

WHAT IS THE ENGINEERING CERTIFICATE?

The KPU Engineering Certificate encompasses the courses that might be taken by a First-Year Engineering student in any post-secondary institution that grants engineering degrees.

These include courses in Math, Physics and Engineering, as well as English and Chemistry.

The Engineering Certificate is the stepping stone towards the completion of an engineering degree.

WHO STUDIES ENGINEERING?

People who:

- Are problem solvers.
- Have a firm grasp of the fundamentals of math and science.
- Want to apply their knowledge to benefit the world around them.
- Are lifelong learners.

An Engineer uses the fundamentals and tools of science and technology to design devices and systems that will benefit society.

WHAT IS ENGINEERING FIRST-YEAR?

KPU's Engineering First-Year program replicates the first-year engineering curriculum at institutions such as UBC and UVic, and is intended to be completed within two semesters.

Students must meet all the prerequisites to be considered for this program.

Students accepted into the Engineering First-Year program have access to reserved seats in all the required courses.

Students who complete the program within two semesters and meet the institution-specific GPA threshold will be eligible for UBC's Engineering Transfer admission guarantee.



ENGINEERING FIRST-YEAR – ADMISSIONS

Program Admission Requirements:

English: BC English 12 with a minimum C+ (or equivalent).

Physics: Principles of Physics 12 (or equivalent) with a minimum C.

Chemistry: Chemistry 12 (or equivalent) with a minimum C+.

Math: Pre-calculus 12 with a minimum B, or
Calculus 12 with a minimum C

Fall intake only; 60-seats available; Applicants ranked by GPA of the four required courses above.

WHAT IS ENGINEERING 'TRACK'?

For students who are not accepted into the Engineering First-year Program, KPU offers an alternative 'track' for students to pursue an Engineering degree.

Same courses, but at your own pace.

Following the Engineering Track may be an option for students:

- missing prerequisites needed to qualify for the First-year Program,
- wanting to take a lighter per-semester course-load,
- who may have been away from school for some time and want to ease back into student life.

ENGINEERING TRACK – ADMISSIONS

Engineering Track Admission Requirements:

English: BC English 12 with a minimum C+ (or equivalent).

Open intake – Fall, Spring, Summer. Apply for admission to Faculty of Science and Horticulture.

ENGINEERING CERTIFICATE FIRST-YEAR VS TRACK

First-Year

- Admission – Limited intake
- Access to reserved seats
- Complete in two semesters
- Qualify for UBC 2nd yr engineering transfer admission guarantee*

Track

- Admission – Open
- Enrolment on first-come basis
- Complete on own time-line

- ✓ Both can be awarded Engineering Certificate with completion of courses.
- ✓ Both qualify for UVic 2nd yr engineering admission guarantee*
- ✓ Both qualify for admission to 2nd year engineering programs – UBC, SFU, UVic

SCHEDULE – ENGINEERING FIRST-YEAR

Fall Semester	Spring Semester
APSC 1124	APSC 1299
APSC 1151	MATH 1152
CHEM 1154	MATH 1220
CPSC 1103	PHYS 1141 or 1170
ENGL 1100	PHYS 1220
MATH 1120	Complementary elective
PHYS 1120	

SCHEDULE – ENGINEERING TRACK*

Semester One Fall Year 1	Semester Two Spring Year 1	Semester Three Fall Year 2	Semester Four Spring Year 2
APSC 1151	MATH 1120	APSC 1124	APSC 1299
MATH 1112	CHEM 1110	CHEM 1210	MATH 1152
CHEM 1105	PHYS 1100	PHYS 1120	PHYS 1141/1170
ENGL 1100	CPSC 1103	MATH 1220	PHYS 1220

*Suggestion. This example assumes a student requires upgrading in CHEM, MATH and PHYS

SCHEDULE – ENGINEERING TRACK*

Semester One Fall Year 1	Semester Two Spring Year 1	Semester Three Fall Year 2	Semester Four Spring Year 2
MATH 1120	MATH 1220	APSC 1124	APSC 1299
CHEM 1110	CHEM 1210	APSC 1151	MATH 1152
ENGL 1100	CPSC 1103	PHYS 1120	PHYS 1141/1170
		Elective	PHYS 1220

*Suggestion. This example assumes a student has all the required high school pre-requisites.

KPU TRANSFER AGREEMENTS

UBC Engineering Transfer:

- Complete all Engineering First-year courses in two semesters
- GPA $\geq 3.1^*$ (*subject to change from UBC)
- Guaranteed admission to second year engineering at UBC

UVic Engineering Transfer:

- Complete all Engineering First-year courses
- Minimum 2.33* GPA with no grades below a C (*subject to change from UVic)
- Must take PHYS 1141
- Must take CMNS 1140 as the complementary elective
- Required to take ENGR 130 at UVic
- Guaranteed admission to second year engineering at UVic

KPU TRANSFER AGREEMENTS

SFU Engineering Transfer:

- Currently, no formal agreement for guaranteed admission (agreement is being drafted).
- Courses are transferred one-by-one according to BC Transfer guide.
- Completion of KPU Engineering First-Year will allow students to enter second year of SFU Engineering programs.

AFTER THE CERTIFICATE – DEGREE COMPLETION OPTIONS

- Transfer to engineering degree granting institution such as UBC, UVic, SFU or BCIT.
 - UBC – biomedical, chemical, chemical & biological, civil, computer, electrical, engineering physics, environmental, geological, integrated, manufacturing, materials, mechanical and mining.
 - UVic – biomedical, civil, computer, electrical, mechanical, software
 - SFU – Schools of Engineering Science, Mechatronics, and Sustainable Energy Engineering
 - BCIT – civil, electrical, mechanical, mining and mineral resource

AFTER THE CERTIFICATE – DEGREE COMPLETION OPTIONS

- Stay at KPU to complete a B.Sc.
 - **B.Sc. in Physics for Modern Technology (PMT)**
 - ✓ PMT students a solid background in physics and also in the applications of physics to modern technology.
 - ✓ Program is aimed at those who have an interest both in fundamental science and in the practical application of that science in an industrial and/or laboratory setting.
 - ✓ Students will gain technical skills that are highly relevant to work in local industry.

AFTER THE CERTIFICATE – DEGREE COMPLETION OPTIONS

- Stay at KPU to complete a B.Sc.
 - **B.Sc. in Applications in Mathematics**
 - Biomathematics – modelling and biological applications of mathematics
 - Computational Mathematics – flexible and customizable concentration based on mathematics and computing science
 - Mathematics Education – theory and practice of education as it applies to the field of mathematics, with a breadth of knowledge in science (physics, biology and computer science).

KPU ENGINEERING FIRST-YEAR

Advantages:

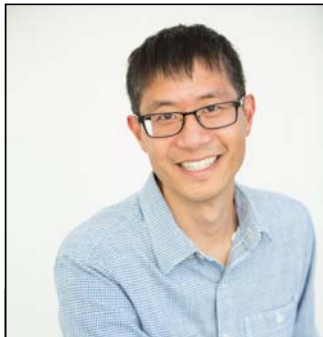
Small class sizes

Dedicated instructors

Hands-on demos, labs and projects

Diverse learning environment

WHO WE ARE:



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