



Commercial Aviation Diploma Program

First Year Flight Syllabus Winter 2017

NOTE: The requirements for the Commercial Pilot License include:

Total Time:

- 200 Hours Flight Time
- 100 Hours Pilot-In-Command (PIC)
- 20 Hours PIC Cross-Country

Training Time - must be recorded in Pilot Training Record:

35 Hours Dual (not including simulator time):

- 5 Hours Night, including 2 Hours Night Cross-Country
- 5 Hours Cross-Country (may include 2 Hours Night Cross-Country from above)
- 20 Hours Instrument (maximum 10 Hours in simulator)

30 Hours Solo:

- 5 Hours Night, with 10 takeoffs and landings
- 300 nm **Radius** Cross-Country, including 3 *Full Stop* Landings away from point of departure (ensure log book entry is correct)

Category 1 Medical

Warning: Your Transport Canada Written Exam and your Flight Test must occur within 12 months of the Licence Application





Commercial Aviation Diploma Program First Year Flight Syllabus

The First year Commercial Aviation Diploma Program Flight Syllabus is based on a repetitive outline. Each week there is a Dual Mutual flight, a Mutual flight, and a Solo Simulator session. There is a fourth lesson each week that takes various forms. It may be Dual Mutual, Dual, Mutual, or Solo. The fourth lesson may be in a simulator or in an aircraft.

Dual (D)

A lesson with one instructor and one student.

Dual Mutual (DM)

A Dual Mutual flight consists of a lesson with one instructor working with two students. The students are to work as a team. The pre and post-flight activities are shared and the briefings are conducted together. The flight itself is arranged that one student will fly the first lesson while the other observes from the rear seat. During a stop the students will switch places and the lesson will continue.

Mutual (M)

Similar to the Dual Mutual, but without an instructor. The students are to work as a team. The pre and post-flight briefings are conducted together. The flight itself is arranged that one student will fly the first lesson while the other observes from the right seat. During a stop the students will switch places and the lesson will continue.

Solo (S)

Solo is one student working alone.

First Year Flight Syllabus

Dual Simulator (DS)

A simulator lesson with one instructor and one student.

Solo Simulator (SS)

A simulator session with one student working alone.



Southern Interior Flight Centre Marking scale is taken from the Transport Canada Private and Commercial Flight Test Guides. These criteria assume no unusual circumstances. Consideration will be given to unavoidable deviations from the published criteria due to weather, traffic, or other situations beyond the reasonable control of the candidate.

When applying the 4-point scale, award the mark that best describes the weakest element(s) applicable to the candidate's performance. Remarks to support mark awards of 1 or 2 must link to a safety issue, a qualification standard, or an approved technique or procedure.

4	<p>Performance is well executed considering existing conditions:</p> <ul style="list-style-type: none"> • Aircraft handling is smooth and positive with a high level of precision. • Technical skills indicate a thorough knowledge of procedures, aircraft systems, limitations and performance characteristics. • Situational awareness is indicated by continuous anticipation and vigilance. • Flight management skills are exemplary and threats are consistently anticipated, recognized and well managed. • Safety margins are maintained through consistent and effective management of aircraft systems and mandated operational protocols.
3	<p>Performance is observed to include minor errors:</p> <ul style="list-style-type: none"> • Aircraft handling with appropriate control input includes minor deviations. • Technical skills indicate an adequate knowledge of procedures, aircraft systems, limitations and performance characteristics to successfully complete the task. • Situational awareness is adequately maintained as candidate responds in a timely manner to cues and changes in the flight environment to maintain safety while achieving the aim of the sequence/item. • Flight management skills are effective. Threats are anticipated and errors are recognized and recovered. • Safety margins are maintained through effective use of aircraft systems and mandated operational protocols.
2	<p>Performance is observed to include major errors:</p> <ul style="list-style-type: none"> • Aircraft handling is performed with major deviations and/or an occasional lack of stability, over/under control or abrupt control input. • Technical skills reveal deficiencies either in depth of knowledge or comprehension of procedures, aircraft systems, limitations and performance characteristics that do not prevent the successful completion of the task. • Situational awareness appears compromised as cues are missed or attended too late or the candidate takes more time than ideal to incorporate cues or changes into the operational plan. • Flight management skills are not consistent. Instrument displays, aircraft warnings or automation serve to avert an undesired aircraft state by prompting or remedying threats and errors that are noticed late. • Safety margins are not compromised, but poorly managed.
1	<p>Performance is observed to include critical errors or the <i>Aim</i> of the test sequence/item is not achieved:</p> <ul style="list-style-type: none"> • Aircraft handling is performed with critical deviations and/or a lack of stability, rough use of controls or control of the aircraft is lost or in doubt. • Technical skills reveal unacceptable levels of depth of knowledge or comprehension of procedures, aircraft systems, limitations and performance characteristics that prevent a successful completion of the task. • Lapses in situational awareness occur due to a lack of appropriate scanning to maintain an accurate mental model of the situation or there is an inability to integrate the information available to develop and maintain an accurate mental model. • Flight management skills are ineffective, indecisive or noncompliant with mandated published procedures and/or corrective countermeasures are not effective or applied. • Safety margins are compromised or clearly reduced.

Lesson 50-D Instrument/Upper Air ReviewC-172
Dual 1.2 hours **Not Mutual**
Date Completed: _____ **Day**
Instructor Signature: _____ **0.4 Hood**

Aim

The aim of this flight is to practice and review upper air exercises, and emergency procedures.

Reference

Flight Training Manual
Part 2 – Exercises 11 through 24

Preflight Briefing

Procedures for each exercise

Flight Sequences

Instrument flight to/from practice area

1. Steep Turns
2. Slow Flight
3. Stalls
4. Spins
5. Spiral Dives
6. Precision 180 Approach
7. Emergency Procedures

Post Flight Briefing

Next lesson is a mutual review flight.

Notes:

Aim

The aim of this flight is to review air exercises and forced approaches.

Reference

Flight Training Manual

Part 2 – Exercises 9, 11, 12 & 22

Preflight Briefing

Review procedures for air exercises

Flight Sequences

1. Steep Turns
2. Slow Flight
3. Stalls
4. Precision 180 Approach
5. Emergency Procedures

Post Flight Briefing

Next lesson is a solo simulator session for ADF and VOR intercepts.

