











### **PRESENTS**



# A GUIDE TO UTM'S COMPUTER SCIENCE POST

As a first year, you are a part of the "mathematics and computational sciences" general stream. In order to graduate, you must enroll in a Program of Study or POSt after completing a minimum of 4.0 credits.

You can choose to pursue a Computer Science specialist (or Information Security specialist), major, or

The Computer Science **specialists** and **major** are *limited* programs and have specific requirements including a minimum CGPA and minimum marks in MAT102 and CSC148. The Computer Science **minor** does *not* have these requirements.

For more POSt information, please visit the official academic calendar:

SYMBOL LEGEND

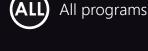


### Security











Specialist





A is required course for B \* indicates a recommended/popular option

**FIRST YEAR** 



Computer Programming



#### **MAT102** Introduction to Mathematical

Proofs

### Work hard, ask for help, and do your best to hit your minimum

YOU CAN DO IT!

requirements in courses and CGPA! Reach out to profs, TAs, or classmates so you

can succeed!

### • MAT137 - Calculus (with proofs!) • MAT157 - Analysis I (lots of theory!)

MAT(134) or (135/136) or (137) or (157)

• MAT134 - Calculus For Life Sciences

• MAT135/136 - Calculus\*

- Can't decide? You can add or change sections for a course up until September 22th, 2020!
  - \* Recommended/popular choice

### **SECOND YEAR**



# Systems Programming

**Software Tools** 

and

# • Algebra I

MAT223/240

• Linear Algebra I\*

### Introduction to Theory of Computation



Data Structures

**MAT224/240** • Linear Algebra II\* • Algebra II

### Computer Organization

Probability & Statistics I

### MAT232/257 • Calculus of Several

Variables

Analysis II

### Communication Skills for Computer Scientists This can be substituted with one of the following: CCT110 - Rhetoric and MediaENG100 - Effective Writing

• HSC300 - Written Communication for Health Care • LIN204 - English Grammar I • WRI203 - Expressive Writing

• ENG110 - Narrative

Note: Majors only need to choose 2 courses

from the second row

Minors only need to take **1 course** from

the second row!

#### Principles of Computer Networks Computer Networks

CSC358/CSC458

THIRD YEAR

### **CSC369** Operating

Introduction to

Databases

IS

**MAT301** 

Groups and

**Symmetries** 

Systems

### Algorithm Design and Analysis

IS

**MAT302** 

### Introduction to Algebraic Cryptography

### **CSC347** Introduction to Information Security

Computational

Complexity and

Computability

### Note: these are the required courses for Info Sec. and CS Spec. They are **not** the only third year courses available to majors and minors! Check out the academic calendar for all your options!

**CSC375** 

Programming

Mechatronic

Systems

**CSC427** 

Computer

Security

# **APPLY FOR PEY**

OR TAKE ONE OF THE FOLLOWING INTEGRATIVE LEARNING **EXPERIENCES:** 

**CSC367** 

Parallel

Programming

**CSC420** 

Introduction to

**Image Understanding** 

### **CHOOSE TWO OF THE FOLLOWING:**

**CSC490** 

Capstone

Design Course

**CSC490** 

Capstone

Design Course

**CSC477** 

Computer **Forensics** 

#### **CSC427** Computer Security

### Scalable Computing

**CSC318** 

The Design of

Interactive

Computational Media

**CSC409** 

Introduction to **Mobile Robotics** 

CSC358/CSC458

Principles of

Computer Networks

Computer Networks

Note: these are the required courses for Info Sec. and CS Spec. They are **not** the only third

year courses available to

majors and minors!

Check out the academic calendar for all your options!

### **FOURTH YEAR**

**CSC422** 

Cryptography and Computational

Complexity

### **CSC423**

### **ROBOTICS COURSES**

### **CSC375 Programming**

Mechatronic Systems

### **CSC376** Fundamentals of

Robotics

### Artificial Intelligence

**CSC384** 

Introduction to

**CSC413** Neural Networks & Deep Learning

**CSC476** 

**Continuum Robotics** 

**CSC477** Introduction to

**Mobile Robotics** 

# OFFICE OF THE REGISTRAR

Resources

### !! NEW PLATFORM !!

To book appointments with the Office of the Registrar, ask questions, and prepare for incoming year, check out the link below to use their new online platform!



https://uoft.servicenow.com/utm\_askregistrar

### **AMAZING PEOPLE!**

Student Success Representatives: knowledgeable about all aspects of the Registrar and are often your first point of support with registration.

