



WOMEN IN ENGINEERING

SCIENCE • TECHNOLOGY • ENGINEERING • ARTS • MATH

Wednesday,
May 15th
8:30am - 2pm

Sponsored by:



ARCONIC
Innovation, engineered.



Saint Lawrence County (NY) Branch



www.canton.edu/engineers/women.html

Automotive Technology

Valve Cover Races

Students will change the amount of weight, weight placement, aerodynamics, and contact patch to see who will win either distance or speed.

Presenters: Brandon Baldwin & Jesse Markley

Location: NS 124

Chemistry

The Chemistry of Soap Making

Learn the chemistry of soap making, known as saponification, where fats and oils are converted to a substance that we use every day to keep clean. Soap made using cold processing involves reacting a specific blend of fats and oils with a strong base to create a neutral soap. However, this process can take several weeks for the chemical reaction to complete. In this workshop, the cold processing technique will be demonstrated. Then you can try your hand at crafting a bar of soap from a neutral melt-and-pour soap base and get creative with fragrances and colors.

Presenter: Nicole Heldt

Location: Cook Hall 207

Civil & Environmental Engineering Technology

Water Sleuth

Get ready to unleash your inner detective as you dive into the world of environmental engineering! In this exciting workshop, you'll use cutting-edge equipment and techniques to test water quality for various parameters like pH, dissolved oxygen, fertilizer nutrients, and more. By analyzing water samples, you'll uncover their origins and determine if they're contaminated. Environmental engineering combines the thrill of exploration with the power of science and engineering to protect human health and the environment. Whether you prefer fieldwork, lab experiments, or desk research, there's a place for you in this dynamic field. So, grab your lab coat, slip on some safety gear, and join us as we investigate how pollutants affect our water supplies!

Presenter: Dr. Adrienne C. Rygel

Location: NS 135





PolyForce Bridge Challenge

Participants will have the opportunity to construct robust bridges using lightweight plastic members. The challenge is to design a bridge that is both strong and lightweight, with the ultimate goal of achieving the perfect balance. The winner will be recognized for creating the strongest and lightest bridge, showcasing the prowess of women in engineering.

Presenter: Dr. Saeid Haji Ghasemali

Location: NS 110

Blowing in the Wind

Get blown away by this wind energy workshop, where teams of students will design and build their own wind turbines using provided materials and test their creations. Students will learn the basics of wind energy design and apply these guidelines to create powerful wind turbines.

Presenter: Jessica Fischer

Location: NS 138

Solar/Fuel Cell Operated Fan and Car

Explore electricity generation from sustainable resources like the sun, fuel cell and witness the power conversion processes that allow to power a motor or a lightbulb.

Presenter: Dr. Roman

Location: NS 111

Cybersecurity

Activity Title: Hack this!

Come and play with our game, DigitalPASS! Become a hacker and hack other participants' accounts! We teach you how to face threats and how to stay safe online! It's a fun game!

Presenter: Dr. Kambiz Ghazinour

Location: NN 124

Password Games

If you are interested in computer related programs, stop by the Computer Networking Lab to play the password games. You can enter the provided URLs on any web browser to play them. Each game has five levels, and you need to find or guess the password at each level successfully to complete it.

Presenter: Minhua Wang

Location: NN 128

Electrical Engineering Technology

Build A Secret Alarm

In this learning activity you will learn how to make a secret alarm. It is a perfect device to scare off someone who opens your desk, dresser, cabinet etc. Simply turn the arming switch to the position. You have a couple of seconds to put your secret alarm in desk and close the drawer, the next time someone opens it, a loud obnoxious noise comes from horn until the unit is reset.

Presenters: Stephen Frempong & Dr. Rashid Aidun

Location: NN 118

Game Design & Development

3D Animation of Game Characters

In this class we'll learn the maya interface and take premade character rigs to learn how to animate them in ways that would be used in video game production.

Presenter: Morgan Hastings

Location: NN 119

Mechanical Engineering Technology

Ping Pong Ball Launchers

Learn about air-powered devices the fun way and compete against your friends. Be the best at hitting a series of targets with a ping-pong ball launcher and win bragging rights!

Presenters: Paul Todd

Location: NS 101

Air-Powered Mini Dragsters

Build an air-powered dragster your way and race to the stars!

Presenters: Dr. Lucas Craig & Cullen Haskins

Location: NS 111

Mechanical Engineering Technology

Design, manufacturing, and machine shop, come and see some of the machine elements manufactured and 3D model of mechanical parts and a typical machine shop lab.

Presenter: Dr. P.S. Dhanasekaran

Location: NS 106

Applied Physics

Materials Analysis and Microscopy

Microscopy is the technical field of using microscopes to view samples and materials that cannot be seen with unaided eye. Materials analysis is the process by which a material's structure and properties are probed and measured. In this session, you will analyze our common materials like aluminum, copper and iron, and design and build their crystal structures. Students will examine their real structure using metallurgical microscope; and learn how processing, structure, properties and performance of these materials are inter-related.

Presenter: Dr. Lawretta Ononye

Location: NN 125





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