Notes:

Lesson 53-DS **ADF Holds** **Frasca 131**
Dual 1.0 hours **Not Mutual**
Date Completed: _____ **Day**
Instructor Signature: _____

Aim

The aim of this flight is to introduce holding patterns.

Required Reading

Flight Training Manual
Part 2 – Exercise 24
AIM RAC 10.0 - Holding Procedures

Preflight Briefing

Pattern Flying and Holds - Suggest instructor use the 56SS syllabus sequence so that the student will be familiar with holding procedures prior to doing this solo.

Flight Sequences

1. Practice ADF Tracking, Intercepts and Holds

Post Flight Briefing

Next flight is ADF and VOR intercepts.

Notes:

Lesson 54-DM VOR and ADF Intercepts C-172
Dual 1.2 hours Mutual
Date Completed: _____ Day
Instructor Signature: _____ 1.0 Hood

Aim

The aim of this flight is to improve ADF and VOR intercepts and tracking.

References

Flight Training Manual
Part 2 – Exercise 24

Preflight Briefing

ADF and VOR orientation, intercepts and tracking

Flight Sequences

Student #1:

1. From Kelowna track Northbound to the Vernon NDB
2. Abeam Vernon NDB Intercept V302 to Enderby VOR – Suggest 90 Degree Intercept
3. Fly this Airway Until 12 DME From YNY VOR – Then Fly Direct to CZAM

Student #2:

1. From CZAM Fly Direct to Enderby NDB
2. Prior to Reaching NY track south to the Vernon NDB
3. When Abeam Vernon NDB Intercept V302 Southbound – Suggest 90 Degree Intercept
4. Over WTMAN Intersection Plan for Fintry Arrival into CYLW

Post Flight Briefing

Next lesson is a review of the ADF and VOR and precautionary landings.

Notes:



Lesson 55-M Instrument Flight
Solo 1.2 hours
Date Completed: _____
Student Signature: _____

C-172
Mutual
Day

Aim

The aim of this flight is to improve ADF and VOR intercepts and tracking, review precautionary landing.

References

Flight Training Manual
Part 2 – Exercises 21 & 24

Preflight Briefing

ADF and VOR orientation, intercepts and tracking

Flight Sequences

1. ADF Intercepts & Tracking - 90° & 45° Intercepts
2. VOR Intercepts & Tracking - 90° & 45° Intercepts
3. Precautionary Landing

Post Flight Briefing

Next lesson is a solo simulator review of the ADF holds.

Notes:

Aim

The aim of this session is to practice ADF holds.

Required Reading

Hold handout

AIM RAC 10.0 – Holding procedures

Preflight Briefing

ADF holds

Flight Sequences

1. Depart CYXX (IXX), Climb Runway Heading to 3000'
2. Intercept an Inbound Track of 210° to the Abbotsford NDB (344) with a 60° Intercept
3. Hold on an Inbound Track of 180°, all Turns Right, Maintain 3000'
4. Once Established in the Hold, Depart From the Outbound Leg, Fly Heading 000° for 5 minutes
5. Intercept an Inbound Track of 150° to the Abbotsford NDB (344) With a 60° Intercept
6. Hold on an Inbound Track of 030°, All Turns Right, Maintain 3000'
7. Once Established in the Hold, Depart From the Outbound Leg, Fly Heading 210° for 5 minutes
8. Intercept an Inbound Track of 000° to the Abbotsford NDB (344) with a 60° Intercept
9. Hold on an Inbound Track of 150°, All Turns Right, Maintain 3000'

Post Flight Briefing

Next lesson is an introduction to VOR holds.

Notes:

Lesson 57-DS **VOR Holds**
Dual 1.0 hours
Date Completed: _____
Instructor Signature: _____

Frasca 131
Not Mutual
Day

Aim

The aim of this flight is to practice VOR holds.

Required Reading

Hold handout

AIM RAC 10.0 – Holding procedures

Preflight Briefing

Introduction to VOR holds – Suggest instructor follows 60SS syllabus sequence so that the student is familiar with the procedures prior to doing the session solo.

Flight Sequences

1. VOR Intercepts
2. VOR Tracking TO and FROM
3. VOR Holds

Post Flight Briefing

Next lesson is an in-flight practice of ADF holds.

Notes:

Lesson 58-DM ADF Holds and Approaches

Dual 1.2 hours

Date Completed: _____

Instructor Signature: _____

C-172

Mutual

Day

1.0 Hood

Aim

The aim of this flight is to practice ADF holds.

Required Reading

Hold handout

AIM RAC 10.0 – Holding procedures

Preflight Briefing

Pattern flying and holds

Flight Sequences

Student #1

1. Practice ADF Holds at 6K beacon.
2. Simulated NDB A approach into CYVK.
3. Circle for the active runway and land.

Student #2

4. Practice ADF Holds at 6K beacon.
5. Simulated NDB A approach into CYVK
6. Missed approach back to CYLW.

Post Flight Briefing

Next lesson is a mutual review of ADF holds.

Notes:

Lesson 59-M Instrument Flight
Solo 1.2 hours
Date Completed: _____
Student Signature: _____

C-172
Mutual
Day

Aim

The aim of this flight is to practice pattern flying and ADF holds.

Required Reading

Hold handout

AIM RAC 10.0 - Holding procedures

Preflight Briefing

Pattern flying and holds

Flight Sequences

1. Practice ADF Holds
2. Pattern – Full Panel

Your flight partner is the safety pilot so ensure he/she is looking outside the aircraft.

Post Flight Briefing

Next lesson is a solo simulator practice of VOR holds.

Notes:

Aim

The aim of this flight is to practice the VOR holds.

Required Reading

Hold handout

Flight Sequences

1. Depart CYXX (IXX), Climb Runway Heading to 3000'
2. Intercept the 030° Radial to the Watcom VOR (113.0) With a 60° Intercept
3. Hold Inbound on the 090 Radial, All Turns Right, Maintain 3000'
4. Once Established in the Hold, Depart From the Outbound Leg, Fly Heading of 090° for 5 minutes
5. Intercept the 120° Radial to Whatcom VOR (113.0) with a 60° Intercept
6. Hold Inbound on the 000° Radial, All Turns Right, Maintain 3000'
7. Once Established in the Hold, Depart From the Outbound Leg, Fly Heading of 000° for 5 minutes
8. Intercept the 330° Radial to Whatcom VOR (113.0) with a 60° Intercept
9. Hold Inbound on the 120° Radial, All Turns Right, Maintain 3000'

Remember:

1. What is my outbound?
2. What sector does the outbound lie within?
3. What heading do I turn to after crossing the station?

