



The U of A, CEEA and SPARK-ENG Presents:  
"How to Engineer the Alberta Science Curriculum"

Monday June 17, 2024

Description: Please join us at the University of Alberta situated on Treaty 6 territory, traditional lands of First Nations and Métis people, for a professional learning day that brings K-12 teachers together to engage with the engineering educators from institutions across Canada and the U of A Faculty of Engineering and programs.

Cost: \$100 (Limited to 50 participants) Early bird rate \$85

Schedule:

07:30 – 08:30 AM	Breakfast Registration and Networking
8:30 - 9:00 AM	Welcome and Opening Remarks Breakfast with the Opening speaker
9:00 -10:00 AM	Opening Speaker <a href="#">Dr. Elmer Ghostkeeper</a> (select Speaker section)
10:00-10:30 AM	Conference Break (ETLC Solarium)
10:30-12:00 PM	Three concurrent sessions to choose from

**Session 1:** DiscoverE LEGO Spike - Robot Relay - This project has great information about gear ratios, forces, and acceleration. Lots of physics curriculum tie-ins.

**Session 2:** DiscoverE Carbon Capture - This project is designed to teach students about carbon dioxide from the perspective of chemical and environmental engineers. While exploring Carbon Capture and Storage (CCS) technology, students will build their knowledge of the carbon cycle, pH scale, and stoichiometry.

Designed for grade 11, students will then put their skills to practice performing a series of experiments to create, remove, detect, and measure carbon dioxide from an air sample.

**Session 3:** DiscoverE Structures and Forces - Grade 7 students will learn about compressive and tensile forces and the role they play in structures through building their own gravity-defying tensegrity table!



- 12:00 – 1:00 PM      Conference Lunch - ETLC Solarium with conference attendees
- 1:00 -2:30 PM      Three concurrent sessions to choose from  
**Session 1:** DiscoverE LEGO Spike  
**Session 2:** DiscoverE Carbon Capture  
**Session 3:** DiscoverE Structures and Forces
- 2:30-3:00 PM      Conference Break
- 3:00-4:00 PM      Optional Tours (choose one)  
MECE Machine Shop, nanoFAB, ICE Incubator, Elko Engineering Garage

Teachers can register here: (<https://ceea.wildapricot.org/event-5597535> ) by May 13 for early bird registration and June 15 for regular registration. The K-12 teacher day has a limited registration of 50 participants and registration will close when the limit is reached. Please register early to avoid disappointment.