

Mechanical Engineering Technology



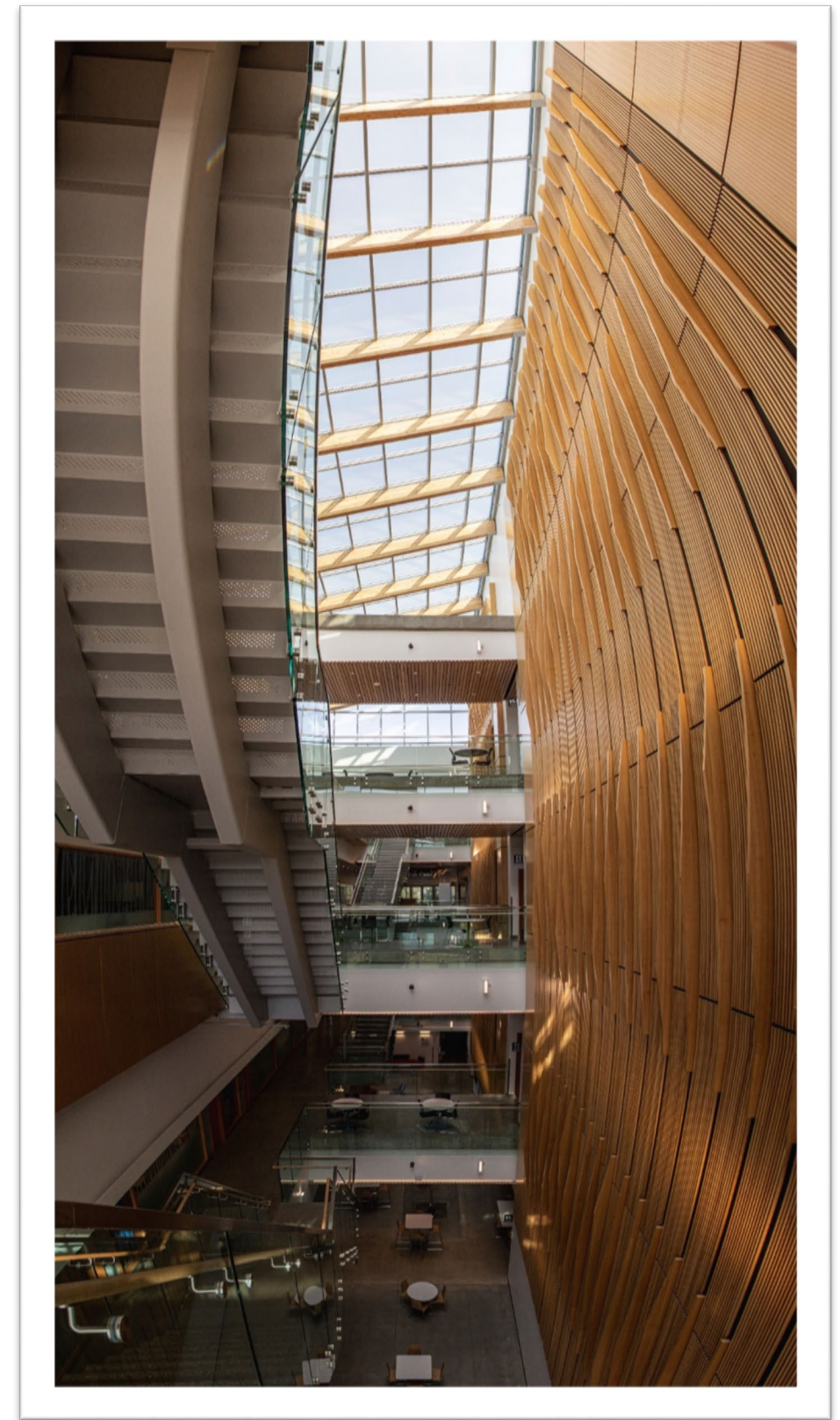


Territorial Acknowledgement

Camosun College is located in beautiful Victoria, British Columbia with campuses on the Traditional Territories of the Lekwungen and W̱SÁNEĆ peoples. We acknowledge their welcome and graciousness to the students who seek knowledge here.

Camosun College

- ▶ Camosun College is B.C.'s largest public college
- ▶ 19,000+ students
- ▶ 1,200+ faculty and staff
- ▶ Programs range from arts and business to tech and trades to university transfer and continuing education
- ▶ Credentials include dual credits, certificates, diplomas, degrees, post-degree diplomas



COVID-19

The health and wellbeing of students and staff remains the priority of Camosun College.

The college's COVID-19 Response Coordination Team is monitoring the situation and ensuring measures are in place to keep the college community safe.

We're ready for you. The college is planning for a mix in the delivery of courses following guidelines from the Provincial Health Officer, WorkSafe BC and the B.C. Government.

