

Technical Feasibility of Proposed Program

A. Program Delivery

Non-flight curriculum presented by the University of Fraser Valley (UFV) and flight (aviation) curriculum presented by Coastal Pacific Aviation (CPA) for the first two years of the UFV/CPA Bachelor of Business Administration degree are provided in **Table 5**. Also provided, is a comparison of existing course equivalents at the College of New Caledonia. Where there is no current course equivalent at the College for a UFV course, a denotation of “^^^^^” is given.

All flight training curriculum can be recognized by the “AV” (aviation) designation. All flight curriculum for the proposed program will be the same as that provided by CPA for the first four semesters, therefore the course designations and credits are presented as the same for the purpose of this study. The non-flight curriculum will closely follow that of UFV with existing College equivalent courses substituted whenever possible and curriculum provided by UFV to the College for those courses without a course equivalent. The fifth semester curriculum at the College will follow the outline provided in the Program Structure chapter of this study, with courses being developed as needed. Specific details on curriculum for both flight and non-flight courses are outside the scope of this study, but will be developed if the proposed program is shown to be feasible.

Table 5: UFV/CPA Curriculum and Proposed CNC Equivalents

UFV/CPA BBA Program Yrs 1 & 2			CNC Proposed Program Equivalents		
Semester I					
Course	Title	Credits	Course	Title	Credits
AV 101	Fitness	0.5	AV 101	CPA and Local Flight School	0.5
AV 161	Introduction to Aviation	2	AV 161	CPA and Local Flight School	2
AV 162A	Flight Training — Private	1	AV 162A	CPA and Local Flight School	1
BUS 100	Introduction to Business	3	^^^^^	^^^^^	^^^^^
or BUS 102	Introduction to Business	3	^^^^^	^^^^^	^^^^^
BUS 143	Accounting I	3	^^^^^	^^^^^	^^^^^
CMNS 125	Business Communications I	3	^^^^^	^^^^^	^^^^^
ECON 100	Principles of Microeconomics	3	ECON 201	Microeconomics	3
Semester II					
Course	Title	Credits	Course	Title	Credits
AV 102	Fitness	0.5	AV 102	CPA and Local Flight School	0.5
AV 162B	Flight Training — Private	1	AV 162B	CPA and Local Flight School	1
BUS 120	Marketing Essentials	3	^^^^^	^^^^^	^^^^^
BUS 144	Accounting II	3	^^^^^	^^^^^	^^^^^
BUS 203	Organizational Behavior	3	COM 222	Mgt. and Organizational Behavior	3
BUS 261	Business Law	3	LAW 294	Business Law	3

Table 5: UFV/CPA Curriculum and Proposed CNC Equivalents

UFV/CPA BBA Program Yrs 1 & 2			CNC Proposed Program Equivalents		
ECON 101	Principles of Macroeconomics	3	ECON 202	Principles of Economics-Macroeconomics	3
Semester III					
Course	Title	Credits	Course	Title	Credits
AV 151	Fitness	1	AV 151	CPA and Local Flight School	1
AV 201	Aviation Theory I	3	AV 201	CPA and Local Flight School	3
AV 211	Simulation — Instrument Procedures I	1	AV 211	CPA and Local Flight School	1
AV 221	Aircraft — Commercial I	1.5	AV 221	CPA and Local Flight School	1.5
AV 231	Human Factors I	1	AV 231	CPA and Local Flight School	1
BUS 160	Computerized Business Applications	3	*****	*****	*****
MATH 106	Statistics I	4	MATH 157	Business Statistics	3
ENGL 105	The Reading and Writing of Prose	3	ENG 103	Composition and Style	3
Semester IV					
Course	Title	Credits	Course	Title	Credits
AV 152	Fitness	1	AV 152	CPA and Local Flight School	1
AV 302	Aviation Theory II	3	AV 302	CPA and Local Flight School	3
AV 312	Simulation — Instrument Procedures II	1	AV 312	CPA and Local Flight School	1
AV 322	Aircraft — Commercial II	1.5	AV 322	CPA and Local Flight School	1.5
AV 332	Human Factors II	1	AV 332	CPA and Local Flight School	1
BUS 201	Human Resource Management	3	*****	*****	*****
BUS 247	Management Accounting I	3	COM 212	Managerial Accounting	3
ENGL 120–170	English Literature elective	3	ENGL 102-204	English Literature	3

Partnering discussions between the University of the Fraser Valley/Coastal Pacific Aviation and the College/Local Flight School are underway at the time of this study. It is believed curriculum needed for the proposed program will be available as early as Fall 2010. The intent will then be to take the program to the College’s Education Council for approval.

The College

The College of New Caledonia will provide the credential for the proposed program and be responsible for the development and delivery of all non-aviation courses. In addition, the College will be responsible for the management, administration, marketing, and student support of the program.