(Available from Monday - Friday from 9:00 am - 12:00 pm)

Academic Advisors: offer specialized academic support and course/program/academic planning. You can request an appointment over the phone or on Microsoft Teams through AskRegistrar.

Financial Aid Advisors: specialize in matters related to your student loan, grants, scholarships, and anything related to financing your education. You can request an appointment over the phone or Microsoft Teams through AskRegistrar.

### MATH AND CS RELATED HELP!

Contact Yvette Ye, The Mathematical and Computational Sciences Undergraduate Counselor

Email: ugmcs.utm@utoronto.ca

Phone: 905-828-3801



### **FORMS & DEADLINES**

If you need to withdrawal from a coure\*, CR\NR\*\* a course look out for the deadlines and the forms to be filled!

https://www.utm.utoronto.ca/registrar/forms https://www.utm.utoronto.ca/registrar/important-dates

- \*Course withdrawal: Dropping from a course after the drop deadline and before the final exam :
- \*\*CR\NR: "Credit, No Credit" allows you to receive course credit if you pass a course, without it affecting your GPA. If you don't pass the course with a CR/NCR you will receive a NC for the course. (No credit and unaffected GPA)

**WORKING ALONE, FEEL UNSAFE ON CAMPUS?** 

GET A RADIO FROM THE CAMPUS POLICE AND CHECK IN WITH THEM!

# CAMPUS RESOURCES

for you to benefit from!

# THE ROBERT GILLESPIE ACADEMIC SKILLS CENTRE (RGASC)

Do you want anyone to check and proofread your essay? Do you want to learn how to better summarize a reading? This is where the RGASC comes in. If you have any concerns or questions about research and writing papers, this is the prime resource to go to.



# HEALTH & COUNSELLING CENTER (HCC)



If you are feeling mentally exhausted or need someone to talk to, the HCC counselors are there to listen in person, by Skype or through phone calls. They are very confidential and sincere when you tell them your problems.

# CENTER OF STUDENT ENGAGEMENT

Want to learn more about campus resources, or how to be involved? Looking to be mentored by an upperyear student? Maybe you want to learn more about the Co-Curricular Record (CCR)? This student-led organization is the place for you then!





### **UTM LIBRARY**



The UTM Library offers silent studying spaces, one-on-one help with scholarly article-referencing, and free-rental textbooks for your classes. Take advantage of their quiet space oncampus, and their large selection of books, to expand your brain power.

# STUDENT APPLICATIONS

for you to use in your classes!

# MICROSOFT ONE NOTE (OFFICE 365)

One Note is especially useful when it comes to note taking in online classes! You can make a document for a course and have multiple sections for each part. You can search for keywords in classes, add pictures, fun fonts, and highlights. Better to give this one a go!





### MYHOMEWORK STUDENT PLANNER

Are you a student that tends to organize things by to-do lists, tags, and tasks? There's an application for you!

Use MyHomework Student Planner to plan out your courses, upcoming deadlines, and to make yourself an overall more-productive person.

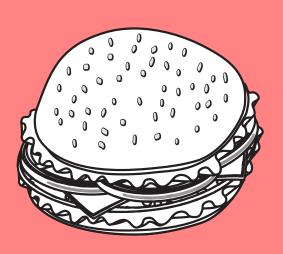
### **HEMMINGWAY EDITOR**

Not all of us can afford Grammarly, which is fine! Hemmingway Editor is a free alternative for you to use that requires no download. Simply put your text into the editor and it will state word count, readability, use of passive voice, hard-to-read sentences, and more! Save those hard-earned dollars for better things.





### YUMMLY



Taking care of yourself should be #1 on your university to-do list... but what if you don't know what dinner to make next? Yummly can become your go-to source for delicious recipes! It's a free application that details a recipe's ingredients. It can also adjust recipes based on diet and allergies.

