

# Mayville State University

Mathematics/Mathematics Education

*Bachelor of Science/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 Regional 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.

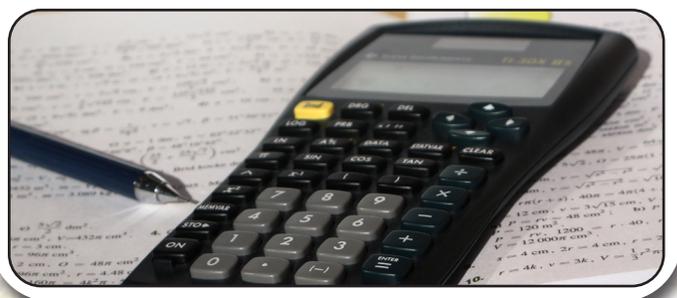
MSU's Mathematics/Mathematics Education programs provide you with the knowledge, skills, and techniques that are essential to using mathematics in teaching and non-teaching positions. You'll develop an awareness of the vital connections between mathematical topics and their real world applications.

## 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: 128

This major provides students with the knowledge, skills, and techniques essential for teaching mathematics courses in the junior and senior high school. This major consists of 29 semester hours in mathematics including completion of MATH 480.

Mathematics Education majors must complete 36 hours of essential studies. The following Essential Studies courses require a minimum grade of "C": COMM 110, ENGL 110, ENGL 120 or ENGL 125, GEOG 103, and PSYC 111. Additional requirements to the major include MATH 165. These courses are pre-requisite courses to this major. Completion of a minor in a supporting area is required.

#### 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<br>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/PSYC 290 | Theories of Learning & Mgmt        | 2 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 401S     | Pre-Student Teaching Seminars      | 0 SH  |
| EDUC/PSYC 422 | Learning Theory and Evaluation     | 2 SH  |
| EDUC/ENGL 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 Math             | 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 complete 36 hours of essential studies, including 9 hours in the Communications category, 1 hour in the Computer Information System category, 15 hours in the Humanities and Social Science category, and 11 hours in the Mathematics and Science category.

#### 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<br>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.

If you have any questions regarding this program, please call:

Zach Gadbery at 800.437.4104 ext.35255

701.788.5255 | Text: 701.699.4499

Email: [richard.gadbery@mayvillestate.edu](mailto:richard.gadbery@mayvillestate.edu)