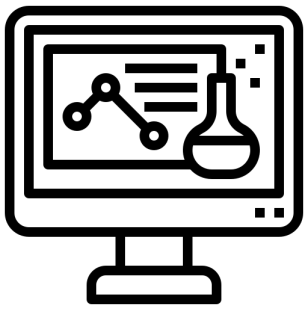
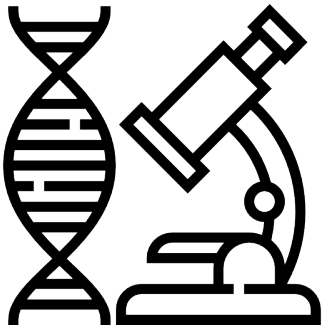
W.O.M.E.N.
2023

April 22, 2023
8:00 AM - 4:00 PM

Cornell Chemical and Biomolecular Engineering Women's Group

Thank you to our sponsors:

GPSA

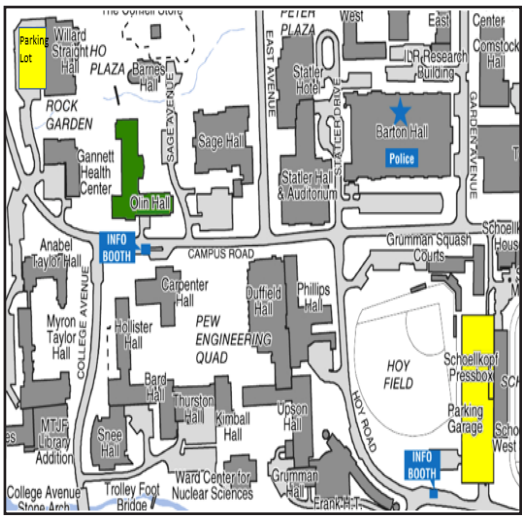
PCCW
PRESIDENT'S COUNCIL of CORNELL WOMEN

CORNELL WOMEN'S RESOURCE CENTER

Connect with us online:

Location and Parking

A separate document has been provided with detailed parking information and directions. Cornell has a large campus and several buildings use “Olin” in their name. The program will be held in Olin Hall. Olin Hall is highlighted here in green. Car parking is available on campus in two locations in yellow. The first one is Willard Straight Parking Lot down the hill from Olin Hall. The second one is Hoy Road Parking Garage which is a bit further ahead from Olin Hall near the big Hoy sports field.

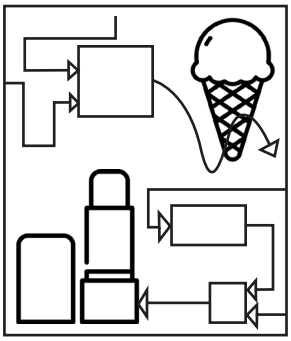


Itinerary

	Students	Parents
8:15-9:15 AM	Check In (Entrance)	Check In (Entrance)
9:15-9:20 AM	Opening Message (255)	Opening Message (255)
9:20-9:45 AM	Trivia (255)	Trivia (255)
9:45-10:30 AM	Bio-Eng. Lab (128)	Careers in STEM (255)
10:30-11:15 AM	Mat. Eng. Lab (216)	Prof. Gadikota Talk (255)
11:20 AM -12:00 PM	Faculty/Alum. Panel (255)	Faculty/Alum. Panel (255)
12:00-1:00 PM	Lunch	Lunch
1:15-2:00 PM	Proc. Eng. Lab (UnitOps)	Dr. Franklin Talk (255)
2:00-2:45 PM	Parent-Student Lab (145)	Parent-Student Lab (145)
3:00-3:45 PM	Undergrad Panel (255)	Undergrad Panel (255)
3:45-4:00 PM	Closing Address (255)	Closing Address (255)

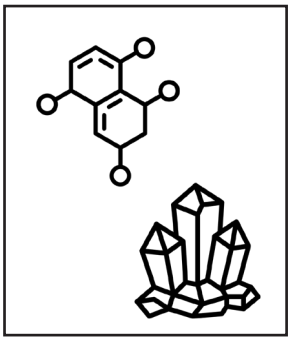
Lab Tours

Process Lab



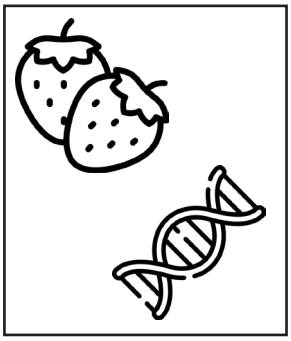
A lab session to discuss the chemistry behind lip balm and ice cream production, followed by hands-on activities to create these products. This lab demonstrates how chemical engineering plays a role in manufacturing everyday products.

