

# DISCOVER YOUR STORY IN MATHEMATICS

**ADMISSIONS 2025** 

# **FACULTY OF MATHEMATICS**

# 数学学院

The Faculty of Mathematics was founded at the University of Waterloo in 1967, and it's the only faculty of Mathematics in North America.

At Waterloo, you'll study and work with people who are just as passionate about mathematics and computer science as you are! Take your talent to the next level with a degree in Mathematics, learn from renowned professors in the world's largest centre for mathematics and computer science education and research, and explore concepts that ignite your imagination, from quantum computing to number theory. Refine your skills through co-op terms, minors and specializations. By graduation, your career prospects will be infinite.

With more than 8,000 students, 300 full-time faculty members and 500+ courses in mathematics, statistics and computer science, you'll find your own unique path here. If you think you love math now, just wait until you get here!

**#1 IN CANADA** FOR COMPUTER SCIENCE (Maclean's 2024)

### ONLY FACULTY OF MATHEMATICS in North America

滑铁卢大学数学院成立于 1967 年,是北美唯一的数学学院,也是全球最大的数学 和计算教育中心。多年来,数学院以高品质的师资力量、强大的科研水平、诸多校 友以及在校生的研究创业成就获得了广泛的认可,享誉全球。学生在国际数学和计 算机竞赛中成绩优异,是唯一获得 ACM 计算机编程大赛冠军的加拿大代表队。滑 铁卢大学的数学和计算机科学专业全球学科排名均在前 40 位,计算机科学专业全 加排名第一。目前滑铁卢大学数学院拥有在读学生 8000 多名,包括本科生、研究 生以及博士生,300 多位数学和计算机科学领域的教授,提供 45 个专业,500 多个 数学、计算机科学、统计等领域的课程,是科研和创新的强大基地。

# LARGEST CENTRE IN THE WORLD

for Mathematics and Computer Science

滑铁卢大学数学院是全球最大、最负盛名的数学院之一, 广泛的研究项目涵盖了数学、统计、计算机科学和精算 等多个领域,涉及纯数学、应用数学、代数、数论、组 合优化以及数学物理等方面。

我们的科研人员也深度参与跨学科研究,将数学与密码 学、人工智能、量子计算和金融等领域相结合。滑铁卢 大学数学院拥有多家科研机构,如:

- 量子计算所 (IQC)
- 滑铁卢人工智能研究所 (Waterloo.ai)
- 滑铁卢网络安全与隐私研究所
- 计算数学中心

# **Research at Faculty of Mathematics**

The Faculty of Mathematics at the University of Waterloo is one of the largest and most prestigious mathematics faculties in the world. We are renowned for our extensive research programs across diverse fields, including mathematics, statistics, computer science, and actuarial science. Our research encompasses both pure and applied mathematics, with expertise in areas such as algebra, number theory, combinatorics, optimization, and mathematical physics.

Researchers at Waterloo are deeply involved in interdisciplinary studies, integrating mathematics with fields like cryptography, artificial intelligence, quantum computing, and finance. Our faculty is home to several research institutes and centres, such as the Institute for Quantum Computing (IQC), Waterloo Artificial Intelligence Institute (Waterloo.ai), Waterloo Cybersecurity and Privacy Institute, and Centre for Computational Mathematics.

### uwaterloo.ca/math/research

Undergraduate Research Assistantships in the Faculty of Mathematics 数学院本科生研究助理

- Applied Mathematics 应用数学
- Combinatorics and Optimization 组合优化
- Computer Science 计算机科学
- Pure Mathematics 纯数学
- Statistics and Actuarial Science 统计精算



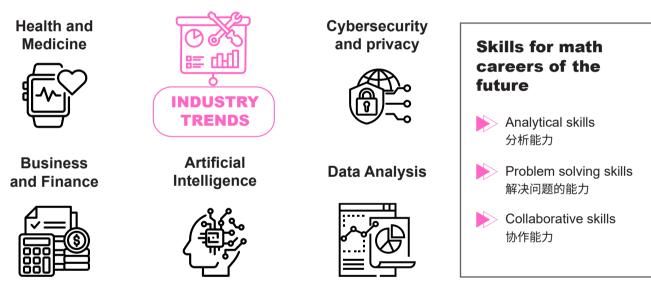
# **CAREERS IN MATHEMATICS**

Mathematics and computer science are at the heart of so many things we use on a day-to-day basis. Math works behind the scenes. It makes mobile networks function, secures financial systems and transactions, provides the basis for software languages, and much, much more.

