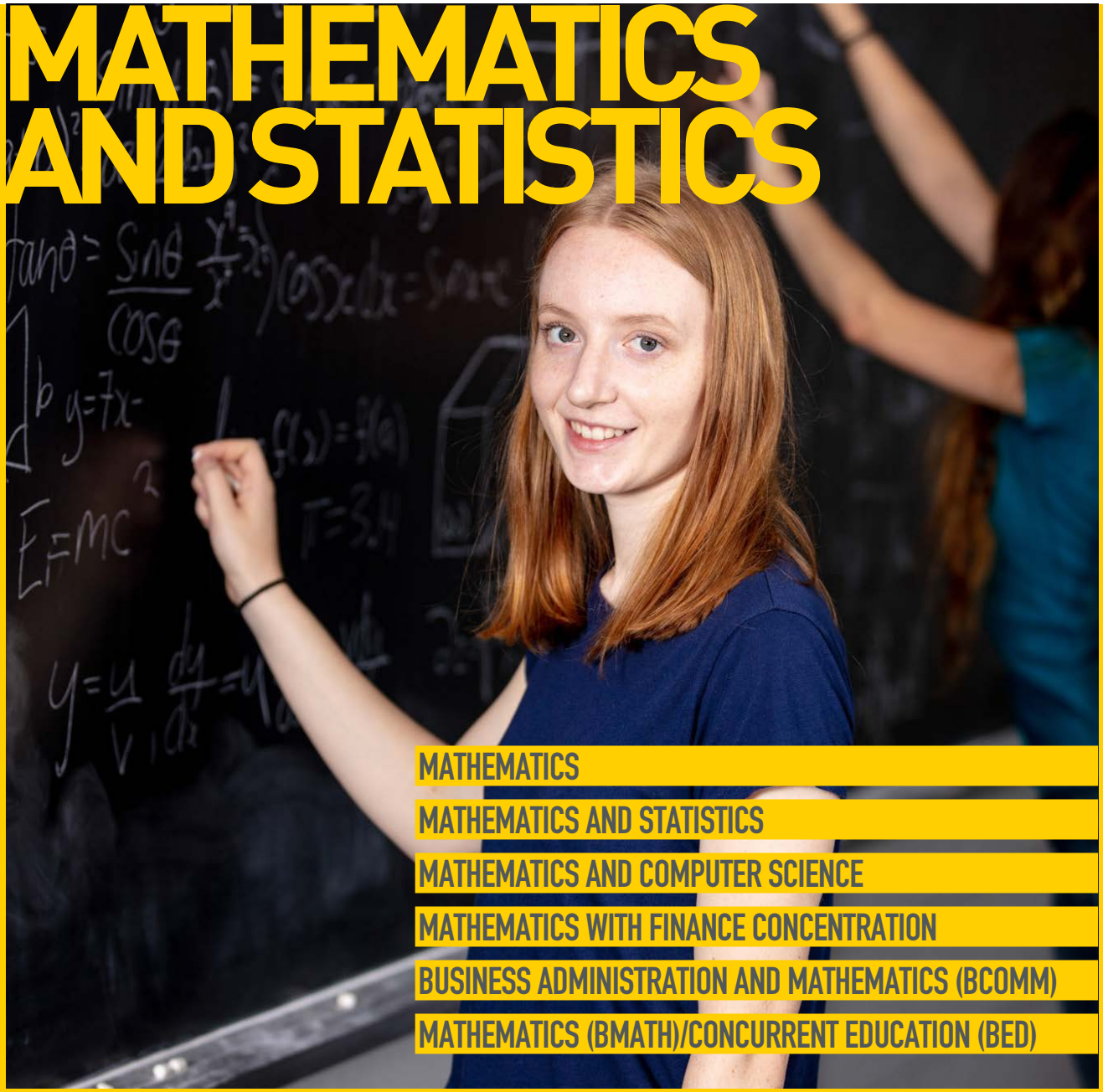
University of Windsor

MATHEMATICS AND STATISTICS EXPERIENCE MAP

MATHEMATICS AND STATISTICS



- MATHEMATICS
- MATHEMATICS AND STATISTICS
- MATHEMATICS AND COMPUTER SCIENCE
- MATHEMATICS WITH FINANCE CONCENTRATION
- BUSINESS ADMINISTRATION AND MATHEMATICS (BCOMM)
- MATHEMATICS (BMATH)/CONCURRENT EDUCATION (BED)

HIGHLIGHTS AND SKILLS

PROGRAM HIGHLIGHTS

Mathematics G H C Mathematicians are in demand, and this program will prepare you for a career equal to your talents. Combine this program with another degree (double major) for a truly unique experience. Also, take courses that will prepare you for an actuary designation. The small class sizes, camaraderie and support in this program is second to none.

