

INTRODUCTION

The Bachelor of Arts major Mathematics for Elementary School Teachers (MELT) is a program designed for and limited to students enrolled in the College of Education's teacher education program who are seeking certification at the elementary school level and who wish to pursue mathematics as their content major.

The MELT program prepares elementary school teachers to become leaders in their profession. Students will obtain a strong mathematical preparation without being required to study to the depth required for secondary school teaching. Graduates will be well prepared to become "mathematics specialists" who provide vision, focus, and leadership in elementary schools, to become mentors to other teachers, and to take a leading role in determining and complementing their school's mathematics curriculum.

Students planning to complete the MELT major should consult with both an MSCS Department adviser (Dr. Jack Moyer, Dr. Peter Jones, or Dr. Karl Byleen) and the Director of Teacher Education in the College of Education from the beginning of their studies, to map out a path to timely graduation.

Requirements for the University Core of Common Studies/Education Core, and for teacher certification in the State of Wisconsin, are described in the College of Education section of the Undergraduate Bulletin.

ADVISING AND PRE-REGISTRATION

Students wishing to declare a MELT major should do so at their earliest opportunity, by visiting the MSCS Department office (CU 340), where they will be assigned a Department adviser. In order to complete the MELT major in four years, it is important to take the calculus course MATH 1400 (or MATH 1410 or 1450) during the freshman year. It is essential that students meet with both the College of Education and MSCS Department advisers each semester, to ensure that appropriate requirements are being met.

REQUIREMENTS FOR THE MELT MAJOR

The major requires thirty one hours of mathematics courses, comprising the following, all of which carry three credits except for MATH 2031 and MATH 2032, which carry two credits:

MATH 1400	Elements of Calculus 1 (MATH 1410 or 1450 or advanced placement credit for MATH 1450 may be substituted for MATH 1400)
MATH 2030	Problem Solving and Reasoning for Teachers
MATH 2031	Number Systems and Operations for Elementary School Teachers
MATH 2032	Algebra and Geometry for Teachers
MATH 2350	Foundations of Mathematics
MATH 3100	Linear Algebra and Matrix Theory
MATH 4300	History of Mathematical Ideas
MATH 4320	Theory of Numbers
MATH 4420	Foundations of Geometry
MATH 4630	Mathematical Modeling and Analysis
MATH 4720	Statistical Methods

REQUIRED UPPER DIVISION MATH COURSES FOR THE MELT MAJOR:

Course	Prerequisite	Offered	Completed	Grade
MATH 3100	MATH 2451 or 2350	Every semester		
MATH 4300	Jr. standing or consent of Dept. Chair.	<i>Spring</i> semester of <i>odd-numbered</i> years; alternates with MATH 4320		
MATH 4320	MATH 2350	<i>Spring</i> semester of <i>even-numbered</i> years; alternates with MATH 4300		
MATH 4420	MATH 2350	Fall semester		
MATH 4630	MATH 2350	Spring semester		
MATH 4720	MATH 1400 or 1410 or 1450	Every semester		

REQUIREMENTS FOR CERTIFICATION

To be eligible for middle childhood/early adolescence teaching license, students must complete the following courses offered by the College of Education: EDUC 1210, EDUC 1220, EDUC 1964, EDUC 2227, EDUC 2330, EDUC 2347, EDUC 2964, EDUC 3240, EDUC 4217, EDUC 4297, EDUC 4317, EDUC 4357, EDUC 4540, EDUC 4964 and EDUC 4966. Students must also check with their advisers in the College of Education in regard to sequence and admission requirements. Usually, EDUC 4966, Student Teaching, is the last course to be completed in the program. Students must apply and be approved by the Office of Teacher Education to student teach.

BACHELOR OF ARTS FOR MELT MAJORS SAMPLE CURRICULUM

The following schedule allows students to complete the major in four years.

<i>Freshman</i>			
<u>First Term</u>	<u>Sem. Hrs.</u>	<u>Second Term</u>	<u>Sem. Hrs.</u>
ARSC 1020	4	ARSC 1021	4
EDUC 1210	3	EDUC 1220	3
ENGL 1001	3	ENGL 1002 or COMM 1100	3
Foreign Language 1	4	Foreign Language 2	4
THEO 1001	3	MATH 1400 ¹	3
Service Learning	----- 17		----- 17
<i>Sophomore</i>			
<u>First Term</u>	<u>Sem. Hrs.</u>	<u>Second Term</u>	<u>Sem. Hrs.</u>
EDUC 2227	3	HIST 1301, 1401, or 1501	3
POSC 2201	3	EDUC 2330	3
LIT elective	3	PHIL 1001	3
MATH 2350	3	THEO 1001	3
HIST 1101	3	MATH 3100	3
Field Experience I	----- 15	MATH 4300 or 4320	3
	----- 15		----- 18
<i>Junior</i>			
<u>First Term</u>	<u>Sem. Hrs.</u>	<u>Second Term</u>	<u>Sem. Hrs.</u>
PHIL 2310	3	EDUC 3240	3
EDUC 2347	4	EDUC 4317	3
EDUC 4217	3	EDUC 4357	4
MATH 2030	3	MATH 2031 and EDUC 1964	3
MATH 4420	3	MATH 4300 or 4320	3
Field Experience II	----- 16	MATH 4630	3
	----- 16	Field Experience III	----- 19
<i>Senior</i>			
<u>First Term</u>	<u>Sem. Hrs.</u>	<u>Second Term</u>	<u>Sem. Hrs.</u>
EDUC 4297	3	EDUC 4966 Student Teaching	12
EDUC 4540	3		
EDUC 4964	4		
MATH 2032 and EDUC 2964	3		
MATH 4720	3		
Senior Level Practicum	----- 16		----- 12

Total credits: 130

¹ MATH 1450 will meet this requirement and carries 4 credits. Potential MELT majors who have taken a university level calculus course in high school should discuss with the department the possibility of credit by examination for MATH 1400 or MATH 1450.