Over the next 30 years, things are going to change more rapidly than ever before — and math grads will be a big part of that change. High-paying jobs that involve math are projected to grow at a rate of 30 per cent over the next decade alone. Having a degree in math, computer science, or statistics can help you make an impact in evolving industries, technologies, and society.

数学和计算机科学在我们日常接触的很多事情中都起着核心作用。数学的幕后工作 使得移动网络得以运作、保障金融系统交易、为软件语言提供基础理论支持等等。 在未来 30 年,社会变化将比以往任何时候都要更快,而数学专业的毕业生将在这 样变化中发挥重要作用。预计在 10 年内,涉及数学领域的高薪工作将以 30% 的速 度增长。拥有数学、计算机科学的学位可以帮助你在诸多持续发展的行业、技术和 社会中产生重要影响。





# Where do our students/graduates work?

- Treasury analyst, Research in Motion Ltd., Waterloo, Canada
- Software development engineer, Amazon Web Services, Vancouver, Canada
- Software engineer, JP Morgan Chase and Co., Hong Kong, China
- Senior financial analyst, Citigroup Inc., New York, US
- Quality assurance analyst, Numetrix Ltd.
- Information systems specialist, Dow Chemical Canada Inc.
- Software engineer, Uber, San Francisco, US
- Software engineer, Google, San Francisco, US
- Treasury investment, Commerzbank, London, UK
- Data scientist, Rakuten, Tokyo, Japan
- Investment analyst, Anson Fund, Toronto, Canada

# 16 OUT OF 20

jobs with the highest expected growth are math or computer science related (World Economic Forum, Future of Jobs Report 2023)

uwaterloo.ca/future/career-success

# PROGRAMS 数学院本科专业

Apply to one or more of the following entry programs in the Faculty of Mathematics.

All of the programs listed below are available through both the co-op and the regular systems of study, with a few co-op only exceptions.

你可以申请一个或多个数学院的入学专业。所有的专业都提供 co-op 带薪实习, 部分专业不提供 regular 的选择。

### MATHEMATICS 数学专业

You will apply to Honours Mathematics as your entry program, then have the opportunity to choose your major as early as the end of your first year.

你需要申请数学 Mathematics 做为入学专业,学习一年级数学专业课程。大学一年级结束之后可以选择一下专业方向 (Major):

- Actuarial Science 精算
- Applied Mathematics 应用数学
- Biostatistics 生物统计
- Combinatorics and Optimization 组合优化
- Computational Mathematics 计算数学
- Date Science 数据科学
- Mathematical Economics 数理经济

- Mathematical Finance 数学金融
- Math/Teaching (Co-op only) 数学教学(仅提供带薪实习)
- Mathematical Optimization 数学优化
- Mathematical Physics 数学物理
- Pure Mathematics 纯数学
- Mathematical Studies 数学学习
- Statistics 统计学

### COMPUTER SCIENCE PROGRAMS 计算机科学专业

Apply directly to these computer science programs: 请直接申请以下计算机科学专业:

- Business Administration and Computer Science Double Degree (Co-op only)
  工商管理与计算机科学双学位 (仅提供带薪实习 Co-op)
- Computer Science 计算机科学
  - ♦ Data Science 数据科学
- Computing and Financial Management 计算与金融管理 (Co-op only)
- Software Engineering 软件工程 (Co-op only)

### MATHEMATICS, BUSINESS, AND ACCOUNTING 数学与商科、会计类专业

Apply directly to these business and accounting programs: 请直接申请以下商科和会计专业:

- Business Administration and Mathematics Double Degree (Co-op only) 工商管理与数学双学位(仅提供带薪实习 co-op)
- Mathematics/Business Administration 数学与商科
  - ◆ Information Technology Management (ITM) 信息技术管理 (Math/BA 专业一年级之后可选择专业方向)
- Mathematics/Chartered Professional Accountancy (Math/CPA, Co-op only) 数学 / 特许会计师 (仅提供带薪实习)
- Mathematics/Financial Analysis and Risk Management (Math/FARM) 数学 / 金融分析与风险管理