MIN. AVG.* 70% **ONTARIO COURSE REQUIREMENTS** ENG4U, MHF4U, and MCV4U required. A minimum 70% average in all attempted math courses, excluding MDM4U, is also required.

Mathematics and Statistics H If you're interested in a career as an actuary or a statistician, this is the right program for you. You'll train your brain for critical thinking and solving complex problems. You'll be in a supportive environment with students and faculty who share your passion for numbers. Actuarial preparation available.

MIN. AVG.* 70% **ONTARIO COURSE REQUIREMENTS** ENG4U, MHF4U, and MCV4U required. A minimum 70% average in all attempted math courses, excluding MDM4U, is also required.

Mathematics and Computer Science H Go beyond ones and zeros in this exceptional program choice if you're equally interested in mathematics and computer science. Your foundation in mathematics will make you stand out from the crowd in the tech world and spur on your career. You'll love the student-centred approach of the program where you'll get any support you need to succeed.

MIN. AVG.* 70% **ONTARIO COURSE REQUIREMENTS** ENG4U, MHF4U, and MCV4U required. A minimum 70% average in all attempted math courses, excluding MDM4U, is also required.

Mathematics with Finance Concentration H Stand out on Bay Street with your background in both finance and mathematics. You'll get the chance to prepare for certification in actuarial science, because you'll be studying in both the math department and the Odette School of Business. You'll have access to the best of both worlds. This program is a stellar choice for mathematically inclined students looking for a career in the financial sector. Actuarial preparation available.

MIN. AVG.* 75%* **ONTARIO COURSE REQUIREMENTS** ENG4U, MHF4U, and MCV4U required. 75% average in all attempted Math courses.

See other experience maps for related programs:

Business Administration and Math H T

MIN. AVG.* 73% **ONTARIO COURSE REQUIREMENTS** ENG4U, MHF4U and MCV4U are required. A minimum grade of 70% is required in the required Grade 12 Mathematics courses.

Mathematics (BMath)/Concurrent Education (BEd)

MIN. AVG.* 80% **ONTARIO COURSE REQUIREMENTS** ENG4U, MHF4U, and MCV4U required. SPH4U recommended. A minimum of 70% average in all attempted Math courses. Admission to first year only.

FUNCTIONAL KNOWLEDGE

- Designing and executing original observational and experimental studies
- Discerning and interpreting patterns, trends, and abnormalities in data sets; working with large data sets
- Intuitively understanding abstract concepts and theoretical approaches to problems
- Rigorously and methodically analyzing problems using established theoretical frameworks
- Communicating mathematical arguments and concepts to diverse audiences with clarity and precision
- Solving complex technical problems and effectively communicating the solution to a lay audience

*G General H Honours C Combined Honours programs available T Thesis available * Minimum grade point average for admission to program. A higher average may be required.*

BUILD YOUR SKILLS AND EXPERIENCE

Your UWindsor experience is more than attending classes. It is a combination of academics, co-curricular activities, and extracurricular involvement. By making the most of all three elements of your university experience, you will maximize your opportunities to build your skills, broaden your personal network, and clarify your long term academic and career goals.

CURRICULUM
Courses of study specific to each program

CO-CURRICULAR
Activities and experiences that complement coursework (Outstanding Scholars, peer mentoring, VIP)

EXTRACURRICULAR
Activities falling outside the scope of set curriculum (Part-time job, clubs, volunteering, athletics)

CAREER PLANNING CYCLE

Intentional career planning will help you prepare for your next step after graduation and beyond. It is a fluid, dynamic, and lifelong process. You can move on or return to an earlier stage in the cycle at any time.

EXPLORE OPPORTUNITIES USING THIS CHART

Explore a selection of opportunities recommended for students in your program. This chart shows some of your many options – you don't have to do everything on it or limit yourself to it. Engage in opportunities from each of the three categories to set yourself up for success.

