

# Engineering Transfer program

COMPLETE YOUR DEGREE AT UBC OR UVIC

## Why study engineering?

Engineering, which is also called applied science, is the application of scientific principles to practical problems. Engineers keep our technological world running by designing new products, maintaining and optimizing production systems, and managing the companies that produce these products.

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Engineers use a combination of science and hands-on experience to predict the best way to construct things that have never before been made. They are also responsible for defending our society against incompetence in manufacturing. They are responsible for lives and money. Engineers learn to pay close attention to detail, be systematic in their approach to problems, and communicate unambiguously with others. Engineers must work to high standards, and all engineering programs are rigorous and demanding. Students who complete the difficult program are deserving of the job satisfaction, community respect, and high pay of this career.

### WHAT IS THE ENGINEERING TRANSFER PROGRAM? WHO DESIGNED IT?

UFV's two Engineering Transfer programs were set up in consultation with the University of British Columbia and the University of Victoria.

When you complete a UFV ETP, your training is essentially equivalent to that of students who do their first year of engineering of UBC or UVic. Students who successfully complete a first year transfer program anywhere in the province are guaranteed entry into the second year engineering and join all students in the competition for engineering specialties.



*“Engineers design and build machines, structures, production processes, — and our society.”*

— PETER MULHERN,  
UFV Engineering.

# Engineering Transfer Program



*“I found that the smaller class sizes provided a better learning environment than other universities, and allowed for more face time with the professors. Any young person pursuing engineering as a career would benefit from completing UFV’s Engineering Transfer program, regardless of the engineering discipline being pursued.”*

— CHARLIE HARRISON, E.I.T. Geotechnical Engineer.

## WHY BEGIN MY ENGINEERING DEGREE AT UFV?

There are many advantages to doing your first year of engineering at UFV.

Most importantly, UFV is a teaching-oriented institution, with smaller classes than the major universities, which gives you direct access to instructors for help and advice. As Fraser Valley’s university, it provides post-secondary access to the many residents of this region.

For engineering students, living at home for the first one or two years is efficient, as you don’t have to spend time and money to maintain an apartment or commute. As a result, you will have more time for your studies.

First-year engineering is essentially the same at all universities and colleges in B.C. Choose the institution you feel will give you the best chance at earning the high grades you need to get into second-year engineering. UFV is an excellent choice for achieving this.

Students in the ETP at UFV benefit from reserved seats in specified courses, so you are assured of getting the courses you need.

To go UBC you need to complete all the courses of the ETP with at least a 2.5 GPA (this is a C+/B average), and UVic requires a completion of all courses with a 2.33 GPA (C+). Both institutions then guarantee acceptance into second year. Note that acceptance into a particular specialty (e.g.

Mechanical) may require higher averages.

You may be able to enter second-year UBC engineering from the General Sciences program at UFV without doing all of the ETP courses, but in that case you may be required to meet a higher GPA requirement and take additional first-year courses at UBC.

## WHAT DO I NEED TO GET INTO UFV’S ENGINEERING TRANSFER PROGRAM?

You’ll need your B.C. secondary school graduation or equivalent, with Principles of Math 12 (B or better), Physics 11 (Physics 12 is recommended), and Chemistry 12. You must also meet the entrance requirements for English 105. Students who are unable to maintain at least a B average in high school may find the ETP too difficult; those students should consider doing a standard first-year sciences program and/or doing the ETP courses (plus others) over two years.

Please note: UFV distributes key information to ETP applicants via email; when you apply you must provide a contact email address that you check regularly or a phone number at which a message can be left. Applicants are expected to respond to the information sent to them if they wish to stay in the program.

## ANYTHING ELSE I SHOULD KNOW ABOUT THE PROGRAM?

Entrance to the Engineering Transfer program is restricted to students who take all specified courses in one academic year. These courses are also available to students not in the Engineering Transfer program.

UBC and UVic will consider any students who complete the course list for the ETP with the minimum GPA to have completed first-year engineering and these students will be guaranteed acceptance into second year, regardless if they hold official UFV ETP status.

The program is based on the Abbotsford campus, but the core science courses are also available in Chilliwack.

## I’VE GOT BILLS TO PAY. CAN I DO THE ETP AND HAVE A PART-TIME JOB?

While there is no rule against it, it is not recommended. Based on student time-logs, the program takes about 60 hours per week and it can require even more hours near exam time. You will not have time for both a part-time job and the study time needed to do well.

