Unofficial First Year Guide To Everything

Your Lovely (And Possibly Smelly) Upper Years

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0.1 Introduction

Welcome to the **Unofficial First Year Guide To Everything**! If you are an EngSci 2T7+, welcome! If you are not, congratulations on making the right decision! Here, you can see my super-duper subjective guide. This is still a WIP, so don't expect there to be too much (yet). Feel free to contribute by submitting a pull request.

This is not an official document from UofT.

You can contact me via Discord (niceguy#6628).

Chapter 1

Supplies

Before coming into EngSci, you might wanna empty your parent's bank account just a bit more. As someone who is on the frugal side, here is some advice:

- Textbooks

    - Check with your professor to see if the textbook is actually used

    - See if you can download it (legally)

    - You can even print the relevant chapters out using your 900-per-term printing quota (they rarely use the whole book)

    - In most cases, there isn't much difference between a newer and older edition. However, you should always check.

- Laptops/Tablets

    - You might wanna get one if you have neither. You need these for meetings (Praxis, Design Teams), homework, note-taking, etc. A laptop is better than a tablet.

    - You don't need a new laptop just for better specs. Use Linux (I am typing this on a 10-year-old laptop). There are almost always outlets in lecture halls (ranging from one per seat to one per lecture hall), so battery life does not matter as much.

- It doesn't matter if you have a Mac or a PC

• Pens, pencils, erasers, paper

- Cheap enough that it doesn't really matter.

• Calculator

- Casio-FX991EX, get a second hand calculator from an upper year

Chapter 2

Courses

2.1 CIV102: Structures and Materials

Don't worry, those courses are mostly: "here's an equation, know where to use them" (stress/strain, bending moments, density...)

2.2 ESC101: Praxis I

THERE IS NO PREPARING FOR PRAXIS! You are either good at it, or bad at it. I would assume why most people don't like this course is because:

1. Unbalanced return on effort spent

2. Grades are very subjective

3. There's lots of writing

2.3 ESC103: Engineering Mathematics and Computation

2.4 ESC180: Intro to Computer Programming

Computer is... computer. Your whole experience in computer will be split into:

- I know programming: you can basically skip lectures and review for one day before midterm and be fine

- What is programming???: you might suffer in this course, but worry not, this course actually moves quite slow... you will catch up

2.5 ESC194: Calculus I

Calculus starts from basically defining what numbers are, though you do need basic trigonometry, e.g. the functions $\sin, \cos, \tan$, and how to evaluate them.

2.6 PHY180: Classical Mechanics

Physics is basic, you can probably pass the exam if you go into it like... right now?

2.7 ESC102: Praxis II

2.8 ESC190: Computer Algorithms and Data Structures

2.9 ESC195: Calculus II

2.10 MAT185: Linear Algebra

Linear algebra is new to everyone, nothing can really prepare you for it. Maybe knowing vectors will help? Try to get a sense of how matrix multiplication work in terms of "combination of rows/columns" instead of a literal: $a_1 \times b_1 + a_2 \times b_2 \ldots$ sense.

At the moment of writing, ChatGPT is still pretty bad with linear algebra, so don't use it for your homework or exams.

You can also drop this course and do MAT223 instead, the ArtSci (Faculty of Arts and Science) equivalent. Again, please check with the EngSci Office before doing that. This EngSci upper year would also like to kindly inform you that the course is garbage. It is boring and covers no new content, so you should not take it unless if it's for free.

2.11 ECE159: Electric Circuits

Circuit is fine. High school stuff (even including AP/IB) probably only covers the first 2-3 weeks max.

2.12 MSE160: Molecules & Materials

Don't worry, those courses are mostly: "here's an equation, know where to use them" (stress/strain, bending moments, density...)

Chapter 3

Academics

This is where you can find general academic advice that applies to courses in general.