HIGH-IMPACT PRACTICE (HIP) HIP

A HIP is an enriching educational experience that can be life-changing and often includes learning outside of the classroom while encouraging meaningful interaction and collaboration, such as:

- Co-op, internship or field experiences
- Research with faculty
- Culminating senior experience
- Capstone courses
- Service-learning
- Learning communities
- Study abroad

	FIRST YEAR	MIDDLE YEARS	FINAL YEAR
ACADEMICS *Your coursework*	• Take required courses including Linear Algebra, Differential Calculus, Integral Calculus, and Mathematical Foundations and review degree course requirements • Participate in our **PASS** program during **Welcome Week** to be coached on the skills necessary to be successful as a Faculty of Science student • Visit the **Mathematics and Statistics Learning Centre** in Erie Hall 3125 for support in all of your first year Mathematics courses and to meet other students in your program • Meet with the department's Undergraduate Counselor • Receive peer mentorship from an upper-year **MySci** advisor	• Take required courses and meet with the department's Undergraduate Counselor to make sure you are on the right path • Consider completing an undergraduate research project in final year HIP • Begin taking courses to specialize in Pure Mathematics, Statistics, Applied Mathematics, Actuarial Sciences, Finance or Operations Research • Consider taking courses toward a minor or double major in a second Science, Business, or Arts discipline • Continue taking courses required as preparation for professional schools	• Meet with an academic advisor to go over graduation requirements • Complete all required courses for your degree • Apply to graduate through **UWinsite Student Portal** • Undertake an undergraduate research project with a faculty member HIP • Study for and write the **Society of Actuaries Exams** • Apply to graduate and professional schools, as well as for post-graduate scholarships
EXPERIENCE *Ways to get involved*	• Begin the process of becoming a **LEAD Medallion Scholar** and participate in credit and volunteer activities HIP • Learn about research opportunities within the Department of Mathematics and Statistics HIP • Attend an undergraduate **Pizzanar** (pizza served during the seminar) • *Discover* research opportunities as part of the **Outstanding Scholars** program HIP • Join the **USci Network** to take part in collaborative and integrative science experiences • Join a club like the **Mathematics and Statistics Student Association, Actuarial Science Club, Students Offering Support,** or the **Science Society** • Participate in the **Bystander Initiative** workshop to gain skills that will help you be an effective and supportive ally to prevent sexual assault on campus • Apply for a co-curricular experience such as **VIP - Community Service Learning**	• Consider studying for and writing the **Society of Actuaries Exams** • Apply your knowledge through a summer research assistant position HIP • Apply for an **NSERC** – Undergraduate Student Research Award • Participate in **UWill Discover** undergraduate research conference HIP • Gain valuable *Leadership* skills through the **Mathematics and Statistics Student Association** and the **Departmental Council** • Assist with problem-solving workshops offered by the Mathematics and Statistics Department • Assist with the planning and organization of mathematics outreach programs such as **Kangaroo Math, Tournament of the Towns,** and **Science Academy** • Apply to the Department for a paid job as a Teaching Assistant	• Conduct research with faculty member or apply to be a lab instructor for Calculus or Linear Algebra HIP • Become a **MySci** advisor and/or tutor for **Students Offering Support (SOS)** or the **Mathematics and Statistics Student Association** HIP • Consider attending off-campus workshops and seminars such as the **Fields Institute, Canadian Math Society** conferences, and **Math in Moscow** • Enter the **William Lowell Putnam Mathematics Competition** • Expand your *Leadership* skills with an executive position in the **Mathematics and Statistics Student Association, Actuarial Science Club,** or the **Science Society** • Complete **LEAD Medallion Scholars** in two areas for Bronze, three areas for Silver, or four areas for Gold in accordance with *Leadership, Engagement, Application, Discover* HIP
CAREER *Plan ahead for what's next*	• Create lists of things that you enjoy, areas in which you excel, and your skills • Meet with a career advisor in **Career Development and Experiential Learning (CDEL)** for help developing a plan for your future years • Consider a career assessment workshop to help you identify possible career paths • Get involved with a part-time job, volunteer opportunity, campus group, or research assistantship • Attend **CDEL** workshops to learn how to find a summer or part-time job and write a university-level resumé • Drop in to meet with one of **CDEL**'s peer advisors to get answers to your career and job search questions • Speak with faculty members within the department about career options	• Explore opportunities and meet employers through job fairs and employer networking events • Explore further educational opportunities by attending the **Graduate and Professional Schools Fair** and researching admission requirements for programs you are interested in • Create a **LinkedIn** profile and have it critiqued • Attend information sessions on career opportunities in actuarial mathematics • If you are considering graduate or professional school, be aware of early application deadlines • Research career fields and occupations with the help of a **CDEL** career advisor • Take part in informational interviews and join online communities like **LinkedIn and Ten Thousand Coffees** to connect with people in your target profession or industry	• Meet with **CDEL** to prepare application documents like a resumé, cover letter, CV, or personal statement for jobs and education programs you are applying to • Attend **CDEL**'s workshops on interview skills and job search strategies • Use **InterviewStream** to practice your interview skills online • Set up an in-person mock interview with a career advisor for professional school or job applications • Meet employers at the annual job fair in January • Compose a portfolio of relevant academic and work experience • Write entrance exams for professional schools **(MCAT, LSAT)**

