

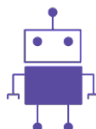


**Western  
Engineering  
Competition**

# **Delegate Package**

# WEC 2023-24

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# WEC 2023-24

## Welcome to WEC

The Western Engineering Competition brings together students from all disciplines and years in order to demonstrate their skills and gain valuable experience. There are many categories to choose from so there is something for everyone to showcase their strengths. The competition takes place over the second weekend in January. This is advantageous for most students as the competition is situated before the second semester's school work has picked up. Winners of WEC in each of the different categories qualify to compete in the Ontario Engineering Competition. This allows for students to compete against the best and brightest students in the province and prove that Western is the best! OEC also looks very good to future employers and also allows for networking opportunities with major engineering companies at the event itself.

## Theme

The theme this year is Natural Disasters! Against the backdrop of the recent forest fires that have swept across Canada, this theme invites participants to explore and interpret the profound impact of these cataclysmic events on our planet.

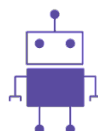
As flames dance through the vast Canadian landscapes, leaving a trail of destruction in their wake, we are reminded of the raw power and unpredictability of nature.

Participants are encouraged to delve into the multifaceted aspects of natural disasters, focusing on the intricate interplay between environmental factors, human resilience, and the urgent need for sustainable solutions.

## Land Acknowledgement

We acknowledge that Western University is located on the traditional lands of the Anishinaabek, Haudenosaunee, Lūnaapéewak and Attawandaron peoples, on lands connected with the London Township and Sombra Treaties of 1796 and the Dish with One Spoon Covenant Wampum.

With this, we respect the longstanding relationships that Indigenous Nations have to this land, as they are the original caretakers. We acknowledge historical and ongoing injustices that Indigenous Peoples (e.g. First Nations, Métis and Inuit) endure in Canada, and we accept responsibility as a public institution to contribute toward revealing and correcting miseducation as well as renewing respectful relationships with Indigenous communities through our teaching, research and community service.



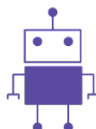
# WEC 2023-24

## Friday Schedule (Jan 12)

Time/Categories	Jr Design	Sr Design	Bio-Eng	Communication	Consulting	Debate	Innovative Design	Programming	Re-Engineering	Mini
3:30 PM										
3:45 PM										
4:00 PM										
4:15 PM										
4:30 PM										
4:45 PM	Debrief, ACEB 1450	Debrief, ACEB 1410			Debrief ACEB 1400			Debrief, ACEB 1420		
5:00 PM			Case Read Through: 1hr ACEB 2400						Case Read Through: 1hr ACEB 3420	
5:15 PM										
5:30 PM			Question Period						Question Period	
5:45 PM										
6:00 PM										
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7:30 PM	Build: 5 hrs									
7:45 PM										
8:00 PM										
8:15 PM										
8:30 PM					Build: 7 hrs			Build: 7hrs		
8:45 PM										
9:00 PM			Build: 6 1/2 hrs							
9:15 PM		Build: 9 hrs							Build: 7hrs	
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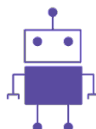
## Saturday Schedule (Jan 13)

Time/Categories	Jr Design	Sr Design	Bio-Eng	Communication	Consulting	Debate	Innovative Design	Programming	Re-Engineering	Mini Design	Career Fair
8:30 AM											
8:45 AM								Judges Debrief			
9:00 AM											
9:15 AM											
9:30 AM											
9:45 AM				Judges Debrief	Judges Debrief						
10:00 AM											
10:15 AM											
10:30 AM				Presentation/ Judging: 2hrs ACEB 2448, ACEB 2440	Presentation/ Judging: 2hrs ACEB 3445, ACEB 3450						
10:45 AM											
11:00 AM											
11:15 AM											
11:30 AM											
11:45 AM											
12:00 PM	Presentation/ Judging: 7hrs ACEB 1410 & ACEB 1415										
12:15 PM											
12:30 PM											
12:45 PM											
1:00 PM											
1:15 PM											
1:30 PM		Presentation/ Judging: 9.5hrs ACEB 1450, ACEB 1420									
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6:30 PM											



# WEC 2023-24

## Sunday Schedule (Jan 14)

[illegible]

# WEC 2023-24

## Junior Design

Junior design is for first and second-year engineering students in teams up to four. Participants are tasked with designing and constructing a feasible and functional solution to a given real-world problem. Constraints of this competition are time and resources. Participants are graded on how well their design accomplishes the assigned task, as well as how they demonstrate their design process in a short presentation.

