Mathematics

Mathematics is the analysis of quantities, magnitudes, forms, and their relationships, using symbolic logic and language. Pure mathematics is the study of quantitative and qualitative relationships expressed in numbers or symbols; it is the study of abstract systems and patterns. It includes disciplines such as algebra, calculus, geometry, trigonometry, probability, and statistics. Students begin work by taking core courses in calculus. Later, they take more complex mathematics courses, such as linear algebra, differential equations, group theory, and symbolic logic, and emphasize analytic reasoning.

Many organizations and industries depend on mathematical analysis, and thus math majors can find work in a wide variety of settings. The employment outlook depends on which of these professional settings is chosen, and the relationship of that industry or business to the rest of the economy. The skills gained by math majors, including problem solving, pattern recognition, and analysis are applicable and prized in many organizations and industries.

Some career possibilities for Mathematics majors:

Accountant
Actuary
Aerospace Engineer
Applications Programmer
Appraiser
Architect
Astronomer
Auditor
Bank Manager
Bank Officer
Bio-mathematician
Bond Trader
Business Analyst
Cardiovascular Technician
Cartographer
Computer Consultant
Computer Engineer
Computer Programmer
Computer Scientist

Computer Systems Analyst
Cost Analyst
Cost Estimator
Credit Manager/Officer
Cryptographer/Cryptologist
Data Analyst
Database Manager
Demographer
Educator
Electrical/Electronics
Engineer
Engineer
Engineering Lab Tech
Environmental Scientist
Environmental Technologist
Financial Manager
Financial Planner

Geologist
Information Scientist
Investment Banker
Investment Manager
Lawyer
Market Research Analyst
Mathematician
Medical Doctor
Medical Technologist
Modeling Scientist
Nuclear Scientist
Operations Research Analyst
Pharmacologist
Physicist

Radar Technician
Information Scientist
Risk Analyst
Software Engineer
Statistician
Statistician
Surveyor
Systems Analyst
Systems Engineer
Teacher
Technical Writer
Telecommunications Engineer
Transportation Analyst
Underwriter
Urban Planner

Possible employers of Mathematics majors:

Accounting Firms
Actuarial Firms
Banks
Businesses & Industries
Colleges/Universities
Computer Consulting Firms
Computer Consulting Firms
Defense Industry
Educational Services

Engineering Consulting Firms
Environmental Research and Advocacy Organizations
Insurance Companies
Pharmaceutical Companies
Public/Private Schools
Public Policy Consulting Firms
Public Service Companies

Research and Testing Services
Research Laboratories
Research Institutions
Science Consulting Firms
Security and Commodity Exchanges
Local, State, Federal & Tribal Government
Trust/Insurance Companies

Professional Organizations & Additional Information:

American Mathematical Society
201 Charles Street
Providence, RI 02904
www.ams.org

Mathematical Assoc of America
1529 18th Street NW
Washington, DC 20036
www.maa.org

National Council of Teachers of Mathematics
1906 Association Drive,
Reston, VA 20191-1502
www.nctm.org

Society of Actuaries
475 N Martingale Rd, Ste 600
Schaumburg, Illinois 60173
www.soaa.org

American Statistical Assoc
732 North Washington St
Alexandria, VA 22314
www.amstat.org

http://online.onetcenter.org