MASTER OF SCIENCE
IN APPLIED COMPUTING

**Computer Science
UNIVERSITY OF TORONTO**

2017-2018 STUDENT HANDBOOK

MScAC – STUDENT HANDBOOK 2017/18

Congratulations on your acceptance to the Master of Science in Applied Computing (MScAC) program.

The MScAC Student Handbook describes degree requirements, financial support and other matters of interest to MScAC students. The handbook is revised annually. Students will be notified by email of significant changes and upcoming deadlines. Please visit the website regularly at www.cs.toronto.edu.

DEPARTMENT BUILDINGS

The department of Computer Science is located in three buildings on the main (downtown) University of Toronto campus:

Bahen Centre for Information Technology (40 St. George Street)
Sandford Fleming Building (10 King's College Road)
D.L. Pratt Building (6 King's College Road)

Map: uoft.me/UofTCompSci-map

IMPORTANT CONTACTS

ROLE	NAME	LOCATION	E-MAIL
Program Director	Matt Medland	BA7264	matt@cs.toronto.edu mscac@cs.toronto.edu
Graduate Office		BA4242	gradapplications@cs.toronto.edu
Technical Support	Alan Rosenthal	BA 3218	pocpm@cs.toronto.edu

IMPORTANT DATES 2017/18

Fall 2017	
Registration begins	July 17, 2017
Enrolment begins	August 14, 2017
Payment of tuition fees deadline	August 31, 2017
Clearing Admission Conditions	August 31, 2017
Orientation 2017	Week beginning September 4, 2017
Fall term begins	September 11, 2017
Registration ends	September 15, 2017
Final date to *add* Fall courses	September 25, 2017
Final date to *drop* Fall courses without academic penalty	October 30, 2017
Fall term ends	December 21, 2017
University closed for winter break	December 22, 2017 – January 3, 2017
Winter 2018	
Winter term begins	January 8, 2018
Final date to *add* Winter courses	January 22, 2018
Final date to *drop* Winter courses	February 26, 2018
Winter term classes end	April 13, 2018

Full details of sessional dates throughout the academic year can be found on the SGS website: uoft.me/SGS-calendar

FEES AND FINANCES

The MScAC is not funded through the Department of Computer Science and students in this program do not generally have an option to defer their fees. You will be expected to pay the minimum amount to register by August 31 in order to avoid cancellation of your "invited" registration status.

You are eligible to apply for Teaching Assistantship positions. These will be posted by the first week of July, at which point all students in the graduate programs are invited to apply to these positions. Please note you will need to submit an application to TA in order to be made an offer. Without an application, positions will not be offered. You will be notified about the course(s) that you were selected as a Teaching Assistant for before or during the first full week of September. Additionally, domestic students may also be eligible for OSAP.

Students in financial difficulty may wish to visit a Financial Counselor at the School of Graduate Studies, 63 St. George Street. A counselor can help with budgeting and may have knowledge of various bursaries, grants, loans or other financial aid to help a student experiencing financial hardship.

uoft.me/SGS-financial-aid

COURSE INFORMATION

Course overview

The MScAC program is a 16-month Applied Research program designed to prepare you for life-long success as a technical leader in information technology. It combines eight months of advanced courses in computer science with an eight-month paid internship working at an information technology company.

Students in receipt of OSAP, CSL or US student loans may be able to defer their fees via ACORN.

Typical program schedule for MScAC students

Year 1 (Semester 1: Sept – Dec)	Year 1 (Semester 2: Jan – April)	Year 1 (Semester 3: May – Aug)	Year 2 (Semester 4: Sept – Dec)
CSC2701H	CSC2701H	CSC2702H	CSC2702H
2 elective graduate courses.	2 elective graduate courses.	Internship	Internship
Resume preparation begins.	Start of the internship process: Applied Research Internship Expo & Interviews		Applied Research in Action (ARIA) showcase

COURSE REQUIREMENTS

The first eight months of the MScAC program will be spent studying in the Department of Computer Science. As a MScAC student, you have two mandatory courses that you must complete:

CSC2701H – Communication for Computer Scientists
CSC2702H – Technical Entrepreneurship

Plus, you are required to complete four technical graduate courses – two of which must be from the Department of Computer Science's broad selection. In total, the courses you take should total 2.0 Full Course Equivalents (FCE) and a minimum passing grade a B- must be achieved in each course. Only then will you be considered as having made satisfactory academic progress on the program.

Along with the computer science selection, you can also take graduate courses from another department (such as ECE, Math and Statistics); however, you will need to obtain permission from the Program Director. Depending on the course you pick, you may also have to obtain permission from the respective department and their Graduate Administrator. This can be

done by using the Add/Drop course form from the SGS website, and submitting it to the Graduate Office.

To progress on to the internship component of the program in semesters 3 & 4, you must have made satisfactory academic progress by the end of the second semester. In the event that you have not made satisfactory academic progress by the end of the second semester, you may not be permitted to accept an internship position. In cases such as this, it is advisable that you consult the Program Director at you earliest convenience for further advice, as this may affect your achievement of the MScAC qualification.

