

SE101: 2018-09-13

## How Things Work

# How UW Works, 2017–18

## Income:

- \$425M tuition
- \$232M grants
- \$716M total

## Expenses:

- \$511M salaries (thanks!)
- \$53M student support

Province funds universities  
(which are nonprofit).

Grants have dropped since 1995.  
Tuition has gone up.

# How SE Works: $SE = CS + ECE$

- Computer Science
- Math Faculty
- Largest CS Dept in Canada + largest faculty
- Elec & Comp. Engineering
- Engineering Faculty
- Largest ECE Dept in Canada + largest faculty

Every prof works for either CS or ECE.  
SE is a collaboration.

# Facts about SE

## Small vs CS, ECE:

- Class of 2023: 125 students
- on-stream: 351 students
- off-stream: 217 students

ECE 1A = 372; CS 1A = 185\*

\* many CS students join later

# SE Graduation Rates

Typical class size at graduation: 80-100.

- class of 2018 = 144

Total BSE degrees granted = 1123.

Graduation rates:

- BSE                      65-81%
- BSE/BCS              71-85%
- B.any                    75-85%

# How Term Promotion Works

SE follows Engineering rules:

- need term average  $\geq 59.5\%$
- to pass a course, need mark  $\geq 50\%$

Failure rates (must repeat a term):

- first year 7-14%,
- second year 5-7%
- upper years  $\sim 0$

About 25% of graduating students have failed a course.

# How SE Students Work Post-Grad

## Class of 2018:

- 88% full-time tech, 4% full-time non-tech, 3% grad school
- 4% Waterloo, 11% Ontario ex-KW, 3% Canada ex-Ontario
- 80% USA
- Starting base salary: US = C\$150k, Canada = C\$94k

# Other SE18 Thoughts

On-campus SE program met my expectations:

$D = 3, d = 6, n = 9, a = 56, A = 22$

Co-op SE program met my expectations:

$D = 0, d = 1, n = 2, a = 12, A = 81$

Would recommend my program to prospective students:

$D = 1, d = 2, n = 8, a = 35, A = 50$

Plan to work towards PEng?

yes 16%, no 84%



# How Bodies Work

1. Sleep
2. Eat
3. Exercise

# How Etiquette Works



Shower regularly!



# How Etiquette Works

Wait till previous class is mostly out before you try to enter the classroom!

# How Etiquette Works



Phones on silent!

Rottweiler/phone encounter  
image by Gus Alexandropoulos



# How Etiquette Works



Walk right, stand left?

... just don't stand  
in the middle of hallways!

image CC-BY 2.0 John Pasden via flickr

# How Emails Work

From: you@edu.uwaterloo.ca

Subject: [ECE 105] Squirrel mechanics question

Dear Prof. X,

I am a student in the SE section of your ECE 105 class. I would like to make an appointment to ask questions about squirrel mechanics. I am available on Wednesdays at 11:30 and Mondays at 2:30; if either of those times do not work for you, you can find my schedule here:

[https://uwaterloo.ca/software-engineering/sites/ca.software-engineering/files/uploads/files/1aschedule\\_0.pdf](https://uwaterloo.ca/software-engineering/sites/ca.software-engineering/files/uploads/files/1aschedule_0.pdf)

Thank you,

Y (ID xxx)

# How Titles Work

Safe default = Prof. X.

Many instructors have PhDs,  
so Dr. X usually OK.

*Not OK: Mr. X, Mrs. X.*

(You can call me Patrick.)

# How Office Hours Work

Office Hours = time specifically set aside  
for student questions.

Pro tip: Use them!



# How Asking for Help Works

Academic resources for you:

- instructors
- TAs
- program administration (me, Derek, Shaz)
- Student Success Office
- AccessAbility

# How Asking for Help Works

Counselling Services offers mental health resources:

- Study/coping skills workshops
- Engineering counselling
- MATES

# How Not Plagiarizing Works

You can look,  
but don't write anything while looking.

# How Universities Work: Who's Who

- Students
  - Undergraduate (you)
  - Graduate (MAsc/MMath, PhD)
- Teaching Assistants (TAs)
- Professors
- Medical Staff
  - Doctors
  - Counsellors
- Admin Staff
  - Registrar, etc
- Plant Operations Staff
  - Keep the lights on.