### ***Schedule***

#### **Friday:**

Debrief: 4:45pm - 5:00pm (ACEB 1450)

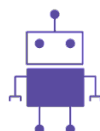
Build: 5:00pm - 10:00pm

#### **Saturday:**

Presentation/Test: 8:30am - 2:30pm

### **Directors**

Nigel	Wright	nwrigh32@uwo.ca
Kate	Rowatt	krowatt2@uwo.ca



# WEC 2023-24

## Senior Design

Senior design is for upper-year undergraduate students in engineering in teams up to four. Participants are tasked with designing a feasible and functional solution to an advanced, modern, real-world problem with a technical aspect. Students will have limited materials and a constrained time frame to complete this challenge. Participants are graded on how well their design accomplishes the assigned task, as well as how they demonstrate their design process in a short presentation.

### **Schedule**

#### **Friday**

Debrief: 4:45pm - 5:00pm (ACEB 1410)

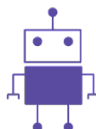
Build: 5:00pm - 2am

#### **Saturday**

Presentation/Test: 9:00am - 6:30pm

### **Directors**

Rafael	Estrada	restrada@uwo.ca
Adam	Kenney	akenney3@uwo.ca



# WEC 2023-24

## Bio-Engineering

Students will formulate a team of up to four members in order to overcome a biomedical engineering problem. Students will be given a narrative with one or several problems in it that must be solved with engineering principles. If several problems exist in the narrative, students will only be required to create a solution to one of them. This is an interdisciplinary challenge so the biomedical problems are designed to allow for solutions from all engineering streams. Participants will prepare a concise presentation to explain their solution, which will be judged based on creativity, comprehensiveness, novelty, thought-process, feasibility, and presentation skills.

### ***Schedule***

#### **Friday**

Case Read Through: 4:45pm - 5:45pm (ACEB 2400)

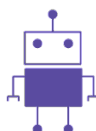
Build: 6:00pm - 12:30am

#### **Sunday**

Presentation: 11am - 12pm

### **Directors**

Rachael	Conliffe	Rconliff@uwo.ca
Vic	Polous	vpoulos@uwo.ca





# WEC 2023-24

## Communication

Students working as an individual or partners are challenged to present a current technological topic or current issue selected by them showing the social, economic, and environmental impact. Participants are evaluated through a presentation that will demonstrate their entire idea and research behind it encapsulated. The judging panel is composed of a group of experienced professionals.

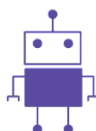
## ***Schedule***

### **Saturday**

Presentation: 10am - 12pm

## **Directors**

Annie	Qin	aqin4@uwo.ca
Maryam	Azher	mazher@uwo.ca



# WEC 2023-24

## Consulting

Students, in groups of up to four, are tasked with developing a dynamic multi-disciplinary solution to a given problem that is catered to meet the provided needs of the client. Participants will have to deliver a presentation as well as a concise report with their solution. Teams are graded on how thorough their solution is, how well it accomplishes the given task, and how sufficiently it meets the needs of the client.

## ***Schedule***

### **Friday**

Debrief: 4:45pm - 5:00pm (ACEB 1400)

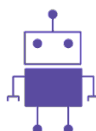
Build: 5:00pm - 12am

### **Saturday**

Presentation: 10am - 12pm

## **Directors**

Joseph	Luca	jluca2@uwo.ca
Ethan	Pollock	epollo4@uwo.ca



# WEC 2023-24

## Debate

Students working as an individual or partners must develop a For or Against argument to debate against another team on current issues. The debate competition functions as a tournament style where teams must continually win through a bracket in order to come first. Teams are evaluated during their debates on how well argued their side was, how well they debated their opponents' arguments, as well as overall who "won" the debate.

## Schedule

### Sunday:

Debate: 10am - 3:30pm, Closing Ceremony

Simon	Gagliardi	sgaglia3@uwo.ca
Katie	Norris	knorris7@uwo.ca
Mike	Witzel	mwitzel2@uwo.ca

## Innovative Design

Engineering students in groups of up to six are required to apply their knowledge to design and develop a product or service that is able to cater to an unmet need in society and demonstrate its feasibility. The fully fleshed out idea, including a functioning prototype, must be demonstrated in a 20-minute presentation to a group of judges composed of experienced professionals.