# ADMISSIONS 录取要求

### ADMISSIONS 录取要求

- High school grades 高中成绩单
- English Language test results 托福、雅思等语言测试成绩
- Admission Information Form 在线完成申请信息表 AIF
- Math and CS contests 鼓励申请数学院专业的学生参加加拿大高级数学竞赛 CSMC 以及欧 几里德 Euclid 数学竞赛;
- 鼓励申请计算机科学类专业的学生参加加拿大计算机竞赛 Canadian Computing Contest.
- \*Find out what specific requirements you need for your curriculum 具体录取要求请查询官网:

### uwaterloo.ca/future/admissions

### ENGLISH LANGUAGE REQUIREMENT 英语测试成绩要求

If English is not your first language and your four most recent years of full-time education have not been taught in English, you'll be required to submit one of these English language test scores.

如果英语不是你的第一语言并且你最近四年的全日制课程非全英文教育,我们要求你提交 以下任一项英语语言测试成绩:

INTERNET- BASED TOEFL	IELTS	CAEL	PTE (ACADENIC)	CAMBRIDGE ASSESSMENT (C1 OR C2)	Duolingo**
90 overall, 25 writing, 25 speaking	6.5 overall, 6.5 writing, 6.5 speaking, 6.0 reading, 6.0 listening	70 overall, 60 per band, 70 writing, 70 speaking	63 overall, 65 writing, 65 speaking	180 overall, 176 writing, 176 speaking, 176 reading, 176 listening	120 overall, 125 literacy, 125 production

A minimum overall IELTS score of 7.0 with a minimum band score of 6.0 or better in all components, is also acceptable for admission.

雅思总分不低于7分、且每个单项均不低于6分,满足滑铁卢大学的语言成绩要求。

\*If you completed a Duolingo test before July 1, 2024, pleaes visit our website for more information: 如果你在 2024 年 7 月 1 日之前参加多邻国测试,请访问我们的官网获得更多信息:

### uwaterloo.ca/future/elr

### MATHEMATICS AND COMPUTING CONTESTS 数学和计算机竞赛

Math and computing contests challenge students from around the world with a range of abilities to grow valuable problem-solving skills. Contest participation is not a requirement for admission, but we strongly encourage you to participate, as it is an asset to your application and can help in making Faculty scholarship decisions. We encourage you to check out the Euclid Mathematics Contest and/or Canadian Senior Mathematics Contest (CSMC).

It is recommended that applicants to Computer Science write the Canadian Computing Competition (CCC), though it is not a requirement for admission. The aim of the competition is to provide students with an opportunity to test their ability in designing and understanding algorithms, as well as in programming. You can include your participation in the contest on your Admission Information Form.

我们鼓励申请数学院专业的学生参加加拿大高级数学竞赛 CSMC 或者欧几里德 Euclid 数 学竞赛。有优异的竞赛成绩对学生的申请有帮助,并有机会获得数学院入学奖学金。

加拿大计算机竞赛 CCC 对申请不是必须的,但是优异的竞赛成绩会有助于学生申请 David R. Cheriton 计算机科学系的专业。

- Canadian Senior Mathematics Contest (CSMC): November 14, 2024 加拿大高级数学竞赛(CSMC): 2024年11月14日
- Canadian Computing Contest (CCC): February 20, 2025 加拿大计算机竞赛 (CCC): 2025 年 2 月 20 日
- Euclid Contest: April 3, 2025
  欧几里德数学竞赛: 2025 年 4 月 3 日

### ADMISSION INFORMATION FORM 申请信息表 AIF

It's an online form that consists of short questions and helps our admissions committees learn more about you. We use the AIF in place of personal statements or essays that other universities may require. The AIF is submitted through Quest after you've completed your OUAC application. It includes questions about your extracurriculars and work experience. It's your opportunity to tell us what makes you a unique and well-rounded student and helps us make admissions decisions.

Admission Information Form 申请信息表 AIF 是 一个线上的表格,要求你回答一些简短的问题, 以帮助我们的招生委员会更好的了解你。我们 使用 AIF 替代其它大学可能要求的个人陈述或 者论文。AIF 的内容包括你的课程信息、课外活 动、工作经历、志愿者活动以及参加滑铁卢大 学数学和计算机竞赛的情况。滑铁卢大学数学 院的专业要求申请学生必须完成并提交 AIF。

uwaterloo.ca/future/aif

### Math/BASE 数学院英语桥梁课程

If you meet Waterloo's academic admission requirements but your English language scores are just below our minimum admission requirements, you may be offered a place in our language program Base/iBase. The language program ranges from seven weeks to eight months depending on your English Language Score and the programs you applied to.

