

# MATHEMATICS > PURE MATHEMATICS

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

### Hours:

49 hours for concentration  
30 hours in general education

*At least 120 hours are required for graduation from Wayne State College. You may add a second major, minor, or electives to help meet these requirements.*

**Degrees offered:** B.A. or B.S.

**Departments:** Physical Sciences and Mathematics

**School:** Science, Health, and Criminal Justice

**Internship:** Encouraged but not required

**Popular minors:** Biology, Computer Science, Chemistry, Economics, 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](http://www.wsc.edu/clubs) to learn more about clubs and organizations on campus.

### Activities / Opportunities

- Conduct projects
- National and regional conferences
- Peer mentoring and tutoring
- Service-Learning
- Study Abroad
- Supplemental instruction leader

### Clubs / Organizations

- Kappa Mu Epsilon (Math Honorary)
- Math Club

Every effort is made to ensure this information is current, but please be aware that some content may have changed. There is no substitute for developing a careful course registration plan in consultation with your advisor. The class sequence listed is suggested only. The final decision rests with the student and academic advisor.

Students’ actual schedules will vary based upon their readiness for calculus, when they begin the program, course rotations, and the emphasis they choose.

Freshman - 1st semester

CSC 150 Programming Fundamentals .....	3
MAT 140 Calculus (General Studies CAT 3) .....	5
General Studies.....	6

Freshman - 2nd semester

MAT 240 Calculus II.....	5
Math elective.....	3
General Studies.....	6

Sophomore - 1st semester

MAT 270 Foundations of Math.....	3
MAT 340 Calculus III .....	5
General Studies.....	6

Sophomore - 2nd semester

MAT 250 Differential Equations.....	3
MAT 410 Probability and Statistics.....	4
General Studies.....	9

Junior - 1st semester

MAT 305 Discrete Math .....	3
MAT 400 Real Analysis .....	4
Electives.....	9

Junior - 2nd semester

MAT 350 Linear Algebra.....	3
Math elective.....	3
Electives.....	6
300/400 level elective .....	3

Senior - 1st semester

MAT 425 Abstract Algebra .....	4
MAT 470 Connections .....	2
MAT 472 Connections Research .....	1
MAT 481 Math Assessment.....	0
300/400 level elective .....	3
Electives.....	6

Senior - 2nd semester

MAT 472 Connections Research .....	1
300/400 level elective .....	3
Electives.....	12

