What to do with a degree in **MATHEMATICS**

Mathematics amalgamates three existing programs (Applied Mathematics, Pure Mathematics and Statistics), while offering a flexible and broad framework for building highly customized degrees. The formal concentrations on Computational Applied Mathematics and Mathematical Finance and Risk Management, within the discontinued Applied Mathematics program, remain available in the new Mathematics program. A new concentration on Statistics now provides the same training as the discontinued Statistics major program. These changes make our mathematics program more responsive to a rapidly changing world and more relevant to both students and the community.

**Key Skills & Knowledge**

**Problem solving** - Develop research models and establish hypotheses using logical thinking; Cause, effect and forecasting; Measure distances, sizes and relationships

**Analysis and evaluation** - Perform calculations and analyze probabilities; Attention to detail; Conceptualize and synthesize complex numbers, formulae and statistics

**Communication** - Share research findings with both technical and non-technical audiences through oral presentations and written communication

**Technical** - Design and use computer simulations

**Analytical** - Use of critical and creative thinking to evaluate ideas and see relationships among factors; Pattern, structure and relationship identification

**Research** - Survey design and analysis; Gather, analyze and synthesize data

**Sample Job Titles**

- Account Executive
- Accountant
- Actuary
- Artificial Intelligence
- Astronomer
- Banker
- Biometrician
- Business Analyst
- Commercial Risk Analyst
- Computer Programmer
- Credit Risk
- Cryptographer
- Database Administrator
- Demographer
- Financial Analyst
- Foreign Services Officer
- Information Analyst
- Internal Auditor
- Junior Defense Scientist
- Logistics Specialist
- Marketing Consultant
- Mathematician
- Medical Data Analyst
- Methodologist
- Modeling Manager
- Numerical Analyst
- Operations Research Analyst
- Pension Specialist
- Program Analyst
- Programmer
- Research Analyst/ Researcher
- Risk Analyst
- Senior Negotiator
- Statistical Consultant
- Statistician
- Systems Analyst
- Tax Investigator
- Teacher/Professor
- Technical Specialist
- Technical Writer
- Underwriter
- Video Game Programmer
- Web Site Developer

Some of these roles may require further training, certification or education. Check out the Alberta Government’s occupational profiles for salary info and more detail: [alis.alberta.ca/occinfo](alis.alberta.ca/occinfo)

**Need help deciding what to do?**

Formal Career Assessments like the Strong Interest Inventory and the Myers Briggs Type Indicator can be helpful tools for your career development. *Request an assessment via CareerLink*
Associations provide an opportunity for continued professional development. Many also offer networking opportunities and other events for their members.

- Association for Women in Mathematics: [www.awm-math.org](http://www.awm-math.org)
- American Mathematical Society: [ams.org](http://ams.org)
- Association of Science and Engineering Technology Professionals of Alberta (ASET): [aset.ab.ca](http://aset.ab.ca)
- American Statistical Association (ASA): [amstat.org](http://amstat.org)
- Canadian Applied and Industrial Mathematics Society: [www.caims.ca/](http://www.caims.ca/)
- Canadian Institute of Actuaries: [www.cia-ica.ca/](http://www.cia-ica.ca/)
- Canadian Mathematical Society: [cms.math.ca/](http://cms.math.ca/)
- Casualty Actuarial Society: [casact.org/](http://casact.org/)
- Fields Institute for Research in Mathematical Sciences: [fields.utoronto.ca](http://fields.utoronto.ca)
- International Association for Statistical Computing: [www.iasc ISI.org/](http://www.iasc isi.org/)
- Mathematical Association of America: [www.maa.org](http://www.maa.org)
- Pacific Institute for the Mathematical Sciences: [pims.math.ca](http://pims.math.ca)
- Society for Industrial and Applied Mathematics: [siam.org](http://siam.org)
- Statistical Society of Canada: [www.ssc.ca/](http://www.ssc.ca/)

### Potential Industries
- Accounting Firms
- Banking and Investments
- Credit Risk
- Data Management Companies
- Disease Control or Prevention Centres
- Education
- Engineering Firms
- Financial Companies
- Institutions
- Government
- Information Technologies
- Insurance Companies
- Manufacturers
- Market Research and Analysis
- Medical Research
- Opinion Researchers
- Pharmaceutical Companies
- Post-Secondary
- Software and Program Development
- Statistical Research and Analysis
- Technology Companies

### Associations & Professional Development

### Career Services

**YOUR FUTURE STARTS HERE**

- Career Planning
- Job Search Support
- Resume Reviews
- Career Workshops
- Online Job Postings
- Career Fairs
- Networking Events
- Information Sessions & much more!

**Connect with us:**
MacEwan Student Centre, Room 188
T: 403.220.8020
E: csstdnt@ucalgary.ca

CareerLink: [ucalgary.ca/careers](http://ucalgary.ca/careers)

Facebook: [ucalgarycareers](http://ucalgarycareers)
Twitter: [@HireUCalgary](https://twitter.com/HireUCalgary)

### Job Boards

- Indeed: [https://ca.indeed.com/](https://ca.indeed.com/)
- Math Jobs Org: [www.mathjobs.org/jobs](http://www.mathjobs.org/jobs)
- Math-jobs.com: [www.math-jobs.com](http://www.math-jobs.com)
- Eluta: [www.eluta.ca](http://www.eluta.ca)
- CareerLink: [careerlink.ucalgary.ca](http://careerlink.ucalgary.ca)

### Additional Resources

101 Careers in Mathematics by Andrew Sterrett
Careers for Number Crunchers and Other Quantitative Types by Rebecca Burnett
Careers in Mathematics by John Prescott
Careers In Mathematics by Margaret Menzin & Robert Goldman
Great Jobs for Math Majors by Stephen Lambert

### Faculty Contact
Math Sciences 476
T: 403.220.5203
E: info@math.ucalgary.ca
W: math.ucalgary.ca/
W: ucalgary.ca/admissions/programs

### Student Clubs
Society of Undergraduate Mathematics: [math.ucalgary.ca/scum/home](http://math.ucalgary.ca/scum/home)
Aligned Majors:
Actuarial Science, Business, Mathematics