What can I do with a major in…

Mathematics

Career Advisors:
Pure Mathematics: Januz Konieczny, Trinkle 125, 540-654-1331, email: jkoniecz@umw.edu
Applied Mathematics: Leo Lee, Trinkle B49, 540-654-2028, llee3@umw.edu
Statistics: Debbie Hydorn, Trinkle 132, 540-654-1330, dhydorn@umw.edu

GENERAL DESCRIPTION

Mathematicians study concepts and theories used to solve problems involving quantitative and qualitative relationships. Those engaged in research to discover new theories or to increase basic knowledge are classified as theoretical mathematicians. Those who develop techniques and approaches to solve problems in the physical and social sciences, or in business and industry, are classified as applied mathematicians.

Career opportunities for a mathematician who is trained in numerical techniques, modeling, applied analysis, and statistics are very promising. This is due to the extensive application of mathematical modeling via computer simulation in such diverse areas as physics, chemistry, space technology, economics, business management, statistical analysis, operations research, medical research, and environmental science. Thanks to the nation-wide shortage of qualified secondary school science and mathematics teachers, the prospects for a dedicated and well-trained mathematician who is interested in education are excellent.

Furthermore, there has never been a better time for undergraduate mathematics majors to continue their training in graduate school. An advanced degree distinctly improves one's attractiveness to employers and increases the salary one can command. Salaries for beginning bachelor and master degree holders in mathematics are comparable with those of computer science majors. Employers increasingly are recognizing the practical value of individuals who obtained training in analytical problem solving and have natural versatility (thanks to the broad applicability of mathematics).

The job titles and hiring institutions which follow are meant to give you an idea of the careers available to Mathematics majors, however many other possibilities also exist. You are encouraged to explore all career paths that interest you.

POTENTIAL JOB TITLES

Accountant
Actuary
Air traffic controller
Appraiser
Architect
Budget officer
Business/management trainee
Cartographer
Commodity manager
Computer programmer
Contract administrator
Cost estimator/analyst
Cryptographer
Demographer
Drafter, commercial
Econometrician
Editor
Financial auditor
Financial/investment analyst
Financial planner
Information specialist
Insurance agent/broker
IRS investigator
Lawyer
Market research analyst
Mathematical technician
Mathematician (applied, research)
Meteorologist
Navigator
Numerical analyst
Operations research analyst
Pilot, airplane
Psychometrist
Purchasing agent
Quality control analyst
Rate analyst

Research analyst
Risk & insurance specialist
Securities trader (financial)
Statistician
Stockbroker
Surveyor
Systems analyst
Teacher
Technical illustrator
Underwriter

REPRESENTATIVE HIRING INSTITUTIONS

Banks and investment firms
Business corporations and industries
Colleges, schools, and educational institutions
Engineering firms
Government agencies
Computer firms
Insurance companies
Market research departments & firms
Professional and technical journals
Research & development firms
Test development corporations
Utilities companies
Weather bureaus

WHERE DO UMW MATHEMATICS MAJORS GO?

EMPLOYERS/INTERNSHIP SITES

- Naval Surface Warfare Center
- Joint Warfare Analysis Center
- University of Mary Washington Sports Information
- Edward Jones Investments
- Legg Mason

GRADUATE SCHOOLS

- George Washington University, Ph.D. Mathematics
- Stanford University, Ph.D. in Economics
- University of Connecticut, Master of Science, Mathematics
- University of California, Davis, Ph.D. Applied Mathematics
- Virginia Commonwealth University, Master's degree in Mathematics
- Virginia Tech, Master of Science in Statistics

FOR MORE INFORMATION CONTACT

1. American Mathematical Society: www.ams.org
2. Am. Society for Information Science: www.asis.org
3. American Statistical Association: www.amstat.org
4. Association for Women in Mathematics: www.awm-math.org
5. The Institute of Mathematical Statistics: www.imstat.org
6. Mathematical Association of America: www.maa.org
7. National Council of Teachers of Mathematics: www.nctm.org
8. Society for Industrial & Applied Mathematics: www.siam.org

**The Office of Career Services also maintains a resource library with a variety of books and other printed material where students can access additional information about their major or field of interest. Visit us in Lee Hall, Room 308 to learn more.*