# What do Professors do?

- Teaching
  - Undergraduate
  - Graduate
- External Service
  - Peer review articles
  - Organize conferences
- Internal Service
  - SE Director
  - SE Associate Director
- Research
  - With grad students

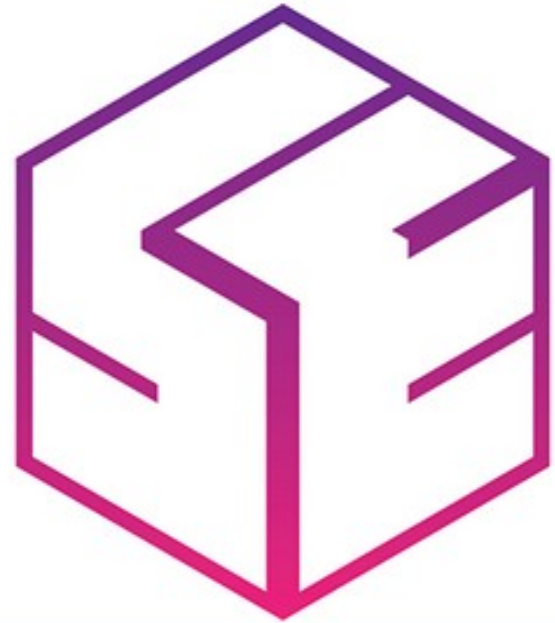
# SE Society (SE Soc)

Organizes events for SE students:

- student-led résumé critiques
- mixers (today! 6-9! E5-3101!)
- “What I wish I knew in 1B”

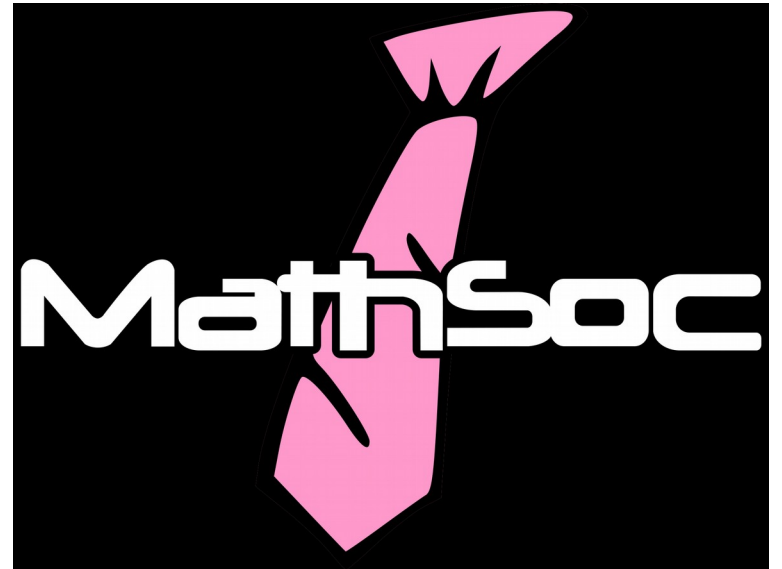
Helps with class swag orders;

Develops SE student life in general.



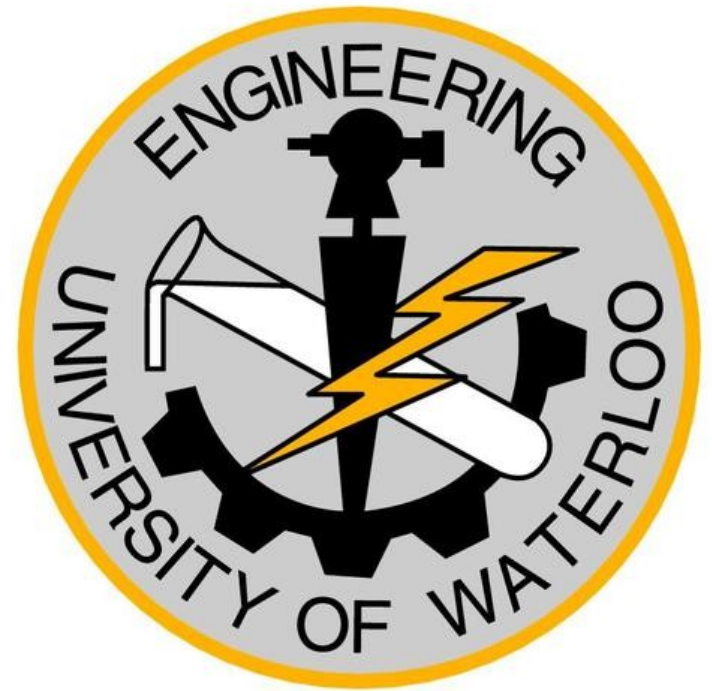
# Math Student Society (MathSoc)

- Social events
- Board game rentals
- T-shirts etc.
- C&D (Coffee & Donut shop)
- Lounge (Comfy)
- Exam Bank
- Endowment Fund (MEF)



# Engineering Society (EngSoc)

- Social events
- Board game rentals
- T-shirts etc.
- C&D (Coffee & Donut shop)
- Lounge (POETS)
- Exam Bank
- Endowment Fund (WEEF)





# UW Federation of Students

- Social events
- Intramural sports
- Clubs (> 200)
- Orientation week
- Student representation to
  - UW Administration
  - Government
- Services: MATES, Womens' Centre, Co-op Connection

