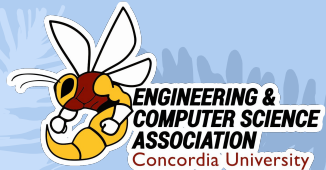


IGLOOFROSH

WINTER

**DEPARTMENT
ORIENTATION**

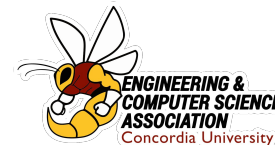
Winter 2024



Territorial Acknowledgement

We would like to begin by acknowledging that Concordia University is located on unceded Indigenous lands. The Kanien'kehá:ka Nation is recognized as the custodians of the lands and waters on which we gather today. Tiohtià:ke/Montréal is historically known as a gathering place for many First Nations. Today, it is home to a diverse population of Indigenous and other peoples. We respect the continued connections with the past, present and future in our ongoing relationships with Indigenous and other peoples within the Montreal community.

AGENDA



About the ECA

Who are we?



Social Life and Academics

The fun stuff



CO-OP and C-Edge

Internships? Career advice?



MIAE, ECE, CSSE & BCEE

Departments



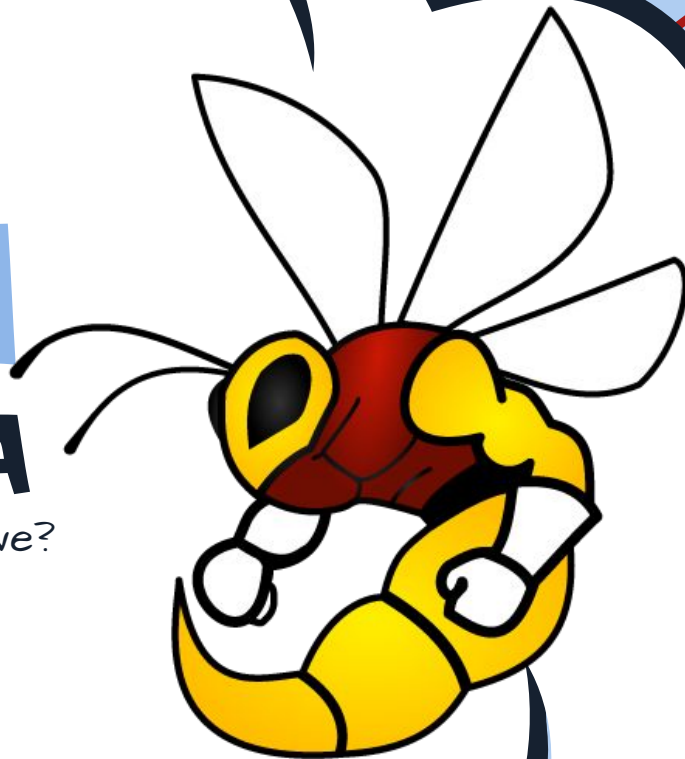
Guest Speakers!

Personal experiences

01

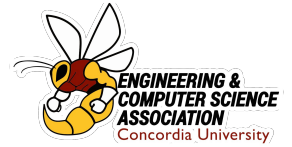
ECA

Who are we?





ABOUT THE ECA!



Engineering and Computer Science Association is led by current undergraduate students, we:

- Have Crash Courses
- Have information sessions
- Participate in Engineering Competitions
- Iron Ring Ceremony

[ECA Concordia Website](#)



WE...

We represent

6,500+

STUDENTS

We are made up of

16+

SOCIETIES

We attend

20+

COMPETITIONS

**Join societies to
participate!**

Events, Courses, Parties and More



Crash Courses (end of each semester)



