Math Faculty Admissions Update

March Break Open House
March 18, 2017

Presented by: Professor Serge D’Alessio
Associate Dean – Admissions
Faculty of Mathematics
About the Faculty of Mathematics

- We are the world’s largest centre for education in the mathematical and computer sciences
- The only Faculty of Mathematics in North America
- About 240 full-time professors
- The Faculty has more than 7,000 undergraduate students, including more than 1,500 first-year students
- We offer both the BMath and BCS degrees – there are also joint degree options
- There are more than 31,000 Faculty of Mathematics alumni worldwide
- The Faculty has a large international student population, making us one of the most international Faculties in Canada
We are proud of...

Our courses → we have hundreds of courses in math and computer science to choose from.

The supportive environment for students including: excellent computing facilities which are open 24/7; Tutorial Centres for help in MC and in residence.

Our reputation → Mathematics and Computer Science are ranked in the Top 50 of the 2017 QS World University Rankings by Subject.

Co-op, and the fact that many of our students graduate with up to 2 years of job experience.
Most importantly, we are proud of our students

Waterloo Math Faculty students are bright and dedicated individuals. They are eager to learn and to grow – in their chosen field, in other fields, through their extracurricular activities, and as part of society.

Above: Students celebrate Pi Day with the Dean of Mathematics’ Office

Left: Financial Analysis & Risk Management Student Association Co-President teaches new students to use Bloomberg terminals
Programs in the David R. Cheriton School of Computer Science

- Computer Science
- Data Science
- Computing and Financial Management (joint with the School of Accounting and Finance)
- Software Engineering (joint with the Faculty of Engineering)
- Business Administration and Computer Science Double Degree (joint with the Lazaridis School of Business and Economics at Wilfrid Laurier University)
Business and Accounting Related Programs

- Mathematics/Chartered Professional Accountancy (Math/CPA)
- Financial Analysis and Risk Management (FARM)
- Mathematics/Business Administration Single Degree
- Information Technology Management
- Business Administration and Mathematics Double Degree (joint with the Lazaridis School of Business and Economics at Wilfrid Laurier University)
Programs choices in Honours Mathematics

- Actuarial Science
- Applied Mathematics
- Combinatorics and Optimization
- Computational Mathematics
- Mathematical Economics
- Mathematical Physics
- Mathematical Finance
- Mathematical Optimization
- Mathematical Studies
- Mathematics/Teaching
- Pure Mathematics
- Statistics
- Statistics for Health
- Data Science

Students can also combine these majors to tailor the program to their interests
You need ≥ 6 Grade 12 courses:

- 4 U-level courses that must include a 4U English, Advanced Functions, and Calculus and Vectors

- 2 other courses (U or M level) → Specific courses may be specified or recommended for some programs (e.g. Software Engineering also requires Chemistry and Physics)

- Grade 12 Computer Science is encouraged for students interested in Computer Science programs

- Writing the Euclid Contest is highly recommended
Math Faculty Program Targets

Computer Science – 300
Computer Science/Business (Double Degree) – 50
Computing and Financial Management – 40
Software Engineering – 125
Math/Business (Single Degree) – 60
Math/Business (Double Degree) – 70
Math/CPA – 65
FARM – 125
Honours Mathematics – 510
Math ELAS - 220

In total, we look to admit approximately 1,565 students.

For these spots we receive approximately 15,000 applications.
Grade Requirements for Admission

- The competitive average depends on the program and number of applicants
- Based on 2016:
  - Double Degree programs and Computer Science – low 90s
  - Other programs – high 80s
- Co-op generally requires higher marks than Regular
- Grades are not the only thing that impacts our decision
Admission Information Form (AIF)

- The AIF gives us additional information about you including:
  - Academic history
  - Extra-curricular activities (school and community activities – for example: athletics, drama, music, math and computer science activities and contests)
  - Past jobs (part-time and summer)
  - Teacher Reference
- The AIF is filled out online through Quest
- The AIF is required for all Faculty of Mathematics programs
- More information is online: uwaterloo.ca/find-out-more/admissions/admission-information-form
How we make admission decisions

- Our decision is based on your admission average and the AIF score
- The admission average is computed from the:
  - Grades in the required Math and English courses
  - Highest 4U course grade (other than the required courses)
  - Two highest other 4U/M course grades
- The AIF is very important, but grades are the most important factor
- Euclid contest scores may make a difference for certain high demand programs
- Additional information is available online: uwaterloo.ca/math/future-undergraduates/admissions
What happens if I don’t get into my first choice program?

In the past we have made the alternate offers. For example:

- CS/Business Double Degree → Computer Science
- FARM → Math/Business (Single)
- Math/Business Double Degree → Honours Math
- Co-op → Regular
When will I find out?

- Some offers have already gone out (<20%)
- The majority of our offers will go out in mid-May
  - This lets us consider your second semester mid-term grades and the Euclid contest
- If you haven’t heard from us, it doesn’t mean we aren’t interested
- We wait so that we have the most information possible to make the best decisions
- Remember, you do not need to commit to an offer until June 1st
What will my first term look like?

All students take the following in their first term (1A):

- Calculus
- Algebra
- Computer Science
- 2 non-Math courses
  - Free choice for many students; prescribed courses for some programs such as Math/CPA, Computing and Financial Management, and Software Engineering
  - Students must satisfy a communications requirement by completing 2 communications courses (writing, speaking, and/or professional skills)
    - Students often take one of these courses in their 1A term as a non-Math elective
Math in Europe – A unique opportunity for 2nd year students

Program Structure
- The program takes place in the Spring immediately following first year
- Students spend 1 month in Rome, Italy and 2 months in Montpellier, France
- Experiencing the local culture is encouraged and local travel within Europe is available

Courses
- Students take 3 Mathematics courses, taught by Waterloo professors
- 1 French course is taken while in Montpellier
- Courses are the same as their on-campus equivalents with the same grading expectations

Costs
- Students pay the same tuition (for 3 courses) as their on-campus counterparts including incidental fees
- $6,000 program fee covers: accommodations, French course tuition, half of the meal in Montpellier, and some excursions (Venice, Florence, Barcelona, Paris, ...)
- Airfare of at most $1,500
## Two systems of study – will it be Co-op or Regular?