Materials Lab



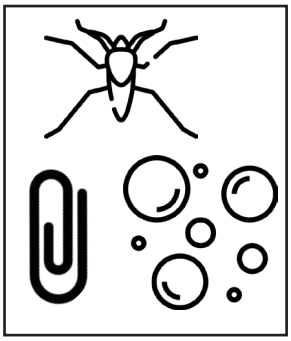
The materials lab will have activities to explore important concepts used in materials research, such as polymer cross-linking, self-assembly, and crystals. Participants can create their own silly putty, fake caviar, and bath bombs, and learn how these substances are made.

Bioengineering Lab



In the Strawberry DNA lab we will be extracting DNA from strawberries using common materials and supplies that can be found at home. DNA forms the basis of inheritance in eukaryotic and some prokaryotic cells and is a key part of the central dogma. In this lab participants will learn about the structure of DNA and how this structure forms the bounds upon which we develop biological assays and techniques.

Parent-Student Lab



In the Parent-student lab, we will learn about a property of fluids called surface tension, the mystery behind the ability of water striders to skate across the surface of water without sinking. In order to get a hands-on experience, we will perform a few fun and cool experiments including “milk fireworks”, “suddenly sinking paper clips” and “Irregular shaped loop taking a circular shape”.

Parent Lectures

Careers in S.T.E.M.

with Apoorva Jain, PhD Candidate,
and Reeby Puthur, MS Student

Join Reeby and Apoorva in an interactive session to explore different paths to enter STEM and the thrilling journeys it can lead to. Learn about the crucial role STEM professionals play in our daily lives and discover the benefits of pursuing a STEM degree. Get inspired and uncover the endless possibilities of this exciting field.

Achieving High Impact Outcomes by Synergistically and Creatively Aligning Research, Teaching and Service Activities

with Prof. Greeshma Gadikota

Realizing high impact societal and scientific outcomes with finite resources requires synergistic integration of all activities. Here we discuss approaches to integrate research, teaching and service activities even though these activities may seem disparate. Approaches to synthesize varied perspectives, harness diverse teams, and actively seek feedback to achieve high impact outcomes are discussed.

Thinking Ahead - College Admission Preparation and Q&A

with Dr. Trevor Franklin

Hosted by a chemical engineer with a background in admissions and college counseling, this session will focus on timely actions to feel prepared for college admissions at the end of high school. Ample time for Q&A with an admissions expert will follow, so bring your curiosities with you!

Panels

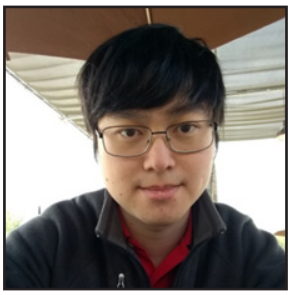
Faculty

Allison Godwin
Allison Godwin is the first engineering education hire at Cornell University, joining the faculty in 2023 as an Associate Professor. Her research on inclusive engineering education has won numerous best paper awards, and she is an award-winning teacher and graduate mentor.

Semida Silveira
Semida Silveira is a Professor of Practice in Systems Engineering. Before coming to Cornell, she was a Full Professor in energy systems planning at KTH Royal Institute of Technology in Sweden, where she established and led the Energy and Climate Division of the Energy Technology Department for twelve years.

Julia Dschemuchadse
Julia Dshemuchadse is an Assistant Professor in Materials Science and Engineering. She studies the structures of complex crystalline materials and their formation, aiming to understand the rules that govern their assembly and stability and to ultimately be able to predict and design new materials.

Alumni



Franklin Lee
Franklin Lee is a Senior Machine Learning Modeling Engineer at Corning Incorporated in Painted Post, NY. In his current role, Dr. Lee focuses on developing and applying physics-based and data-driven modeling tools toward the acceleration of new materials discovery and design.

Brian Bauer
Brian is a seasoned international energy industry executive with experience in the United States, Asia, and Europe. In addition to his role here at the Smith School, he serves as an Entrepreneur-in-Residence at Cornell's Center for Regional Economic Advancement, and as the COO of Ecolectro Inc.

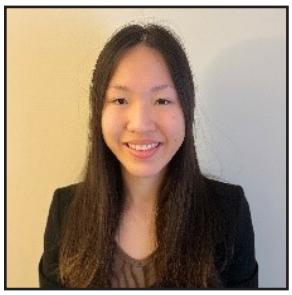
Erik Huber
Erik holds engineering degrees from Alfred, Buffalo, Columbia, and Cornell (Ph.D. '16) and has industrial experience in filtration and separation. He is currently a Director of Research and Development at Cytiva focusing on mass transport dynamics in upstream and downstream bioprocessing.

Panels

Undergraduate Students

Angela Sem
Senior
Major: Chemistry
Minor: Psychology

Daniel Group



Alexandra Pang
Junior
Major: Economics and Science & Technology Studies

DeLisa Group

Pom Strauss
Sophomore
Major: Biological Engineering
Minor: Computer Science
Daniel Group

Constance Newell
Junior
Major: Biological Sciences with a concentration in Genetics

Monona Khare
Senior
Major: Chemical Engineering

Robinson Group