Info Sessions & Workshops



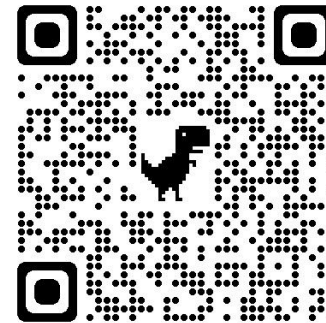
Lizard Lounges



Engineering Competitions



Conferences



For More Info, Visit:
<https://ecaconcordia.ca>



02

OUR TEAM

★ ECA VP's



Elsa Younes

President



Aditya Shah

Vice-President of
Competitions



Chloe Law

Vice-President of
Marketing &
Communications



Marissa Profetto

Vice-President of
External Affairs



Mohamed Bedair

Vice-President of
Finance



Seif Bedair

Vice-President of
Internal Affairs



**Shannon King-
Richards**

Vice-President of Social
Affairs

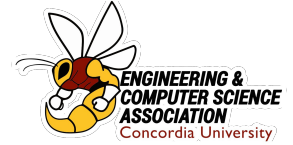


**Tharushi
Rathnayaka**

Vice-President of
Academic Affairs



ACADEMIC TEAM



THARUSHI RATHNAYAKA
FINAL YEAR AERO
VICE PRESIDENT OF ACADEMIC
AFFAIRS



MOHAMED SAAD
2ND YEAR AERO
MECHANICAL, INDUSTRIAL, AND
AEROSPACE ENGINEERING
REPRESENTATIVE



AHMAD OBEID
2ND YEAR COEN
ELECTRICAL & COMPUTER ENGINEERING
REPRESENTATIVE



YASMINE MOUATIF
2ND YEAR SOEN
COMPUTER SCIENCE AND
SOFTWARE ENGINEERING
REPRESENTATIVE



CYRIAN KEDOWIDE
3RD YEAR CIVIL
BUILDING, CIVIL, AND
ENVIRONMENTAL
ENGINEERING
REPRESENTATIVE

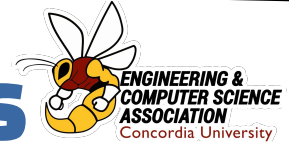


HIRUSHI HIMADDYA
1ST YEAR COEN
DIRECTOR OF ACADEMIC AFFAIRS



JULIE TRINH
FINAL YEAR SOEN
IRON RING COORDINATOR

INDEPENDENT REPRESENTATIVES



- **AZIZA RASHID**

INDEPENDENT REPRESENTATIVE
Computer Engineering (3rd year)

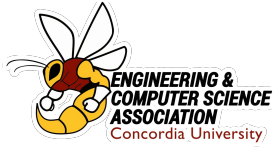
independentrep1@ecaconcordia.ca



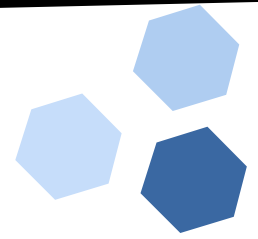
- **Maria Fernanda
Amezquita Moreno**

INDEPENDENT REPRESENTATIVE
Civil Engineering (3rd year)

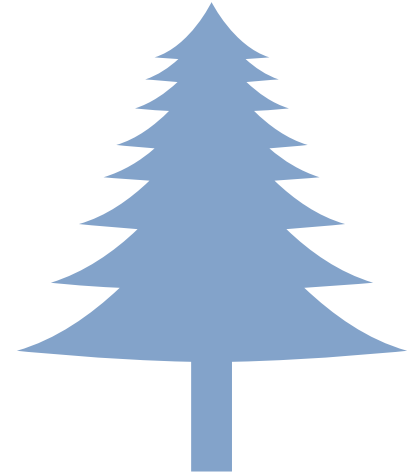
independentrep2@ecaconcordia.ca

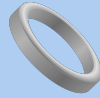


What can we do for you



- You missed one lab and the professor/lab instructor is giving you a tough time
- You did not write the midterm and the professor will not shift the weight to your final exam
- For a single section class, the professor schedules the midterm on a weekend
- The professor consistently does not show up to office hours and does not answer emails
- You requested a reasonable extension for an assignment and the professor/TA refuses
- Course sequences, class conflicts
- Get you fair accommodations
- Help you get admitted to co-op





Iron Ring



- ❑ The Iron Ring is worn by most Canadian-trained engineers, as a reminder of the obligations and ethics associated with their profession. Since 1922, the ring has been presented to engineering graduates in a closed ceremony known as "**The Ritual of the Calling of an Engineer**".
- ❑ The ECA hosts the cocktail and after-party that follow the Iron Ring obligation ceremonies held usually in November and March (Volunteer!!!)
- ❑ The ceremony is an entirely voluntary act on your part, and your attendance will have no effect on your academic or legal status as an engineer.



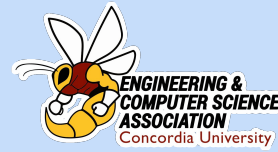


Engineering Societies

What can Engineering & CS students do in Societies?

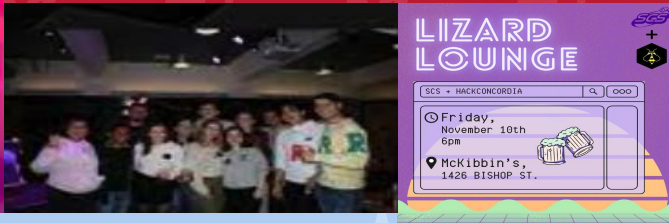
- **SCS:** Help you with coding languages with weekly challenges and interview questions prep!
- **HackConcordia:** Put your coding skills to the test, attend events, workshop, and ConUHacks
- **Troitsky:** Competition where students design and build a bridge using basic materials.
- **CUBES:** They offer building engineering students experiences beyond the classroom
- **SAE:** Design and assembly of road and air vehicles for the purpose of competing
- **Space Concordia:** Spacecraft, Rocketry, Robotics, and Health divisions.
- **EngGames:** Put your skills and knowledge to the test with competitions.
- **GCES:** Explore entrepreneurship and meet like-minded entrepreneurs.
- **WIE:** Create an inclusive environment to promote diversity within STEM.
- **IEEE :** Technical skills provided with plenty of resources for your projects

ASHRAE, ENGIQUEERS, UAV, CSME, CSCE, IISE



LIZARD LOUNGE

Every Friday- Reggies, Bannex, McKbbins etc.