## Schedule

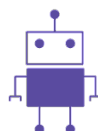
### Sunday

Presentation: 9am - 1:30pm

Innovative Design Fair: 2pm - 4pm

## Directors

Haris	Malik	hmalik63@uwo.ca
Gurnoor	Jande	gjande@uwo.ca



# WEC 2023-24

## Programming

Teams of up to four students are given a prominent problem faced in today's society and must create a solution that successfully overcomes this issue using Industry-Quality Software. Participants will be graded on how well the software accomplishes the specific goal as well as efficiency and a presentation explaining their ideas and solutions.

### **Schedule**

#### **Friday**

Debrief: 4:45pm - 5:00pm (ACEB 1420)

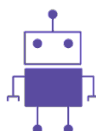
Build: 5:00pm - 12am

#### **Saturday**

Presentation: 9am - 12pm

### **Directors**

James	Morales	jmorale6@uwo.ca
Felix	Zhou	jzhou744@uwo.ca
Dominic	Bazina-Grolinger	dbazinag@uwo.ca



# WEC 2023-24

## Re-Engineering

Students will work individually or in pairs to apply the re-engineering process to an existing technology or design in order to enhance it's original functionality or add completely new functionality. Teams will have to re-engineer a specified product under a completely new set of constraints while also considering the economic impact. Solutions will be presented to judged and will be assessed based on originality, feasibility, practicality, and marketability.

### ***Schedule***

#### **Friday**

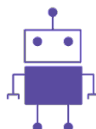
Case Read Through: 4:45pm - 5:45pm

Build: 6:00pm - 1am

#### **Saturday**

Presentation: 9am - 12pm

Matthew	Short	mshort25@uwo.ca
Derin	Yilmaz	dyilmaz2@uwo.ca



# WEC 2023-24

## Mini Design

The Mini design competition is for grade 11 and 12 students. Each student will work individually or in pairs. Participants are tasked with designing and constructing a feasible and functional solution to a given real-world problem. Constraints of this competition are time and resources. Participants are graded on how well their design accomplishes the assigned task, as well as how they demonstrate their design process in a short presentation.

## Schedule

### Sunday

Debrief: 8:45am (ACEB 3420)

Build: 9:00am - 1:00pm

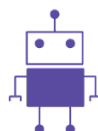
Presentation/Testing: 1:30pm - 2:40pm

## Directors

Isha	Rana	irana4@uwo.ca
Saige	Lustgarten	slustgar@uwo.ca

## Check-In

Check In starts at **2:30pm on Friday Jan 12th, 2024** in the **ACEB Atrium**. Upon check in, you will receive your WEC merch. If your competition does not start until Saturday or Sunday, **check in will also be available from 8:00am on each day.**



# WEC 2023-24

## Career Fair

There are many opportunities during the WEC weekend to meet different like minded industry professionals. On Saturday, from 10am - 2pm, when not competing, you could walk around the Career Fair at ACEB Atrium and engage in further discussions with one of our elite companies including Autotube, TBK Creative, Cornerstone and Strik Baldinelli Moniz.

## Communication

### Discord

Throughout the weekend, the primary form of communication will be through Discord. Prior to your arrival, please download the Discord app on your phone and your computer (it is also available through web browser). It is your responsibility to join the Discord server using the link below. Once you join, please follow the instructions in order to make sure you are assigned the correct channels. Discord will also be used for questions and answers during the competition. Updates throughout the competition will also be done on Discord. Please also ensure your notifications and do not disturb hours are set appropriately.

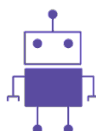
Discord Link: <https://discord.gg/FccHC2DV>

***Please go into role selection and select your role and competition***

### Google Classroom

Competition Packages will be released on OWL/Google Classroom (category dependent) and team deliverable submissions must be submitted on there as well.

Please note, the google classroom will be released **via Discord and via Email; competition packages will be released immediately following competition briefings!**



# WEC 2023-24

## See you soon!

We are incredibly excited to welcome every one of you to WEC 2024! If you have any questions or concerns, please feel free to contact any of the organizers. We have that you enjoy your time and have a weekend full of fierce competition with lots of fun times, and that regardless of the outcomes, you leave with new insight into many of the complicated, open-ended, and real engineering problems of the modern world that you can apply towards your engineering career.

For any further questions, please contact our VP Logistics or Co-Chairs or check out our website and social media!

Co-Chairs	Harry	Angellotti	hangello@uwo.ca
	Sam	Angellotti	sangelo@uwo.ca

VP Logistics	Chole	Yu	cyu425@uwo.ca
	Alexa	Swales	aswales2@uwo.ca

**Website:** <https://www.westernengineeringcompetition.ca/>

**LinkedIn:** @Western Engineering Competition

**Instagram:** @ues\_wec

