

# WHAT CAN I DO WITH A BACHELOR OF SCIENCE DEGREE IN MATH?

A Guide compiled by Concordia Career Services



## General Skill Sets

A Bachelor of Science Degree in Mathematics is varied in applications such as: applied physics, engineering, biology, medicine, finance and organizational structure and decision making.

Math as a discipline is an analytical approach that breaks down complicated problems into steps and is based on testing, data and reasoning. A grounded approach to analysis, critical thinking and computational modeling that can be applied to solving complex problems.

When employers are hiring they are interested in the skills attained through university study. In particular:

- The ability to think logically
- The ability to formulate scientific problems in mathematical terms
- The ability to apply individual and prolonged effort to a problem
- The ability to communicate ideas clearly
- Creativity and imagination
- The ability to work independently with little supervision and in a team environment.
- Enjoy synthesizing data, applying mathematical techniques and advising other regarding mathematical applications and methods.

*Source: { <https://alis.alberta.ca/occinfo/occupations-in-alberta/occupation-profiles/mathematician/> }*

## Skills Acquired From a Bachelor Degree in Math

- Ability to think logically and analytically
- Capability to deal with highly abstract concepts
- Ability to make solid judgments and solve quantitative problems
- Develop techniques and insights that can be applied to various fields such as business, computer science, the medical field, and engineering to name a few
- Being able to identify and describe a problem, including assumptions made; if necessary breaking it down into sub-problems, and presenting the solution clearly
- Turning real-world problems into mathematical problems
- Able to communicate proficiently in writing, speaking and clearly explaining scientific and mathematical research information
- Apply mathematical techniques; probability, statistics, numerical analysis with the ability to perform accurate calculations
- Advise others regarding mathematical applications and methods
- Well developed computer literacy; ability to design and use computer simulations
- Be creative and imaginative; ability to frame questions and inquiry

## Careers for Graduates with a Bachelor Degree in Math

There are many different career options for undergraduate math degree graduates. Students with Mathematics degrees can pursue careers in: Government, Banking, Finance, Meteorology, Insurance, Law, Computing and Other Sciences.

Bellow is a sample of positions available for graduates:

Actuarial Analyst  
Assistant Surveyor  
Consultant- Customer& Markets, Energy  
Cost Estimator  
Data Analyst  
Data Scientist, Risk Analytics  
Digital Analytics/Optimization Specialist  
Educational Assistant  
Engineering and Operations Assistant

Graduate Data Scientist  
Investment Analyst  
Junior Data Analyst  
Math Tutor  
Purchasing Agent  
Reporting Specialist  
Technical Writer

As learning is life-long, some careers which are related to a Math Degree require additional training. This may involve weekend, evening or part-time courses; further education (some employers provide support by allowing time or offering finances to assist you in your learning); distance studies; or full time college or university, including graduate studies. In any case, the Bachelor's degree is a starting point.

### Other Careers Related to Math:

People who have a Bachelor degree in Mathematics (including Concordia alumni) have pursued careers in the following areas, with further education:

#### Research and Technical

Aerospace Engineer  
Artificial Intelligence Developer  
Author of research studies  
Demographer  
Economist  
Electrical Engineer  
Mathematical Technician  
Meteorologist  
Operations Research Analyst  
Physicist  
Research Astronomer  
Research Scientist  
Statistician

#### Education

Curriculum Designer  
Teacher (early childhood, elementary, high school, adult)  
University Professor

#### Computer Science

Computer Consultant  
Computer Programmer  
Database Administrator  
Software tester

Systems Analyst  
Software Engineer  
Computer Programmer  
Web Developer

#### Business, Finance, Insurances

Auditor  
Bank Manager  
Business analyst  
Business Analyst Accountant  
Business Consultant  
Claims Adjuster  
Commodity Broker  
Cost Estimator/Analyst  
Credit Analyst  
Financial Analyst  
Financial Awards Officer  
Financial Manager  
Financial Planner  
Insurance Salesperson  
Investment Banking  
Mortgage Researcher  
Payroll Manager  
Pension Analyst  
Project Analyst  
Project Manager  
Quality Assurance Analyst

Risk Manager  
Tax Investigator  
Underwriter – Insurance  
Wage Analyst

Production Manager  
Appraiser  
Sales Director  
Foreign Services Officer

### All Sectors

Health Care Analyst  
Market Analyst

### Professional associations and sites of interest

Canadian Mathematical Society <https://cms.math.ca/>  
American Mathematical Society - [www.ams.org](http://www.ams.org) Association of Women in Math - [www.awm-math.org/ads.html](http://www.awm-math.org/ads.html)  
American Statistical Association - [www.amstat.org](http://www.amstat.org)  
Mathematical Association of America - [www.maa.org](http://www.maa.org)  
Association mathématique du Québec - [www.mlink.net/~amq/AMQ/](http://www.mlink.net/~amq/AMQ/)  
Canadian Applied and Industrial Mathematics - [www.caims.ca](http://www.caims.ca)  
Canadian Mathematical Society - [www.camel.math.ca](http://www.camel.math.ca) Canadian Institute of Actuaries - [www.actuaries.ca](http://www.actuaries.ca)  
Society for Industrial & Applied Mathematics- <http://www.siam.org>

### References

[www.alis.gov.ca/occinfo](http://www.alis.gov.ca/occinfo)  
[www.jobsfuture.ca](http://www.jobsfuture.ca)  
[www.unce.edu/stauff/career/major/index.htm](http://www.unce.edu/stauff/career/major/index.htm)

For more information or assistance with career and educational planning, please contact **Career Services** at  
**(780) 378 – 8461 or [careerservices@concordia.ab.ca](mailto:careerservices@concordia.ab.ca)**