## WHAT COURSES WILL I BE EXPECTED TO TAKE?

### FALL SEMESTER FOR BOTH UBC AND UVIC

COURSE #	TITLE
CHEM 113	Principles of Chemistry I
COMP 152*	Introduction to Structured Programming
ENGL 105	The Reading and Writing of Prose
ENGR 122	Introduction to Engineering
ENGR 151	Computer-Aided Engineering Graphics
MATH 111	Calculus I
PHYS 111	Mechanics

### WINTER SEMESTER UBC AND UVIC\*\*

COURSE #	TITLE
ENGR 113	Engineering Physics: Statics and Dynamics
MATH 112	Calculus II
MATH 152	Linear Algebra for Engineering
PHYS 112	Electricity and Magnetism

### UBC SPECIFIC WINTER COURSES

CHEM 114	Principles of Chemistry II
<i>Elective</i>	<i>Elective from the Faculty of Arts</i>

### UVIC SPECIFIC WINTER COURSES

COMP 155	Object-oriented Programming
PHYS 105	Non Calculus Physics

\* The UBC ETP allows Comp 150 + Comp 155 instead of Comp 152.

\*\* The two transfer programs have four second semester courses in common and two courses specific to each university. Second, third, and fourth year are completed at UBC or UVic and you have to apply formally for admission to those universities.

## DO I NEED TO TAKE THIS PROGRAM IN ONE YEAR?

The ETP is designed to be completed in one year. However, you can choose to take two years at UFV and take all courses of the Engineering Transfer program along with your second-year math and additional electives before you transfer. But doing it this way means you will not have reserved seats in the program. The following is an example of a two year schedule based on courses that are always offered in those semesters. Additional courses are occasionally scheduled to allow additional flexibility; details are e-mailed to applicants each year.

### FIRST YEAR/FALL SEMESTER

COURSE #	TITLE
COMP 152*	Introduction to Structured Programming
ENGR 122	Introduction to Engineering
ENGR 151	Computer-Aided Engineering Graphics
MATH 111	Calculus I
PHYS 111	Mechanics

### FIRST YEAR/WINTER SEMESTER

COURSE #	TITLE
UBC <i>or</i> UVic COMP 155	<i>Arts elective</i> Object-oriented Programming
ENGR 113	Engineering Physics: Statics and Dynamics
MATH 112	Calculus II
MATH 152	Linear Algebra for Engineering
PHYS 112	Electricity and Magnetism

### SECOND YEAR/FALL SEMESTER

COURSE #	TITLE
CHEM 113	Principles of Chemistry I
ENGL 105	The Reading and Writing of Prose
MATH 211	Calculus III
MATH 255	Ordinary Differential Equations
PHYS 221	Intermediate Mechanics

### SECOND YEAR/WINTER SEMESTER

COURSE #	TITLE
UBC CHEM 114 <i>or</i> UVic PHYS 105	Principles of Chemistry II Algebra Based Physics
MATH 270	Introduction to Probability and Statistics
PHYS 381	Mathematical Physics
<i>Elective</i>	<i>From the Faculty of Arts</i>

\* UBC accepts either COMP 150/155 or COMP 152.

## ARE THERE ANY OTHER OPTIONS?

Certainly other combinations are possible, but the first-year math and physics must follow this pattern. You may also transfer to second-year UBC engineering from first-year science, but students attempting this may require a higher GPA than Engineering Transfer students, and are not guaranteed acceptance. Missing ETP courses may need to be done at UBC

A typical course load for students attempting to enter second year from the general sciences is:

### FALL SEMESTER

COURSE #	TITLE
CHEM 113	Principles of Chemistry I
ENGL 105	The Reading and Writing of Prose
MATH 111	Calculus I
PHYS 111	Mechanics
COMP 152 <i>or Elective</i>	Introduction to Structured Programming

### WINTER SEMESTER

COURSE #	TITLE
CHEM 114	Principles of Chemistry II
ENGR 113	Engineering Physics: Statics and Dynamics
MATH 112	Calculus II
MATH 152	Linear Algebra for Engineering
PHYS 112	Electricity and Magnetism

## CAN I MOVE MY ENGINEERING STUDIES TO OTHER UNIVERSITIES?

Many of the above courses transfer individually to other universities that offer engineering programs. It's best to consult with UFV educational advisors to determine the transferability of each course. Contact program head Peter Mulhern at [peter.mulhern@ufv.ca](mailto:peter.mulhern@ufv.ca) or at 604-864-4622 for details.

