

Aircraft Structures Technician

Aircraft Structures Technician certificate

“With great teachers, the work experience, and the practical shop floor assignment, I feel completely prepared for the real-world experience and I look forward to a long career in aircraft structures.”

— David Goldie,
2006 UCFV graduate



Why earn an aircraft structures certificate?

You know you want to work with your hands, you love troubleshooting, and you're thinking of a career that's rewarding and will take you places. UCFV's 10-month Aircraft Structures Technician program can jump-start you into a challenging, high-tech career in the aerospace industry. The program is offered in our Aerospace Centre at the Abbotsford International Airport.

This certificate program is Transport Canada approved and will give you a thorough introduction to the aircraft repair and maintenance trade. Working and learning at a busy airport location will give you a taste of real-life experience and also help you make connections with potential employers.

What type of career can I expect?

As a successful aircraft structures technician grad, you will repair and overhaul aircraft. Some of your tasks might include manufacturing, modifying and repairing sheet metal parts, structures, skins, and panels to exacting tolerances, and using and interpreting manufacturers' structural repair manuals. Once you complete the certificate program, you will be qualified to start your career as an aircraft structures apprentice and, since time spent in this program is worth 11 months credit, you can then go on to earn your Aircraft Maintenance Engineer "S" licence.

The aerospace-related industry has been identified by the City of Abbotsford as one of the key growth engines for the local economy. The Industry Training Authority predicts that the aerospace industry will require some 4,000 new trades and technical workers within five years, including structural technicians.

Aircraft Structures Technician

Why take the program at UCFV?

Our Aerospace Centre is a great example of a hands-on training opportunity and industry partnership. We're particularly proud that our students get to train right at the Abbotsford International Airport in our specially designed facility. Of course, some lessons involve a desk, while others take you onto the shop floor where you will work on aircraft structures. There's no better way to learn. The Aircraft Structures program introduces you to the fundamentals of aircraft structural maintenance and repair. Everything from basic hand tools to carbon fibre is included in this program. You will work on shop projects as well as real-life damage scenarios on actual aircraft. Once you've completed the program, you will be prepared for:

- Repair and overhaul of fixed-wing aircraft
- Rotary wing (helicopter) repair and overhaul
- Aircraft parts manufacturing
- Composite component fabrication and repair
- Aircraft structures assembly and modification

There's no doubt that as a student, you will benefit from the experience of one-on-one contact with knowledgeable instructors in the department, and the opportunity to gain hands-on, applied experience throughout the program.

Our Aircraft Structures Technician program is Transport Canada-approved basic training.

What do I need to get in?

You need to have a B.C. secondary school graduation (Grade 12) or equivalent. We also require a math and English comprehension entrance exam, which is a standard test for all trades programs at UCFV. You'll then be asked to attend a

personal interview where your suitability and interest in the aerospace industry will be discussed and assessed. You should also be in good physical condition and have no fear of heights. A current criminal record search document may be required.

A medical statement from a qualified physician may be required at any time before you start the program, or during your studies. You will be notified by a UCFV official if and when that statement is required.

Anything else I need to know?

UCFV's Aircraft Structures Technician program is offered at the Aerospace Centre at 30645 Firecat Avenue, at the Abbotsford Airport. It is open from 8 a.m. to 3:30 p.m. Monday to Friday. Our program runs for 42 consecutive weeks, which are broken into 14-week modules.

The Aircraft Structures program requires continuous attendance through all three modules to complete the program. You will be expected to attend classes five days a week. Transport Canada stipulates that no more than five per cent of any module can be missed due to absenteeism. Students who fail to meet the attendance requirements may be subject to a failing grade or academic warning. If you fail a required course in any module, you must repeat the entire module (this is a Transport Canada Regulation). To repeat a module, you must consult your instructor for next seat availability.

“I enjoyed my training at UCFV a great deal. The instructors were extremely knowledgeable and were very passionate about teaching specialized techniques and concepts. Knowledge gained in the classroom was reinforced by practical, hands-on projects that used accurate paperwork, plans, and tolerances. I will always look back at my time in UCFV’s Aircraft Structures Technician program as time well spent.”

— Brendan Mountain, 2005 UCFV graduate



What kind of courses will I take?

The program is comprised of 42 weeks of in-class instruction. You must show that you understand the theory introduced in the program by successfully completing a written test for each unit and then applying it to an acceptable level of practical skills as assigned in that unit. You must complete all requirements with a minimum of 70 percent or better. You will be working with the help of learning packages that will give step-by-step instructions. The learning materials may include printed worksheets, videotapes, display boards, lab manuals, instructions, demonstrations, and/or lectures.

Practical hands-on training is a large part of the learning environment. As much as possible, study-lab and shop instruction are patterned after “on-the-job” situations.