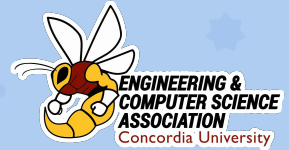
B-ANNEX

Address: 2160 Bishop St, Montreal, Quebec H3G 2E9



- Study Space
- Society Offices
- Snacks
- Foosball

CCR - Co-curricular Record



Stand out and get recognized! The Co-Curricular Record (CCR) is an official Concordia University document that recognizes your involvement beyond the classroom and highlights your complete university experience.

Such activities include:

- student leader roles
- volunteer positions on campus
- student led initiatives

Benefits:

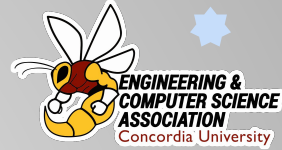
- Employment Applications
- Leadership skills
- Community Involvement



PRE-CHECKS!

- Have you done your EWT test? Engineering Writing Test
No? Register through your ENCS account!: Mail :: Welcome to ENCS Webmail
Yes? Awesome! You can register for ENCS 282.
→ To set up your user account for the first time, submit an IT Service Desk Support Request or email help@concordia.ca.
- Do you have all your prerequisites from CEGEP/High School?
No? Look into the MEP and ECP : Program length - Undergraduate degrees
- Did you plan your sequence? Meet an advisor
- Get your calculator approved → H-964 (To get a sticker for your calculator-mandatory)
- Did you explore your Student Hub and Campus Concordia yet?

Academic Dates



Fall 2023 (2232), Fall/Winter 2023-24 (2233) and Winter 2024 (2234) terms

All dates are applicable to undergraduate and graduate courses

Term	Term Dates (Excluding make-up day)	Final Examination Dates	Registration*	Dropping a Course*	
			Last day to add or swap courses in this term	DNE Full refund	DISC Academic withdrawal
Fall 2023 (Session 12W)	Sept. 5 – Dec. 4, 2023	Dec. 6 – Dec. 19, 2023	September 18, 2023**	September 18, 2023	December 5, 2023
Fall/Winter 2023-24 (Session 24W)	Sept. 5, 2023 – April 15, 2024	April 18 – May 1, 2024	September 18, 2023**	September 18, 2023	April 17, 2024
Winter 2024 (Session 12W)	Jan. 15 – April 15, 2024	April 18 – May 1, 2024	January 29, 2024**	January 29, 2024	April 17, 2024

You can still DNE drop courses after the deadlines posted!

- Course withdrawal (DNE) – Refunds

DNE vs DISC

DNE (Did not Enter)

- Will **not** show on transcript
 - Tuition refunded
 - Deadline: **Jan 29th**
 - No consequences

First-year students: keep in mind your offer of admission becomes invalid if you drop all your courses by the DNE deadline in your first term. Questions? Contact your admissions officer.

DISC(Discontinued)

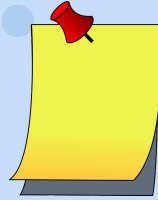
Will show on transcript

- Tuition not refunded
- Deadline: **April 17th**
- Avoid academic consequences

Registration Dates:

Enrollment Appointment Date	Credits to completion or category of student
March 7	0 to 9 credits All Co-op Students (new and returning), Varsity Students
March 8	10 to 21 credits
March 9	22 to 33 credits
March 10	34 to 42 credits
March 13	43 to 54 credits
March 14	55 to 63 credits
March 15	64 to 72 credits
March 16	73 to 87 credits
March 17	88 and more credits
March 20	Visiting undergraduate students, returning and newly authorized undergraduate Independent students for Summer 2023 (term number 2231) .
April 11	Visiting Students – for Fall / Winter

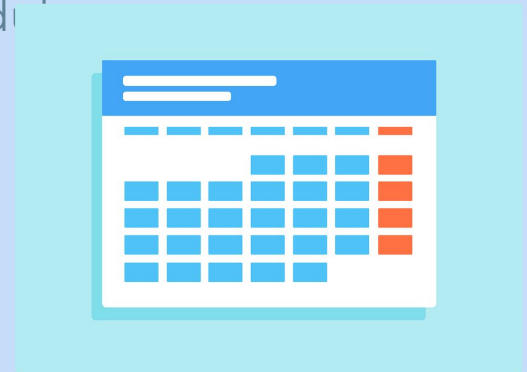




Registration

1. Plan your courses for your fall, winter and summer semesters
2. Check your registration dates
3. Search your classes either through schedule builder or the search button
4. Find your classes and fit what you can in the schedule
5. Send the classes to your enrollment cart
6. Finalize the enrollment in Student Center

[Course registration - Montréal](#)



TYPES OF ELECTIVE

General Electives:

General Elective List:

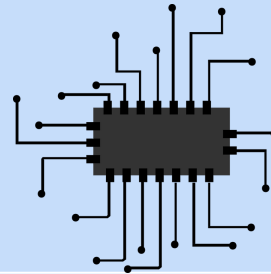
These electives are out of your program and the engineering department such as: Humanities, Social Sciences, Complementary Studies.