COVID-19 information and frequent updates are available at: **[Camosun.ca/COVID19](https://www.camosun.ca/COVID19)**



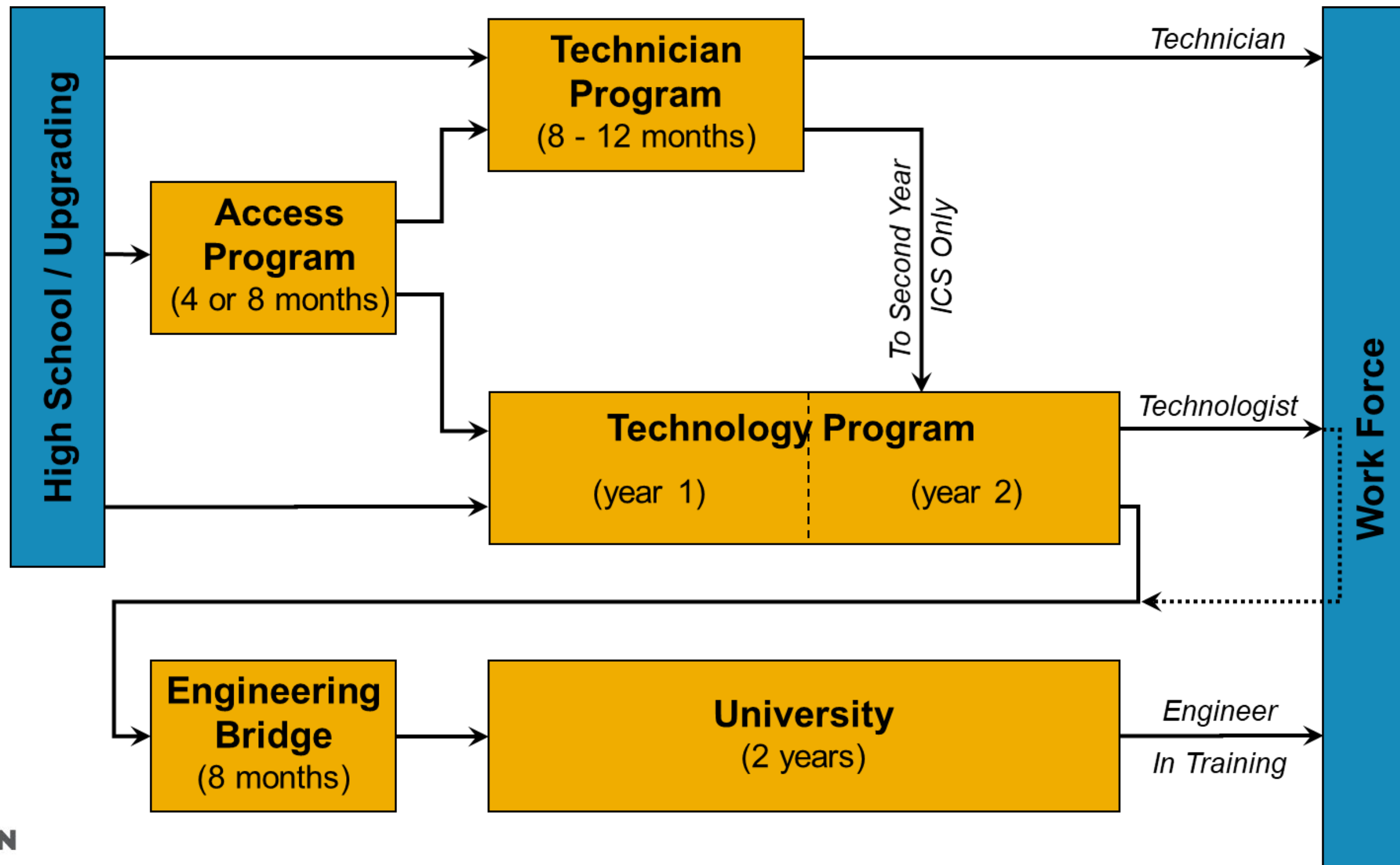
Mechanical Engineering Technology

Mechanical Engineering Technology Department

Programs Offered:

- ▶ Mechanical Engineering Technology Access
- ▶ Engineering Graphics Technician
- ▶ Mechanical Engineering Technology
- ▶ Mechanical Engineering Bridge

Education Options – Overview



Technology Access

Admission Requirements: A minimum grade of;

- ▶ B in Math 10, and
- ▶ C in English

Outcome:

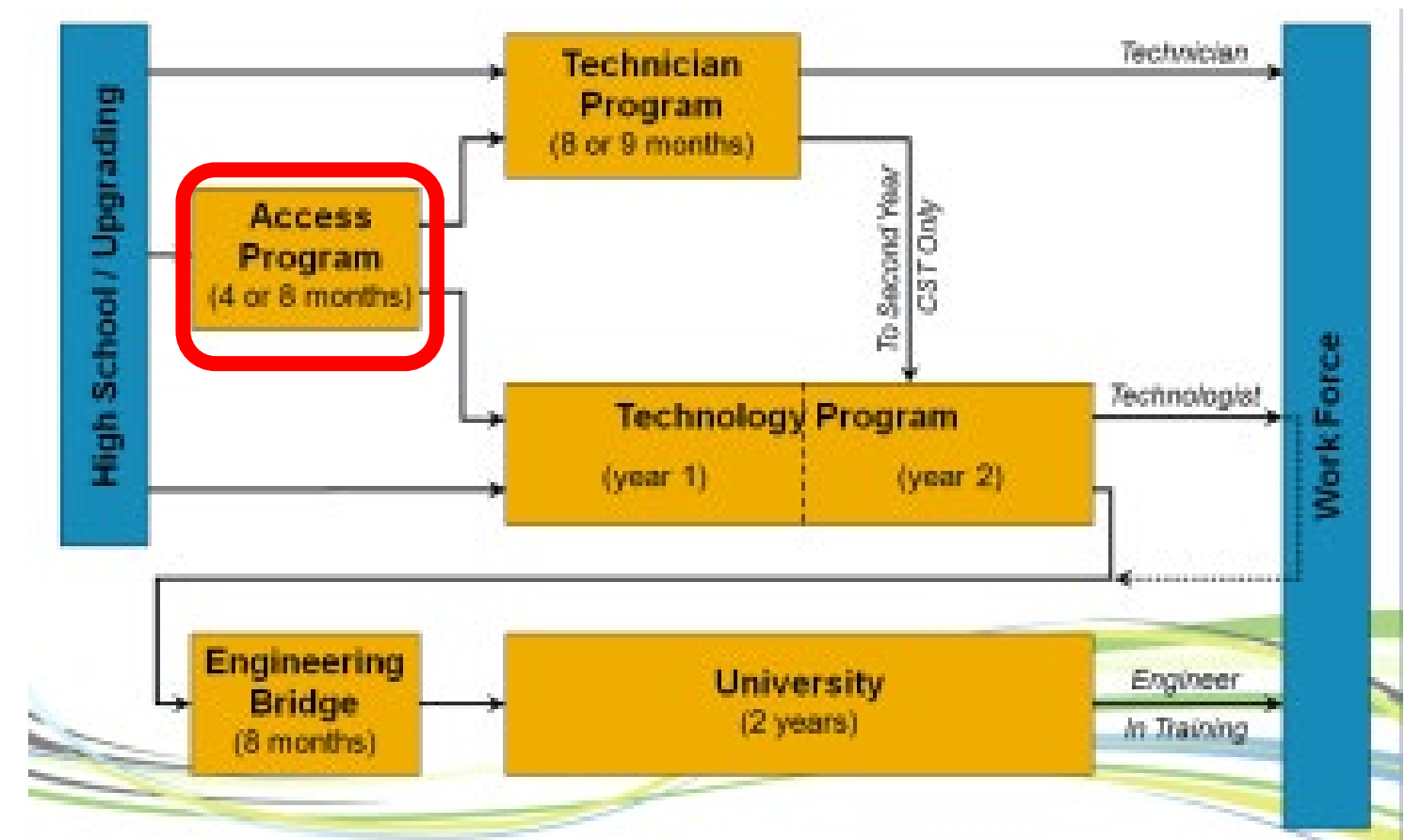
- ▶ Certificate in Technology Access
- ▶ Guaranteed acceptance into corresponding Technology Program

