

# MATHEMATICS

## What can I do with this degree?

### AREAS

### EMPLOYERS

### STRATEGIES

#### INDUSTRY

Research  
Development  
Design  
Data Processing  
Testing  
Operations  
Quality Control  
Statistical Processing Control  
Environmental Analysis  
Consulting

Industries including:  
Manufacturing  
Transportation  
Aerospace  
Communications  
Machinery  
Electrical equipment  
Pharmaceuticals  
Other private industries  
Consulting firms

Note that greatest demand is for applied mathematicians with skills in computer science, electronics design and theory, statistics and probability.  
Develop computer and research skills. Learn to use relevant software packages.  
Earn a master's degree in math, business, or related field for advanced positions or for consulting jobs.  
Maintain excellent G.P.A. for graduate/professional school admission.  
Gain relevant experience through internships, volunteering, summer, or part-time jobs.  
Develop good oral and written communication skills.  
Learn to work well in teams.

#### GOVERNMENT

Research  
Administration

Federal agencies including Defense, Labor, Justice, Agriculture, Health and Human Services, Transportation, Commerce, Treasury, NASA, and Library of Congress  
State agencies involving research and problem-solving teams

Become familiar with government hiring procedures.  
Make contacts through involvement in campus, local, or state politics.  
Obtain internship with local, state, or federal government.  
Join related professional organizations.  
Maintain a high grade point average.

#### MARKETRESEARCH

Data Collection  
Information Analysis

Market research firms  
Consumer goods manufacturing firms

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

AREAS	EMPLOYERS	STRATEGIES
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**COMPUTERS**

Programming  
Systems  
Applications  
Systems Analysis  
Data Processing  
Information Systems  
Software Development  
Networking  
Hardware  
Training

Computer hardware and software firms  
Service companies  
Manufacturing firms  
Government (federal, state, and local)  
Financial institutions  
Wholesale and retail trade firms  
Custom software builders  
Service companies  
Specialized training organizations  
Educational publishers  
Consulting firms

Develop advanced computer skills.  
Gain knowledge of computer languages and programming.  
Take classes and earn relevant certifications.  
Gain relevant experience through internships, part-time, or summer jobs.  
Learn effective listening and verbal communication skills.  
Stay abreast of the latest developments in computer technology.  
Develop good interpersonal and communication skills.  
Obtain experience with public speaking/teaching and learn to develop curriculums for training positions.  
Master technical writing skills.  
Some areas may require a graduate degree.

**INSURANCE**

Actuarial  
Underwriting  
Claims  
Risk Management  
Sales

Insurance firms

Develop strong computer skills.  
Acquire a business minor or take supplemental courses in business or statistics.  
Become the treasurer of an organization.  
Obtain experience in fundraising drives.  
Join a related professional association.  
Gain relevant experience through internships.  
Become familiar with exams and/or certifications required for actuarial positions.

**SECURITIES**

Sales  
Research  
Operations

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

Obtain a business minor or supplement curriculum with courses in finance and/or economics.  
Plan on acquiring an MBA.  
Gain relevant experience through part-time or summer sales positions. Complete an internship with a related organization.  
Join finance-related student organizations.  
Be geographically flexible when job searching.

AREAS	EMPLOYERS	STRATEGIES
<b><u>BANKING</u></b> Branch Management Credit Lending Operations Systems Trusts	Commercial banks Regional banks Savings and loan associations Credit unions	Complete an internship in a financial institution. Develop good interpersonal skills. Obtain a business minor. Develop excellent computer skills. Demonstrate attention to detail. Become the financial officer or treasurer of a campus organization.

**EDUCATION**

Public schools  
Private schools  
Colleges and universities

Obtain appropriate state licensure and/or certification for public school teaching positions.  
Volunteer to teach, supervise, or tutor with organizations such as Big Brother/Sister, YMCA, or churches.  
Develop excellent written and oral communication skills.  
Acquire a master's degree or Ph.D. for teaching positions at the college or university level.

**GENERAL INFORMATION**

- Math majors develop transferable skills including critical thinking, problem diagnosis and solving, computer skills, and quantitative skills.
- A bachelor's degree is often sufficient for entry-level positions, but an advanced degree may open the door to more upper-level opportunities. Pair a strong background in mathematics with another technical discipline such as computer science or engineering.
- Gain experience through volunteering, internships, and part-time or summer jobs.
- Develop competencies in a specific area of interest.
- Supplement curriculum with courses in business, economics, computers, or statistics for increased job opportunities.
- Maintain a high grade point average. Demonstrate attention to detail and commitment to accuracy.
- Build relationships with faculty for career information, contacts, and letters of recommendation.
- Join related student professional associations and seek leadership positions.
- Develop the ability to work well in teams.
- Conduct informational interviews with professionals in areas of interest to enhance knowledge and make contacts.
- Stay informed of new developments and current trends in the field.

# What can I do with this degree?

## MATHEMATICS

### Mathematics Links:

[Professional Science Masters](#)

[Sloan Foundation Careers in Science, Technology, Engineering and Mathematics](#)

[Careers for Women in Mathematics](#)

[Careers and Employment Resources for Students in Mathematics](#)

[National Council of Teachers in Mathematics](#)

[American Mathematical Society Resources for Undergraduates in Mathematics](#)

[Mathematics Careers](#)

[Careers in Math from Coolmath.com](#)

[Careers in Statistics](#)

[Be an Actuary](#)

[Careers in Applied Mathematics and Computational Sciences](#)

[PhDs.org](#)

[Mathematician from the Occupational Outlook Handbook](#)

[Actuaries from the Occupational Outlook Handbook](#)

[Statisticians from the Occupational Outlook Handbook](#)

[Teacher-Postsecondary from the Occupational Outlook Handbook](#)

### AREAS

#### INDUSTRY

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Development

Design

Data Processing

Testing

Operations

Quality Control

Statistical Processing Control

Environmental Analysis

Consulting

## **EMPLOYERS**

Industries including: Manufacturing, Transportation, Aerospace, Communications, Machinery, Electrical equipment, Pharmaceuticals, Other private industries  
Consulting firms

## **STRATEGIES**

Note that greatest demand is for applied mathematicians with skills in computer science, electronics design and theory, statistics and probability. Develop computer and research skills. Learn to use relevant software packages. Earn a master's degree in math, business, or related field for advanced positions or for consulting jobs. Maintain excellent G.P.A. for graduate/professional school admission. Gain relevant experience through internships, volunteering, summer, or part-time jobs. Develop good oral and written communication skills. Learn to work well in teams.

## **AREAS**

### **GOVERNMENT**

Research  
Administration

## **EMPLOYERS**

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## **AREAS**

### **BANKING**

Branch Management  
Credit Lending  
Operations  
Systems  
Trusts

## **EMPLOYERS**

Commercial banks  
Regional banks  
Savings and loan associations  
Credit unions

## **STRATEGIES**

Complete an internship in a financial institution. Develop good interpersonal skills. Obtain a business minor. Develop excellent computer skills. Demonstrate attention to detail. Become the financial officer or treasurer of a campus organization.

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### **EDUCATION**

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Private schools  
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Prepared by the Career Planning staff of Career Services at The University of Tennessee, Knoxville. (2005) UTK is an EEO/AA/Title VI/Title IX/Section 504/ADA/ADEA Employer