Mathematics is the study of quantitative relationships expressed in numbers and symbols. It focuses on mathematical concepts and theories and involves their formulation, testing, interpretation, and practical application. A minimal understanding and use of mathematics is considered basic to daily life and is applied in business, engineering, the physical and social sciences, computer science, and fine arts. University of Wisconsin–Eau Claire offers mathematics majors with a liberal arts emphasis, an applied emphasis, a statistics emphasis, or an actuarial emphasis, as well as a mathematics teaching major. The Department of Mathematics also offers minors in liberal arts, actuarial science, teaching, and middle childhood/early adolescence teaching.

Typical interests and values of mathematics majors:
- Logical thinking
- Understanding of both concrete and abstract concepts
- Proficiency in communicating mathematical ideas
- Attention to detail
- Ability to make critical observations
- Ability to organize, analyze, and interpret data

Knowledge and skills gained from studying mathematics:

Knowledge:
Graduates with a degree in mathematics develop effective abilities in problem-solving, problem-formation, deductive reasoning, and logical thinking. They become proficient in mathematical theories, modeling, and simulation. They can analyze, manage, and process data.

Skills:
- Ability to solve quantitative problems
- Ability to understand both concrete and abstract problems
- Ability to become proficient in communicating mathematical ideas
- Has a detail-oriented outlook
- Ability to make critical observations
- Ability to organize, analyze, and interpret data
- Extracting important information
- Assessing and solving problems
- Able to work independently and on a team

Related student and professional organizations:

Student:
- Kappa Mu Epsilon - Math Honor Society

Professional:
- American Mathematical Society
- American Statistical Association
- Mathematical Association of America
- Society of Actuaries
- National Council of Teachers of Mathematics

Career fields related to mathematics:

Potential Employers:
Mathematics majors are desirable to many different employers. Those who graduate with a degree in mathematics typically work in mathematics, science, engineering, or education careers. Possible employers include engineering firms, schools/colleges/universities, banks, state/federal government research and development firms, utility companies, and investment firms.

Potential Job Titles:
Actuary
Benefits Specialist
Benefits Specialist
Database Manager
Auditor
Auditor
Statistician
Systems Analyst
Statistician
Theoretical Statistician
Demographer
Econometrician
Ecologist
Fluid Dynamics Engineer
Teacher
Professor
Accountant
Trader
Investment Analyst
Banker
Software Programmer
Logistics Manager
Financial Adviser
Engineer
Market Maker
Risk Analyst
Tax Analyst
Research Analyst
Research Analyst

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Jobs You Might Also Consider...

- Labor Market Analyst
- Insurance Agent
- Tool and Die Maker
- Meteorologist
- Technical Writer
- Air Traffic Controller
- Inventory Control Specialist
- Natural Sciences Manager
- Market Research Analyst
- Loan Officer
- Mathematician
- Civil Drafter
- Underwriter
- Economist
- Cryptographer

Sample entry level jobs held by UW-Eau Claire mathematics graduates:

- Mortgage Lender, Aerotek, Bloomington, MN
- Account Manager, JAMF Software, Eau Claire, WI
- Actuarial Assistant, Wausau Insurance, Wausau, WI
- Labor Market Manager, WI Department Workforce Development, Green Bay, WI
- Transition Associate, SII Investments Inc., Appleton, WI
- Physics Teacher, School District of Palm Beach County, Wellington, FL
- Data Analyst, Mayo Clinic, Zumbrota, MN
- Retirement Plan Consultant, Retirement Advantage, Appleton, WI
- Reinsurance Calculation Specialist, Securian Financial Group, St. Paul, MN

Learn more about mathematics:

Department
- Contact UW–Eau Claire’s Department of Mathematics, HHH 508, 836-3301

Getting started at Career Services:

- Meet with a career counselor
- Take interest inventory and self-assessment tests
- Utilize Blugold Career Success Network, a database of UW–Eau Claire alumni & friends available for informational interviewing
- Utilize Blugold CareerLink, an online job search database specifically for UWEC students and alum

Resources at Career Services:

Yellow Section-
- Sigi 3 handouts:
  - Mathematics
  - Actuary

Orange Section-
- Internship information pertaining to mathematics.

Blue Section-
- “Job Opportunities in Business”
- Resources to help you create a resume and cover letter for a career in mathematics.

Opportunities to enhance skills in mathematics:

Internships

Internships are a way to gain hands-on experience in a position that you may be considering as a potential career. To find an internship in mathematics, visit Career Services (Schofield 230) and speak with a career associate. Contact your adviser or the Department of Mathematics chair about enrolling in MATH 498 to obtain academic credit for your internship.

Directed Studies or Independent Study Class

By participating in a directed studies or independent study class, students will be able to research an area that they find particularly interesting. Contact your adviser about enrolling in MATH 395, 399, or 499.

Research

There are many opportunities for students to participate in Research Experience for Undergraduates (REUs) to enhance the breadth of knowledge learned in the classroom. For additional information about REU’s for undergraduates, go to Career Services and speak to a career associate or visit the National Science Foundation website. For additional information about research at UW–Eau Claire, contact the Department of Mathematics.

What you can do now:

- Become a tutor in the mathematics laboratory
- Become a tutor in the Academic Skills Center for a math class
- Become a grader or teacher assistant for a mathematics teacher
- Work with the finances for a student organization
- Work in the finance department of your local job