Post Flight Briefing

Next lesson is a dual simulator introduction to NDB approaches.

Notes :

Lesson 61-DS **NDB Approaches** **Frasca 131**
Dual 1.0 hours
Date Completed: _____ **Not Mutual**
Instructor Signature: _____ **Day**

Aim

The aim of this flight is to learn how to fly NDB approaches.

Acceptable Performance

The student shall be able to conduct a full procedure NDB approach with assistance.

References

AIM RAC 9.0 – IFR arrival procedures

Flight Sequences

1. Depart Boundary Bay (CZBB)
2. NDB tracking
3. NDB approach into Abbotsford (CYXX)

Post Flight Briefing

Next lesson is a cross-country flight to Nakusp or Lillooet.

Notes:

Lesson 62-DM **Cross-Country** **C-172**
Dual 1.2 hours **CYLW - CAQ5 (or CAR3)** **Mutual**
Date Completed: _____ **Day**
Instructor Signature: _____ **1.2 hrs X-C**

Aim

The aim of this flight is to review procedures associated with cross country flight to an uncontrolled aerodrome.

Required Reading

AIM RAC 4.5 – Aircraft Operations – Uncontrolled Aerodromes

Preflight Briefing

VFR Enroute/Uncontrolled Aerodrome Procedures

Flight Sequences

Student 1: CYLW – CAQ5 (Nakusp) or CAR3 (Lillooet)

Student 2: CAQ5 or CAR3 – CYLW

1. Weather Update
2. Preflight Planning – Including VFR nav log
3. File Flight Plan
4. Open Flight Plan
5. Departure and Enroute Procedures
6. Short Field Landing
7. Close Flight Plan

Post Flight Briefing

Next lesson is a cross-country flight to CZAM.

Notes:

Lesson 63-M **Cross-Country** **C-172**
Solo 1.2 hours **CYLW-CZAM** **Mutual**
Date Completed: _____ **Day**
Student Signature: _____ **1.2 hrs X-C**

Aim

The aim of this flight is to practice cross-country flying techniques.

Required Reading

Flight Training Manual
Part 2 – Exercise 23

Preflight Briefing

Review cross-country procedures

Flight Sequences

First Student: CYLW - CZAM

Second Student: CZAM - CYLW

1. Weather Briefing, Preflight Activities, Routing
2. NOTAMs
3. File and Open Flight Plan
4. Departure Procedures – Time-Off & ETAs
5. Enroute Procedures – Groundspeed Checks, Revised ETAs
6. Drift Corrections, Diversions
7. Map Reading, Radio Frequencies Enroute & Updates on Wx
8. Close Flight Plan
9. Navigation Logs to be Handed in to the Instructor for Review and Marking After Completion of Trip

Post Flight Briefing

The next lesson is a review of NDB Approaches.

Notes:



Aim

The aim of this simulator session is to practice flying NDB approaches, and NDB missed approaches.

Acceptable Performance

The student shall perform full procedure NDB approaches

Required Reading

AIM RAC 9.0 – IFR arrival procedures

Preflight Briefing

Review CAP chart for Abbotsford (CYXX) NDB RWY 07 (GNSS) approach.

Flight Sequences

1. Depart CYXX Runway 07 – Climb Runway Heading to 3,000’ Then Turn Right Direct to XX NDB
2. Cross XX and Fly Outbound on Track of 247 for 3 Minutes
3. Turn Left to 202 for 1 Minute Then Turn Right to 022 and Intercept Inbound Track of 067 to XX
4. Cross XX and Note Time. Descend to 860’ for Approach into CYXX. Maintain Outbound Track of 067 for 2:30 minutes
5. Conduct Missed Approach (Climb on Track of 067 to 1,200’ Then Right Climbing Turn to Heading of 202 to 3,000’. Turn Right to XX NDB).
6. Repeat Steps 2 – 4 and Land at CYXX

Post Flight Briefing

Next flight is an introduction to LO charts and localizer approaches.

Notes:

Lesson 65-DS Localizer Approaches Frasca 131
Dual 1.0 hours Not Mutual
Date Completed: _____ Day
Instructor Signature: _____

Aim

The aim of this simulator session is to conduct localizer approaches.

Reference

AIM RAC 9.0 – IFR arrival procedures
Enroute Low Altitude Chart – LO 2

Preflight Briefing

Review CAP chart for Kelowna (CYLW) ILS/DME 1 RWY 16 approach, including LOC/DME minima

Flight Sequence

1. Depart CYLW
2. Full Procedure Localizer Approach into CYLW
3. Missed Approach
4. Full Procedure Localizer Approach for Landing

Post Flight Briefing

Next flight is a review of VOR and ADF, forced approaches and localizer approaches.

Notes:

Lesson 66-DM	Instrument Flight	C-172
Dual 1.2 hours		Mutual
Date Completed: _____		Day
Instructor Signature: _____		0.4 Hood

Aim

The aim of this flight is to review ADF & VOR intercepts and tracking, forced approaches and if able, introduce a localizer approach.

Required Reading

Flight Training Manual
Part 2 – Exercises 22 & 24
AIM COM 3.12 & 3.13.2

Preflight Briefing

Enroute Low Altitude Chart – LO 2
Review CAP chart for Kelowna (CYLW) ILS/DME 1 RWY 16 approach, including LOC/DME minima

Flight Sequences

1. VOR & ADF Intercepts and Tracking
2. Forced Approach
3. Localizer Approach into CYLW (Traffic Permitting)

Post Flight Briefing

Next flight is a mutual covering the same topics as this flight.

Notes:



Lesson 67-M **Instrument Flight** **C-172**
Solo 1.2 hours
Date Completed: _____
Student Signature: _____
Mutual
Day

Aim

The aim of this flight is to review ADF & VOR intercepts and tracking, forced approaches, and localizer approaches.

