iowa College of Education is approved by the state of Iowa as preparation for endorsement number 143, Mathematics grades 5-12, intended for students who have completed a B.A. or B.S. in Mathematics as defined by the University of Iowa Department of Mathematics, or an equivalent.

## Requirements

- [Admission to the Teacher Education Program](#) and [admission to the University of Iowa Graduate College](#).
- Completion of a minimum of 43 semesters hours in Mathematics content courses to include courses in algebra, calculus, computer programming, discrete mathematics, geometry, and probability and statistics, as listed below.
- [MAT graduate degree requirements](#) include the Professional Education Course requirements, a minimum of 3 semester hours of mathematics graduate credit, and comprehensive examinations.
- Completion of the TEP Professional Education Course Requirements and field experiences.

## Professional Education Course Requirements

**Complete the following three courses in the first semester of enrollment.**

Course	Course Title	Credit	Session/Substitute
EDTL:3091	Secondary Orientation & Classroom Management	3 s.h.	
EDTL:3095	Teaching Reading in Secondary Content Areas	1 s.h.	
EDTL:3002	Teaching and Learning Technologies	2 s.h.	

**Complete all of the following (may be completed prior to TEP admission).**

Course	Course Title	Credit	Session/Substitute
EPLS:3000	Foundations of Education	3 s.h.	
EDTL:4900	Foundations of Special Education	3 s.h.	
PSQF:6200	Educational Psychology	3 s.h.	

**Complete all of the following.**

Course	Course Title	Credit	Session/Substitute
EPLS:4180	Human Relations for the Classroom Teacher	3 s.h.	
EDTL:3532	Introduction and Practicum: Mathematics (fall)	3 s.h.	
EDTL:3534	Methods: Middle School Mathematics (spring)	3 s.h.	
EDTL:4535	Methods: High School Mathematics (fall)	3 s.h.	
EDTL:4750	Assessment in STEM (fall)	2 s.h.	
EDTL:4751	Learning in the STEM Classroom (fall)	2 s.h.	

## Mathematics Education

Complete the following graduate level course or an approved substitute in consultation with advisor.

Course	Course Title	Credit	Session/Substitute
EDTL:6757	Learning in the Science Classroom	3 s.h.	

## Student Teaching (complete all of the following)

Course	Course Title	Credit	Session/Substitute
EDTL:4087	Seminar: Curriculum and Student Teaching	3 s.h.	
EDTL:4091	Observation and Laboratory Practice in the Secondary School	6 s.h.	
EDTL:4092	Observation and Laboratory Practice in the Secondary School	6 s.h.	

## Mathematics Content Course Requirements

Complete a minimum of 43 semester hours in mathematics content courses to include the courses below. These courses can be met through any combination of undergraduate coursework at the University of Iowa as [Program B](#) in the Department of Mathematics or as part of the MAT; however, for the MAT, students must complete at least 3 s.h. of graduate work in Mathematics/Mathematics Education content courses. Students will work with their assigned advisor to determine an appropriate plan of study.

### Complete all of the following or approved substitutes.

Course	Course Title	Credit	Session/Substitute
MATH:1850	Calculus I	4 s.h.	
MATH:1860	Calculus II	4 s.h.	
MATH:2150	Foundations of Geometry	3 s.h.	
MATH:2700	Introduction to Linear Algebra	4 s.h.	
MATH:2850	Calculus III	4 s.h.	
MATH:3720	Introduction to Abstract Algebra I	4 s.h.	
MATH:3770	Fundamental Properties of Spaces and Functions I	4 s.h.	
CS:1210	Computer Science I: Fundamentals	4 s.h.	
STAT:3120	Probability and Statistics	4 s.h.	

### Complete one of the following or an approved substitute.

Course	Course Title	Credit	Session/Substitute
MATH:4050	Introduction to Discrete Mathematics	3 s.h.	
MATH:4060	Discrete Mathematics Models	3 s.h.	

**Complete one additional Graduate-level Mathematics course from the following not completed above or an approved substitute chosen in consultation with advisor.**

Course	Course Title	Credit	Session/Substitute
MATH:4050	Introduction to Discrete Mathematics	3 s.h.	
MATH:4060	Discrete Mathematics Models	3 s.h.	
MATH:4120	History of Mathematics	3 s.h.	

**Complete additional Mathematics/Mathematics Education content courses to reach 43 s.h. to meet program requirements.**

Course	Course Title	Credit	Session/Substitute

### **Sample Schedule**

Please view the Sample Plan on the following page designed for post baccalaureate students with a BA or BS in mathematics following [Program B](#) from the University of Iowa or equivalent to discuss with your advisor.

### **Additional Information**

This Program Guide is for planning and documentation of program completion. State requirements for licensure and endorsements are subject to change without notice; check with your advisor or the Office of Education Services for updated requirements. Course transfer and substitution may require syllabi or other documentation in addition to transcript. Revised 06/01/2023 DH/BJ version 4.3.

For additional information, admissions procedures, or advising referral, please contact Office of Student Services, College of Education, N201 Lindquist Center, Iowa City, IA 52242, 319-335-5359, ask-education@uiowa.edu, <https://education.uiowa.edu/>

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## Sample Plan

This sample plan is designed for post baccalaureate students with a BA or BS in mathematics following [Program B](#) from the University of Iowa or equivalent.

### First year, fall, 13 s.h.

- EPLS:3000 Foundations of Education, 3 s.h.
- EDTL:3091 Secondary Education and Orientation & Classroom Management, 3 s.h.
- EDTL:3095 Teaching Reading in the Secondary Content Areas, 1 s.h.
- EDTL:3002 Technology in the Classroom, 2 s.h.
- EDTL:4750 Assessment in STEM, 2 s.h.
- EDTL:4751 Learning in the STEM Classroom, 2 s.h.

### First year, spring, 12 s.h.

- EDTL:3534 Methods: Middle School Mathematics, 3 s.h.
- EPLS:4810 Human Relations for the Classroom Teacher, 3 s.h.
- EDTL:3532 Intro and Practicum: Mathematics, 3 s.h.
- PSQF:6200 Education Psychology, 3 s.h.

### Second year, fall, 12 s.h.

- EDTL:4535 Methods: High School Mathematics, 3 s.h.
- EDTL:4900 Foundations of Special Education, 3 s.h.
- Graduate-level mathematics content course:
  - MATH:4120 History of Mathematics, or
  - MATH:4050 Intro to Discrete Mathematics, or
  - MATH:4060 Discrete Mathematics, 3 s.h.
- EDTL:5535 Current Issues in Mathematics, or approved substitute, 3 s.h. graduate credit

### Second Year, spring, 15 s.h. – Student Teaching

- EDTL:4087 Seminar Curriculum and Student Teaching, 3 s.h.
- EDTL:4091 Observation & Lab Practice in Secondary Schools, 6 s.h.
- EDTL:4092 Observation & Lab Practice in Secondary Schools, 6 s.h.

## Additional Information

This Sample Plan is for program completion planning. Courses reflect current state licensure and endorsement requirements and are subject to change without notice; check with your advisor or the Office of Education Services for updated requirements. Course transfer and substitution may require syllabi or other documentation in addition to transcript. Revised 06/01/2023 DH/BJ version 4.3.

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