<table>
<thead>
<tr>
<th>Co-op</th>
<th>Regular</th>
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<tbody>
<tr>
<td>~75% of Math students</td>
<td>~25% of Math students</td>
</tr>
<tr>
<td>Alternate school &amp; work terms</td>
<td>Study from September to April</td>
</tr>
<tr>
<td>4 and 2/3 years to complete</td>
<td>3 and 2/3 years to complete</td>
</tr>
<tr>
<td>Gain up to 2 years of work experience during various terms</td>
<td>Gain up to 1 year of work experience during summers</td>
</tr>
<tr>
<td>Sample different careers throughout your undergrad</td>
<td>Focus on school and other activities</td>
</tr>
<tr>
<td>Help finance your education</td>
<td>Enter work force sooner</td>
</tr>
<tr>
<td>Make valuable connections early in your career</td>
<td>Move quickly into further education</td>
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</tbody>
</table>
What will it cost to attend? - Tuition

Domestic Tuition Fees* – 2 terms (8 months)

- Mathematics & Math/Bus (Single Degree)
  - $7,355.68 (Regular) $8,909.20 (Co-op)
- Math/Business Double Degree
  - Co-op only $11,101.20
- Math/CPA
  - $7,629.10 (significant increase after 1st year)
- FARM
  - $10,577.68 (Regular) $12,131.20 (Co-op)
- Math ELAS
  - Regular only $22,468.13
- Computing and Financial Management
  - Co-op only $9,023.20 (significant increase after 1st year)
- Computer Science
  - $13,907.68 (Regular) $15,461.20 (Co-op)
- CS/Business Double Degree
  - Co-op only $15,461.20
- Software Engineering
  - Co-op only $16,656.56

*Based on Fall 2016 costs with a full course load. 2017 fees are not finalized.
What will it cost to attend? - Tuition

International Tuition Fees* – 2 terms (8 months)

- All programs except CFM, SE, and Math/ELAS
  - $28,255.68 (Regular)  $30,187.20 (Co-op)

- Computing and Financial Management
  - Co-op only $30,311.20

- Software Engineering
  - Co-op only $39,146.56

- Math/ELAS
  - Regular only $22,781.53

*Based on Fall 2016 costs with a full course load. 2017 fees are not finalized.
What will it cost to attend? – Residence & Books

Residence Fees* – 2 terms (8 months)
- Fees depend on the type of residence and meal plan
- Costs range from $5,534 - $7,364
- Some residences have a required meal plan
- Meal plan costs for 8 months range from $4,400 – $5,200
- Other residences have cooking facilities and so a meal plan is optional

Students should also budget about $2,000 for 2 terms for books

*Based on Fall 2016 costs with a full course load. 2017 fees will vary
University-wide Entrance Scholarships

- Value of scholarship is dependent on your grades alone, no application is required

<table>
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<tr>
<th>Admission Average</th>
<th>Scholarship Name</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>95+</td>
<td>President’s Scholarship of Distinction</td>
<td>$2,000 Entrance Scholarship + $1,500 International Award and/or $1,500 Research Award</td>
</tr>
<tr>
<td>90 – 95</td>
<td>President’s Scholarship</td>
<td>$2,000 Entrance Scholarship</td>
</tr>
<tr>
<td>85 - 90</td>
<td>Merit Scholarship</td>
<td>$1,000 Entrance Scholarship</td>
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University Bursaries and Loans

University Bursaries

- Provided for students who demonstrate financial need
- Approximately 1,000 are available for Ontario residents who are attending university for the first time
- Values range from $500 to $4,000
- Applications are due in mid-April and applicants must also apply to OSAP

Ontario Student Assistance Program (OSAP)

- OSAP provides various types of assistance to eligible students based on need
  - Additional information: www.osap.gov.on.ca
- For more information about Waterloo’s bursaries, please visit findoutmore.uwaterloo.ca/financing/
Faculty of Mathematics – Entrance Scholarships

- Olympiad, National, and Global scholarship applications were due February 6th, 2017 and recipients will be notified by mid April

- Many scholarships require no application:
  - Based on grades, AIF and Euclid score
  - Approximately 200 are available:
    - Values from $5,000 to $10,000 over 4 years
    - Values from $1,000 to $3,000 in first year

- For more information, visit uwaterloo.ca/math/future-undergraduates/funding-and-awards/faculty-mathematics-entrance-scholarships
Euclid Contest

- The Euclid Contest is administered by the Centre for Education in Math and Computing (CEMC)
- It is written on Thursday, April 6, 2017
- The Euclid is not required for admission, BUT a strong performance could help earn you a place in the Faculty
- Euclid Contest results are required for Math Faculty scholarships
- Preparation is needed to earn a top score
  - Visit cemc.uwaterloo.ca/contests/preparation for past contests and solutions, and additional online problems
  - Attend the Euclid problem-solving workshop in M3 1006 at 3:30pm
Next Steps

- Complete your AIF on Quest
- Prepare for the Euclid Contest
- Write the Euclid Contest (April 6th)
- Continue to work hard in your last months of high school
- For admitted students visit You@Waterloo Day on May 27th
  - uwaterloo.ca/find-out-more/you-waterloo-day
- Join the Faculty of Mathematics in September!