Required Reading

Flight Training Manual
Part 2 – Exercises 22 & 24
AIM COM 3.12 & 3.13.2

Preflight Briefing

Enroute Low Altitude Chart – LO 2
Review CAP chart for Kelowna (CYLW) ILS/DME 1 RWY 16 approach, including LOC/DME minima

Flight Sequences

1. VOR & ADF Intercepts and Tracking
2. Forced Approach
3. Localizer Approach into CYLW (Traffic Permitting)

Your flight partner is the safety pilot so ensure he/she is looking outside the aircraft.

Post Flight Briefing

Next lesson is a solo simulator session to review NDB approaches.

Notes:



Aim

The aim of this lesson is to practice NDB approaches.

References

AIM RAC 9.0 – IFR arrival procedures
Review CAP chart for Kelowna (CYLW) ILS/DME 1 RWY 16 approach, including LOC/DME minima

Flight Sequences

1. Depart CYLW. Climb to 3,000' Then Initiate Right Climbing Turn to 6,300' Direct to LW NDB
2. Cross LW NDB and Note Time. Hold Outbound Track of 006 for One Minute, Then Turn Left to Intercept Inbound Track of 156. Maintain 6,300'
3. Once Established in the Hold Conduct Two Revolutions, Then Leave the Hold by Flying an Outbound Track of 336 for 4 Minutes (Extended Racetrack Configuration). Turn Left to Intercept an Inbound Track of 156 to LW NDB. Upon intercepting 156 Descend to 4,300'
4. Cross LW NDB, Note the Time, Then Fly an Outbound Track of 150, Descending to 2,840'. With an Approach Ground Speed of 70 knots, Time to the Missed Approach Point (MAP) Will be 5:03 Minutes. If Visual Reference is Established, Land at CYLW. If Not, Conduct a Missed Approach (Climb Direct to EX NDB, Then Right Turn to 3,500'on Track of 185. Right Climbing Turn Direct to LW NDB on Track of 353) for Full Procedure NDB B approach.

Post Flight Briefing

Next session is an introduction to ILS approaches.

Notes:

Lesson 69-DS **ILS Approaches** **Frasca 131**
Dual 1.0 hours **Not Mutual**
Date Completed: _____ **Day**
Instructor Signature: _____

Aim

The aim of this simulator session is to provide an introduction to ILS approaches.

Required Reading

AIM RAC 9.0 – IFR arrival procedures
AIM COM 3.13

Preflight Briefing

Review CAP chart for Abbotsford (CYXX) ILS RWY 07 approach

Flight Sequences

1. Depart CYXX Runway 07
2. ILS Rwy 07 Approach
3. Conduct Missed Approach
4. ILS Rwy 07 Approach With Landing at CYXX

Post Flight Briefing

Next lesson is a review of instrument flying, partial panel unusual attitudes and air exercises.

Notes:

Lesson 70-D **Air Exercises Review** **C-172**
Dual 1.2 hours **Date Completed:** _____ **Not Mutual**
Instructor Signature: _____ **Day**
 0.4 Hood

Aim

The aim of this flight is to review pattern flying, unusual attitudes, and review air exercises

Required Reading

Flight Training Manual

Part 2 – Exercises 9, 11-15, 21, 22 & 24

Preflight Briefing

Review timed turns and pattern flying

Flight Sequences

Instrument flying to/from practice area

1. Partial Panel – Straight & Level
2. Partial Panel – Timed Turns
3. Partial Panel – Climbs & Descents
4. Partial Panel – Unusual Attitudes
5. Steep Turns
6. Slow Flight
7. Stalls
8. Spins
9. Spiral Dives
10. Slips
11. Forced Approach
12. Precautionary Landing

Post Flight Briefing

Next lesson is a mutual review of this flight, excluding unusual attitudes, spins and spiral dives.

Notes:



Lesson 71-M **Air Exercise Review**
Solo 1.2 hours
Date Completed: _____
Student Signature: _____

C-172
Mutual
Day

Aim

The aim of this flight is to review upper air exercises.

Required Reading

Flight Training Manual

Part 2 – Exercises 9, 11, 12, 21, 22 & 24

Preflight Briefing

Review timed turns and pattern flying

Flight Sequences

1. Partial Panel – Timed Turns
2. Steep Turns
3. Slow Flight
4. Stalls
5. Forced Approach
6. Precautionary Landing

Your flight partner is the safety pilot so ensure he/she is looking outside the aircraft.

Post Flight Briefing

Next lesson is a solo simulator session to review localizer approaches and missed approaches.

Notes:

Lesson 72 -SS Localizer Approaches Frasca 131
Solo 1.0 hours Not Mutual
Date Completed: _____ Day
Student Signature: _____

Aim

The aim of this session is to practice a localizer approach and missed approach.

Reference

AIM RAC 9.0 – IFR arrival procedures
AIM COM 3.12 & 3.13.2

Preflight Briefing

Review CAP chart for Abbotsford (CYXX) ILS RWY 07 approach

Flight Sequence

1. Depart CYXX, Climb to 3,000' Then Right Climbing Turn Direct to XX NDB
2. Cross XX NDB and Intercept Localizer Outbound for 4 Minutes, Then Turn Left to 202 for 1 minute. Turn Right to 022 to Intercept Localizer Inbound to XX NDB. Descend to 1,700'
3. Cross XX NDB at 1,700', Note Time and Descend to 700'
4. At Time of 3:41, While at 700', Conduct Missed Approach (Climb on Track of 067, Right Climbing Turn to Heading of 202 to 3,000'. Right Turn to XX NDB)
5. Cross XX NDB and Repeat Steps 2-3, Then Land in CYXX

Post Flight Briefing

Next flight is a solo night cross-country to CZAM.

Notes:



Lesson 73-S **Night Cross-Country** **C-172**
Solo 2.0 hours **CYLW-CZAM** **Not Mutual**
Date Completed: _____ **Night**
Student Signature: _____ **2.0 hrs X-C**

Aim

The aim of this flight is to practice cross-country flying at night.

Required Reading

Flight Training Manual

Part 2 – Exercise 23

AIM RAC 4.5.2 – Traffic Circuit Procedures (Uncontrolled)

Preflight Briefing

Review night circuit procedures for CYLW and CZAM

Flight Sequences

CYLW-CZAM – Then a few circuits

CZAM-CYLW – Then a few circuits

1. Flight Planning, File Flight Plan, Open Flight Plan
2. Departure Procedures
3. Enroute Procedures
4. Close Flight Plan

Check NOTAMs to verify that the runways are open, and that all required lights are serviceable.