Mechanical Engineering Technology Access

- ▶ Duration: 8 months
- ▶ Note: Pre-requisite courses are also at Lansdowne

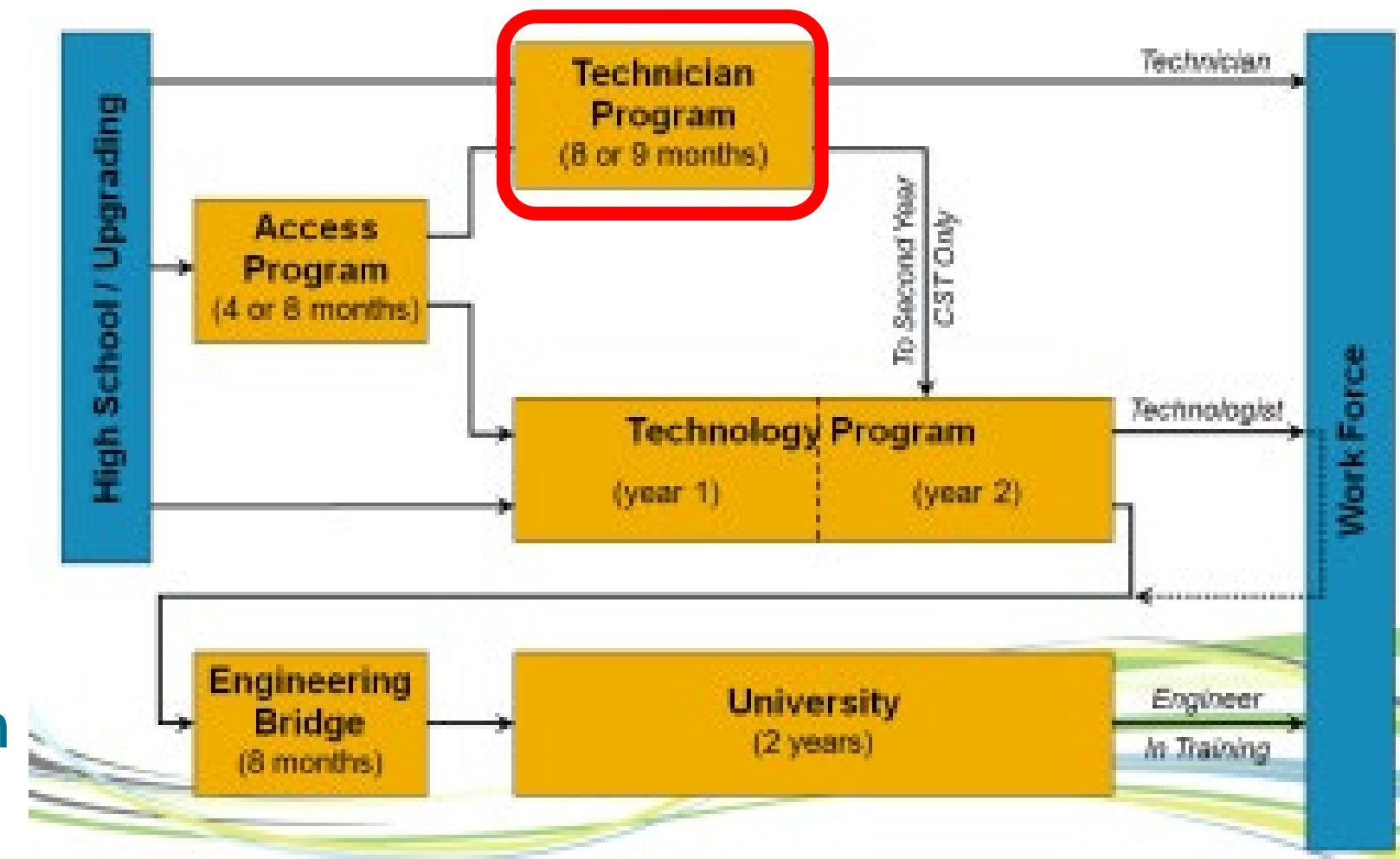
Engineering Graphics Technician Access

- ▶ Duration: 4 months
- ▶ Note: Pre-requisite courses are also at Lansdowne



Engineering Graphics Technician Program

- ▶ Admission Requirements:
 - ▶ Foundations of Math II and
 - ▶ English 12 or TPC 12 or
 - ▶ Successful completion of related access program
- ▶ Duration: 8-12 months
- ▶ Outcome:
 - ▶ Job Ready
 - ▶ Technician Certificate
 - ▶ ICS and IMD Technician programs transition into their respective Technology program



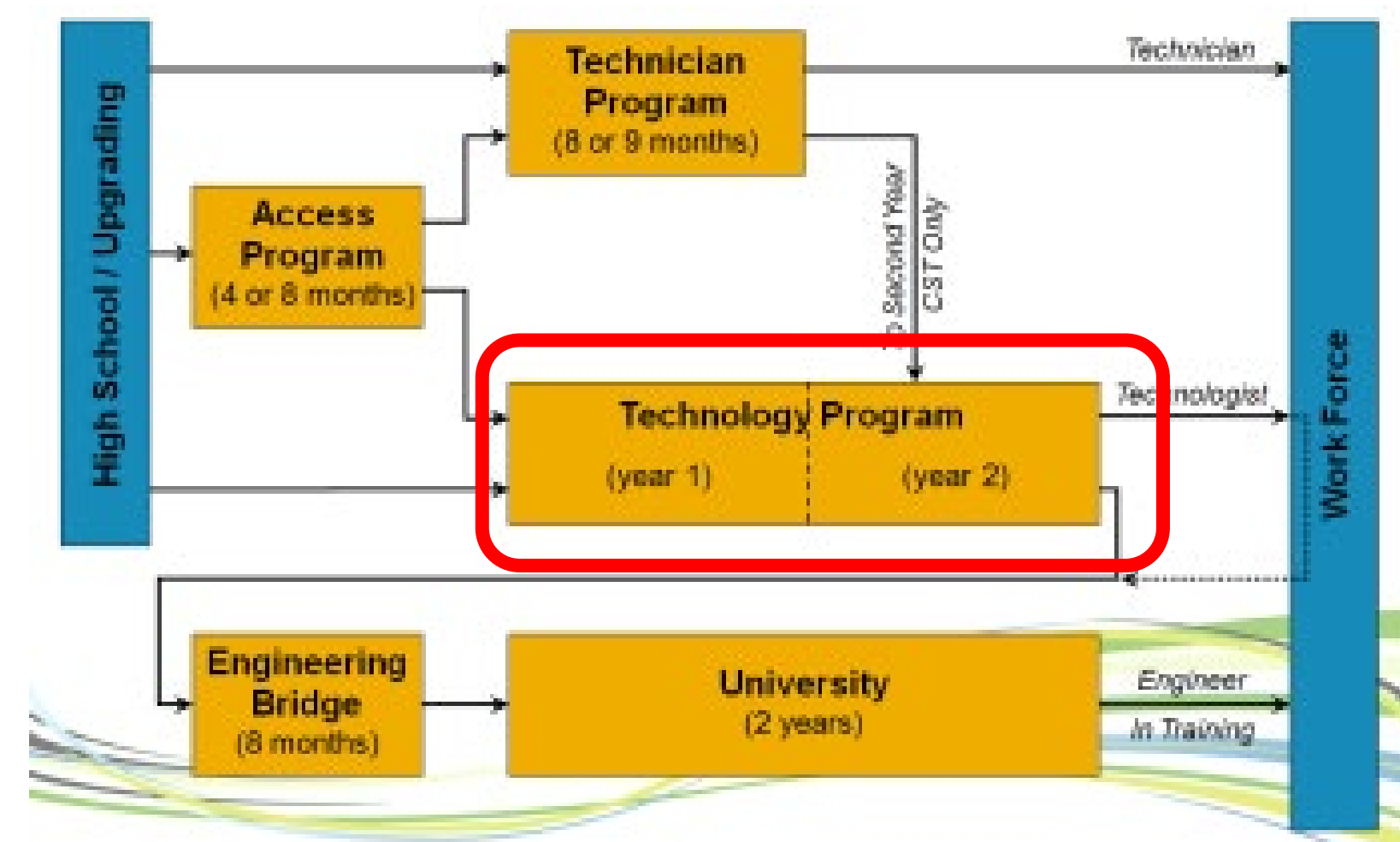
Mechanical Engineering Technology Program

