

# MATHEMATICS EDUCATION (MA) ONLINE

## Overview

The purpose of the program leading to the degree of Master of Arts in Mathematics Education is to improve the quality of mathematics instruction in schools within the greater-Chicago area and to offer a response to the shortage of secondary school mathematics teachers. This six-quarter degree program is offered on an accelerated basis during intensive weekend sessions and may be taken while in-service at the rate of two courses per quarter. However, students may proceed through the program at a slower pace depending upon their individual needs. The emphasis in the program is on mathematical content, but significant amounts of time are spent on methods of incorporating new teaching strategies and technologies in the classroom. The program is tied directly to secondary curriculum needs and is directed toward previously or currently certified teachers with degrees in non-mathematics fields, to teachers with bachelor's degrees in mathematics who wish to upgrade their command of the field, and to bachelor's degree holders in other fields who wish to enter teaching.

## Admissions Information

This program is administered by the Department of Mathematical Sciences through the College of Science and Health. Details regarding admission requirements, course schedules, and so forth, can be found by contacting the Program Director in the Department of Mathematical Sciences. Registration for Master of Arts in Mathematics Education courses is open only to students formally admitted in the program or to those students who have the written authorization from the Program Director.

Program Requirements	Quarter Hours
Degree Requirements	48
<b>Total hours required</b>	<b>48</b>

## Learning Outcomes

Students will be able to:

- Construct a valid logical argument and analyze the reasoning of others.
- Translate a variety of problems, including real world situations, into the language of mathematics thereby leading to a mathematical solution.
- Solve a variety of mathematical problems by applying multiple approaches such as algebraic, numerical, and graphic.
- Communicate mathematical arguments and ideas verbally, making appropriate use of ordinary and mathematical language.

## Degree Requirements

### Course Requirements

MAMEd students are required to take twelve of the seventeen courses listed below.

Course	Title	Quarter Hours
Select 12 of the following:		48
MAT 610	CALCULUS I	
MAT 611	CALCULUS II	
MAT 612	CALCULUS III	
MAT 618	TOPICS IN CALCULUS AND DIFFERENTIAL EQUATIONS	
MAT 620	GEOMETRY	
MAT 631	HISTORY OF MATHEMATICS THROUGH PROBLEM SOLVING	
MAT 640	MULTIVARIABLE CALCULUS I	
MAT 642	MULTIVARIABLE CALCULUS II	
MAT 644	DIFFERENTIAL EQUATIONS	
MAT 660	DISCRETE MATHEMATICS	
MAT 670	ABSTRACT ALGEBRA I	
MAT 671	ABSTRACT ALGEBRA II	
MAT 672	LINEAR ALGEBRA	
MAT 680	REAL ANALYSIS	
MAT 451	PROBABILITY AND STATISTICS I	
MAT 452	PROBABILITY AND STATISTICS II	
MAT 470	ADVANCED LINEAR ALGEBRA	

Typically, MAMEd students will take:

Course	Title	Quarter Hours
MAT 610	CALCULUS I	4
MAT 611	CALCULUS II	4
MAT 612	CALCULUS III	4
MAT 618	TOPICS IN CALCULUS AND DIFFERENTIAL EQUATIONS	4
MAT 620	GEOMETRY	4
MAT 631	HISTORY OF MATHEMATICS THROUGH PROBLEM SOLVING	4
MAT 640	MULTIVARIABLE CALCULUS I	4
MAT 642	MULTIVARIABLE CALCULUS II	4
MAT 660	DISCRETE MATHEMATICS	4
MAT 670	ABSTRACT ALGEBRA I	4
MAT 680	REAL ANALYSIS	4
MAT 671	ABSTRACT ALGEBRA II	4
or MAT 672	LINEAR ALGEBRA	

### Program Graduate Academic Student Handbook

## Academic Probation

A student will be placed on academic probation if his/her cumulative GPA falls below 2.50 after completing at least eight credit hours.

## Academic Dismissal

A student may be academically dismissed under one or more of the following violations of satisfactory progress:

- student's GPA *only for the first twelve completed credit hours* after being placed on academic probation is below 2.50.

- student's *cumulative* GPA after completing the first 24 credit hours after being placed on academic probation is below 2.50.
- lack of timely progress toward degree completion.

## **Readmission**

The same readmission standards outlined in the Graduate Student Handbook and approval of the program director are observed for students in these programs.

## **Transfer Credit**

No more than two graduate courses (8 quarter credit hours or the semester equivalent) may be transferred from another DePaul program or institution provided that they are equivalent to courses offered in DePaul's graduate program, and they did not count toward another degree from DePaul or another institution. Written approval must come from graduate program director and associate dean for graduate studies.

## **Undergraduate Courses**

No undergraduate courses shall count toward the graduate degree.

## **Graduation Requirements**

Requirements include, but are not limited to, 17 graduate courses required by the program at a minimum cumulative GPA of 2.50.

## **Graduation with Distinction**

A minimum cumulative GPA of 3.75 for coursework applied toward the MSMT is required for graduation with distinction.

## **Time Limitation**

The degree is expected to be completed in a maximum of five years.