Remember your survival gear and flashlight!

Post Flight Briefing

Next flight is a mid-semester progress check.

Notes:

Lesson 74-D **Progress Check** **C-172**
Dual 1.2 hours **Dual**
Date Completed: _____ **Day**
Instructor Signature: _____ **0.4 Hood**
Student Signature: _____
Mark _____ **/60** **%** _____

Aim

The aim of this flight is to check the student’s progress to ensure a strong foundation is in place before advancing to more difficult exercises. Marks from this flight will contribute to the semester grade for the Flight Lab.

Required Reading

Transport Canada Flight Test Guide
 Commercial Pilot License - Aeroplane (TP13462E)

Flight Sequences	1	2	3	4	Marks
1. Preflight - Flight Data Sheet	1	2	3	4	_____
- Weather Assessment	1	2	3	4	_____
- Documents	1	2	3	4	_____
- Aircraft Inspection	1	2	3	4	_____
2. Emergency Procedures	1	2	3	4	_____
3. Short Field Takeoff	1	2	3	4	_____
4. Straight & Level - Various Speeds	1	2	3	4	_____
5. Climb & Descend - Various Rates	1	2	3	4	_____
6. Unusual Attitudes	1	2	3	4	_____
7. Partial Panel	1	2	3	4	_____
8. Partial Panel Unusual Attitudes	1	2	3	4	_____
9. Steep Turns	1	2	3	4	_____
10. Slow Flight	1	2	3	4	_____
11. Forced Approach	1	2	3	4	_____
12. Precision 180 Landing	1	2	3	4	_____
Total	__	%	_____	/48	

See Pages 4 & 5 for a description of the Marking Scale. A total mark of 60% or greater is required to pass. Students scoring less than 60% will be required to complete additional training and repeat this syllabus lesson.

Notes:



Lesson 75-S **Upper Air Review** **C-172**
Solo 1.2 hours **Not Mutual**
Date Completed: _____ **Day**
Student Signature: _____

Aim

The aim of this flight is to review upper air exercises, forced approaches and emergency procedures.

Required Reading

Flight Training Manual
Part 2 – Exercises 9, 11, 12, & 22

Preflight Briefing

Review forced approach procedures

Flight Sequences

1. Steep Turns
2. Slow Flight
3. Stalls
4. Forced Approach
5. Precision 180 Approach
6. Emergency Procedures

Post Flight Briefing

Next lesson is a solo simulator practice of holds and approaches.

Note:

Lesson 76-SS Holds and Approaches Frasca 131
Solo 1.0 hours Not Mutual
Date Completed: _____ Day
Student Signature: _____

Aim

The aim of this session is to review holds and approaches.

Required Reading

AIM RAC 9.0 – IFR arrival procedures
Hold handout

Preflight Briefing

Review of holds and approaches

Flight Sequences

1. Depart CYXX. Climb to 3,000' on Heading 067. Right Climbing Turn to XX NDB
2. Conduct Procedure Turn, then YXX ILS Rwy 07 Approach
3. Missed Approach
4. Track Directly to Whatcom VORTAC (HUH)
5. Hold at HUH, on Inbound Radial, Maintain 3,000'
6. Track Directly from HUH to XX NDB. Hold as Published.
7. NDB RWY 07 Approach and Landing

Post Flight Briefing

Next lesson is the mid-semester simulator test.

Notes:

Lesson 77-DS Progress Check ADF & VOR Frasca 131
Dual 1.0 hours **Not Mutual**
Date Completed: _____ **Day**
Instructor Signature: _____
Student Name: _____
Mark _____ **/40** **%** _____

Aim

The aim of this session is to assess ADF and VOR navigation skills, and full panel scan technique. Marks from this progress check will contribute to the semester grade for the Flight Lab.

Reference

Flight Test Guide - Commercial Pilot License (TP13462E)

Flight Sequences

Flight to be conducted with wind from 340° at 10 knots

	Marks	
1) ADF		
- Tune, Identify, Test All Stations	1 2 3 4	_____
- Orientation – Find Brg TO & FROM	1 2 3 4	_____
- Intercept & Track TO	1 2 3 4	_____
2) VOR/DME		
- Tune, Identify, Test All Stations	1 2 3 4	_____
- Orientation – Radials & Distance	1 2 3 4	_____
- Intercept & Track FROM	1 2 3 4	_____
3) Instrument		
- Full Panel Scan	1 2 3 4	_____
- Full Panel Unusual Attitudes	1 2 3 4	_____
- Partial Panel	1 2 3 4	_____
- Partial Panel Unusual Attitudes	1 2 3 4	_____
Total	_____40	_____ %

See Pages 4 & 5 for a description of the Marking Scale. A total mark of 60% or greater is required to pass. Students scoring less than 60% will be required to complete additional training and repeat this syllabus lesson.

Notes:



Lesson 78-DM **Cross-Country Proficiency** **C-172**
Dual 1.2 hours **CYLW-CYCW/CYGE** **Mutual**
Date Completed: _____ **Day**
Instructor Signature: _____ **1.2 hrs X-C**

Aim

The aim of this flight is to review cross-country procedures and flight planning techniques.

Required Reading

CFS – CYGE Golden & CYCW Chilliwack
AIM RAC 1.1.3(b) - DRCO Procedures

Preflight Briefing

Uncontrolled Aerodrome Procedures

NOTE: Each student is required to do a detailed flight plan, weight & balance, and weather assessment.

Flight Sequences

Student 1: CYLW to CYGE or CYCW (plan both)

Student 2: CYGE or CYCW to CYLW (plan both)

1. Flight Planning, File Flight Plan, Open Flight Plan
2. Soft Field Takeoff
3. Set Heading Procedures
4. Enroute Procedures
5. Short Field Landing
6. Close Flight Plan

Remember – Cross-Country Survival Gear

****MAKE SURE YOU RECEIVE A WEATHER BRIEFING****

If you have time, check out the pie in Chilliwack!

Post Flight Briefing

Next lesson is a solo cross-country flight to Golden.

