



We cordially invite you to attend the 18th annual Capstone Design Project Competition at the Western Sarnia-Lambton Research Park. This is a very special event for Western University's Chemical and Biochemical Engineering fourth year students and faculty, our local industries, and our Sarnia-Lambton community.

On **April 5, 2024**, 10 teams of students will present their Capstone Project Designs to fellow students, faculty, volunteer judges from industry, and Sarnia-Lambton community members.

The topics covered include: Biomass Conversion to Chemicals, and Waste Valorization and Carbon Dioxide Utilization. Please join us.

Friday, April 5, 2024
9:45 AM to 3:00 PM
Registration at 9:30 AM

Western Sarnia-Lambton Research Park
1086 Modeland Road
Sarnia, Ontario N7S 6L2

R.S.V.P.

Dr. Katherine Albion

kalbion@sarnialambtonresearchpark.ca or through Eventbrite

Lunch and Refreshments Are Provided
Please Enter at the Research Park's Main Reception Entrance



Capstone Design & Competition: Friday, April 5, 2024

Room 1	Biomass conversion to chemicals
Room 2	Waste valorization and CO ₂ utilization

9:30 - 9:45	Arrival and Registration	
9:45 - 10:15	Welcome and Judges' Introduction	
	Room 1	Room 2
10:15 - 12:00	Group 8: Conversion of Biomass to Sustainable Aviation Fuel Natalie Connors, Kaitlyn Burghardt, Tayte Bowron, Sara Wiwatowski	Group 3: Carbon Dioxide Utilization for the Sustainable Production of Dimethyl Carbonate Irina Mercoushev, Tyson Daniel, Mcgee Odger, Dylan Brant, Tavleen Dhindsa
	Group 10: Wheat Straw Fermentation for the Production of Lactic Acid in the Beauty Industry Malak Dali, Arden Geyer, Seonguk Jung, Murwan Osman	Group 5: Circular Process for Disposal of Polyethylene Waste Plastic Films Through Pyrolysis Katherine O'Hare, Abby Maves, Samantha Goertz, Alida Teodorescu
	Group 2: Production of Biodiesel and Biohydrogen from Microalgae Pierre-Christof Ascherl, Savana Bosco, Maxine Brown, Manaswini Dias	Group 4: The Valorization of Domestic Organic and Grocery Food Waste Through Anaerobic Digestion Seemal Saeeda, Ranim Ali, Andrew Sarazin, Benjamin Stenning
12:00 - 1:00	Lunch Break	
1:00 - 2:15	Group 1: The Extraction of Chlorophyll Through the Fermentation of Chlorella vulgaris for Cosmetic Applications Sophie Langlois, Rebecca Koshy, Keelin McAllister, Emily Speak	Group 7: Pyrolysis of waste plastic films Laura Sievwright-Johnston, Guoshan Min, Katrina Tsvetanov, Nicole Theuri
	Group 9: Green Ammonia Production Through Biomass Gasification & Carbon Capture Eduardo Leon Castellano, Oliver Filso, John Graham, Holly Lavigne	Group 6: Carbon Capture and Utilization – Production of Dimethyl Carbonate Blake Cole, Masaharu Ono, Mustafa Osman, Fernanda Pereira
2:15 - 2:45	Break and Judge's final deliberation	
2:45 - 3:00	Closing Remarks & Awards	