Technical Electives:

Undergraduate Calendar:

You will find a list of technical electives depending on which specialization you want.



Science Electives (COEN Students):

Undergraduate Calendar:

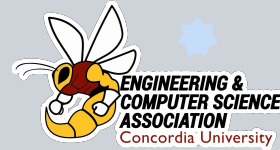
Science Electives are also listed in this document. They are electives that are related to science subjects like : BIOL, CHEM, ELEC, PHYS



Note that...

- ❑ **Cancellation of Classes** - If no class cancellation notice is posted on the classroom door, classes are officially considered cancelled if an instructor is 15 minutes late for a 50-minute class, 20 minutes late for a 75-minute class, or 30 minutes late for longer classes.
- ❑ **Repetition of course** - A student may repeat a failed course only once. Nevertheless, a student who fails a required course twice may appeal to the appropriate Student Request Committee (other: course overloads, withdrawals after the deadline, course substitutions, taking courses at other universities, tuition refunds etc.) for permission to take the course a third time. If permission is not granted, the student may not be allowed to continue in the University towards that program and/or degree.
- ❑ **Academic Re-evaluation** - Formal re-evaluation request is a last resort, talk to prof first. Chair of the department appoints re-evaluator. Student and instructor can appeal re-evaluation decision. Re-evaluation Appeals Panel (RAP) evaluates and decides. Can lead to grade being decreased

CO-OP Vs C.Edge Vs. ACE



Co-op:

- 3 paid internships in your field
- Remain full-time throughout their studies
- Undergraduate Co-op - Montréal
- Prospective students for Co-op contact:
- info.coop@concordia.ca

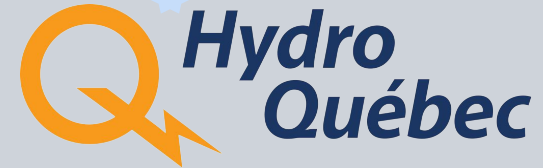
C.Edge:

- Allowed only 1 paid internship happens within year 3
- More flexible than co-op
- Students must have completed at least 45 credits before internship
- Career Edge (C.Edge) - Montréal
- Prospective students for C.Edge contact:
- c.edge@concordia.ca.

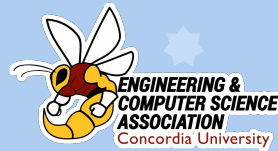
ACE:

- 12 or 16-month full time internship offered by the Institute for Co-operative Education
- must have completed a minimum of 65 credits
- ace@concordia.ca.

Co-op Team Contacts



Internships



<https://placementspot.ca/>

Internships (400+ hours)
Mini-WILs (80-100 hours)
Micro-WILs (2-7 hours)

- COOP
- C-EDGE
- ACE



SERVICE DE PLACEMENT
OPPORTUNITÉS TRAVAIL-ÉTUDE



SIEMENS

CAE



LION ELECTRIC

BOMBARDIER Tharushi



4

ENGINEERING DEPARTMENTS

ECE, MIAE, BCEE, CSSE

GOAL OF EACH MAJOR?

ECE

COEN: Blends hardware and software. Focus areas include digital systems, computer architecture, and networking. Applications range from robotics to real-time systems and customizable hardware (FPGAs).

ELEC: Encompasses circuits, electromagnetics, and systems, with applications in power systems, electronics, and telecommunications. These skills find practical use in designing power grids, electronic devices, and communication networks.

MIAE

Mechanical: Build engines. Design robots. Control explosions by Design, integrating and analyze mechanical, control and feedback systems and processes

Industrial: knowledge of human behaviour, equipment, information and modes of communication to develop processes that work

Aerospace: Master the mechanisms behind flight, propulsion, aerodynamics and avionics in the atmosphere and in space systems

GOAL OF EACH MAJOR?

BCEE

Building engineering: Reduce energy consumption, help combat global warming and improve quality of life. Create synergy between the thermal, structural, acoustic and energy systems of a building by applying the principles of engineering.

Civil engineering: Protect water resources. Design buildings, bridges and tunnels. Improve transportation and traffic flow. Guide municipalities to create the structures and systems that have a positive impact on everyday community life.