Notes:



Lesson 79-M Cross-Country Proficiency C-172
Solo 1.2 hours CYLW-CYGE Mutual
Date Completed: _____ Day
Student Signature: _____ 1.2 hrs X-C

Aim

The aim of this flight is to practice cross-country procedures.

Required Reading

CFS - CYGE Golden
AIM RAC 1.1.3(b) - DRCO Procedures

Preflight Briefing

Uncontrolled Aerodrome Procedures

NOTE: Each student is required to do a detailed flight plan, weight & balance, and weather assessment.

Flight Sequences

Student 1: CYLW to CYGE

Student 2: CYGE to CYLW

1. Flight Planning, File Flight Plan, Open Flight Plan
2. Soft Field Takeoff
3. Set Heading Procedures
4. Enroute Procedures
5. Short Field Landing
6. Close Flight Plan

Remember – Cross-Country Survival Gear

****MAKE SURE YOU RECEIVE A WEATHER BRIEFING****

Post Flight Briefing

Next lesson is a solo simulator practice of ILS approaches.

Notes:



Lesson 80-SS **ILS Approaches** **Frasca 131**
Solo 1.0 hours **Not Mutual**
Date Completed: _____ **Night**
Student Signature: _____

Aim

The aim of this session is to practice conducting ILS approaches and missed approaches.

Reference

AIM RAC 9.0 – IFR arrival procedures
AIM COM 3.13

Preflight Briefing

Review CAP chart for Abbotsford (CYXX) ILS RWY 07 approach

Flight Sequence

1. Depart CYXX Runway 07
2. ILS Rwy 07 Approach
3. Conduct Missed Approach
4. ILS Rwy 07 Approach With Landing at CYXX

Post Flight Briefing

Next flight is the 300 NM solo cross-country. Complete a ‘Cross-Country Request’ form, with at minimum **two** alternate routes, for approval by the CFI, at least 72 hours in advance of the intended day of departure.

Notes:



Lesson 81-S 300 NM Cross-Country C-172
Solo 8.0 hours Not Mutual
Date Completed: _____ Day
Student Signature: _____ 8.0 hrs X-C

Aim

The aim of this flight is to practice flight planning, cross-country procedures and radio navigation techniques while experiencing flying in new areas.

This flight will not be booked for you. You must make the booking yourself and the flight must meet all the Transport Canada requirements for the 300 NM cross-country. The destination must take you more than 300 NM **radius** from your point of departure. The trip must also include **three** take-offs and landings at airports other than the departure point.

Remember to complete a request form well ahead of time.

Required Reading

SIFC contract - Cross-country policies

CFS - For enroute, alternate, and destination aerodromes

Handout - Mountain flying

Preflight Briefing

A detailed flight plan, ICAO form, weight & balance, and weather assessment are mandatory for all stages of this flight.

Flight Sequences

1. Flight Planning, File Flight Plan, Open Flight Plan
2. Set Heading Procedures
3. Enroute Procedures
4. Radio Navigation Procedures
5. Close Flight Plan

Remember – Cross-Country Survival Gear

****MAKE SURE YOU RECEIVE A WEATHER BRIEFING****

Next lesson is a dual mutual cross-country instrument flight.



Lesson 82-DM Instrument Cross-Country C-172S
Dual 1.2 hours CYLW-CYKA Mutual
Date Completed: _____ Day
Instructor Signature: _____ 1.0 Hood

Aim

The aim of this flight is to practice instrument cross-country flying techniques, and localizer and NDB approaches.

Required Reading

AIM RAC 9.0 – IFR arrival procedures

Preflight Briefing

Instrument approaches for CYKA & CYLW

Flight Sequences

First Student:

1. File Flight Plan CYLW to CYKA via Enderby VOR (YNY)
2. Fly Route to YKA on Instruments
3. CYKA LOC/DME or LOC/NDB C Approach
4. Emergency Procedures
5. Land at CYKA to Switch Pilots

Second Student:

1. File Flight Plan CYKA to CYLW via Enderby VOR (YNY)
2. Fly Route to CYLW on Instruments
3. CYLW LOC/DME Approach
4. Emergency Procedures

Post Flight Briefing

Next lesson is a mutual cross-country instrument flight.

Notes:



Lesson 83-M Instrument Cross-Country C-172S
Solo 1.2 hours CYLW-CYKA Mutual
Date Completed: _____ Day
Student Signature: _____ 1.2 hrs X-C

Aim

The aim of this flight is to practice instrument cross-country flying techniques, and localizer and NDB approaches.

Required Reading

AIM RAC 9.0 – IFR arrival procedures

Preflight Briefing

CAP - Instrument approaches for CYKA & CYLW
Enroute Low Altitude Chart – LO 2

Flight Sequences

First Student:

1. File Flight Plan CYLW to CYKA via B5
2. Fly Route to YKA on Instruments
3. CYKA NDB B Approach
4. Emergency Procedures
5. Land at CYKA to Switch Pilots

Second Student:

1. File Flight Plan CYKA to CYLW via B5
2. Fly Route to CYLW on Instruments
3. CYLW LOC/DME Approach
4. Emergency Procedures

Post Flight Briefing

Next lesson is solo simulator practice of radio navigation.

Notes:

Lesson 84-SS Instrument Cross-Country Frasca 131
Solo 1.0 hours CYXX-CYYJ Not Mutual
Date Completed: _____ Day
Student Signature: _____

Aim

The aim of this session is to practice radio navigation using both ADF and VOR navigation aids.

Preflight Briefing

Vancouver Terminal Area Chart (TAC)

CAP - Instrument departure from CYXX, and NDB/DME approach to CYYJ

Flight Sequences

Complete the following navigation trip using VOR and ADF. Depart from IXX Runway 07.

- 1) Tune XX (344 KHz) and Track Direct to the NDB
- 2) Tune WC (332 KHz) and Track 310° to the NDB
- 3) Tune VR (266 KHz) and Track 220° to the NDB
- 4) Tune YVR (115.9 MHz) and Track to the VOR on the 005° Radial TO the Station
- 5) Tune AP (378 KHz) and Track 120° to the NDB
- 6) Tune YYJ (113.7 MHz) and Track the 011° Radial TO the VOR
- 7) Tune YJ (200 KHz) and Track 127° to the NDB
- 8) When at the YJ Beacon, Conduct the NDB/DME Approach for Rwy 27, and Land at CYYJ (Victoria)

Post Flight Briefing

Next flight is a review of specialty takeoffs and landings.