Choosing your courses – things to consider:

Deciding on which courses to take is not easy. There are many amazing courses from which to choose. You should aim for a a "T" shaped set of courses in which you strive for some breadth across computer science and some depth in one sub-area that is of particular interest to you, or of likely relevance to your internship and future career. In order to ensure a "T" shaped model, please refer to course descriptions by research area to assist you. Three courses from three different areas would achieve breadth, while two in the same research area would achieve depth. If you are in the Data Science concentration, you should choose two computer science courses from two different research areas, the other who should be from Statistics.

Breadth is important because you may find that your particular interests coming into the program may be over-ruled by new topics that inspire you, or emerging areas of computer science as applied to industry. The balance of courses is certainly up to you. We suggest that you take two regular graduate courses for credit in each of your two academic terms, but if you can, sit in on more courses to gain a deeper appreciation of computer science. The workload in the Winter is higher, so there is a good argument to try to take three courses in the Fall.

Suggestion: enrol in several courses in the Fall and see what you can manage; remember that the highest workload is almost always that the end of the term, so be careful about judging just from the first couple of weeks of classes. You may also wish to consider attending additional events such as the Department's invited talks, and the guest lecture series that occur throughout both semesters.

COURSE SCHEDULE

See the complete selection of computer science courses at: uoft.me/cstimetable

THE INTERNSHIP PROCESS

The second eight months of the MScAC program are spent on your internship. This is a formal requirement of the program: if you are an international student, note that you should ensure that you get a work permit allowing you to work in a company during this time. Details on how to apply for work permits are available from the Citizenship and Immigration Canada website: www.cic.gc.ca/english/study/work-coop.asp.

You will begin by preparing a fairly standard CV in early October. In the meantime, we start building a list of companies that are interested in taking on students for applied-research internships. You are made aware of these opportunities, and likewise, the companies are made aware of you. In February, we bring companies on campus to engage with you through our Applied Research Internship Expo (ARIE). It is very rewarding to attend this event, even if you are not interested in the area of industry where a company focuses. Companies may contact you, or you may contact companies for further information and interviews. This process may go on for a couple of months, as you become aware of the diversity of opportunities. Sometime between February and April you will hopefully receive internship offers with an effective start date of early May. Further details of the internship process and dealing with multiple offers will be given over the course of the program.

Finding an internship

Most students find internships through the companies that the program has already recruited. However, you are welcome to do your own search for companies that may be interested in employing you. You must make the Program Director of the program aware of your intended search, so that companies you find can be informed of how the MScAC program works. This is very important, since some companies may not fully appreciate the difference between an applied-research internship and a co-op programming job. All internships must be approved by the Program Director, and completion of the Internship Approval form, detailing the project title and proposal, is required to ensure this approval.

Internship supervision

Upon securing an internship offer from a company, you are expected to find two supervisors: an industry supervisor appointed by the company, to whom you will report routinely, and an academic supervisor with whom you will collaborate to address the intellectual challenges of the research to be performed over the course of the internship. It is beneficial—but not required—for your academic and industry supervisors to meet, so they can establish an effective way to guide your work. This may also lead to other opportunities for collaboration.

Compensation for internships

When we recruit companies to our program, we tell them that the average funding level is $50K for the eight-month period and we inform them of various mechanisms they can take advantage of to help offset their costs. However, your compensation is decided between you and the company – we do not discuss this with the company on your behalf. It is important to look at criteria other than the level of compensation for your internship, which is intended to be a part of your education to help you in the long term. Some of the most rewarding internships are in non-profit companies or start-ups that may not have the ability to pay as high as the average salary.

Applied Research in Action (ARIA) showcase

During the internship section of your program, you will be invited to participate in the ARIA showcase. ARIA is an opportunity for you to present the project you have been working on as part of your internship and to highlight your accomplishments within the program so far. We would encourage you to make every effort to attend this event since academic and industry supervisors, prospective students and companies, department members, and MScAC alumni will all be in attendance.

Completing the internship

Towards mid-December, we will distribute some minimal formal paperwork that will require sign-off by your academic and industry supervisors. In preparation for this, we will require you to submit a short "Internship Report" that will be read by your academic and industry supervisors as well as by the Program Director. This report will form part of your student file,

and will not be distributed beyond the administrators of the program; however, you should be sensitive to keeping the report sufficiently general so as to avoid divulging confidential company information.

The report should indicate:

- The name of the company and a short description of the organization.
- Your faculty and industry supervisors with their contact information.
- Your original role and expected outcomes.
- How your role and expectations changed over time.
- The outcomes you were able to achieve.
- The research you either incorporated from other sources or performed yourself.
- The impact of your work on the company.
- Lessons learned from your internship experience and overall reflection on the value of the internship to your professional growth.
- Your next steps. What are you going to do next in your career?

You may also wish to include and discuss other issues as you see fit.
Document length: two pages is too short and more than ten pages is too long.