CSSE

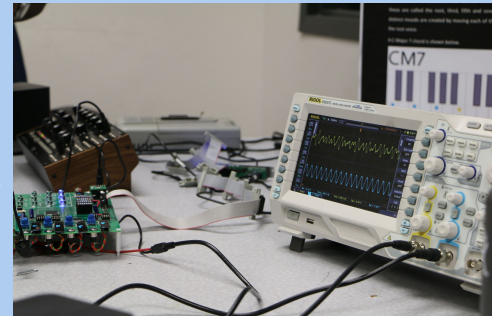
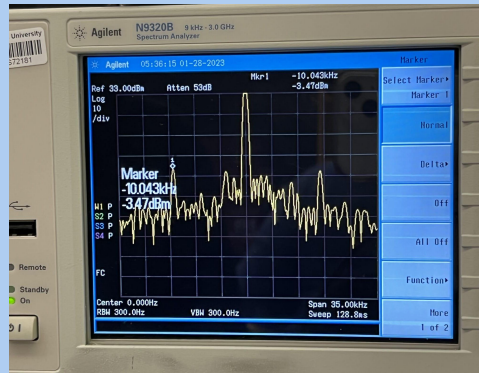
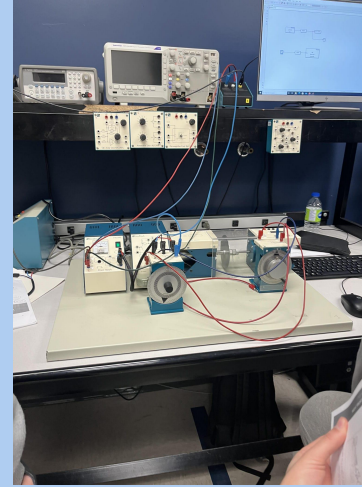
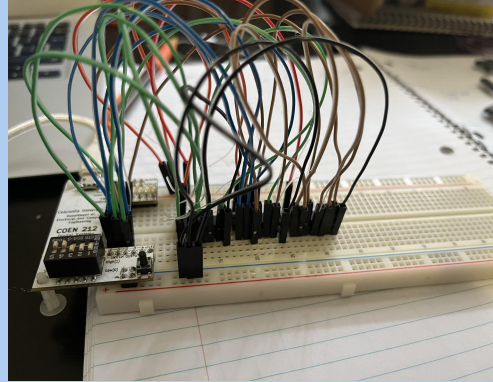
Computer Science: Develop and analyze software and systems. Study algorithms, data structures, and computing theory. Focus on innovation in areas like artificial intelligence, cybersecurity, and data science.

Software Engineering: Apply engineering principles to software development, focusing on user needs, quality, and project management. Emphasize teamwork and systematic processes throughout the software lifecycle.

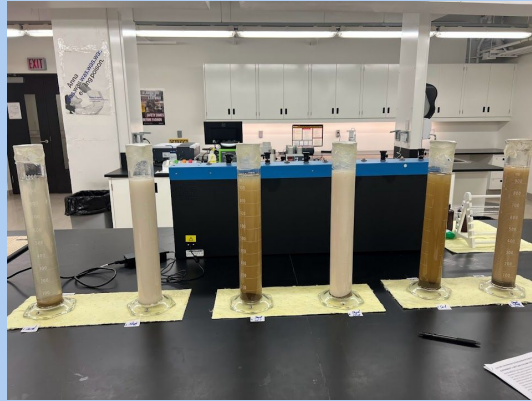
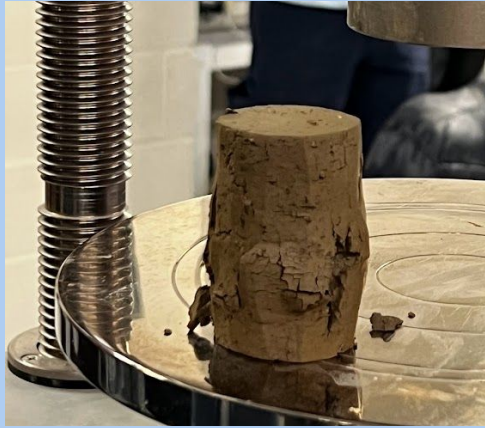
MIAE LABS