Module 1	
100	Program Orientation
101	Safety Factors
102	Aircraft Terminology & Components
103	Reference Material & Documentation
104	Blueprint & Technical Drawings
105	Tools & Equipment
106	Materials
107	Fastener Installation
109	Sheet Metal Fabrication

Module 2	
108	Sealing
110	Advanced Structures & Assembly
111	Corrosion Assessment
112	Corrosion Control
113	Heat Treatment of Aluminum Alloys
114	Prime and Paint Metal Parts & Assemblies
115	Structural Damage Assessment
116	Sheet Metal Repairs

Module 3	
117	Tubular Repairs
118	Composite Fabrication
119	Composite Repairs
120	Fabric Coverings
121	Wood Structures
122	Fluid Lines & Conduits
123	Windows & Lenses

I'm interested. What do I do next?

Check out UCFV's online calendar at www.ucfv.ca/calendar. From there you can download an application form and submit it, along with the \$45 application fee, to any UCFV Admissions and Records office or centre. You can also transmit it through the Internet at www.pas.bc.ca. If you're currently in Grade 12, you can apply now, but we require a statement from your school counsellor or principal indicating that you are likely to meet graduation requirements by June, and this must be presented at the time of your entrance exam appointment.

You will be notified of your entrance exam date by the UCFV Trades & Technology Centre and there is no fee for writing these exams. If you have not been contacted within two weeks of submitting your application, please call us at 604-852-7377 ext. 101. Before classes start, you'll be called and given all the registration procedures. If we can't reach you after three attempts, you'll be removed from the waitlist.

When should I apply?

Apply right away. There are two intakes for this program each year, one in January and one in September. It's best to apply well in advance of the program start date to ensure your application is processed on time.

How much will it cost?

Can I afford to take this program?

You should budget about \$104 a week for program fees, which includes tuition fees plus 10 per cent of the tuition for ancillary fees. You should also plan on spending about \$1,250 for basic hand tools, \$460 for required textbooks, and \$300 for appropriate working apparel. As a student with nine or more credits, you will also have to pay the annual health and dental fee (about \$200 for 2006/07) to provide extended medical and dental insurance for September to August. Check with the Student Union Society or at www.studentcare.net/works for details.

We require a deposit (currently \$200) to be paid when you register, which typically takes place one or two months before the start of each semester. The balance of your fees must be paid by the end of the second week of the semester. In addition, each semester you will be required to pay a \$25 Student Union Society membership fee, a \$4.50 Cascade student newspaper fee, and a \$3 radio station fee.

It's also worth a visit to the UCFV financial aid and awards office, which facilitates the disbursement each year of approximately \$12 million in federal and provincial student loans, grants, bursaries, scholarships, and awards to UCFV students. A helpful budget planning worksheet is available online at www.ucfv.ca/fineaid/budget.

Is there an upgrading policy?

Yes. The definition of an upgrader is a student who joins a class for 13 weeks or less to repeat or complete a specific course. This might suit you if you've attended training at UCFV before, or you now wish to enhance your skills by attending one of the courses that deals specifically with sheet metal or composite repair.

The Aircraft Structures Technician modules are organized so that upgraders have easy access to training at various times during the year. Acceptance by Transport Canada for completion of a single module is assessed on an individual basis.

You should know, however, that upgraders who want to attend the Sheet Metal Repair or Composite Material Repair courses must provide testimony from their employer or from an aircraft maintenance engineer identifying that as an upgrader, they hold the prerequisite knowledge of Transport Canada regulations, safety, tooling, and basic aircraft operation.



I'm not sure that this program is for me. Can I speak with someone about my options?

We want to hear from you! If you're unsure of your direction, contact Student Services at 1-888-504-7441 to arrange a tour, attend a Becoming a Student info session, connect with an educational advisor, or arrange for career counselling. You can also contact the Trades and Technology centre directly at 604-852-7377 ext. 101 or email aerospace@ucfv.ca to get more details.

About UCFV

The University College of the Fraser Valley is a fully accredited, public post-secondary institution that enrolls more than 10,000 students per year and is larger than half the universities in Canada. But we're also known for small classes, personal attention, and a focus on teaching. Nestled in the beautiful Fraser Valley just east of Vancouver, British Columbia, UCFV has campuses in Abbotsford, Chilliwack, and Mission, and regional centres in Hope and Agassiz.

We offer 12 bachelor's degrees, one master's degree, and more than 80 certificate and diploma programs. Many of our programs "ladder" into one another, allowing you to keep your options open by earning a one-year certificate and/or a two-year diploma on the way to completing a full degree. Our Continuing Studies and academic upgrading offerings make learning a lifelong experience.

UCFV is large enough to offer variety and small enough to offer you personal attention and flexible learning options. Our small class sizes and teaching focus mean that you get to know your instructors and learn in a hands-on environment. Many of our programs also offer a Co-operative Education (Co-op) option, combining study with supervised, professional, paid, off-campus work experience. Our thriving International programming makes for a culturally diverse student community and great opportunities to study abroad.

www.ucfv.ca

The information contained in this document is subject to change. Please refer to www.ucfv.ca/trades for up-to-date information. UCFV reserves the right to cancel courses and programs.