Notes:



Lesson 85-S Specialty Takeoffs/Landings

C-172

Solo 1.4 hours

Not Mutual

Date Completed: _____

Day

Student Signature: _____

Aim

The aim of this flight is to refine short and soft field takeoff and landing techniques.

Required Reading

Flight Training Manual

Part 2 – Exercises 16 & 18

Preflight Briefing

Review flight test guidelines associated with Exercises 16-18

Flight Sequences

1. Normal Takeoffs/Landings
2. Soft Field Takeoffs/Landings With & Without Obstacles
3. Short Field Takeoffs/Landings With & Without Obstacles
4. Precision 180 Approaches
5. Emergency Procedures

Post Flight Briefing

Next lesson is a dual mutual progress check.

Notes:



Lesson 86-DM Cross-Country Progress Check C-172
Dual 1.2 hours CYLW-CYCG Mutual
Date Completed: _____ Day
Instructor Signature: _____ 1.2 hrs X-C
Student Signature: _____
Mark _____/60 % _____

Aim

The aim of this flight is to check the student’s progress. Marks from this flight will contribute to the semester grade for the Flight Lab.

Required Reading

Flight Test Guide - Commercial Pilot License (TP13462E)

Flight Sequences

Student 1: Plan & File CYLW-CYCG

Student 2: Plan & File CYCG-CYLW

	Marks				
1. Preflight – Nav Log	1	2	3	4	_____
- Weather Assessment	1	2	3	4	_____
- Documents	1	2	3	4	_____
- Walk around	1	2	3	4	_____
- Survival Gear	1	2	3	4	_____
2. Emergency Procedures	1	2	3	4	_____
3. Soft Field Takeoff	1	2	3	4	_____
4. File Open & Close Flight Plan	1	2	3	4	_____
5. Departure Procedures	1	2	3	4	_____
6. Enroute Procedures	1	2	3	4	_____
7. Diversion	1	2	3	4	_____
8. Wx Updates & Use of Radio	1	2	3	4	_____
9. Map Reading & Revised ETAs	1	2	3	4	_____
10. Uncontrolled Procedures	1	2	3	4	_____
11. Soft Field Landing	1	2	3	4	_____
Total					_____ % _____/44

Post Flight Briefing

See Pages 4 & 5 for a description of the Marking Scale. A total mark of 60% or greater is required to pass. Students scoring less than 60% will be required to complete additional training and repeat this syllabus lesson.

Notes:



Lesson 87-M **Instrument Review** **C-172**
Solo 1.2 hours
Date Completed: _____ **Mutual**
Student Signature: _____ **Day**

Aim

The aim of this flight is to practice instrument flying.

Required Reading

Flight Training Manual
Part 2 – Exercises 22 & 24

Preflight Briefing

Full and partial panel instrument scan

Flight Sequences

Mutual review of instrument flying including the following sequences:

1. Full Panel - Straight & Level, Climbs, Descents, Turns
2. Full Panel - Timed Turns
3. Partial Panel - Straight & Level, Climbs, Descents, Turns
4. Partial Panel - Timed Turns
5. ADF & VOR Orientation, Tracking FROM & TO
6. Forced Approach

Your flight partner is the safety pilot so ensure he/she is looking outside the aircraft.

Post Flight Briefing

Next lesson is a solo simulator review of instrument flying.

Notes:

Lesson 88-SS **Instrument Review** **Frasca 131**
Solo 1.0 hours **Not Mutual**
Date Completed: _____ **Day**
Student Signature: _____

Aim

The aim of this flight is to review pattern flying and holds.

Required Reading

Flight Training Manual
Part 2 - Exercise 24
AIM RAC 10.0 - Holds

Preflight Briefing

Pattern flying and holds

Flight Sequences

1. Practice Hold and Hold Entries
2. Pattern - Full Panel
3. Pattern - Partial Panel

Post Flight Briefing

Remember to book your preflight test.

Next lesson is a dual review of air exercises.

Notes:

Lesson 89-D **Air Exercises Review** **C-172**
Dual 1.2 hours **Not Mutual**
Date Completed: _____ **Day**
Instructor Signature: _____ **0.4 Hood**

Aim

The aim of this flight is to review air exercises.

Required Reading

Flight Training Manual

Part 2 - Exercises 9, 11, 12, 13, 14, 15, 21, 22 & 24

Preflight Briefing

Review exercises in flight sequence

Flight Sequences

1. Instrument Flying To and From the Practice Area
2. Steep Turns
3. Slow Flight
4. Stalls
5. Spins
6. Slips
7. Diversion
8. Forced Approach
9. Precautionary Landing
10. Emergency Procedures

Post Flight Briefing

Next flight is flight test preparation.

Notes:

Lesson 90-D **Flight Test Preparation** **C-172**
Dual 1.2 hours **Air Exercise Review** **Not Mutual**
Date Completed: _____ **Day**
Instructor Signature: _____ **0.6 Hood**

Aim

The aim of this flight is to improve proficiency with short and soft field takeoff and landing techniques, and conduct a general review of upper air exercises.

Required Reading

Flight Training Manual

Part 2 - Exercises 9, 12, 13, 14, 15, 16, 18, 21, 22 & 24

Preflight Briefing

Commercial flight test standards

Flight Sequences

1. Instrument Flying To and From the Practice Area
2. Soft Field Takeoff
3. Steep Turns
4. Stalls
5. Spins
6. Spirals
7. Slips
8. Forced Approach
9. Precautionary landing
10. Short Field Landing

Post Flight Briefing

Next flight is dual mutual flight test preparation.

Notes:



Lesson 91-DM Flight Test Preparation
Dual 1.2 hours Air Exercise Review
Date Completed: _____
Instructor Signature: _____

C-172
Mutual
Day

Aim

The aim of this flight is to improve proficiency with short and soft field takeoff and landing techniques, and conduct a general review of upper air exercises.

Required Reading

Flight Training Manual

Part 2 - Exercises 9, 12, 15, 16, 18, 21, 22 & 24

Preflight Briefing

Commercial flight test standards

Flight Sequences

1. Instrument Flying To and From the Practice Area
2. Soft Field Takeoff
3. Steep Turns
4. Stalls
5. Slips
6. Forced Approach
7. Precautionary landing
8. Short Field Landing

Post Flight Briefing

Next a solo simulator session to practice ADF & VOR holds.