ECE



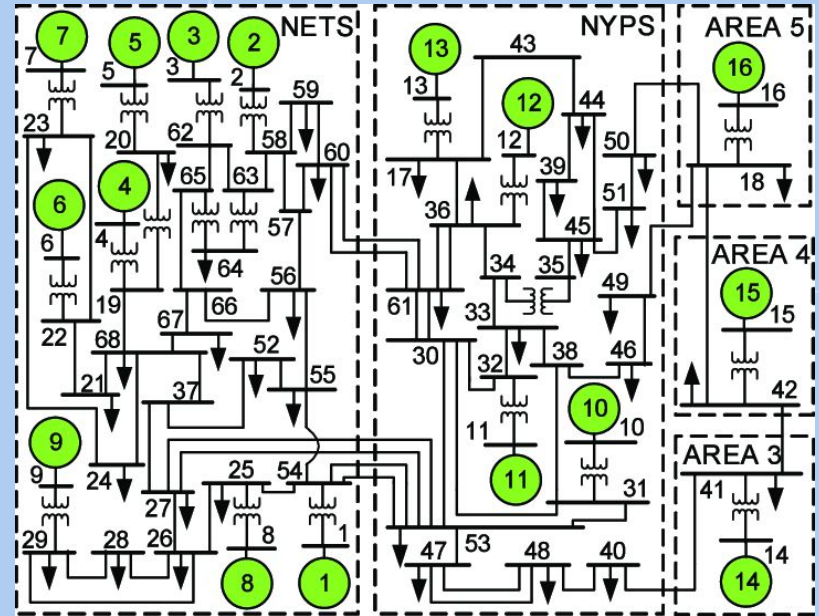
BCEE



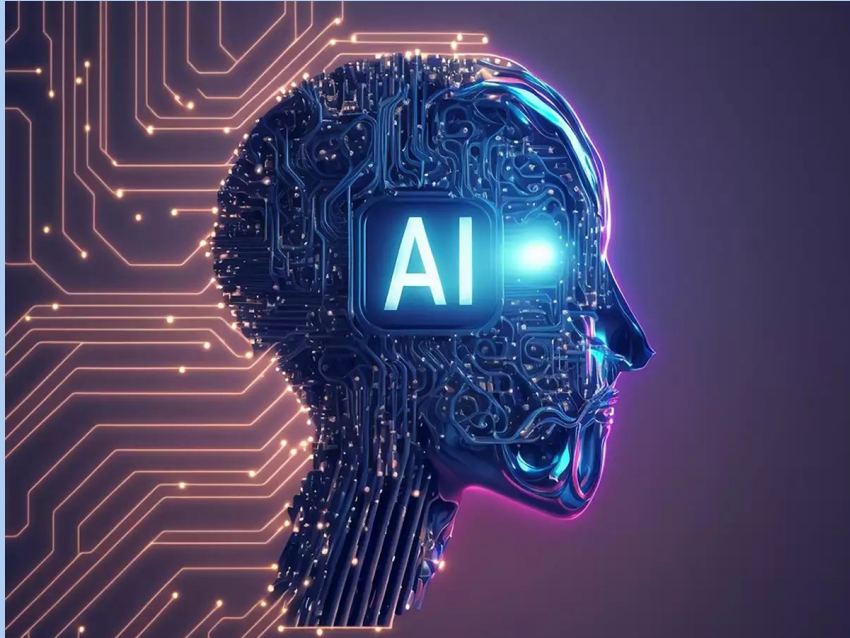
CSSE

*InheritncExm.java

```
1 class A
2 {
3     public void methodA() {
4         System.out.println("method of Class A");
5     }
6 }
7 class B extends A{
8     public void methodB(){
9         System.out.println("method of Class B");
10    }
11 }
12 class C extends A{
13     public void methodC(){
14         System.out.println("method of Class C");
15    }
16 }
17 class D extends A{
18     public void methodD(){
19         System.out.println("method of Class D");
20    }
21 }
22 class InheritncExm{
23     public static void main(String args[])
24     {
25         B obj1 = new B();
26         C obj2 = new C();
27         D obj3 = new D();
28         //All classes can access the method of class A
29         obj1.methodA();
30         obj2.methodA();
31         obj3.methodA();
32     }
33 }
34 }
```



CSSE



CSSE





MIAE

Chair: Dr. Martin Pugh
chair-MIE.encs@concordia.ca

Undergrad Program Director
(Mech. & Aero): Dr. Carole El
Ayoubi
carole.elayoubi@concordia.ca

Undergrad Program Director
(Industrial): Dr. Hossein Hashemi
Doulabi
hossein.hashemi@concordia.ca

IMPORTANT CONTACTS

ECE

Undergraduate program
assistant: **[Gulzat Temirova](mailto:Gulzat.Temirova@concordia.ca)**

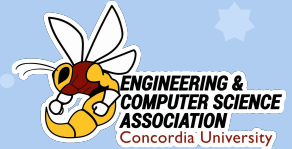
Student Professional
Development - For CO-OP:
[Stefanie Corona](mailto:Stefanie.Corona@concordia.ca)

Academic Director: **[Bahareh
Goodarzi](mailto:Bahareh.Goodarzi@concordia.ca)**

CSSE

Undergraduate Program
Assistant: Carly Carruthers
cse-ugrad@concordia.ca

CSSE undergraduate faculty
adviser (Dr. Houari)
nora.houari@concordia.ca



BCEE

Undergrad Program Director: Dr.
Joonhee Lee
joonhee.lee@concordia.ca

Program assistant: Ms. Debbie
Walker
d.walker@concordia.ca

ACADEMIC ADVISORS

ECE

MIAE

BCEE

CSSE

Program director

[Alexandra Baptista](#)

