Mathematics/Mathematics Education  
Bachelor of Science in Education

Personal Service
We pride ourselves on being just the right size to give students the time they need to be successful. Our average class size is 15, so you will have small, personalized class settings to receive the education that you deserve. Your professors will introduce you to new ways of thinking, explore issues creatively, and evaluate ideas as you engage in the world.

Opportunity
Whether it’s music, athletics, or politics, students at MSU have the chance to participate in a variety of activities and clubs. These organizations are a great way to make new friends with similar interests, and the involvement outside the classroom looks great on a resumé.

Some clubs and activities include:
• Theater
• Band & choir
• DECA
• Science Club
• Comet Radio
• Student government
• Intramural sports
• Student Education Association

Success
Our students have a high rate of employment. We also have internship opportunities to give you real, hands-on learning experiences and make your resumé stand out.

Value
The combination of MSU’s affordability and its unique offerings make it a Best in the Midwest College, as designated by the Princeton Review. This selection process is based on meeting criteria for academic excellence as well as results of surveys done by current MSU students.

The Program
Impact your future through the many facets of mathematics and build a solid foundation in the Mathematics/Mathematics Education programs at Mayville State University. These programs emphasize cognitive development through problem based learning of mathematical topics. These ideals, taught in small class settings, will prepare you for a career in business, industry, or education.

MSU’s Mathematics/Mathematics Education programs provide you with the knowledge, skills, and techniques that are essential to using mathematics in teaching and non-teaching positions. You’ll develop an awareness of the vital connections between mathematical topics and their real world applications.

Advantages
Experiences. Cooperative education/internship programs provide plenty of hands-on training for students.

Student-to-faculty ratio. Small class sizes will allow you ample time to meet with instructors where you’ll be able to ask questions and get the attention you need while strengthening the foundation of your education in mathematics.

Employment options. Numerous career opportunities are available. Graduates from MSU’s Mathematics/Mathematics Education programs will be prepared for career opportunities as accountants, actuaries, bankers, college administrators, economists, tax managers, computer technicians, statisticians, demographers, and lawyers. Students would also be prepared to attend graduate school for further education in the field of mathematics.
Major: Mathematics Education
B.S.Ed

Required credits to graduate with this degree: 125

Students planning to teach in grades 7-12 must complete a major, 36 hours of essential studies courses including MATH 165, COMM 110, ENGL 110, ENGL 120 or ENGL 125, GEOG 103, and PSYC 111, which are pre-requisite courses to this major, the mathematics core requirements listed below, and the secondary professional courses required for teacher certification. Teacher certification also requires completion of EDUC 398-Secondary Education Field Experience, EDUC 483-Secondary Methods for Mathematics and EDUC 426-Reading in the Content Area. All Math Education majors must complete a minor program.

Core Requirements:

- MATH 105 Trigonometry 2 SH
- MATH 166 Calculus II 4 SH
- MATH 265 Calculus III 4 SH
- MATH 323 Probability and Statistics 3 SH
- MATH 389 Modern Geometry 3 SH
- MATH 412 Differential Equations 3 SH
- MATH 420 History and Philosophy of Math 3 SH
- MATH 435 Theory of Numbers 3 SH
- MATH 443 Algebraic Structures with Programming for Majors 3 SH
- MATH 480 Comprehensive Review/Exam 1 SH

Total 29 SH

Secondary Professional Education

Core:

- EDUC 250 Introduction to Education 2 SH
- EDUC 272 Educational Technology 1 SH
- EDUC 290 Theories of Learning & Mgmt 2 SH
- EDUC 298 Pre-Professional Field Experience 1 SH
- EDUC 380 Teaching English Lang. Learners 1 SH
- EDUC 381 Human Relations & Cult. Diversity 3 SH
- EDUC 390 Special Needs in Inclusive Environ 3 SH
- EDUC 398 Secondary Educ. Field Experience 1 SH
- EDUC 400 Student Teaching 10 SH
- EDUC 401 Elec. Port., Assessment/Seminar 2 SH
- EDUC 422 Learning Theory and Evaluation 2 SH
- EDUC 426 Reading in the Content Area 2 SH
- EDUC 480 General Methods for Sec. Educ 4 SH
- EDUC 480L General Methods Field Experience 1 SH
- EDUC 483 Secondary Methods Science 2 SH
- PSYC 255 Child and Adolescent Psychology 3 SH

Total 40 SH

*For each methods course, EDUC 398 is taken concurrently

Major: Mathematics - B.S.

Required credits to graduate with this degree: 120

This major provides students with the knowledge, skills, and techniques essential for using mathematics in non-teaching positions in business or industry. This major consists of 29 semester hours in mathematics including completion of the final comprehensive examination (MATH 480). The Bachelor of Science degree requires completion of at least a minor program in a supporting area in conjunction with the major. Students must complete 36 hours of essential studies including MATH 165, COMM 110, ENGL 110, and ENGL 120 or ENGL 125.

Core Requirements:

- MATH 105 Trigonometry 2 SH
- MATH 166 Calculus II 4 SH
- MATH 265 Calculus III 4 SH
- MATH 323 Probability and Statistics 3 SH
- MATH 389 Modern Geometry 3 SH
- MATH 412 Differential Equations 3 SH
- MATH 420 History and Philosophy of Math 3 SH
- MATH 435 Theory of Numbers 3 SH
- MATH 443 Algebraic Structures with Programming for Majors 3 SH
- MATH 480 Comprehensive Review/Exam 1 SH

Total 29 SH

Student Learning Outcomes

SLO 1: Learner & Learning: Students understand diversity in learning and developmental processes and create supportive and safe learning environments for students to thrive.

SLO 2: Content: Students understand subject matter deeply and flexibly so they can advance their students’ learning, address misconceptions and apply ideas to everyday life.

SLO 3: Instructional Practice: Students will plan instruction, utilize effective instructional strategies and technologies, and continuously assess students for mastery and decision-making purposes.

SLO 4: Professional Responsibility: Students will take responsibility for student learning, collaborative relationships, their own professional growth, and the advancement of the profession.