## WHAT TYPE OF SUPPORT WILL I GET?

UFV students have access to excellent support services. For more information about support and student services at UFV, visit [www.ufv.ca/student-services](http://www.ufv.ca/student-services) and learn about the broad range of services designed to help you learn about and adjust to the university environment. As an engineering transfer student, you will learn about the Association of Professional Engineers and Geoscientists of B.C., which also has an extensive student support program.

## CAN I GET ACADEMIC CREDIT FOR THE SKILLS AND KNOWLEDGE THAT I HAVE GAINED IN MY LIFE SO FAR?

Yes. UFV offers Prior Learning Assessment and Recognition (PLAR), a flexible assessment process that evaluates your experiential learning (what you already know and can do) for post-secondary credit. Experiential learning includes independent study, volunteer activities, non-credit courses, workplace learning, and military service. To find out more, check out the PLAR website at [www.ufv.ca/plar](http://www.ufv.ca/plar) or contact Susan Brown, Assessment Services Coordinator, PLAR at 604.851.6342 or [susan.brown@ufv.ca](mailto:susan.brown@ufv.ca). Note that PLAR awarded for specific UFV courses may not always be recognized by UBC or UVic.

## HOW MUCH WILL IT COST?

Consult the UFV calendar at [www.ufv.ca/calendar](http://www.ufv.ca/calendar) for a complete list of fees, keeping in mind that new fees are usually set in May. In addition to tuition fees, you should be prepared to cover additional costs for books and other supplies. It's worth a visit to the UFV financial aid and awards office, which facilitates the disbursement each year of about \$12 million in federal and provincial student loans, grants, bursaries, scholarships, and awards to UFV students. A helpful budget planning worksheet is available online at [www.ufv.ca/fineaid/budget](http://www.ufv.ca/fineaid/budget).

## I'M INTERESTED. WHAT'S THE NEXT STEP?

Check out our online calendar at [www.ufv.ca/calendar](http://www.ufv.ca/calendar) or our website at [www.ufv.ca/etp](http://www.ufv.ca/etp). Visit the download centre and download the appropriate application forms. You can then either mail your complete application, along with the documents listed in the calendar and the \$45 processing fee, to any UFV campus or centre, or transmit it through the internet at [www.pas.bc.ca](http://www.pas.bc.ca). If you have specific questions, you can contact the Engineering Transfer program head Peter Mulhern at 604-864-4622 or [peter.mulhern@ufv.ca](mailto:peter.mulhern@ufv.ca) or visit [www.ufv.ca/etp](http://www.ufv.ca/etp).



The information contained in this document is subject to change. Please refer to [www.ufv.ca/etp](http://www.ufv.ca/etp) for up-to-date information. UFV reserves the right to cancel courses and programs.



## About UFV

Nestled in the beautiful Fraser Valley just east of Vancouver, in B.C., UFV is a fully accredited, public university that enrolls more than 11,000 students each year. UFV has campuses in Abbotsford, Chilliwack, and Mission and regional centres in Hope and Agassiz, and a growing presence in Chandigarh, India.

UFV is committed to exceptional post-secondary instruction and a nurturing learning environment. We are large enough to offer variety, yet small enough to offer the personal attention that our students need to thrive. Our small class sizes and focus on teaching allow our students to get to know their instructors and learn in a hands-on setting.

We offer more than 80 programs, including 13 bachelor's degrees, a master's degree, and more than a dozen trades and technology programs. We believe that anyone who wants to go to university should be given the chance, so our admission policies are flexible, and we provide university prep courses and high school completion options. There are many options for learning: full-time, in class, online, as part of a structured program or one tailored specifically to your interests.

Many of our programs "ladder" into one another, allowing students to keep their options open. Our international programming makes for a culturally diverse student body and great opportunities to study abroad, while our continuing studies offerings make learning a lifelong experience.

UFV is recognized nationally for student success, an excellent learning environment, creative integration of programming, and our work with our local communities.

Get to know us better at [www.ufv.ca](http://www.ufv.ca).