# SURVIVING UNIVERSITY

#### LONE WOLF B E

When studying for tests, if you prefer to study alone, that's great! But at university it's also important to know how to work in a team, or in other words a study group. Reviewing your notes individually is fine but you should get into the habit of meeting with a study group to discuss complex concepts and to practice exams together, it will help in the long run!

#### TO HAVE REMEMBER Α

The pressure of getting the best grades in order to make POSt is something every computer science student is familiar with. However, sacrificing your mental health and social life in order to achieve that is NOT the way to do it. Taking a break here and there to chat with a friend, read a book, take a walk, or even nap, is not a waste of time. The sooner you realize that, the better off you and your grades will be.

### PROCRASINATE

It may be obvious but it's on this list for a reason. In your first year you'll have multiple courses that all need focus, so learning to manage your time is key. If your professor gives you an assignment with a deadline 3 weeks from now, that means you'll need all 3 weeks to complete it. Even brainstorming as soon as the assignment is handed to you is better than leaving it to last minute, so be sure to always be on top of your school work!

#### STUDY MAKE Α PLAN

leq Near exam season, stress levels are high and a lot is on the line, so a study plan will be your best friend. When you have 5 courses, having a study plan will save lots of time and stress. While making your study plan, list all the chapters to be covered per course, and aim to do 1-3 of them each day for the next 4 weeks leading up to exams. This way, you'll have a few days left to complete practice exams and briefly review again.

#### HOURS/HELP CENTRES

Attend your professor's office hours and go to the math help centres! During office hours you can go in and ask for clarification on lecture notes, have them critique your code, or even ask them questions about life. There's never a downside to getting to know your professor better. As for the math/cs help centres, don't only go during midterm/exam time. Whenever you find a concept from the lectures a bit difficult, the TAs are there to help.

## CAREER CENTER

Resources

### **JOB HUNTING?**

Check out the Career Center's Employment Tips and Tricks page, where you can learn more about Job Searching, Employment Opportunities, Volunteer Opportunities and much more!

https://www.utm.utoronto.ca/careers/covid-19-employment-tips-and-resources#Job%20Search%20in%20Spring%202020

Also check out the various Job postings at The Career & Co-Curricular Learning Network (CLNx):

https://clnx.utoronto.ca/home.htm





### PREPARE AND CONQUER!

Learn about job preparation and how to become the best candidate through the Career Center's online workshop at:

https://www.utm.utoronto.ca/careers/online-workshops

# RESUME, INTERVIEWS, LINKEDIN ????

Have any questions on these topics... say less!
The Career Center has various resources at: https://www.utm.utoronto.ca/careers/

\*\*Under the Jobs Tab



## CAMPUS POLICE

Working alone, feel unsafe on campus?

Join the Work Alone Program:

Allows you to check out a personal safety radio from police and/or register to receive regular check-ins from officers.

### Join the WalkSafer Program:

Call a WalkSafer escort--a team will come to your location and walk you to your destination, including waiting with you at a bus stop.

### For more information:

https://www.utm.utoronto.ca/campuspolice/sites/files/campuspolice/public/shared/WorkAlone%20%20WalkSafe.pc



https://www.utm.utoronto.ca/campus-police/

### DON'T CHEAT

A Guide To Ensure You Won't End Up with an Academic Offense

### THAT MAY SEEM OBVIOUS...

You may be thinking "Wow, that seems really obvious", but often times CS students that are convicted of an academic offense don't know what is considered 'academically dishonest'. Here are tips to make sure you're never convicted of an Academic Offense!



### **RULE #1: NEVER SHARE CODE**

exercise or assignment is you, your TA, and your professor. Showing it to anyone else, including to

### **RULE #2: COLLABORATION IS WELCOME; BUT ANSWER SHARING IS NOT**

Collaboration and communication between students is great way to encourage each other to work on an assignment, but make sure you are exchanging thoughts, concepts and ideas! Never share screens or speak in programming terms\*.



(i.e. "I wrote a for loop from 1 to 3")

### **RULE #3: START ASSIGNMENTS EARLY**



https://bit.ly/3baCquG

avoid an academic dishonesty panic, make sure you are caught up on course content before the assignment is released. Additionally, make sure you start working on the assignment as

### RULE #4: OFFICE HOURS, OFFICE HOURS, OFFICE HOURS

Thinking about showing your friend your code to help debug your assignment? Don't! A teaching assistant or professor can a look at your code in confidential spaces, like office hours, and help put you back on the right track to success! Be sure to follow rule #3 and start your assignment early, as you can find misconceptions early and get help in time.