[Sabrina Poirier](#)
mie-upa@encs.concordia.ca

[Rebecca Dziedzic](#)

Gail Knafo
Gail.Knafo@concordia.ca

Program coordinator

[Cristina Barbu](#)

[Reihane Karimin](#)
aero-pa@concordia.ca

[Anaïs Loriston](#)

Allison DaCosta
coopwil.soen@concordia.ca

Stefanie Corona (Lead, Student Professional Development)

Stefanie.Corona@concordia.ca

Extra contacts BCEE



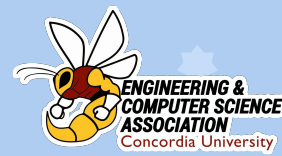
Online ticketing systems

- Gina Cody School
<https://www.concordia.ca/ginacody/students/academic-services/undergraduate/requests.html>
- BCEE advising
<https://www.concordia.ca/ginacody/building-civil-environmental-eng/students/undergraduate.html>

Course sequence

ECE	BCEE	CSSE	MIAE
<p><u>ELEC</u> <u>2023-24</u> <u>courses.xlsx</u></p> <p><u>COEN</u> <u>2023-24</u> <u>courses.xlsx</u></p> <p><u>COEN_Letters</u> <u>ELEC_Letters</u></p>	<p>Building engineering <u>course</u> <u>sequence</u></p> <p>Civil engineering <u>Course</u> <u>sequence</u></p>	<p><u>Software</u> <u>Engineering</u> <u>course sequence</u></p> <p><u>Computer</u> <u>Science course</u> <u>sequence</u></p>	<p><u>Mechanical</u> <u>Engineering</u></p> <p><u>Aerospace</u> <u>Engineering</u></p> <p><u>Industrial</u> <u>Engineering</u></p>

STUDENT SOCIETIES



ECE FOCUSED

IEEE: Through networking events, tutorials, and competitions and our lab we foster a supportive community where you can discover your passion.

HACK CONCORDIA: focuses on fostering a community of developers that are using technology to learn about and create amazing things.

SAE: allow students to apply classroom knowledge to real-life situations, challenging students to design, manufacture, test, and compete with a vehicle in a dynamic environment

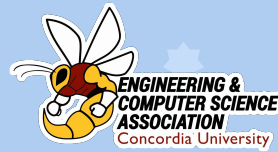
MIAE FOCUSED

SPACE Concordia: a student-run space agency, focused on developing and achieving operational excellence across rocketry, satellite, and space robotic domains.

CSME: undergraduate branch with a focus on educating students about the possibilities surrounding 3D printing.

IISE: provide mentorship to students and enhance their soft and technical skills to prepare them for their profession. In order to do so, we organize many events throughout the year such as plant tours, workshops, panels, social events, academic competitions, networking gatherings, and tutorials to expand the students' knowledge about the industrial engineering field.

STUDENT SOCIETIES



BCCE FOCUSED

Concordia Society for Civil Engineering (CSCE):

Mix learning with fun, hosting insightful workshops, bustling career fairs, and lively social events.

Concordia University Building Engineering Society (CUBES):

Practical experiences, networking sessions, and conferences. Focus is on enhancing skills through tutorials on software like AutoCAD and Revit

Troitsky Bridge Building Competition

The biggest bridge building competition in North America, with teams attending from all over the world

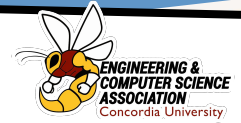
CSSE FOCUSED

Software Engineering and Computer Science Society (SCS):

Focus on creating a vibrant community around software engineering, computer science and computer engineering. Our goal is to enrich student life at Concordia and to help students succeed academically and professionally

Hack Concordia: focuses on fostering a community of developers that are using technology to learn about and create amazing things

Job opportunities



BCEE

Construction
**Environmental
Engineer**
Civil Engineer
Hydraulic Engineer
Estimation engineer
Site technician
Project manager
Structural engineer
Water management engineer

MIAE

Aeronautical Engineering
**Contracting Industrial
Engineer**
Maintenance/Automotive
Engineer
**Renewable Energy
Engineer**
Mechatronics
**Aerospace & Systems
engineer**
Consulting

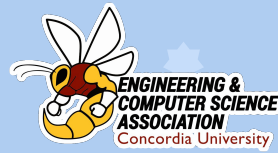
ECE

Embedded System
Designer
**Machine Learning
Engineer**
Data Scientist
**Renewable Energy
Engineer**
Signal Processing
Engineer
**Telecommunications
Engineer**

CSSE

Mobile App Developer
**Artificial Intelligence
engineer**
Game Developer
System Analyst
Software
Developer/Engineer
Cloud Engineer
Data Scientist

Surviving Engineering- Resources



Library Resources

(iPads, borrow a laptop, book a study room...)