Duration:

- ▶ 2- 2 1/2 years
- ▶ 3 years with work terms

Outcome:

- ▶ Job Ready
- ▶ Technology Diploma
- ▶ Eligible for Bridge



Engineering Bridge

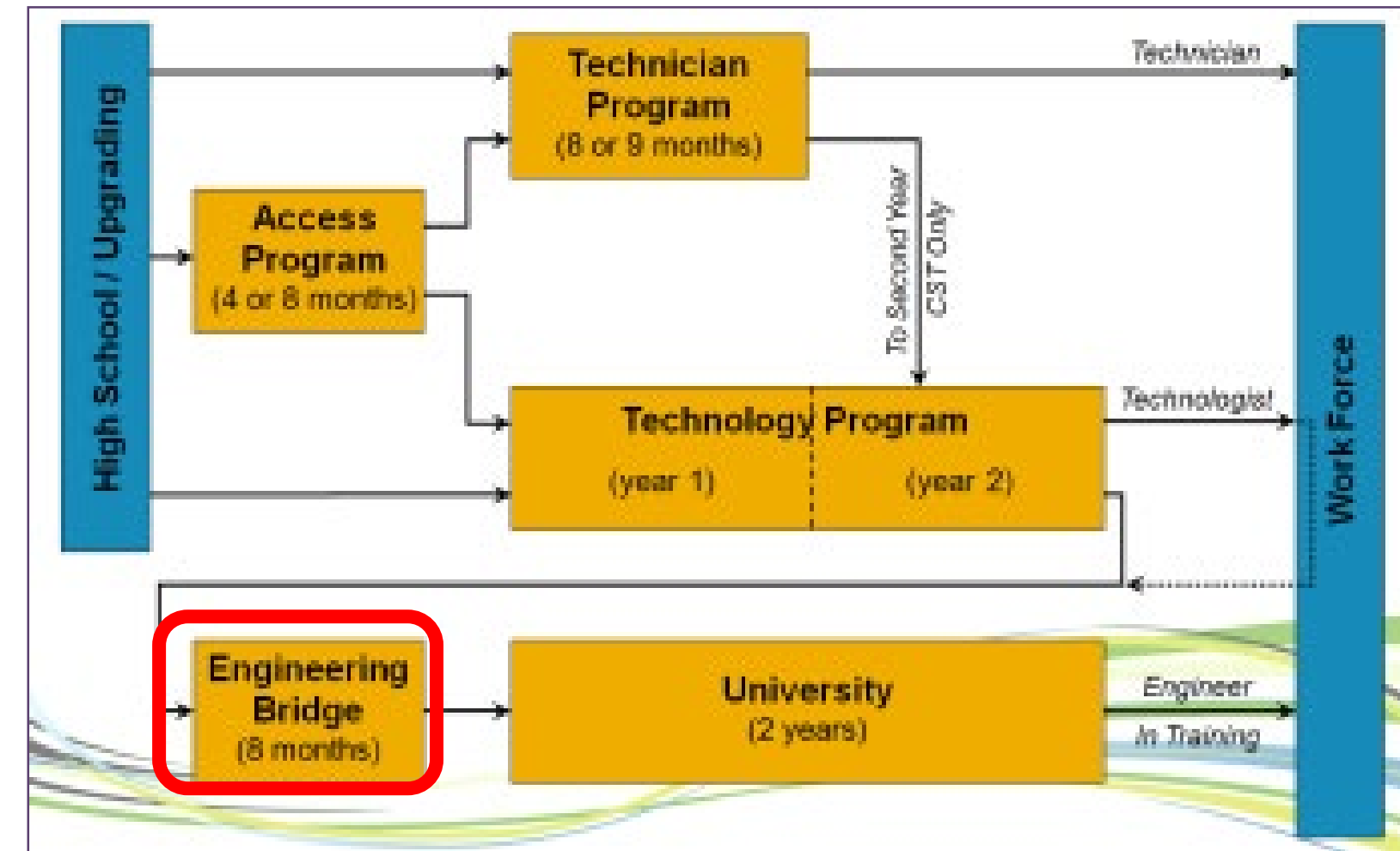
Admission Requirements:

- ▶ Successful completion of a related technology diploma
- ▶ An average of **B** or higher (GPA of 5 out of 9 points)
- ▶ Acceptance is academically based

Duration: 8 months

Outcome:

- ▶ Transfer to 3rd year of Engineering at UVic, UBC or UBC Okanagan
- ▶ Advanced Diploma in Engineering Bridge



Programs Available

Civil Engineering

Electrical and Computer Engineering

Mechanical Engineering

Our Programs

Mechanical Engineering

▶ What is Mechanical Engineering Technology

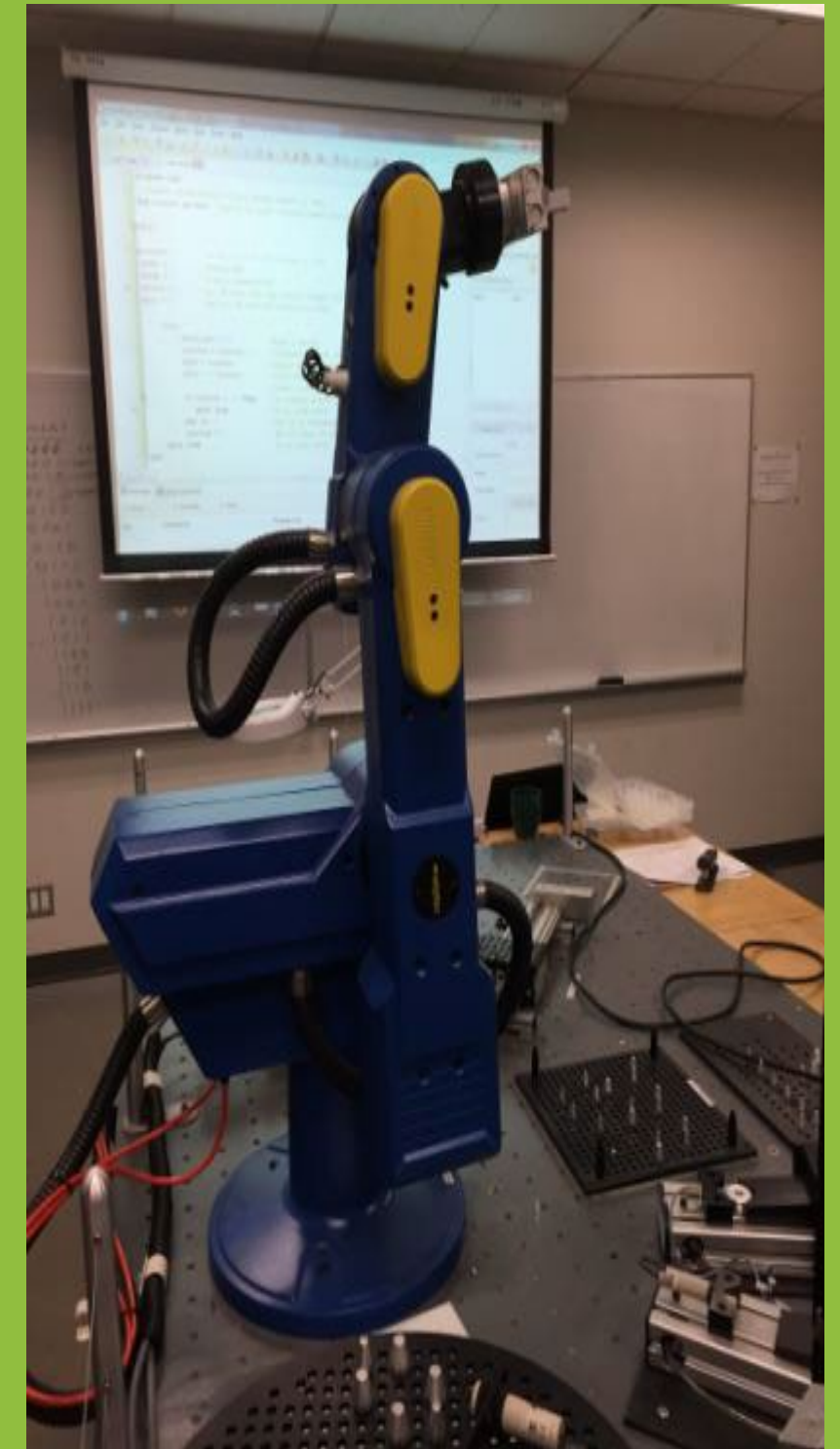
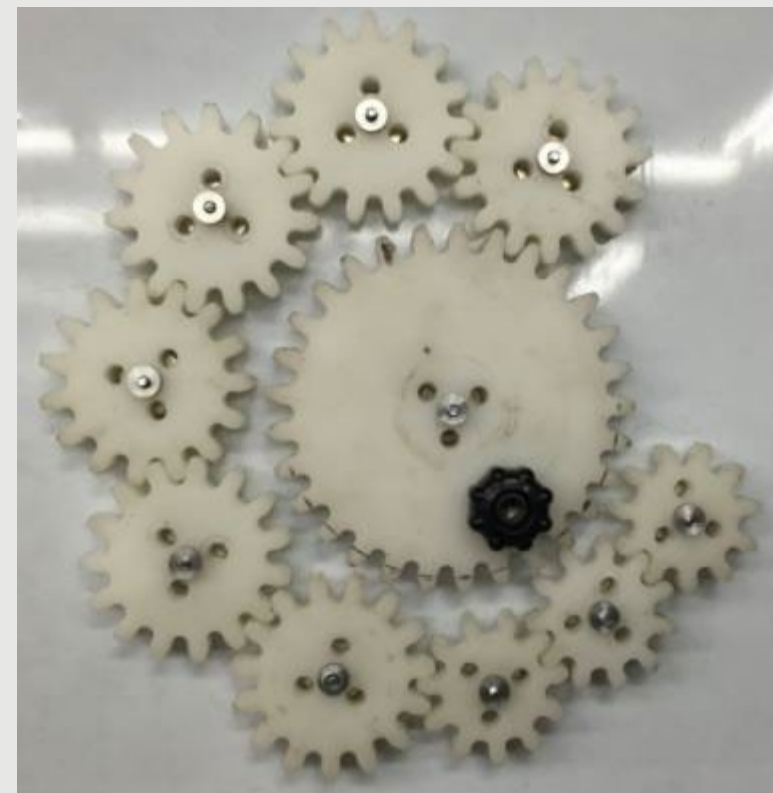
“...a discipline of engineering that applies the principles of engineering, physics and materials science for the design, analysis, manufacturing, and maintenance of mechanical systems. It ...involves the production and usage of heat and mechanical power for the design, production, and operation of machines and tools...”