3.1 Hardest Time of the Year

3.1.1 First Semester

- Pendulum report time, lots of data collection lots of writing
- First midterm (for us it's praxis), lots of "extra" preparation
- CIV bridge (build them early, and you get to watch other people suffer while you sleep :>)
- Most Praxis stuff

3.1.2 Second Semester

- RFP (Praxis)
- Beta (Praxis)
- Showcase (Praxis)
- Handbook/Portfolio (Praxis)
- Yes only Praxis

3.2 Is EngSci stressful/hard?

3.2.1 Andy

It's pretty ok overall, same experience as in high school. Actually most days I am more chill cuz lectures are at 11am-1pm for 2nd semester so I can sleep in... Assignments are fine, course contents take some effort to understand, but once you get it it's pretty chill. I did AP+IB in high school. And I know programming (quite a lot of programming) before uni...

3.2.2 niceguy

It's not too too bad. A bit about my background before that. I lived in Hong Kong up until EngSci, meaning I took the local curriculum and the public exam (HKDSE). This was really helpful for Calculus I and II. I'm not sure about your year, but in our year, we had this thing called UTEA, which is a free course you can do to learn Mathematics, Physics, Chemistry and Coding. That was my first time learning how to code, and I did fine in both coding courses. Praxis was pain though. I feel like as long as you do assignments as they are given out, instead of doing them on the last possible day, you'll be fine. I was definitely NOT studying 3 nights a week, and I still did fine, apart from Praxis, but there's not much you can do about that. IMO, spending 3 hours versus 1 hour on an essay makes no difference in terms of marks, but the former makes you feel more like a failure, which is a feeling you'll get used to soon.

3.3 Notes

xueqilin.me

3.4 Is IB/AP enough preparation?

IB/AP will definitely help make everything easier. However, the courses are planned in a way you will understand even if you know basically NOTHING...

3.5 Accommodations

3.5.1 Petitions

This is not an official UofT website telling you "it's okay to submit petitions". Submitting petitions is actually okay. In my year, people were submitting petitions left and right during midterm season for their lab reports. I've seen people with high 80 averages submitting petitions. Your mental health is more important, and have faith in the curve.

Stuff you can petition for via the Engineering Portal: All deliverables (assignments, lab reports, etc) and assessments (quizzes, midterms, finals). It doesn't matter if you're just too busy to prepare for it, or if you're just sick. At this time, you don't need to provide proof of illness. It is rumoured that you get one freebie for sleeping through assessments.

3.6 More about Courses

3.6.1 UofT Time

You have probably heard of this before, but lectures, tutorials, and practicals all start 10 minutes after. **This does not apply to midterms and exams.**

3.6.2 Notetaking

Obviously I am biased. I prefer LaTeX for the more mathy courses, and Markdown for the rest. I know a lot of people take notes on their

tablets using apps such as OneNote, Notability, Notion, etc. You can also download and annotate lecture slides directly. A third possibility is to take notes on paper. The advantages are that you never run into technical difficulties, though it might be harder to organise your notes and search for what you need.

3.6.3 Summer Courses

This is a great way to lighten your courseload. Check to see if you can drop courses during the term and take a similar/the same course in the summer. However, you can't do this for every course, e.g. ESC194/ESC195. You will also have to pay extra for summer courses. The nice thing about UofT is that starting second year, you can overload, meaning you can take more courses than necessary, for free! Some 2T4s (whose names shall not be mentioned) were mad enough to take 8 courses in second year. So now nobody else is allowed to (thanks). But you can take 1 extra course, i.e. 7 courses and second year, and in third year and beyond, a maximum of 4.25 credits, or 8.5 courses per semester. Some courses such as seminars count as half-courses. UofT doesn't care about conflicts too, so it is okay to take two courses that have lectures/tutorials at the same time. This is really cool.

