

Financial/Economic Feasibility of Proposed Program

This study has come about as a result of a need to diversify the regional economy following negative impacts from the Mountain Pine Beetle infestation. Although collaborative efforts within the region are increasing awareness and support for the use of new technologies to strengthen the economy, there is no funding surplus identified specifically for the creation of a program such as that proposed in this study. Wages, services, and other direct costs for the proposed program are, therefore, presented here as a cost-recovery model. This presumes all costs will be recoverable from fees charged to students and are estimated as such for the purpose of discussing realistic costs.

Preliminary financial estimates for the proposed program are presented for both the College and the local flight school. The College portion of the budget assumes costs for all non-aviation related courses and instructor supplies and is estimated as one lump sum, as per typical program costs (**Table 1**). The local flight school portion of the budget assumes costs for all aviation-related courses, training, and supplies and is estimated on a per student basis, as per the completion of training modules (**Tables 2-4**). Costs to students for the proposed program include all aviation training manuals, aviation texts, aviation workbooks, charts, maps, log books, and other relevant supplies needed for flight training, non-aviation text books, per semester uniform costs, and living expenses (**Tables 5-7**).

All estimates are based on the assumptions the proposed program will run for five semesters in a 20-month time frame, and there will be an annual intake of 16 students for the program each May. Flight instruction and aviation courses will be contracted by the College to the local flight school so students will pay one tuition payment each semester. This will allow program costs to be eligible for student loans. All flight time is based on current fuel costs and is subject to recalculation if significant changes occur.

Students who choose to ladder to the University of the Fraser Valley will complete the last 50 hours needed for his/her commercial license at that campus and he/she will be charged according to fees applicable at the University of the Fraser Valley and Coastal Pacific Aviation.

A. College/Non-Aviation Budget

Using a cost recovery model means recovering or funding the full costs associated with the proposed program through student tuition. Costs include those directly connected with the proposed program such as staff and equipment, and those which draw on the rest of the institution such as administration, student services, human resources, IT/computer systems, etc. The full cost of the proposed program, therefore, includes wages and benefits for staff directly associated with the program and overhead costs for all anticipated elements that will be linked to it to make it succeed.

To estimate the overall budget for the College for the non-aviation portion of the proposed program, personnel needs were estimated for the non-aviation curriculum presented in the Program Structure and Technical Feasibility chapters of this study. This budget is based on the College's current faculty collective agreement. If changes arise between now and proposed program implementation, the budget can be adjusted to allow for additional instructional staff needs. Details of this overall budget are presented in **Table 8**.

Table College Budget

Wages	
Faculty:	
2 Part-time instructors with benefits (Semesters 1 & 2)	
1 Part-time instructor with benefits (Semesters 3 – 5)	
	90,330.00
Administrative/Support:	
Full time Program Coordinator with benefits (24 months)	
1 Part-time Clerical/Registration with benefits (21months)	
	179,013.00
Overhead Costs	
Supplies, Instructor Books/Resources, Photocopying/Printing	24,465.00
Equipment (AV equipment, computers, printers)	1,800.00
Space	23,000.00
Local Travel	2,525.00
Advertising/Promotion	9,170.00
Telephone, Postage/Mail/Freight, Misc.	4,185.00
TOTAL	325,903.00

B. Local Flight School/Aviation Budget

All flight instruction and aviation courses for the proposed program will be contracted by the r bd ()-5.1500

license without adding on any other ratings he/she will have a total of 52 hours of flight time as Pilot In Command (PIC) of an aircraft to fulfill the 200 flight hour requirement for his/her commercial license. Budget details for this option of the proposed program, with no “add-ons”, are presented in **Table .**

Table Commercial Pilot License (CPL)

Semesters 2, 3, 4	
Ground school, flight training, simulator training, books, flight tests, and written tests	16,520.00
Semester 5	

add-on commercial helicopter license to the proposed program's fixed-wing commercial license and diploma.

A student who wishes to add a commercial helicopter license to his/her commercial pilot diploma will complete an additional 60 hours of flight time, and associated written and flight examinations. Budget details for this option are presented in **Table 2.1**.

