SD22

Okanagan COLLEGE

CAREER PROGRAMS

ENGINEERING SAMPLER

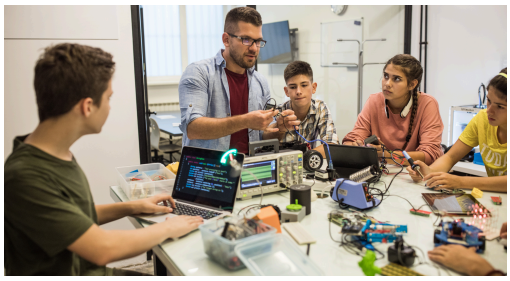
CAREER PROGRAMS

The Engineering Sampler program introduces students to the multifaceted world of engineering. Students will explore four key engineering fields and learn fundamental principles and gain an understanding of the design process. This program combines theoretical learning with hands on activities, providing students with insight into the profession and the educational pathways available to them. Students will also analyze problem solving strategies and be introduced to key systems and applications within the engineering sector. Whether you're passionate about building structures, creating machines, managing water resources, or exploring electronics, this course offers a dynamic and engaging entry point into the engineering field.

February to June **Students in grades 10 to 12**

Program Delivery: Hybrid - Combination of online and in-person sessions.

Students will receive one grade 12 elective course (4 credits) for Engineering 12.



Students will explore the following:

Water Technology Engineering
This course explores the fundamentals of Water Engineering Technology. Students will learn about the water cycle, water treatment processes, and water and wastewater systems. Key topics include hydrology, water quality analysis, sustainable water management and water systems operations and maintenance. Through hands-on field and laboratory work, students will gain practical skills in environmental monitoring and water resource management.

Electronic Engineering
This hands-on course explores the fundamentals of Electronic Engineering Technology and is tailored for innovative high school students like you. Students will learn how to apply the fundamentals of electronic circuits in real-world applications. As the course develops, students will design and construct their own circuits such as a weird sound generator, a lightactivated alarm, or an environmental monitor, all while enhancing their microcontroller programming skills. Blending theoretical learning with extensive practical play, this course will equip learners with valuable electronics design and troubleshooting skills that are applicable across many fields.

Civil Engineering
Civil Engineering Technology is the broadest discipline of Engineering and can be found all around us. It deals with the design, construction, and maintenance of both the physical and naturally built environment, from buildings and roads to cars and construction. In this course, we will explore the grass roots of Civil Engineering and learn about its impact on society and urbanization in Canada. Topics explored will include surveying, hydraulics, computers, and soils.

Mechanical Engineering
This interactive course examines the foundational principles of Mechanical Engineering Technology. Through hands on lab activities, students will investigate the Properties of Materials, Fluid Power, Robotics, CAD and Automation. This program will use multimodal delivery methods which may include site visits, digital media, and/or outdoor exploration to a low participants to demonstrate their learning in multi-faceted ways.

For more information

https://www.sd22.bc.ca/

Contact your school Career Coordinator