



Commercial Pilot with Applied Human Factors Diploma

Program Description

The Langley Flying School (LFS) Commercial Pilot with Applied Human Factors Diploma program (CP Diploma) is designed for candidates who desire to become Commercial Pilots in a dynamic training environment. It integrates practical concepts of Human Factors in aviation into 3 critical phases of Pilot Training and mountain flying.

This enhances Pilot awareness of Human Factors concepts, to enable graduates to be better suited for today's aviation industry.

In addition to the Transport Canada standards for pilot training and licensing, the 3 main handbooks being used for the course were designed by a Human Factors team for Transport Canada (TC) following International Civil Aviation Organization (ICAO) recommendations. Transport Canada has taken a leading and active role to include Human Factors in aviation training and Langley Flying School being regulated by TC is using this foundation to enhance Pilot training to graduate safer and more competent Pilots that maintain the LFS quality and standard.

Career Occupation

The career occupations for which the program is intended to prepare a student are as follows: Flight Instructor, Ground Instructor, Commercial Pilot, Airline Transport Pilot, Ferry Pilot.

Admission Requirements

Requirements the student must meet to be accepted into the program:

1. Secondary (high) school graduation certificate or equivalent diploma.
2. English language proficiency assessment or ICAO level 4 English equivalent.
3. Transport Canada Category 1 medical is required prior to first solo flight.

Learning Objectives

At the end of this program student will:

- a. Obtain a Transport Canada Commercial Pilot Licence.
- b. Possess the skills required to pass advanced pilot selection processes in the modern Canadian aviation industry, which are often based on a combination of aptitude, skill, physiological and psychological assessments.
- c. Have an enhanced level of pilot decision-making and situational awareness relevant to entry level pilots into the aviation industry and instruction of trainee pilots.
- d. Methodological analysis, problem solving and evaluation, which are useful in dealing with abnormal and emergency scenarios that may be encountered in the aviation industry.

Method(s) of Evaluation

The methods of evaluation used to assess a student are those included in the course outlines.



Completion Requirements*

Requirements that a student must meet to complete the program are:

1. Complete 100 hours of LFS Applied Human Factors lecture and pass (70%) a LFS Human Factors final exam.
2. Obtain a Transport Canada Commercial Pilot Licence - with all licencing requirements satisfied as per Standard 421 of the Canadian Aviation Regulations (CARs).

Program Duration 18 months.

*This program leads to employment in a career occupation regulated by Transport Canada and has an instructional time of **15.0 hours per week for 47 weeks** broken down as follows:*

*Approximately **325** hours of aircraft and FTD training including mandatory pre and post flight briefings (250 hours of actual flight and FTD time [15 FTD Pre PPL, 70 PPL, 15 FTD PRE CPL, 150 CPL]) and;*

***375** hours of ground training in a classroom (70 PPL, 120 CPL, 10 Mountain Flying, 10 aviation research projects, 50 hours Multi Engine IFR ground school, 10 hours pilot decision making (PDM), 105 Applied Human Factors)*

*Based on the totals above, this program is divided into **12 months** (700/15 = 47 weeks).*

However, due to homework hours (approximately 10 hours per week), flight testing and licencing delays, statutory holidays, as well as other operational irregularities such as weather and airspace closures, the course is listed as an **18-month** program.

**325 hours above factors in 0.30 hour for the Transport Canada mandatory briefings (Pre-flight briefing, Preparatory Ground Instruction (PGI), and Post-flight debriefing) per 1 actual aircraft or FTD hour of training.*

Homework Hours 10 hours a week.

Delivery Method(s) *Indicate how the program is delivered*

- In-class instruction*
- In-flight instruction*
- Distance education*
- Combined delivery (both in-class and distance)*

Required course materials *List textbooks, equipment, uniform and other educational materials required to complete this program.*

The following are a list of textbooks, equipment, and other educational materials required to complete this program which are provided to the students:

- Company Uniform.
- Nav Canada VFR phraseology guide;



- From the Ground Up textbook and workbook;
- Human Factors for Aviation - Basic Handbook;
- Ground school and Flight training workbooks with lesson plans;
- Flight Training Manual, 4th Edition;
- C152/C172 Pilot Operating Handbook;
- Pilot Logbook;
- Flight Computer – E6B and CX3;
- ICAO Chart Ruler;
- Protractor;
- VNC and VTA maps;
- Canadian Flight Supplement;
- Flight Bag;
- Human Factors for Aviation - Advanced Handbook;
- Jeppesen Multi-Engine Manual;
- PA34 Pilot Operating Handbook;
- Instrument Procedures Manual;
- Canada Air Pilot and General Pages CAP/CAP GEN;
- TC flight Instructor Guide;
- Human Factors for Aviation - Instructor's Guide;
- PA28 Pilot Operating Handbook;
- TC study and flight test guides;

Program Organization*

The titles of the courses in this program in the order they are provided, and the hours of instruction allotted to each are:

Title of Course	# of Hours*
Private Pilot Ground School	70
Pre-Private Training Pilot Simulation in a Flight Training Device (FTD)	19.5 (15)
Private Pilot Flight Training	91 (70)
Human Factors Introduction	30
Commercial Pilot Ground School	120
Pre-Commercial Training Pilot Simulation in a Flight Training Device (FTD)	19.5 (15)
Commercial Pilot Flight Training	195 (150)
Human Factors for Commercial Pilots	40
Mountain Flying Ground School	10
Multi Engine IFR Ground School	50
Pilot Decision Making	10
Human Factors for Professional Pilots and Instructors	35
Aviation Research Projects	10
TOTAL	700

**All Flight Training above factors in the additional 0.30 hour for the Transport Canada mandatory briefings (Pre-flight briefing, Preparatory Ground Instruction (PGI), and Post-flight debriefing)*

* The Applied Human Factors courses are taught concurrently with Flight and Ground Training.