Table 2.1 Commercial Pilot License + Commercial Helicopter License

Commercial Pilot License Ground school, flight training, simulator training, books, flight tests, written tests, and 52 hours of PIC flight time (on C-172)	23,920.00
Commercial Helicopter License Dual instruction, theory, ground briefings, written tests, examination fee, use of aircraft, and update of license	30,000.00
Total Cost for CPL+ Commercial Helicopter License	\$53,920.00

C. Overall Cost of Proposed Program

The total cost of the proposed program is somewhat variable, as it is uncertain how many students will choose an add-on option or ladder to the University of the Fraser Valley during their fifth semester. The best estimate of a baseline overall program cost is therefore derived by adding the total College/non-aviation budget (**Table 2.2**) to 16 times the local flight school commercial pilot budget (**Table 2.1**).

$$\$334,488.00 + 16 (\$53,920.00) = \$1,062,392.00$$

As a comparison, overall program costs for a full cohort of 16 students completing a float rating is \$1,062,392.00, while the costs for a full cohort of 16 students completing an instructor rating or a commercial helicopter license is \$1,070,008.00 or \$1,406,008.00, respectively.

D. Costs to Student

Perhaps a more accurate estimate of costs is that per student. In order to determine this cost, Non-Aviation/College budget costs (**Table 2.2**) are divided by the full cohort of 16. This cost is then divided by five to determine the Non-Aviation/College budget costs per student each semester (**Table 2.3**).

Table 2.3 College Costs Per Student and Semester

College Costs per Student \$334,488.00 / 16 students	\$20,905.50
College Costs per Semester \$20,905.50 / 5 semesters	\$4,181.10

Although budgets presented above include flight training manuals, aviation texts, workbooks, charts, maps, log books, and other relevant supplies, they do not include cost of living expenses, non-aviation text books, fitness fees, or uniforms for which the student will also be responsible. Based on contacts made with Vanderhoof area apartments and hotels offering

program courses at the College will be selected by each instructor at the time the classes are offered, so exact costs are not known at this time. A cursory examination of books needed for currently offered College courses similar to those in the proposed program indicate a cost of \$500 per semester is likely. Student fitness costs are based on a two-year fee to a local health

Table 2 Student Costs Yr Commercial Pilot Diploma + Instructor

Semester	College Expenses Per Semester	Flight School Expenses Per Semester	Cost of Living, Books, Fitness, Uniform	Total
Semester 1 (May-Aug.)	4,181	13,050	3,910	21,141
Semester 2 (Sept.-Dec.)	4,181	5,507	3,910	13,598
Semester 3 (Jan.-Apr.)	4,181	5,507	3,910	13,598
Semester 4 (May-Aug.)	4,181	5,507	3,910	13,598
Semester 5 (Aug.-Dec)	4,181	7,400	3,910	15,491
Post Program Training	N/A	9,000	2,100	11,100
Total Student Costs	\$20,905	\$45,971	\$21,650	\$88,526

For students who choose to add-on a commercial helicopter license to their CPL, the total cost will be an additional \$32,100 (**Table 3**). This cost is a result of the added flight time and training needed once the student completes his/her diploma, and three months of associated living expenses.

Table 3 Student Costs Yr Commercial Pilot Diploma + Helicopter

Semester	College Expenses Per Semester	Flight School Expenses Per Semester	Cost of Living, Books, Fitness, Uniform	Total
Semester 1 (May-Aug.)	4,181	13,050	3,910	21,141
Semester 2 (Sept.-Dec.)	4,181	5,507	3,910	13,598
Semester 3 (Jan.-Apr.)	4,181	5,507	3,910	13,598
Semester 4 (May-Aug.)	4,181	5,507	3,910	13,598
Semester 5 (Aug.-Dec)	4,181	7,400	3,910	15,491
Post Program Training	N/A	30,000	2,100	32,100
Total Student Costs	\$20,905	\$66,971		

sense of how to run a business, good communication and decision-making skills, and an attitude and maturity to live and work in the north.

Although the proposed program and BCIT's Airline and Flight Operations diploma program are similar in time-frame and in allowing students to start without already possessing a private pilot license, comparisons beyond these points cannot be made as the objectives for each program are widely different. The choices for the student in the proposed program are numerous because the focus is to create northern pilots who possess the necessary skills to contribute to aviation in the region. A student enrolled in the proposed program has the opportunity to add-on a float rating in his/her last semester, then stay three months to add on an instructor rating or commercial helicopter license. If the student wishes to obtain a multi-engine and multi-engine IFR rating he/she has the option to do so by simply transferring to the partnered program at UFV and can stay within the province to do so. Likewise, if the student wishes to complete a four-year degree, he/she can enroll in the partnered program and easily ladder to a Bachelor of Business Administration in Aviation or a straight Bachelor of Business Administration degree.

Program costs for the 18-month diploma at BCIT add up to roughly \$66,000 per student. This amount covers tuition, a student activity fee, a student health and dental plan fee, flight time and training at Pacific Flying Club, Transport Canada e