

Mathematics

What can I do with this major?

OCCUPATIONS	EMPLOYERS	SKILLS TO DEVELOP
<p><u>INDUSTRY</u></p> <ul style="list-style-type: none"> Research Development Design Data Processing Testing Operations 	<p>Industries including:</p> <ul style="list-style-type: none"> Aerospace Communications Machinery Electrical equipment Pharmaceuticals Manufacturing Consulting Other private industries 	<ul style="list-style-type: none"> • Note that greatest demand is for applied mathematics with skills in computer science, electronics design and theory, statistics and probability. • Gain experience working in teams. • Develop good oral and written communication skills. • Earn a master's degree in business or related field for more advanced positions.
<p><u>GOVERNMENT</u></p>	<p>Federal agencies: Defense, Labor, Justice, Agriculture, Health and Human Services, Transportation, Commerce, Treasury, NASA and Library of Congress State agencies involving research and problem-solving teams</p>	<ul style="list-style-type: none"> • Become familiar with government hiring procedures. • Make contacts through involvement in campus, local, or state politics. • Gain relevant experience in student government or other related organizations. • Complete an internship with a government agency. • Supplement curriculum with business courses. • Learn federal, state and local job application procedures.
<p><u>RESEARCH</u></p> <ul style="list-style-type: none"> Theoretical Applied 	<ul style="list-style-type: none"> Industry Government Universities 	<ul style="list-style-type: none"> • Develop computer and research skills. • Learn to use relevant software packages. • Plan for a graduate degree in area of interest.
<p><u>BANKING</u></p> <ul style="list-style-type: none"> Credit Lending Operations Systems Trusts 	<ul style="list-style-type: none"> Commercial banks Regional banks Savings & Loan associations 	<ul style="list-style-type: none"> • Take courses in accounting and finance. • Develop strong interpersonal and communication skills in order to work well with a diverse clientele. • Find a summer internship in a bank. • Work as cashier or teller. • Become financial officer or treasurer of campus organization.

OCCUPATIONS**EMPLOYERS****SKILLS TO DEVELOP****COMPUTERS**

Computer Industry
 Programming
 Systems or Applications

Computer hardware and software firms

- Develop advanced computer skills.
- Gain knowledge of computer languages.
- Get exposure to large-scale hardware or mini/micro systems.

Systems Analyst

- Develop ability to listen to what customer wants.
- Keep up with latest developments in computer technology.
- Learn good communication skills.
- Acquire programming experience.

Data Processing and
 Information Systems

Service companies
 Manufacturing firms
 Government--federal, state and local
 Banking, insurance and real estate
 Wholesale and retail trade firms

- Develop good people and communications skills.
- Acquire programming experience.

Software

Standard software suppliers
 Custom software builders
 Service companies

- Stay current with new developments

Hardware

Standard hardware firms

Training

Software companies
 Large employers
 Specialized training organizations
 Educational book publishers

- Get experience with public speaking and teaching.
- Learn to develop curriculums.
- Master technical writing skills.
- Acquire a graduate degree in area of interest.

EDUCATION

Teaching

Public schools
 Private schools
 Colleges and universities
 Private learning centers

- Obtain certification/licensing for teaching in public schools.
- Acquire a master's degree for community college teaching and a Ph.D. for colleges and universities.
- Gain volunteer experience with Big Brother/Sister program, tutoring, sports, summer camps, teen counseling, childcare centers, or with other special populations.
- Learn how to develop curriculums and workshops.
- Gain experience as a tutor, camp counselor, church schoolteacher, etc.

OCCUPATIONS**EMPLOYERS****SKILLS TO DEVELOP****INSURANCE**

Actuarial
Underwriting
Sales

Insurance firms

- Complete an internship with an insurance agency.
- Talk to professionals in the industry to learn more about claims, underwriting, and risk management.
- Many good, entry-level positions exist in these areas.
- Initiative and sales ability are necessary to be a successful agent or broker.
- Develop strong communication skills, as many positions require interaction with others and the ability to explain information clearly and concisely.
- Take additional statistics classes to prepare for a career in actuary science. Prepare to take the first in a series of actuarial examinations.

MARKET RESEARCH

Data Collection
Information Analysis

Market research firms
Consumer goods manufacturing firms

- Develop good oral and written communications skills.
- Acquire a business minor.
- Volunteer to assist a professor with research.
- Become a student member of American Marketing Association.
- Assist with canvassing/ phone interviewing for charities or political campaigns

SECURITIES

Sales
Research
Operations

National and regional brokerage firms
Discount brokerage houses
Commercial banks
Insurance companies
Financial organizations

- Plan on acquiring MBA.
- Get sales experience.
- Obtain a business minor.
- Join finance related student organizations.

Internet Resources:

Why should I study math? Essays which describe a wide variety of careers for which a background in the mathematical sciences is useful. www.maa.org/careers/index.html

Society for Industrial and Applied Mathematics: www.siam.org/students/career.htm

American Mathematical Society: www.ams.org/employment