

MATHEMATICS STUDIES

Are you ready to help students become problem solvers?

Do you want to help children learn mathematics with understanding? A bachelor's degree in Mathematics Studies will prepare you to support students who reason about mathematical ideas rather than rely on rules and procedures.

Our program will ready you to become a classroom teacher for all subjects in grades K-5 with the option to become certified to teach mathematics in grades 6-8 upon meeting the endorsement requirements. Either way, you'll be ready to work with diverse learners with a program that combines academic studies, professional training and multiple field experiences in local schools.

With successful completion of the program, you will earn both a bachelor's degree and faculty recommendation for the Michigan Elementary Standard Certificate.

Dearborn Discovery Core

Please see the Dearborn Discovery Core (General Education) (<https://umdearborn.edu/dearborn-discovery-core/>) webpage or additional information.

Foundational Studies

Writing and Communication (GEWO) – 6 Credits

Upper-Level Writing Intensive (GEWI) – 3 Credits

Quantitative Thinking and Problem Solving (GEQT) – 3 Credits

Critical and Creative Thinking (GECC) – 3 Credits

Areas of Inquiry

Natural Science (GENS) – 7 Credits

- Lecture/Lab Science Course
- Additional Science Course

Social and Behavioral Analysis (GESB) – 9 Credits

Humanities and the Arts (GEHA) – 6 Credits

Intersections (GEIN) – 6 Credits

Capstone

Capstone (GECE) – 3 Credits

Core Course Requirements

Code	Title	Credit Hours
Language Arts		
COMP 105	Writing & Rhetoric I	3
EXPS 298	Exploring Writing to Communicate, Learn, & Teach	3
LING 280	Introduction to Linguistics	3
LIBR 465	Literature for Children	3
or EDA 236	Literacy in Grades 3-9	
Social Studies		
EXPS 282	History & Civics Elem Schools	3

EXPS 283	Geography & Econ Elem Schools	3
or EDM 292	The world around us: Integrated world geography for upper elementary teachers	

Mathematics

MATH 385	Math for Elemen Teachers I	3
MATH 386	Math for Elem Teachers II	3
MATH 387	Math for Elem Teachers III (Not required for the Early Childhood major.)	3

Science Studies

NSCI 231	Inquiry: Physical Science ¹	3
NSCI 232	Inquiry:Earth/Planet Science ¹	3
NSCI 233	Inquiry: Life Science ¹	3
EXPS 420	Science Capstone	3
Not required for the Early Childhood major.		

Total Credit Hours **39**

¹ Two of the three NSCI core courses may be transferred to UM-Dearborn. A) an introductory physical science will satisfy NSCI 231, B) an introductory earth/planetary science will satisfy NSCI 232, and C) an introductory life science course will satisfy NSCI 233. BIOL 240/BIOL 242 and NSCI 120/NSCI 121 cannot be used for science credit.

Pre-Professional Requirements

Pre-professional courses are generally completed in the freshman and sophomore year.

Code	Title	Credit Hours
EDA 205	Introduction to Education	3
or EDA 200	Social Justice & Community Based Education	
EDA 419	Early Literacy/Language Devel	3
or EDA 219	Early Literacy: PreKindergarten to Grade 3	
Required for Early Childhood and Special Education Majors only		
EDC 240	Psych of Child Development	3
EDF 450	Health, Nutrition and Physical Activity for Children and Families	3
EDT 211	Design Tech-Based Learn Solutn	3
EXPS 250	Elem Ed Vis & Perf Arts	3
EXPS 407	Inquiry-based Math and Science	3
Required for Early Childhood Majors only		
Total Credit Hours		21

Major Requirements

A minimum of 30 semester hours from the following:

Code	Title	Credit Hours
Required Courses		
MATH 104	College Algebra	4
or MATH 105	Pre-Calculus	
MATH 113	Calc I for Biology & Life Sci	4
or MATH 115	Calculus I	
MATH 385	Math for Elemen Teachers I	3

or MATH 383	Mathematics for Teachers III: Whole Numbers and Operations	
MATH 386	Math for Elem Teachers II	3
or MATH 384	Mathematics for Teachers IV: Fractions and Operations	
MATH 387	Math for Elem Teachers III	3
MATH 442	Geometry for Teachers	3
MATH 443	Algebra for Teachers	3
MATH 444	Data Anlsys, Prob&Stat for Tchrs	3
Recommended Electives		
Select 4-6 credit hours:		4-6
MATH 131	Conceptual Mathematics	
MATH 227	Introduction to Linear Algebra	
MATH 300	Math Lang Proof & Struct	
MATH 391	Topics in Mathematics Edu	
MATH 445	Number & Prop'l Rsnsg for Tchrs	
MATH 446	Discrete Math/Modeling for Tch	
MATH 447	Micro in Math for Teachers	
STAT 263	Introduction to Statistics	
or other courses approved by Academic Advisor		
Total Credit Hours		30-32

Program Notes:

1. Minimum GPA's are required for program completion: 2.75 cumulative, 2.75 in major, 2.75 in optional minor(s), and 2.75 in Professional Studies.
2. Advising Policy: The student is responsible for complying with requirements described in the Undergraduate Catalog as well as on the Four Phase Checklist. Students are expected to meet with their College of Education, Health, and Human Services advisor at least once per year and in the term prior to graduation.
3. Courses taken on a PASS/FAIL basis will NOT be accepted toward program completion.
4. The minimum number of semester hours required to graduate is 120.
5. CEHHS recommends successful program completers for State of Michigan Certification, however, it is ultimately up to the State of Michigan to issue certificates. Certain offenses on a criminal record can keep individuals from obtaining teacher certification. Please refer to The Revised School Code, Act 451 of 1976, section 380.1539b.
6. Students must meet Dearborn Discovery Core requirements (<https://umdearborn.edu/academic-program-and-course-development/dearborn-discovery-core-general-education/>).

Minor Requirements

A minimum of 20 semester hours from the following:

Code	Title	Credit Hours
Required Courses		
MATH 104	College Algebra	4
or MATH 105	Pre-Calculus	
MATH 385	Math for Elemen Teachers I	3
MATH 386	Math for Elem Teachers II	3
MATH 387	Math for Elem Teachers III	3
MATH 442	Geometry for Teachers	3
MATH 443	Algebra for Teachers	3

Recommended Electives		
Select 2-3 credit hours:		2-3
MATH 131	Conceptual Mathematics	
MATH 227	Introduction to Linear Algebra	
MATH 300	Math Lang Proof & Struct	
MATH 391	Topics in Mathematics Edu	
MATH 444	Data Anlsys, Prob&Stat for Tchrs	
MATH 445	Number & Prop'l Rsnsg for Tchrs	
MATH 446	Discrete Math/Modeling for Tch	
STAT 263	Introduction to Statistics	
or other courses approved by Academic Advisor		
Total Credit Hours		21-22

Program Notes:

1. A minimum GPA of 2.75 is required for a minor.
2. For the minor 6 or more semester hours must be at the 300 level or above.
3. Advising Policy: The student is responsible for complying with requirements described in the Undergraduate Catalog as well as on the Four Phase Checklist. Students are expected to meet with their College of Education, Health, and Human Services advisor at least once a year and in the term prior to graduation.
4. Courses taken on a PASS/FAIL basis will NOT be accepted toward program completion.
5. In order to be recommended for endorsements, students must pass the appropriate MTTC exam in addition to completing the coursework.
6. MTTC test scores must be reported by electronic delivery or direct mail from Pearson Evaluation Systems to the University of Michigan-Dearborn College of Education, Health, and Human Services. No hand carried scores will be accepted.