2026-27 Academic Year

WAYNE STATE COLLEGE

MATHEMATICS > PURE MATHEMATICS

Math can appeal to people of varying interests. Some seek to obtain a sound math background for use in a future career; others wish to learn mathematics and techniques of a specific field; and still others are just interested in math itself. Mathematics can address problems arising in the physical life, social sciences, and engineering, and provides a broad background in both quantitative and qualitative knowledge for use in these fields. Mathematical modeling and analysis unify ideas and provide a richer, deeper understanding of their respective fields. The Pure Mathematics degree program at Wayne State College is a great choice if you plan to teach math, pursue advanced or graduate work in the math field, plan to apply it to a specific technical field, or simply enjoy math and would like to profit from it. WSC places emphasis on the structural aspects of math with manipulation and theory as the two basic components for achievement. A Math degree will help prepare you for careers in a variety of fields – business, physics, chemistry, computer science, economics, engineering, or social sciences.

fast facts

Credit hours: 49

Students must also take 30 credit hours of General Studies courses. A total of 120 credit hours are needed to graduate from WSC. Additional majors or minors can be added to help meet graduation requirements.

Degree options: B.A. or B.S.

Departments: Physical Sciences and Mathematics

School: Science, Health, and Criminal Justice

Popular pairings: Biology, Business Administration, Chemistry, Computer Science, Economics, Geospatial Technology, Physics

focus on results

Skills Learned

- Methods to solve problems in math and science
- Proficiency in solving complex math problems
- Probability and statistics
- Computer programming fundamentals
- Data analysis and interpretation
- Critical thinking and problem-solving

Possible Careers

- Mathematician
- Computer scientist
- Computer programmer
- Actuary
- Financial consultant
- Economist
- Statistician
- Cryptographer
- Research analyst

Types of Employers

- Businesses and organizations
- Software companies
- Banks and financial institutions
- Schools, colleges, and universities
- Government / federal agencies
- Insurance companies
- Financial firms
- Investment companies

outside the classroom

Visit www.wsc.edu/clubs to learn more about clubs and organizations on campus.

Activities/Opportunities

- Nebraska S-STEM Scholars Program
- Peer mentoring and tutoring
- Service-Learning
- Study Abroad

Clubs/Organizations

- Kappa Mu Epsilon (Math Club)

Courses and outcomes

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The following courses are required for the program of study described on this sheet. Every effort is made to ensure this information is current, but please be aware that some content may have changed. To develop a plan for registering and taking these courses, please consult the current academic catalog and your advisor.

Program courses

Math Core Courses

MAT 240 Calculus II	5
MAT 270 Transitions to Advanced Mathematics	3
MAT 305 Discrete Mathematics	3
MAT 340 Calculus III	5
MAT 350 Linear Algebra	3
MAT 400 Real Analysis	4
MAT 410 Probability and Statistics	4
MAT 470 Connections	2
MAT 481 Mathematics Assessment	0

Pure Mathematics Concentration Courses

MAT 140 Calculus I	5
MAT 250 Differential Equations	3
MAT 425 Abstract Algebra	4
MAT 472 Connections Research	2
Upper-level MAT electives (MAT 320 College Geometry is recommended)	6

Student learning outcomes

1. Demonstrate numeric, algebraic, and analytic techniques
2. Communicate mathematical reasoning
3. Use mathematics to model and analyze real world problems
4. Construct mathematical arguments and rigorous proofs

mathematics faculty

Visit www.wsc.edu/physical-sciences-mathematics-department to learn more about the Department Physical Sciences and Mathematics.

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