

AIR 101 Private Flight Lab I

3 credits, 53 hours (45 instructional hours, 8 lab hours)

This introductory skills based course includes 25 hours dual and 8 hours solo flight training which includes basic maneuvers, specialty take-offs and landings, forced approaches, navigation and basic instrument work. Students will be prepared for their dual cross-country flights, upon completion of this course.

Prerequisites: Transport Canada Category 1 Medical

Instructors

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Office Hours

Mon 9:00 – 17:00
Tue 9:00 – 17:00
Wed 9:00 – 17:00
Thu 9:00 – 17:00
Fri 9:00 – 17:00

Hours of Instruction

TBD - Students Availability

Required Resources

Aeronautical Information Manual (TP 1471E), Transport Canada, Latest edition

Cessna 172 Pilots Guide, ASA, Latest edition

From the Ground Up, "Sandy" A. F. MacDonald, 29th Edition

VFR Navigation Chart (VNC) – Lake Athabasca(AIR 5023), Nav Canada 19th Edition

VFR Navigation Chart (VNC) – Edmonton (AIR5015), Nav Canada, 32nd Edition

Other Supplies– Manual E6B or Electronic CX-3 Flight Computer, ICAO Ruler and Plotter

Course Outcomes

Upon successful completion of the course, the student shall be able to:

- Calculate fuel, weight and balance for proposed flight.
- Perform crucial flight maneuvers without assistance.
- Safely achieve their first solo flight.
- Perform take-offs and landings in various conditions, including short and soft airstrips.

- Effectively communicate via radio to the appropriate air traffic unit.
- Respond to inflight emergencies.

Evaluation

Preparation for Flight (IE. Assigned Reading) 10%

Discussions 10%

Quizzes 20%

Flight Assessments 20%

33 Hour Progress check 40%

Total 100%

A grade of D is required for passing, progression and transfer.

Grading System

| Descriptor | Alpha Grade | 4.0 Scale | Percent |
|---------------------|--------------------|-----------|-----------|
| Excellent | A+ | 4.0 | > 93.9 |
| | A | 4.0 | 87 – 93.9 |
| | A- | 3.7 | 80 – 86.9 |
| Good | B+ | 3.3 | 77 – 79.9 |
| | B | 3.0 | 74 – 76.9 |
| | B- | 2.7 | 70 – 73.9 |
| Satisfactory | C+ | 2.3 | 67 – 69.9 |
| | C | 2.0 | 64 – 66.9 |
| | Progression | C- | 1.7 |
| Poor | D+ | 1.3 | 57 – 59.9 |
| Minimum Pass | D | 1.0 | 50 – 56.9 |
| Failure | F | 0.0 | < 50 |

Proposed Schedule of Topics

Since the flying portion will be happening on a one-one instructional basis, the flying exercises covered will depend on various factors such as weather, personal learning ability, understanding of the aircraft and personal scheduling. Refer to the page 5 - 7 for the exercises and sequencing of flights.

Please Note:

Date and time allotted to each topic is subject to change.

Performance Requirements**Student Responsibilities**

It is your responsibility as a student to contact the Office of the Registrar to complete the forms for Withdrawal or Change of Registration, and any other forms. Please refer to the list of important dates as noted in the Academic Schedule in the Keyano College credit calendar.

More specific details are found in the Student Rights and Student Code of Conduct section of the Keyano College credit calendar. It is the responsibility of each student to be aware of the guidelines outlined in the Student Rights and Student Code of Conduct Policies.

Student Attendance

Class attendance is useful for two reasons. First, class attendance maximizes a student's learning experience. Second, attending class is a good way to keep informed of matters relating to the administration of the course (e.g., the timing of assignments and exams). Ultimately, you are responsible for your own learning and performance in this course.

It is the responsibility of each student to be prepared for all classes. Students who miss classes are responsible for the material covered in those classes and for ensuring that they are prepared for the next class, including the completion of any assignments and / or notes that may be due.

Academic Misconduct

Students are considered to be responsible adults and should adhere to principles of intellectual integrity. Intellectual dishonesty may take many forms, such as:

- Plagiarism or the submission of another person's work as one's own
- The use of unauthorized aids in assignments or examinations (cheating)
- Collusion or the unauthorized collaboration with others in preparing work
- The deliberate misrepresentation of qualifications
- The willful distortion of results or data
- Substitution in an examination by another person
- Handing in the same unchanged work as submitted for another assignment
- Breach of confidentiality.

The consequences for academic misconduct range from a verbal reprimand to expulsion from the College. More specific descriptions and details are found in the Student Rights and Student Code of Conduct section of the Keyano College credit calendar. It is the responsibility of each student to be aware of the guidelines outlined in the Student Rights and Student Code of Conduct Policies.