Chapter 4

Buildings

4.1 Bahen

If you don't pronounce it as BAY-hen, you're cringe. This is where the EngSci Common room is located (on the second floor). There are two main lecture halls on the first floor, BA1130 and BA1160, where outlets are located on the first/second row, and at the very back. There are tutorial rooms on the second floor, but there aren't that many outlets there, so you'll have to fight for good spots if you need it. The washrooms switch spots between floors, so don't go into the wrong one. The Wi-Fi here is good until it isn't. Note that CS and ECE students frequent this building, so make sure you're not sitting next to someone who hasn't showered.

4.2 Myhal

On the first floor, there is a big lecture hall called MY150. It supports interactive learning or something, cause students sit around tables and stuff, and each table has a microphone, so you can easily speak to the whole class. There is at least one outlet per seat. You have Praxis lectures here. On the third and fourth floor, you'll find tutorial rooms, with tall tables, which are cool. There are more than enough outlets connected to each table, but you'll have to plug the table to an outlet on the ground, which might not work. This is where you have Praxis

studios, and sometimes tutorials for other courses.

4.3   Sandford Fleming

There's more (smelly) stuff here. In the basement, there's the Pit which occasionally reeks. You can eat here, but spots do be filling up during lunch hours. Otherwise you should be fine. You can get food from Veda and the Hard Hat Cafe located on the same floor. On Friday nights, there is Suds, which is something I'd attend if I had friends. On the first floor, you get the lecture halls SF1101 and SF1105. There are outlets beneath your seats in SF1101 only. There are also two ECF labs (Linux), SF1012 and SF1013 with two printers each. SF1013 is bigger with more computers and a colour printer. On the second floor there's the Engineering and CS library, where you can book study rooms. I haven't done it personally (people only book rooms to study with their friends), but hopefully there are more spots since only Engineers and CS students can book them? It is also (probably) the closest library if you're in an Engineering building.

   If you come here on weekends, there is only this one weird door which opens. I won't bother explaining where it is cause I'm bad at that, and they post maps everywhere.

4.4   Galbraith

It is connected to Sandford Fleming inside, which is something you can use strategically in the winter. You get windows ECF labs here, and you also have CIV tutorials here. It sometimes smells. If you're into it, there's also a skate park located conveniently outside.

4.5   Gerstein Library

This is where you study with your friends outside of Engineering, if you have them. It closes pretty early though, at 23:00.

4.6 Robarts Library

Chapter 5

UofT

5.1 Food

5.1.1 If you have a meal plan

Chestnut, New College

5.1.2 Food Trucks

The Green, Blue, and Pink food trucks all pretty good.

- Green: Shawarma wraps, pretty good

- Blue: Poutines (Pretty large) (In case you don't know what poutines are: Cheese on fries with hot gravy to "melt" the cheese). They have bacon poutines/chicken poutines/other...

- Pink: A very "Chinese" food truck, mostly chicken. They have popcorn chicken/burgers... Takoyaki... and rice

5.1.3 Spadina

There are a lot of good and cheap Chinese food here, as well as grocery stores. There is a Burger King and Popeyes nearby.

5.1.4 College

5.1.5 Coffee

There is a Second Cup in Myhal second floor. There is also a Starbucks on College opposite to St. George.

5.1.6 Groceries

Hua Sheng (華盛) on Spadina, Lucky Moose (金牛城) on Dundas.

Chapter 6

Residences

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6.1   Chestnut or Campus One?

Chestnut has the advantage of:

1. Cheaper (slightly)

    • Chestnut is $1700 per month, not including the meal plan
    • Campus One is around $1600-$1900 a month, but you get your own room

2. Community

    • Lots of Engineering/EngSci students live in Chestnut
    • Campus One has a few Engineering students, but they are not the majority

 Campus One has the advantage of:

1. Better Stuff

    • Chestnut is old, lots of stuff are old

2. Closer to Campus

- Chestnut is about a 20-minute walk away from campus
- Campus One is about a 5-minute walk away from campus