Many of the non-aviation courses in the proposed course schedule are already offered on other campuses by the College. The College will be responsible for bringing these courses to the Vanderhoof campus and acquiring curriculum for any courses in the proposed course schedule that are not currently offered. This new curriculum will be obtained through the partnership agreement with the University of the Fraser Valley.

Instructors for all non-aviation courses will be employed by the College and all non-aviation courses will be held at the Vanderhoof campus in existing classrooms. Class size will be set within the specifications of the faculty collective agreement and will be flexible enough to accommodate the full cohort of aviation students while providing space for students outside the program in an effort to keep tuition costs down for everyone. Preference will be given to aviation students for required non-aviation courses during those semesters with only one offering.

Administration, marketing, and student support for the proposed program will be integrated into current staff duties, with extra effort built-in for the program during its initial stages. A dedicated Program Coordinator will be hired as a liaison between the College and the local flight school to provide support to students throughout the program and ensure student progress goals and transferability efforts are being met.

Acceptance to the proposed program will be through a joint intake process, coordinated between the College and the local flight school by the Program Coordinator. The College will register all students who meet admission requirements and are accepted into the program. The Program Coordinator will be responsible for obtaining proof of each applicant's academic eligibility prior to any assessments by the local flight school. The College will base acceptance on previous education and minimum grades for English, Math and Physics. The local flight school will base acceptance on an interview, a computer based aptitude test, and the applicant's level of spoken English. A single letter of acceptance or rejection will be issued to all applicants by the College on its behalf and the local flight school, giving detailed reasons of rejection. Successful applicants will then undergo a coordinated orientation at the College and the local flight school prior to the program start date.

Local Flight School

All flying schools in Canada must be certified by Transport Canada under the terms of the Canadian Aviation Regulations (CARs), and the operator of a flight school must hold a Flight Training Unit School Operating Certificate (Transport Canada, 2009). For this reason, all flight and simulator-related courses for the proposed program will be taught by a certified local flight school and certified flight instructors.

The International Civil Aviation Organization (ICAO), a division within the United Nations, requires pilots have their English language proficiency formally assessed to ensure pilots and air traffic controllers are able to communicate proficiently using both ICAO phraseology (ICAO Doc. 9832) and plain English (ICAO Doc. 9835) (ICAO 2009). For this reason, the local flight school will assess all applicants' levels of spoken English and determine whether or not they will need assistance in achieving the level expected for the proposed program. If an applicant is found to need assistance, he/she will work separately with the College's English as a Second Language program to reach the required level.

Through a partnership agreement between the College and the local flight school, instruction for aviation courses and all flight and simulator time will be contracted. Payment for all courses and flight and simulator time will be collected from students by the College to ensure students are eligible for student loans. The Program Coordinator will liaise with the local flight school to track students' flight and simulator time on a real-time basis, and the College will set up a payment plan to reimburse the local flight school its portion of the collected fees.

Instruction for all aviation ground courses and simulation will take place at the Vanderhoof airfield if space is available. If space is not available, aviation ground courses and simulation will be taught in classrooms at the College by local flight school instructors until such time as space at the airfield is available.

The local flight school will teach flight curriculum developed by Coastal Pacific Aviation and certified by Transport Canada under the terms of the Canadian Aviation Regulations. This curriculum provides a set number of skills taught in a set amount of hours in order to pass Transport Canada requirements in a particular aircraft/simulator. Flight and simulation modules are standardized for the average with most students able to acquire the skills in each lesson during the allotted time frame. If a student is not successful or requires additional time to complete the curriculum, a resolution process will be in place that states extra flight hours will be paid for above and beyond the cost for the agreed training flights. Grades for all flight courses will be turned into the College at mid- and end-semester and reported to the student. Grades for all non-flight theory courses taking place at the College will be reported to the student at the same interval.

B. Instructional, Operational, Equipment, Supplies and Support

The College and the local flight school will each be responsible for operational costs, the acquisition of equipment and supplies, and the employment of support staff associated with their part of the program delivery. Each will also be responsible for their own determination of course content, the development of student material, and the development of presentation materials and testing.

The College

A Technical Advisory Committee will need to be formed by January 2010 to help develop any remaining curriculum not covered by the partnering agreement. This group will likely be made up of Northern Air Operators and one representative each from the College and School District #91.

During initial stages of the program, two part-time instructors are proposed for the curriculum presented in **Table 5** for semesters one and two, and one part-time instructor is proposed for semesters three through five, taught under the College's current faculty collective agreement. These positions will need to be advertised in late Fall 2010 so hiring would be complete prior to a proposed program start date of May 2011. Also in Fall 2010, the Program Coordinator will need to be hired in order for this person to help promote the program and participate in student interviews by late January 2011.

Support and management will be needed as soon as the proposed program is deemed feasible in order to begin marketing the program. As a work plan is developed, the need for support and managerial staff will increase as partnering agreements are finalized, curriculum details are discussed, and additional funding for infrastructure is sought.