In order to ensure your understanding of the concept of plagiarism, you must successfully complete the online tutorial found on ilearn.keyano.ca. Then print the certificate, sign it, and show it to each of your instructors. Your course work will not be graded until you show this signed certificate.

Specialized Supports

The Student Academic Support Services (SASS) department: Accessibility Services, Skill Centre, Wellness Services and Student Life Department work together to support student success at Keyano College.

Accessibility Services (CC167) supports student success through group and individualized instruction of learning, study and test taking strategies, and adaptive technologies. Students with documented disabilities, or who suspect a disability, can meet with the Learning Strategists to discuss accommodation of the learning barriers that they may be experiencing. Students who have accessed accommodations in the past are encouraged to visit our office at their earliest opportunity to discuss the availability of accommodations in their current courses. Individual appointments can be made by calling 780-791-8934.

Skill Centre (CC119) provides a learning space where students can gather to share ideas, collaborate on projects and get new perspectives on learning from our tutorial staff. Students visiting the centre have access to one-to-one or group tutoring, facilitated study groups, and assistance in academic writing. The Skill Centre's Peer Tutor program provides paid employment opportunities for students who have demonstrated academic success and want to share what they have learned. Tutoring is available free to any students registered at Keyano College on a drop in basis, from 8:30 am to 5:00 pm Monday through Friday. Additional evening hours are subject to tutor availability and are posted in the Skill Centre.

Wellness Services (CC260) offers a caring, inclusive, and respectful environment where students can access free group and individual support to meet academic and life challenges. Mental Health Coordinators offer a safe and confidential environment to seek help with personal concerns. The Mindfulness Room in CC260 is available as a quiet space for students to relax during regular office hours. Wellness Service welcomes students to participate in any of the group sessions offered throughout the academic year addressing such topics as Mindfulness and Test Anxiety. Individual appointments can be made by calling 780-791-8934.

Student Life Department (CC210) is a place for students to go when they don't know who else can answer their questions. The staff will help students navigate barriers to success and if they don't know the answer, they will find it out. Student success is directly affected by how connected a student feels to their college. The student life department is there to help students get connected.

Please watch your Keyano email for workshop announcements from our Student Academic Support Services team.

Attached below is the syllabus of flight training. Lessons are comprised of the Air Exercises outlined by Transport Canada. Training will be completed by lesson blocks subject to weather minimums and unforeseen circumstances.

| LESSON | Dual/ Solo | AIR EXERCISES | REFERENCE MATERIAL |
|--------|---------------|---|---|
| 1 | Dual | Exercises: 1,2,3,4,5 Walk-around Ancillary controls Aircraft limitations Engine handling Taxiing Attitudes and Movements | Flight Training Manual (FTM) <i>Part 1: Chapters 1, 2, 3, 4 & 5</i> <i>Part 2: Exercises 1, 2, 3, 4, & 5</i> Cessna 172 Manual <i>Normal Procedures section</i> <i>Limitations section</i> |
| 2 | Dual | Exercises: 2,3,4,5,6,7,8,9,23 Straight and Level Climbs Descents Gentle Turns | Flight Training Manual (FTM) <i>Exercises 2 – 9, 23</i> Cessna 172 Manual <i>Normal Procedures</i> |
| 3 | Dual | Exercises: 6,7,8,9,23 Straight and Level (various airspeeds) Climbs (various airspeeds) Vx, Vy Descents (various airspeeds) Medium Turns Map reading (to Practice Area) | Flight Training Manual (FTM) <i>Exercises 6 – 9, 23</i> |
| 4 | Dual | Exercises: 10,11, 16 Flight for Range and Endurance Slow flight Normal takeoffs | Flight Training Manual (FTM) <i>Exercises 10, 11,16</i> |
| 5 | Dual | Exercises: 11,12, 17 Slow flight (semi advanced) Stall (power off) The circuit Entering and leaving the circuit Normal landings | Flight Training Manual (FTM) <i>Exercises 11,12,17</i> Cessna 172 Manual <i>Stall recovery,</i> <i>Amplified procedures</i> |
| 6 | Dual | Exercises: 11,12,13 Slow flight (Advanced) Stalls (power on) Incipient Spins | Flight Training Manual (FTM) <i>Exercises 11, 12, 13</i> Cessna 172 Manual <i>Normal Procedures (stalls and spinning)</i> |
| 7 | Dual | Exercises: 9s,14,22 Spirals Steep Turns Forced Approaches - elementary | Flight Training Manual (FTM) <i>Exercises 9, 14, 22</i> Cessna 172 Manual <i>Emergency Procedures</i> |