Notes:

Aim

The aim of this flight is to review pattern flying and holding patterns.

Required Reading

AIM RAC 10.0 - Holds

Preflight Briefing

Pattern flying and holds

Flight Sequences

1. Practice ADF and VOR Holds
2. Practice Flying Patterns

Post Flight Briefing

Remember to book your preflight test. Obtain a copy of the Preflight Test Quiz from your instructor.

Next flight is solo flight test preparation.

Notes:

Lesson 93-S **Flight Test Preparation** **C-172**
Solo 1.2 hours **CYLW-CZAM** **Not Mutual**
Date Completed: _____ **Day**
Student Signature: _____

Aim

The aim of this flight is to practice navigation procedures in preparation for the Commercial Flight Test, by simulating a cross-country flight from CYLW to CZAM.

Required Reading

Flight Test Guide - Commercial Pilot License (TP13462E)
POH - Systems & Emergencies

Preflight Briefing

Commercial flight test standards

Flight Sequences

1. Weather Briefing, Preflight Activities, Routing
2. NOTAMs
3. Simulate Filing and Opening Flight Plan
4. Departure Procedures – Time-Off & ETAs
5. Enroute Procedures – Groundspeed Checks, Revised ETAs
6. Drift Corrections
7. Map Reading, Radio Frequencies Enroute & Updates on Wx
8. Diversion
9. Emergency Procedures
10. Simulate Closing Flight Plan

Post Flight Briefing

Next is a dual flight to determine whether the student is ready for the Commercial Flight Test.

Notes:



Aim

The aim of this flight is to determine if the student is ready for the Commercial Flight Test.

Required Reading

Flight Test Guide - Commercial Pilot License (TP13462E)
POH - Systems & Emergencies

Preflight Briefing

The route for this flight will be provided by your instructor before your briefing time. It will be your responsibility to obtain this information from your instructor, and to carry out ALL preflight activities. Obtain a full weather briefing, and be at SIFC early!!

Flight Sequences

1. Simulated VFR Cross-Country Flight
2. Diversion
3. Instrument Flying and Radio Navigation
4. Upper Air Exercises
5. Forced Approach
6. Precautionary Landing
7. Circuits for Specialty Takeoffs and Landings, Including Precision 180 Approach
8. Emergency Procedures

Post Flight Briefing

Remember to schedule a ground session with your instructor to review the Preflight Test Quiz, and ground portions of the Commercial Flight Test.

Next is a mutual flight to increase proficiency to flight test standards.

Notes:



Lesson 95-M Flight Test Preparation
Dual 1.2 hours
Date Completed: _____
Instructor Signature: _____

C-172
Mutual
Day

Aim

The aim of this flight is to increase proficiency to within flight test standards.

Required Reading

Flight Test Guide - Commercial Pilot License (TP13462E)
POH - Systems & Emergencies

Preflight Briefing

Commercial flight test standards
Plan VFR flight from CYLW to CZAM to CYGE

Flight Sequences

1. Simulated VFR Departure
2. Fly on Instruments to Practice Area
3. Enroute Procedures
4. Diversion
5. ADF and VOR Orientation, Tracking & Intercepts
6. Steep Turns
7. Slips
8. Forced Approach
9. Precautionary Landing
10. Circuits for Specialty Takeoffs and Landings, Including Precision 180 Approach
11. Systems & Emergency Procedures

Post Flight Briefing

Next is a solo flight to increase proficiency to flight test standards.

Notes:



Lesson 96-S Flight Test Preparation
Solo 1.2 hours
Date Completed: _____
Instructor Signature: _____

C-172
Not Mutual
Day

Aim

The aim of this flight is to increase proficiency to within flight test standards.

Required Reading

Flight Test Guide - Commercial Pilot License (TP13462E)
POH - Systems & Emergencies

Preflight Briefing

Commercial flight test standards
Plan VFR flight from CYLW to CZAM to CYGE

Flight Sequences

1. Simulated VFR Departure
2. Enroute Procedures
3. Diversion
4. ADF and VOR Orientation, Tracking & Intercepts
5. Steep Turns
6. Stalls
7. Slips
8. Forced Approach
9. Precautionary Landing
10. Circuits for Specialty Takeoffs and Landings, Including Precision 180 Approach
11. Systems & Emergency Procedures

Post Flight Briefing

Remember to schedule a ground session with your instructor to review the Preflight Test Quiz, and ground portions of the Commercial Flight Test.

Next is the Commercial Preflight Test.

Notes:



Lesson 97-D Commercial Preflight Test
Dual 2.0 hours
Date Completed: _____
Instructor Signature: _____

C-172
Not Mutual
Day
0.4 Hood

Aim

The aim of this flight is to determine if the student is ready for the Commercial Flight Test.

Required Reading

Flight Test Guide - Commercial Pilot License (TP13462E)
POH - Systems and Emergencies

Preflight Briefing

The Instructor will provide the route for this flight before your briefing time. It will be your responsibility to obtain this information from your instructor, and to carry out ALL preflight activities. Obtain a full weather briefing, and be at SIFC early!!

Flight Sequences

Will be specified by the instructor

Post Flight Briefing

Next is the Commercial Flight Test. Scheduling of the flight test will be made by the instructor, in consultation with the examiner.

Notes:

Lesson 98-S Commercial Flight Test C-172
Solo 2.0 hours Not Mutual
Date Completed: _____ Day
Student Signature: _____

Aim

To successfully complete the Commercial Flight Test.

Required Reading

Flight Test Guide - Commercial Pilot License (TP13462E)
POH - Systems and Emergencies

Flight Sequences

Will be specified by the examiner

REMEMBER: You Will Need to Provide the PE With:
Evidence of Having Completed No Less Than 150 Hours of
Flight Time
Valid Letter of Recommendation
Commercial Written Examination Results
Current Category 1 Medical
Private Pilot License
Photo Identification
Payment for Examiner Fee (Confirm Rate in Advance)

Warning: Your Transport Canada written examination must occur before your flight test. You must apply for your Commercial Pilot License within 12 months of completing the flight test and within 24 months of completing the written examination.