Once you successfully complete this program, you begin studies in the program listed on your offer of admission.

如果学生的学业成绩优异但是英语测试成绩略 低于我们直接录取的要求,大部分专业我们会 自动考虑录取学生到英语桥梁课程 BASE或 iBASE。此课程不需要单独申请。根据学生申 请的专业以及英语语言测试成绩,课程时间为 7 周到 4 个月。

学生在结束课程学习且成绩合格之后,可以开 始在录取本科专业的全日制课程。

#### uwaterloo.ca/base/math



Get contest preparation resources, registration details, and deadlines:

请访问 CEMC 官网查询历年试题、注册报名以 及截止日期:

cemc.uwaterloo.ca

# **TUITION AND SCHOLARSHIPS**

# 学费及奖学金

Tuition for international students (2 academic terms) 国际学生两个学期的学费

Faculty of Mathematics 数学院	\$60,000
Business Administration and Mathematics Double Degree 工商管理与数学双学位	\$62,000
 Computer Science 计算机科学	\$73,000
Business Administration and Computer Science Double Degree 工商管理与计算机科学双学	\$73,000
Computing and Financial Management 计算与金融管理	\$62,000
Mathematics/Chartered Professional Accountancy 数学 / 特许会计师	\$60,000
Mathematics/Financial Analysis and Risk Management 数学 / 金融分析与风险管理	\$62,000

Notes 注:

1. Estimated amounts listed include incidental fees. See the website for fee details. Fees based on 2024-25 tuition rates.

以上预估学费含杂费,基于 2024-25 年度学费费率,请查询学校官网获取详细信息。

- 2. For accounting and finance programs, tuition is significantly higher in your upper years. 会计金融类的专业,高年级学费会有较大的增加。
- 3. Co-op students pay a fee of \$787 per term to cover some costs of the co-op program. If you're in a co-op program, you do not pay tuition during your co-op work terms. 带薪实习专业的学生每学期需要缴纳 \$786 的 co-op 费用。如果你在 co-op 带薪实习的 专业,那么在 co-op 的工作期,你不需要缴纳学费。
- 4. All figures are in Canadian dollars. 上述所有的费率都以加币计算。

# LIVING EXPENSES 生活费用(两个学期)



# 平均约 \$4,320 (\$540/月)

包括电话费、洗衣、娱乐等; 具体根据个人消费情况。



# 教材以及文具

**Books and Supplies** \$2,500 (大部分专业)

# MATHEMATICS ENTRANCE SCHOLARSHIPS 数学院入学奖学金

SCHOLARSHIPS 奖学金	VALUE 金额	REQUIREMENTS 要求	
Faculty of Math Entrance Scholarships 数学院入学奖学金	From \$1,000 to \$40,000	Based on marks, AIF, and we strongly recommend participating in Euclid/CSMC 根据成绩、AIF,强烈建议参加欧几里德和 CSMC 数学竞赛	
Faculty of Math Scholarships 数学院奖学金	From \$10,000 to \$50,000	Based on application, high academic performance, and outstanding extracurricular achievements 根据学生的申请情况、学业成绩以及杰出的课外活动	
Global Scholarships 全球奖学金	From \$12,000 to \$40,000	Open to international students on study permits. Application required. Recommended to participate in CSMC 持学习签证的国际学生,需要单独申请,适用于除软件工利 和计算与金融管理之外的数学院所有专业。建议参加 CSM 数学竞赛	

#### uwaterloo.ca/future/scholarships

# STUDENT LIFE AND SUPPORT 校园生活和服务

Success is more achievable when you're surrounded by a supportive community. At Waterloo, through clubs, teams, events, and even in your classes, you'll build a social network that opens doors to exciting new experiences and ongoing support. Your student journey extends far beyond the classroom, offering a wealth of opportunities just waiting to be explored.

大学生活不仅仅在课堂,希望我们的学生去发现并体验更丰富精彩的经历。滑铁卢大学是一个互助型的社区,学校的学生社团、俱乐部、各类活动甚至是课堂的学习,都在帮助我们的学生创建一个社交网络,这不仅给你带来全新的体验,并在整个大学生活中获得持续的支持。

#### THE MATHEMATICS SOCIETY (MATHSOC) 数学学生会

MathSoc hosts various community events, themed nights, and student services, all run by students for students. From game and calculator rentals to printing and pie distributions, MathSoc offers plenty of ways to get involved. It also supports many clubs specifically for Faculty of Mathematics students.