[Wikipedia.org](https://en.wikipedia.org/wiki/Mechanical_Engineering)

- ▶ Machinery
- ▶ Fabrication
- ▶ Manufacturing
- ▶ Robotics
- ▶ Automotive
- ▶ Aerodynamics
- ▶ Fluid Flow
- ▶ Bicycles
- ▶ Engines
- ▶ Space Applications
- ▶ Energy Reclamation
- ▶ HVAC

Mechanical Engineering

- ▶ There are 6 main disciplines of Mechanical Engineering:
 - ▶ Materials
 - ▶ Mechanics
 - ▶ Thermodynamics
 - ▶ Fluids
 - ▶ Controls
 - ▶ Documentation



Mechanical Engineering

The 6 main disciplines of Mechanical Engineering:

- ▶ **Materials** (what things are made of and how they are made)
 - ▶ Engineering materials
 - ▶ manufacturing processes (*3 courses*)
- ▶ **Mechanics** (how things respond to static and dynamic loads)
 - ▶ statics and dynamics
 - ▶ strengths of materials (*3 courses*)
 - ▶ machine design
- ▶ **Thermodynamics** (*how things respond to heat*)
 - ▶ building systems (*HVAC*)
 - ▶ heat transfer
 - ▶ thermodynamics
 - ▶ energy and sustainability



Mechanical Engineering

The 6 main disciplines of Mechanical Engineering:

- ▶ **Fluids** (*how liquids and gasses interact with things*)
 - ▶ Fluid power
 - ▶ fluid dynamics (2 courses)
- ▶ **Controls** (*how to control things*)
 - ▶ electronics (2 courses)
 - ▶ control systems (2 courses)
 - ▶ robotics and automation
- ▶ **Documentation** (*instructions on how to make things*)
 - ▶ 3D virtual modelling
 - ▶ project management
 - ▶ project planning and design



Mechanical Engineering

Program Choices:

- ▶ **Mechanical Engineering Technology**
 - ▶ Create, design, build, troubleshoot
 - ▶ Work closely with Engineers to make ideas work
- ▶ **Engineering Graphics Technician**
 - ▶ Focus on technical documentation
 - ▶ Mechanical drafting
 - ▶ Architectural drafting
 - ▶ Design Visualization
 - ▶ Documentation



Mechanical Engineering

► Mechanical Engineering Technology

Major Project Development

Second year of technology programs emphasizes a major project design and implementation. Recent past projects include:

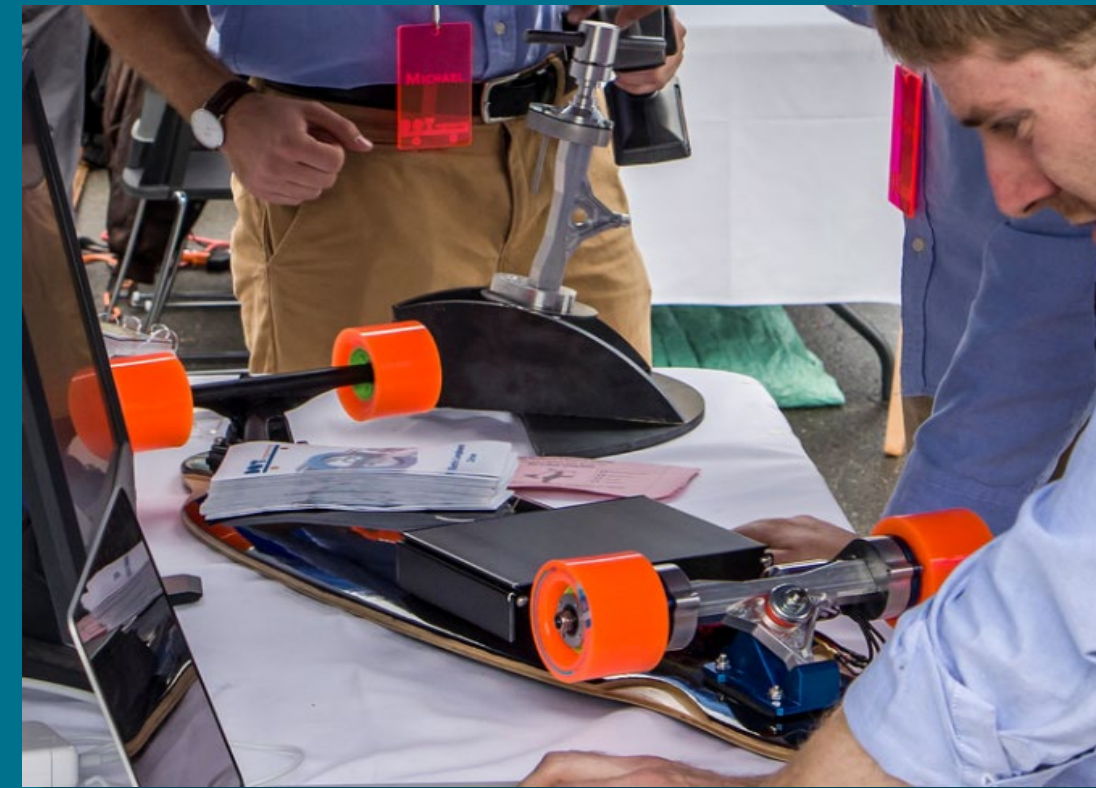


Mechanical Engineering

Past second year projects



Robotic Platform



Electric Skate Board

Mechanical Engineering

Career Choices

- ▶ Mechanical Draftsperson - Prepare conceptual, preliminary and final designs under the guidance of the project engineer
- ▶ Mechanical Technologist - Mechanical design & prototyping. System assembly, test & debug
- ▶ Engineering Technologist - detailed design, equipment specification and procurement, vendor management, fabrication and assembly supervision, field commissioning, troubleshooting and customer liaison

Mechanical Engineering

► Engineering Graphics Technician

The Engineering Graphics Technician (EGT) program is ideal for those with an interest in engineering/architectural visualization, an aptitude for computer aided design, or have a foreign credential in engineering /architecture and are looking to enter the Canadian job market.



Mechanical Engineering

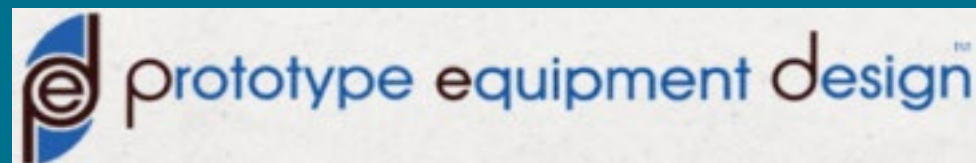
Engineering Graphics Technician

- ▶ Career Opportunities anywhere locally and around the world
 - ▶ Local high tech companies
 - ▶ Large companies



Dominion Astrophysical Observatory

Institute of Ocean Sciences



Technology Programs

For a complete program list go to:

<http://camosun.ca/learn/school/trades-technology/technology-programs.html>

Click on:

1. 'What You'll Learn' for a list of required courses
2. 'What it Costs' to view tuition fees
3. 'Admission Requirements' to see what courses or credentials are required to enter the program.
4. 'Apply online' to apply

Student Services at Camosun



Admissions & Recruitment
The right start at Camosun



The Writing Centres
How can we help?



Centre for Accessible Learning
Supporting your learning experience



Academic Advising
Guiding you on your educational journey



Academic Upgrading
Whatever your need, we have an option for you



Indigenous Student Support
Find your way and feel like you belong – with our help



Fitness & Recreation
Make time for your well-being



Financial Aid & Awards
Funding your education



Counselling Centre
Supporting you through life's challenges



Thank you

FOR MORE INFORMATION:

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