LIFE AFTER GRADUATION

"Math + UWindsor = Great Student Experience. The professors are supportive, and the student body has a community feel. The courses provide exposure to many sub-disciplines of mathematics along with flexibility to pursue your interests. I did research through the Outstanding Scholars program and was the President of the Mathematics & Statistics Student Association, among other involvement."

Katherine Vrantsidis – BMath (Honours) in Mathematics [2016]
Katherine is now working as an Associate Actuary at Henry Ford Health System's Health Alliance Plan

27 **NUMBER OF GRADUATES (2018)**

100% **EMPLOYMENT RATE OF GRADUATES**

Employment rate of graduates 2 years following degree completion (OUGS Mathematics, 2017)

CAREER TRACKS*

Accountant
Actuary
Appraiser
Astronomer
Bank manager
Business advisor
Claims adjuster
Computer programmer
Computing consultant
Cryptographer
Data scientist
Doctor
Economic developer
Economist
Financial advisor
Financial analyst
Insurance underwriter
Lab technician
Lawyer
Loan consultant
Logistician
Market researcher
Mathematician
Modeling analyst
Operations research analyst
Payroll officer
Professor
Project manager
Quantitative analyst
Real estate broker
Research co-ordinator
Risk management analyst
Software engineer
Statistician
Teacher

** Additional education and/or training required for some of the above careers.*

COMMON SECTORS FOR GRADUATES

- **Academia**
- **Actuarial science**
- **Banking and financial services**
- **Business and commerce**
- **Education:** Curriculum design, teaching
- **Government:** Research and policy development
- **Industry:** Forecasting, product development/testing
- **IT and computer science**
- **Statistics and Research:** Public and private sectors
- **Telecommunications**

CAREER-READINESS COMPETENCIES

CRITICAL THINKING AND PROBLEM SOLVING

PROFESSIONALISM AND WORK ETHIC

TEAMWORK AND COLLABORATION

COMMUNICATION

CAMPUS RESOURCES

- Research scholarships and bursaries through the **Student Awards and Financial Aid Office**
- Visit **Leddy Library** and the **Writing Support Desk** for help with academic assignments
- Learn about our **Bounce Back** program designed to support students struggling to find both personal and academic success in their post-secondary experience
- Build leadership skills and find leadership opportunities at the **Leadership Hub**
- Experience international service learning on an **Alternative Spring Break** team
- Get advice and support about your academic status by making an appointment with **Academic Advising**
- Seek out assistance with academic accommodation from **Student Accessibility Services**
- Discover ways to get involved on campus through the **Student Success and Leadership Centre**
- Look into the **Ignite: Work Study** program for on-campus employment opportunities
- Get assistance developing your career plan and job search skills from **Career Development and Experiential Learning**
- Consult with the **EPICentre** if you are interested in starting your own business
- Broaden your cultural awareness through the **International Student Centre** and **Student Exchange Office**
- Find support for Indigenous learners and broaden your understanding of Indigenous culture by visiting **Turtle Island**
- Tend to your health and wellness with support from **Student Health Services** and **Lancer Recreation**
- Receive confidential mental health counselling delivered by trained professionals at the **Student Counselling Centre**
- Seek personal support or learn more about sexual violence education through the **Sexual Misconduct Response and Prevention Office**
- Explore professional development opportunities through **Continuing Education**

We've got you covered!

GET IN TOUCH

STUDENT RECRUITMENT
Phone: 519-973-7014
Toll-Free: 1-800-864-2860
ask.uwindsor.ca

DEPARTMENT OF MATHEMATICS AND STATISTICS
Phone: 519-253-3000, Ext. 3015
Email: mthsta2@uwindsor.ca

CAREER DEVELOPMENT AND EXPERIENTIAL LEARNING
Phone: 519-253-3000, Ext. 3895
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