

University of Calgary Session Descriptions 2017

Safety note: For the safety of participants in all sessions, *Explore IT* and the University of Calgary would ask that only closed-footed shoes be worn (no sandals) and that participants bring something to tie long hair back in the labs. Thank you!!

Building a Galaxy with Code

Every student should have the opportunity to learn computer science. It helps nurture problem-solving skills, logic and creativity. By starting early, students will have a foundation for success in any 21st-century career path. In this session, you will learn how to program droids and create your own Star Wars game!

Robots (EZ Robot & STEM Learning Lab)

The future is robotic! Are you ready to learn how to program a robot to dance and talk? Discover how technology and engineering is changing the fast and fun paced world of robots with EZ Robots and STEM Learning Lab. Working in groups you will learn how to program the robot to walk, dance and sign with the latest technology.

Electronic Gizmos

Here it is! An exciting hands-on opportunity to learn the skills you need to construct (and take home with you) your very own “electronic gizmo.” You will assemble a simple circuit board with electronic components and even use a soldering iron.

Engineering Design

Use your engineering and design skills to create a weight-bearing zip-line. This will require team-work, innovation, and problem-solving skills. You will get to see engineering students in action, and see how they use problem-solving techniques to solve real-world problems.

Find your way with GPS!

You have just discovered an old map of the University of Calgary with a strange X on it! Your curiosity is awakened! Is it a treasure? Discover how GPS can help you find what is hidden behind the X and if X really marks the spot! **Please note:** Part of this session requires you to be outside so please bring shoes and a coat suitable for the weather.

The Nature of Light

Light is an important part of how we communicate. We use it to transmit our phone calls, text messages, photos, and to listen to the radio. But what is light? It does not have mass, so it is definitely not "matter". Beyond that, scientists aren't sure. Some think it is a wave, some think it is an "energy particle". Explore what light is (and isn't), and have some fun with lasers, lenses, mirrors and more!