

Engineering, Eight Month: Certificate

Faculty of Science and Horticulture	kpu.ca/science
Implementation Date	01-Sep-2014
Start Date(s)	September
Admission Type	Selective entry
Enrolment Type	Limited enrolment
Program Type	Undergraduate
Credential Granted	Certificate
Offered At	Richmond Surrey
Format	Full-time
How to Apply	www.kpu.ca/admission

DESCRIPTION

The Eight Month Certificate in Engineering program is a two-semester pre-engineering program designed for well-prepared students to meet transfer requirements to an Engineering degree program.

KPU's first year program is based on UBC's. With one second-semester course substitution students can also complete UVic's first year program. Most, but not all, of KPU's courses transfer to SFU's Engineering Science program. Please contact SFU for details. Students who wish to transfer to UNBC/UBC's joint Environmental Engineering program can meet most first year plus one second year requirement with one or two course substitutions. Students must still apply formally for admission to the destination university as transfer from KPU is not automatic. They must then compete with all other second year students for seats in the Engineering program of their choice.

Transfer to an Engineering Degree

1. Further information about English and elective courses that qualify, or about threshold requirements for admission to an engineering program at the various universities, are available through Educational Advising offices on all campuses.
2. Students intending to transfer to engineering at a university other than UBC or UVic should ensure that course selections conform to requirements at that university.
3. For specific course transfer information, go to the **BCCAT** website at www.bccat.bc.ca Some of our courses do not show direct transfer, but are accepted in lieu of the specified university courses.
4. For more information about the Engineering profession and about transfer between the Universities and Colleges, visit the Association of Professional Engineers and Geoscientists' web site www.apeg.bc.ca/students.

PROGRAM ADMISSION REQUIREMENTS

In addition to KPU's General university admission requirements, including the undergraduate-level English Proficiency Requirement, the following program admission requirements apply:

- English 12 (or equivalent) with a minimum grade of B; or undergraduate equivalent with a minimum of C+
- Principles of Physics 12 (or equivalent) with a minimum grade of C; or undergraduate equivalent with a minimum grade of C
- Chemistry 12 (or equivalent) with a minimum grade of C+; or undergraduate equivalent with a minimum grade of C
- Principles of Mathematics 12 or Pre-calculus 12 (or equivalent) with a minimum grade of B; or undergraduate equivalent with a minimum grade of B.

Proof of grades must be submitted in accordance with the following deadlines:

- Applicants currently in high school must submit interim grades no later than March 31st with proof of final grades required as soon as they become available (no later than August 15th).
- For all other applicants, proof of having met the program's admission requirements must be provided by March 31st.

Students that do not meet the admission requirements stated above may want to consider the general Engineering Certificate program.

Selection of Qualified Applicants

Only applicants who meet all of the program's admission requirements as outlined above will be considered for admission. Meeting the criteria does not guarantee admission into the program. Admission to the program will be made through an established process that selects the top 40 applicants

PROGRAM REQUIREMENTS

Students accepted into the Eight Month program must maintain good academic standing to be eligible for block registration into the Spring semester courses. Unsatisfactory completion of pre-requisite courses required for the Spring term – CPSC 1103, MATH 1120, PHYS 1120 – will result in automatic re-classification into the General engineering certificate program. Students admitted to the Eight Month program but unable to complete all the required courses within the eight-month timeframe will be automatically re-classified into the General engineering certificate program.

All of these courses transfer individually with credit for the equivalent course at the destination universities, with two exceptions for UBC: A student must complete both of KPU's APSC 1151 and APSC 1299 to receive credit in lieu of UBC's APSC 150; and must complete both KPU's PHYS 1120 and PHYS 1220 to receive credit in lieu of UBC's PHYS 153.

All of the following:

Semester 1 - Fall

APSC 1124	Introduction to Engineering	1 credits
APSC 1151	Introduction to Engineering Graphics	3 credits
CHEM 1154	Chemistry for Engineering	4 credits
CPSC 1103	Introduction to Computer Programming I	3 credits
ENGL 1100	Introduction to University Writing (or another 1100 level ENGL course)	3 credits
MATH 1120	Differential Calculus	3 credits

PHYS 1120	Physics for Physical and Applied Sciences I	4 credits
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Semester 2 - Spring

APSC 1299	Introduction to Microcontrollers	3 credits
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MATH 1152	Matrix Algebra for Engineers	3 credits
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MATH 1220	Integral Calculus	3 credits
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PHYS 1170	Mechanics I	3 credits
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PHYS 1220	Physics for Physical and Applied Sciences II	4 credits
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One Complementary Studies elective (see below).		3 credits
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Complementary Studies Electives

Most social science and humanities courses will meet the requirements of this 3-credit elective for UBC; UVic and SFU have somewhat restrictive lists of suitable courses. This includes the disciplines of Anthropology, Human Geography, History, Humanities, Philosophy, Political Science, Psychology and Sociology. The elective course must deal with some of the central issues, methodologies and thought processes of the discipline, and must not be mathematics or science based. Basic language courses (particularly mother tongue), physical geography and geology, statistics, computer science or studio/performance courses in the fine arts or music are not normally judged as satisfying the complementary elective requirement.

A second English course at the 1100 level would also meet the complementary elective requirement. In fact, for students who have not completed a minimum of five years of study in an English school in Canada or the equivalent in another country where English is the principal language, 6 credits (2 courses) of English 1100 level courses at KPU that transfer to UBC would satisfy both the complementary elective requirement and the English language requirement for admission to UBC. To confirm the transferability of the complementary elective requirement (or the language requirement), it is always advisable to contact the university in question.

Students planning to transfer to UVic should take CMNS 1110 as their complementary studies elective.

CREDENTIAL AWARDED

Upon successful completion of this program, students are eligible to receive a **Certificate in Engineering**.