### Academic Offense or Academically Honesty?

For each of the following scenarios, predict which ones are examples of academic offenses and which ones are academically honest.

- 1. Student A shares their screen with Student B during a participation-mark based lab.
- 2. Student B posts a snippet of their code to StackOverflow, to get advice on how to debug a for loop.
- 3. Student C posts the course assignment handout on Reddit.
- 4. Student D sends their code to a tutor to help them debug it.
- 5. Student E shares their screen on Discord and live explains their code.
- 6. Student F rewrites their assignment in pseudo-code and sends it to their friends.

### **MCS** Orientation

### MENTAL HEALTH AND COUNSELLING

#### Introduction

Mental health is one of the most important aspects of a student's university life so UofT has set up a great Mental Health Framework to help students and faculty members with such things. From the Health & Counselling Centre of UTM, a statistic shows that in the top 5 factors that affect the academics of students 3 of them include: stress, anxiety and depression. This document will outline different resources on and off campus that will benefit the health and safety of students.

#### **Transition into Uni**

Most of the time, you won't be able to 'fix' the problem, but you can help navigate in a way that will benefit you.

### **UTM Health & Counselling Centre**

Offer short-term, solution-focused counselling, physician, and nurse care. Now offering virtual care/telehealth options (via telephone and online). Hours: Mon to Fri, 9am – 5pm. Call them at 905-828-5255 to speak to one of their staff for guidance

### Resources

### **On Campus**

- Health & Counselling Centre
  - 905-828-5255
- Sexual Violence Prevention & Support Centre
  - 416-978-2266
- Accessibility Services
  - 905-569-4366
- Campus Police (General Inquires)
  - · 905-828-5200
- Campus Police (Emergency)
  - 905-569-4333 or 9-1-1

### **Off Campus**

- Good2Talk (24/7/365)
  - · **1-866-925-5454**
- Distress Centers of Greater Toronto (formerly Spectra Helpline)
  - 905-459-7777 (24/7/365 for English; Monday Friday 10am-10pm for multi-lingual)

### **MySSP App**

- My SSP App 24/7, confidential counselling and mental health support with virtual and phone (call/text) options available
- Download the MySSP App on the Apple App Store or Google Play
   Store







### <u>@utmsam</u>

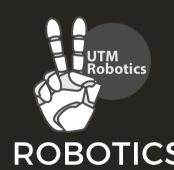
UTMSAM is a student-run club dedicated to the application of machine learning, artificial intelligence, data science, algorithm development and mathematical modelling. We believe in the power of collaboration and we are dedicated in bringing talents from the technological aspect and the business aspect together.



### **DSC UTM**

### @dscutm

DSC is a student lead community backed by Google Developers aimed at empowering undergraduate studentsfrom all disciplines to grow their knowledge in technology, build solutions for their local communities, and connect with other members from the Google community.



### <u>@utm\_robotics</u>

Student group engaged with building robots and control systems at the UTM campus. The club serves the purpose of bringing together students interested in robotics and to host workshops to raise awareness of robotics at UTM.



### **WISC**

### <u>@wiscutm</u>

WiSC aspires to provide a supportive community forstudents pursuing careers in STEM. We plan on creatingopportunities for students of all genders to enhance their professional and personal development, and find peers who will support them on this path. Our goal is to start a conversation on equity, diversity, and inclusion in STEM and provide opportunities for minorities in STEM to flourish.



### @utmmcss

The purpose of the MCSS is to officially represent all students from the Department of Mathematical and Computational Sciences at the University of Toronto Mississauga. MCSS encourages a social, academic and career-related support system among students and undergraduate students and faculty.



### CSSC

<u>@utm.cssc</u>

CSSC is a student-led and Computer Science
Department backed organization built from
the foundation of last year's Hacklab. Our
mission is to help you, our fellow students,
achieve and excel in your academic and
professional goals.We are super excited to
provide you with in-demand industry skills,
fun events, and faculty networking
opportunities. CSSC's technology team is
dedicated to developing tools and resources

to help you succeed in class and out.