数学学生会举办各类的社区活动、主题之夜以及各种学生服务,从桌游到计算 器租用到打印服务到发放甜品派,数学学生会 MATHSOC 由学生组织,服务 于学生,并拥有多个专为数学院学生设立的社团。

#### MATHEMATICS TUTORING CENTRE 数学课程辅导中心

The Mathematics Tutoring Centre provides support for students needing help with math courses. It offers individual and group tutoring sessions to enhance understanding and performance in various math subjects. Services are available both in person and online, ensuring flexible access to academic support.

数学辅导中心为需要帮助的学生提供相关数学课程的辅导,帮助学生提高对各 种数学课程的理解并有更好的表现。辅导中心根据情况可以提供线上和线下的 课程支持。

#### MATH AND COMPUTING COMPETITIONS 数学和计算竞赛

- Hackathons 黑客马拉松
- Putnam Contest 普特南大学生数学竞赛
- ACM-International Collegiate Programming Competition ACM 国际大学生程序设计竞赛

#### STUDENT SUCCESS OFFICE (SSO) 学生成功办公室

The Student Success Office (SSO) supports students in their academic and personal development. It offers services such as academic advising, study skills workshops, career planning, and specialized support for international students, including orientation programs and cultural transition resources, to help them thrive and achieve their goals.

学生成功办公室 SSO 支持学生的学业和个人发展,通过提供学术辅导、学习技能 培训、职业规划服务以及针对国际学生的特别支持,包括迎新活动和移民服务资源 等等,帮助学生顺利应对挑战、实现个人目标。

### THE CENTRE FOR CAREER DEVELOPMENT 就业发展中心

The Centre for Career Development at the University of Waterloo offers resources and services to help students with career planning and job search. It provides guidance on resume writing, interview preparation, and job searching, as well as career counseling and networking opportunities. The centre supports students in exploring career paths and achieving their professional goals.

滑铁卢大学的就业发展中心提供各种资源和服务,帮助我们的学生进行职业规划以 及求职,通过指导学生简历写作、面试准备以及职业咨询、拓展社交网络等,支持 学生探索职业路径、实现个人事业目标。

#### uwaterloo.ca/future/support

#### STUDENT CLUBS 学生社团

The University of Waterloo features a diverse selection of student clubs through the Waterloo Undergraduate Student Association (WUSA). With over 200 clubs covering interests from food and politics to dance, business, gaming, and the environment, you'll find plenty of opportunities to connect with like-minded peers and explore your passions.

滑铁卢大学本科学生会 WUSA 有超过 200 个学生社团, 涵盖各种兴趣爱好,从学术职业类到娱乐和文化社团,鼓 励学生充分参与,与其他学生互动交流、发展新技能、探 索个人兴趣、丰富校园生活。

### STAYING ACTIVE 体育运动

Being active is a great way to make new friends, get involved, and enjoy yourself. You'll have free access to our two main athletic facilities as well as gyms and recreational spaces in some residences. Between intramurals, fitness classes, varsity athletics, and more, you're bound to find something you'll enjoy.

积极进行体育运动是结交新朋友、融入校园生活的很好的 方式。学生可以免费使用学校的两个主要体育场馆,以及 部分宿舍的健身房以及休闲娱乐空间。不管是运动健身课 程、专业校队还是其它活动,学生都可以找到适合自己的 项目。

### uwaterloo.ca/future/life

#### WELLNESS ON CAMPUS

Health Services 医疗服务 Counselling Services 心理咨询服务 Mates - 一对一同学互助 Empower - 7 天 24 小时心理咨询服务 Special Constable Services -- 校园特别巡警

#### **MORE STUDENT SUPPORT**

Accessibility Services - 特殊无障碍服务 Sustainability Office - 可持续发展办公室 International Experience Centre - 国际学习体验中心 IEC



# YOU+WATERLOO

Our greatest impact happens together

# Contact



china.recruiter@uwaterloo.ca



uwaterloo.ca/math



欢迎关注我们的微信公众号: 滑铁卢 Vicky



JOIN OUR MAILING LIST 欢迎扫码订阅 滑铁卢大学最新资讯



数学院 网页链接合集

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