Udemy - free access to Udemy for Business (over 4000 courses included)

Facebook for used books

Concordia, Moodle and Microsoft Authenticator apps



Crash courses

CSU Student Success Center (SSC) one-on-one free tutoring (Especially ECP courses!!)

Surviving Engineering Tips



**Balancing Life
and Academics**



**Talk to your
Professors/TAs**



**Attend as much
events and
workshops as you
can**



**Make use of all
campus
resources**



**Have a priority
list**



**Get an Agenda
(FREE at ECA office
<3)**

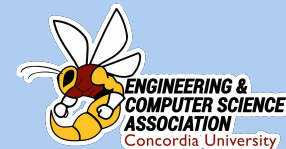


**Stay Connected, Online,
On Campus eg. ENCS
Discord**



**Get involved
with student
life !!!!**

Resources



CAPS

Aid with career search and connecting with employers, job bank



DOS

Training and ensuring safe environments for participants, networking with student clubs



CO-OP Workshops

Workshops related to internships



Faculty

Professors and TAs
Office Hours



SSC

The Student Success Centre



The Acad Team<3

We're one email away

Questions time

Events



Studies



Campus life



Jobs



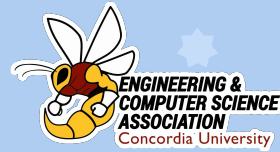
Co-op



Professors



MIAE - Guest Speaker

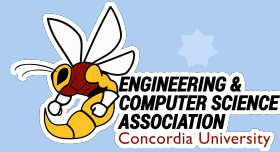


Philippe Larouche (Alumni)

- **Major:** Aerospace Engineering
- **Specialization:** Aerodynamics and Propulsion
- **Club Involvement:**
 - 2020-21 SAE Aero Coordinator
 - 2021-22 SAE Vice President
- **Internship:** Pratt & Whitney, PLM team
- **Full time Job:** Airbus, Weight & Balance Specialist



CSSE - Guest Speaker

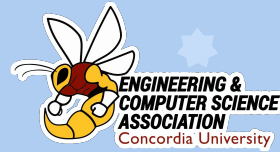


Constance Prevot

- **Major:** Software Engineering (2nd year)
- **Club Involvement:**
 - VP Competitions @SCS Concordia since 2022
 - VP Communications @CS Games 2024
 - 10+ hackathons, 5+ CTFs, and more
- **Internship:** Cybersecurity @Desjardins
- **Full time Job:** Cybersecurity consultant @onepoint for Desjardins
- **Best advice:** Participate, participate, participate



ECE- Guest Speaker

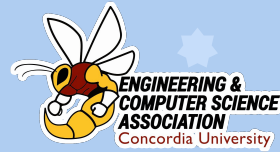


Alexandre Fontaine

- **Major:** Electrical Engineering (4th year)
- **Club Involvement:**
 - VP Social @IEEE Concordia 2022
 - VP Academics @IEEE Concordia 2023
 - 10+ hackathons, 5+ CTFs, and more
- **Internship:** Project Management @Perfection Elec.
- **Best advice:** Be curious and explore!



BCEE - Guest Speaker



Elsa Younes

Major: Building engineering (4th year)

Involvement:
ECA, CUBES, ASHRAE

Internships: Climatisation Bativac, Enertrak

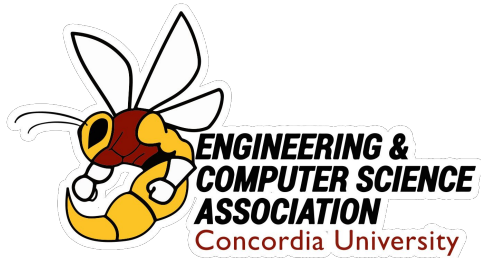


Questions

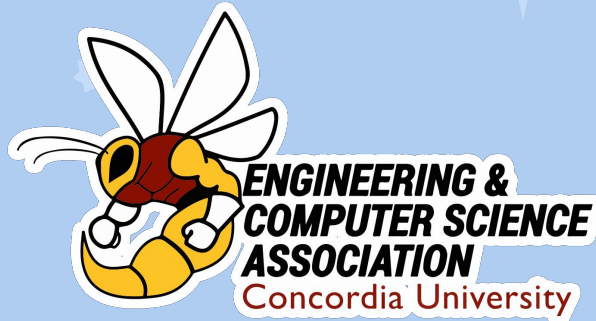
to guest speakers

Department Orientation Survey (ECA)

**YOU CAN
WIN ONE OF
TWENTY
\$25 GIFT
CARDS!!!**



THANK YOU



QUESTIONS?

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academic.director@ecaconcordia.ca



@ecaconcordia



Engineering & Computer Science
Association [ECA] - Concordia University