| LESSON | Dual/ Solo | AIR EXERCISES | REFERENCE MATERIAL |
|--------|---------------|---|--|
| 8 | Dual | Exercises: 15,20,22 Side Slipping Illusions created by drift (low flying) Forced Approaches | Flight Training Manual (FTM) <i>Exercises 15, 20, 22</i> Cessna 172 Manual <i>Emergency Procedures</i> <i>Amplified Procedures (Sideslips)</i> |
| 9 | Dual | Exercises: 16,17,18 Normal Circuits Take Off & Landings Missed Approach | Flight Training Manual (FTM) <i>Exercises 16,17,18</i> |
| 10 | Dual | Exercises: 15,16,17,18 Normal Circuits (continue until ready for solo) Review forced approaches , glides and slips from circuit Emergency Procedures – com failure, runway changes | Flight Training Manual (FTM) <i>Exercises 15, 16, 17, 18</i> Cessna 172 Manual <i>Emergency Procedures</i> |
| 11 | Dual | Exercises: 19 First Solo | Flight Training Manual (FTM) <i>Exercise 19</i> |
| 12 | Dual | Exercises: 16,17,18 Quick Review circuit with Instructor to check proficiency | Flight Training Manual (FTM) <i>Exercises 16, 17, 18</i> |
| 13 | Solo | Exercises: 16,17,18 Normal circuits | |
| 14 | Solo | Exercises: 16,17,18 Normal Circuits | |
| 15 | Dual | Exercises: 16,17,18 Short field takeoffs Short field landings Minimum ground roll / obstacle clearance | Flight Training Manual (FTM) <i>Exercises 16, 18</i> Cessna 172 Manual <i>Normal Procedures (short field)</i> |
| 16 | Solo | Exercises: 16,17,18 Short field takeoffs Short field landings Minimum ground roll / obstacle clearance | |
| 17 | Dual | Exercises: 16,17,18 Soft field takeoffs Soft field landings | Flight Training Manual (FTM) <i>Exercises 16, 18</i> Cessna 172 Manual <i>Normal Procedures (soft field)</i> |

| LESSON | Dual/ Solo | AIR EXERCISES | REFERENCE MATERIAL |
|--------|---------------|--|---|
| 18 | Solo | Exercises: 16,17,18 Soft field takeoffs Soft field landings | |
| 19 | Dual | Exercises: 9s,11,12,13,14,22,23 Steep turns Slow flight with flaps Stalls with flaps Incipient spins Spiral dive Forced approaches | Flight Training Manual (FTM) <i>Exercises 9 – 14, 22, 23</i> Cessna 172 Manual <i>Normal Procedures</i> <i>Emergency Procedures</i> |
| 20 | Solo | Exercises: 9s,11,12,13,14,22,23 Steep turns Slow flight with flaps Stalls with flaps Incipient spins Forced approaches Self navigation to Practice Area | |
| 21 | Dual | Exercise: 24 Introduction to Instrument Flying Attitudes and Movements Straight and Level Climbs, Descents, Gentle Turns | Flight Training Manual (FTM) <i>Exercise 24 (climbs, descents, turns)</i> |
| 22 | Dual | Exercise: 24 Instrument scan Straight and Level, Climbs, Descents With various airspeed Rate One Turns | Flight Training Manual (FTM) <i>Exercise 24 (scanning, climbs, descents, turns)</i> |
| 23 | Dual | Exercise: 24 Instrument flying: Steep turns Slow flight | Flight Training Manual (FTM) <i>Exercise 24 (scanning, climbs, descents, turns)</i> |

FLIGHT TRAINING EXERCISES

- | | | | |
|-----|--|-----|---|
| 1. | Familiarization Flight | 13. | Spinning |
| 2. | Aircraft Familiarization and Preparation for flight | 14. | Spiral Dive |
| 3. | Ancillary Controls | 15. | Side Slipping |
| 4. | Taxiing | 16. | Take – Off |
| 5. | Attitudes and Movements | 17. | The Circuit |
| 6. | Straight and Level Flight | 18. | Landing |
| 7. | Climbing | 19. | First Solo |
| 8. | Descending | 20. | Illusions Created by Drift, Low Flying |
| 9. | Turning | 21. | Precautionary Landings |
| 10. | Flight for Range and Endurance | 22. | Forced Approaches |
| 11. | Slow Flight | 23. | Pilot Navigation |
| 12. | Stalls | 24. | Instrument Flying |

NOTES:

1. Each Flight Lesson does not necessarily indicate a single flight. An acceptable level of performance is required at each lesson before proceeding to the next lesson. Therefore, each lesson may require more than one flight to achieve the required standard.
2. Your Instructor may alter the order of the syllabus at his/her discretion to accommodate weather conditions, aircraft availability, the students level of understanding and preparedness.