Report Submission Deadlines

Duration of internship	Report submission deadline
8 months	31st December

GRADUATING FROM THE MScAC PROGRAM

Upon successful completion of your coursework, internship and internship reports you will have fulfilled all the requirements of the MScAC program and be able to graduate with an MScAC degree. Towards the middle of December, you will be sent instructions on how to formally complete the degree. This will require you to submit a completed filled out "MScAC Completion" form and a "Convocation Completion" forms to the Graduate Administrator. Once these documents

are submitted, a "Recommendation for a Master's Degree" will be submitted to the School of Graduate Studies and your name will be added to the convocation register. A graduation package will be sent to you from the Convocation Office with information regarding convocation dates, tickets, etc. Please note that although your program will have finished by 31st December, your degree will not be confirmed until 31st January 2018 at the latest.

STUDENT POLICIES

University of Toronto Policies

The University of Toronto has various policies in place governing graduate activity. Particularly relevant to students studying in computer science are those policies relating to Academic Integrity, Ethics and Conduct. Full details of all the policies applicable to you during your time as a student with the Department of Computer Science: uoft.me/SGS-policies.

DEPARTMENT & UNIVERSITY RESOURCES

Department of Computer Science Communications & External Relations Office

This office works to ensure the Department's key audiences are aware of the strengths and achievements of our students, alumni, faculty and staff. We organize several events throughout the year, including the Applied Research in Action Showcase (ARIA) and networking activities involving alumni, like MScAC graduates.

Do you have an exciting story or achievement to share? Please reach out by contacting communications@cs.toronto.edu. We regularly seek to profile MScAC students as part of our graduate program and research activities. Your work could appear in a local news publication, appear on social media or be featured as part of U of T News!

As an MScAC student, you're also invited to join our exclusive network for alumni and students—CompSci Connect. Simply log-in with your current LinkedIn or Facebook credentials (or create a new user profile) and see computer science news, jobs, events, social media feeds and more all in one place. Our alumni network is also there to help support you through mentorship and our discussion forum.

www.compsciutorontoconnect.ca

For more information about our alumni programs, please contact alumni@cs.toronto.edu.

COMPUTER FACILITIES

As a graduate student in the Department of Computer Science you have access to a variety of computer resources. The "apps" servers are for e-mail and text editing (etc.), and the "comps" servers are for heavy computation. Read more at support.cs.toronto.edu.

We strongly recommend that you bring a laptop with you. An external monitor, keyboard and mouse will be provided at your desk.

Your "CSLab account" is the key to a number of departmental services. You will have received e-mail about activating this. Please activate as soon as possible. The account also gives you an e-mail address and once you have a CS e-mail address, people WILL start e-mailing you at it. Please either read your CS inbox directly or forward incoming mail to an account that you do read.

Your first point of contact for assistance with computing facilities is the MScAC "POC" (point of contact) at pocpm@cs.toronto.edu. The POC has written an introductory list of computing topics at www.cs.toronto.edu/~pocpm including one about reading your CS e-mail.

STUDENT FORMS AND LETTERS

During your time in the department, you may require student forms or letters for actions such as adding/dropping courses, taking leaves of absence, or for immigration purposes:

- uoft.me/csforms
- uoft.me/SGS-forms

Alternatively, you can visit the Graduate Office for further information on where to find these documents.

U OF T LIBRARY SERVICES

The University of Toronto Libraries system is the largest academic library in Canada and is ranked third among peer institutions in North America, including Harvard, Yale and Columbia.

uoft.me/uoftlibraries

ENGLISH LANGUAGE AND WRITING SUPPORT

The Office of English Language and Writing Support (ELWS) provides graduate students with advanced training in academic writing and speaking. All programs are free, and five types of support are provided, designed to target the needs of both native and non-native speakers.

uoft.me/SGS-writing

THE CENTRE FOR INTERNATIONAL EXPERIENCE

CIE & SGS offer the assistance of an international transition advisor who supports students adjusting to life in Canada. At CIE you can seek advice about CIC documentation and processes, including study and work permits. The CIE also administers the University Health Insurance Plan.

www.cie.utoronto.ca

SAFETY

It is the goal of the University of Toronto to do everything possible to create an environment where students and staff can feel safe to live, work and live.

www.discover.utoronto.ca/student-life/safety

HEALTH & WELLNESS

The University of Toronto offers a wide range of services to all its students to support them in achieving their personal and academic best.
www.healthandwellness.utoronto.ca

uoft.me/SGS-services

QUICK LINKS

Need more information? The following links may be of use.

Website	www.cs.toronto.edu
Graduate Course Schedule	uoft.me/cstimetable
SGS Calendar	uoft.me/SGS-calendar
Graduate Fees	http://uoft.me/SGS-fees
Student Accounts	www.fees.utoronto.ca
University of Toronto policies	uoft.me/SGS-policies
SGS & Departmental Forms	uoft.me/csforms uoft.me/SGS-forms
Centre for International Experience	www.cie.utoronto.ca
U of T Libraries system	uoft.me/uoftlibraries
Housing	housing.utoronto.ca
Services for students	uoft.me/SGS-services

Financial Aid	http://uoft.me/SGS-financial-aid
Career Centre (Career Learning Network)	cln.utoronto.ca
Registration & Enrolment	uoft.me/SGS-enrol