Because most of the non-flight courses in the proposed program are offered at the College on other campuses, costs associated with course content and the development of student and presentation materials will not be as high as starting from scratch. There will be, however, a need to review the course curriculum from the University of Fraser Valley, compare it to that offered at the College, and update equivalent courses to reflect some examples from the aviation sector. It is assumed instructor manuals and student text costs will be in line with courses already offered at the College.

Local Flight School

The local flight school will need three to four instructors to run the flight training courses for the proposed program cohort of 16 students. At the present time, there is a local flight school/charter operation at the Vanderhoof Airport which employs four instructors. It is anticipated all of these instructors will have a Class 1 or Class 2 rating by the start of the proposed program. During the initial stage of the proposed program it is thought dispatch could be handled by the instructors on a rotating schedule. As the program grows there may become a need to hire personnel specifically for dispatch. This role could also be filled by experienced students training in dispatch during their fifth semester in the program.

In addition to its current staff, the local flight school will need to hire one full-time and one part-time aircraft maintenance engineer to ensure all aircraft are properly maintained for the proposed program. It is possible an apprenticeship opportunity could be available through the Aircraft Maintenance Engineer program with Northern Lights College in Dawson Creek by the proposed May 2011 start date to fill at least one of these positions.

Support personnel needed for the proposed program at the local flight school include two administrative assistants for billing, accounting, and marketing, one Supervisor/Operations Manager, and one part-time designated flight test examiner. Support personnel also will be responsible for ordering student pilot uniforms and scheduling students with the local health and fitness facility each semester for Fitness credits. These positions could likely take three to six months to fill and personnel hired will need to be in place by early Spring 2011, prior to the proposed May 2011 start date for the program.

Flight module curriculum from Coastal Pacific Aviation for the private and commercial pilot's licenses will be purchased or leased as part of the partnering agreement and passed along to the student in the form of a franchise fee. This curriculum is expected to take three to six months to have in place prior to the May 2011 proposed program start date. Because the local flight school/charter operation will continue to operate as a private business outside its involvement in the proposed program, licensing and memberships required by Transport Canada will already be in place and only minimal costs for such will be passed along to the program.

It is expected Coastal Pacific Aviation would send a "Standards Officer" to consult with the local flight school for a few months prior to the start of the proposed program in order to ensure all of its standards are being met. This will likely be a cost passed along to the program, as would any annual standards checks conducted by CPA as long as its name was associated with the proposed program.

C. Infrastructure

Classroom Space

The College of New Caledonia-Vanderhoof campus boasts over 400 square meters (4000+ square feet) of available classroom space and lies four to five km south of the Vanderhoof airfield. There is sufficient area to accommodate both non-aviation and aviation classes for the proposed program at the College and the commuting time between the two will be minimal (less than five minutes) for instructors and students who have scheduled flight/simulator times at the airfield.

The District of Vanderhoof is currently installing a new airport lighting and navigation system at the airfield to provide 24-hour flight access to the area. In addition, the District of Vanderhoof is seeking approval for an Automated Weather Observing System (AWOS) to be added to the airfield to provide pilots with real-time weather conditions at the locale. These upgrades will likely result in more air traffic to the area, which may lead to realistic discussions of a terminal/dispatch building at the same site in the near future. If the District of Vanderhoof were to support a new airport building, it could be planned in such a way as to allow sufficient training space for students on a secured second story away from public common areas.

Flight Training Device/Simulators

Flight training devices (FTD's), or simulators, are valuable learning tools where procedures, which would be nearly impossible or unsafe to do in an actual airplane, can be demonstrated and practiced (i.e. emergency procedures). Simulator time can be logged in poor weather and costs less than aircraft flight hours, allowing a student to squeeze in learning and practice in less time and money than he/she can do in an airplane.

Simulators have seven levels. Level 1 is reserved for the ever advancing home computer flight simulator software that does not currently qualify for actual flight training, but provides acquaintance with the cockpit environment. Levels 2 and 3 are given to flight training devices that have generic cockpits and do not represent a specific aircraft, but rather a group of airplanes that have instrument flight training in common. Levels 4 through 7 are given to flight training devices that do represent specific aircraft, matched with a particular make, model and series of airplane. Currently, Transport Canada allows up to ten hours of flight time on an approved simulator to count toward instrument training for a commercial pilot's license. Transport Canada also allows the use of a Level 5 FTD to retest Emergency Procedures, and Radio Navigation for failed flight tests.

The proposed program will seek a Level 2 or 3 simulator in order to replicate the cockpit of a number of single engine and twin engine aircraft that will be available through the local flight school.

Aircraft

The local flight school will need three to four C-172's dedicated to the proposed program in order to train a full cohort of 16 students. At the present time, the flight school is looking into financing new equipment and refitting at least one old piece to have the aircraft necessary for the program start date in May 2011. Some equipment also may become available through the partnership agreement currently under discussion with Coastal Pacific Aviation.