MULTIMEDIA TRAINING SYSTEM

Cleared for Hire

Your Syllabus for Becoming a Commercial Pilot

KING SCHOOLS

Cessna Multimedia Training System

Cleared for Hire

Your Syllabus for Becoming a Commercial Pilot

KC-302a

Commercial Pilot Syllabus

Your Path to Becoming a Commercial Pilot

INTRODUCTION

Congratulations! You are embarking on one of the most exciting endeavors ever—your commercial pilot certificate. You will find it challenging, fun, and exciting. You'll be stimulated intellectually, physically, and emotionally. Commercial pilot flight training gives you the opportunity to develop precision flying talents you may never have imagined you had.

This syllabus will be your guide to your learning adventure. With your syllabus in hand you will know the objective of every lesson, and where every lesson fits in the overall program. You'll see how each lesson is a building block that fits with the others to move you towards your goal of becoming a safe, competent commercial pilot. You'll also be able to check on your progress throughout your training program. Best of all, you'll know when you've done a good job, because you'll see the completion standards listed with each flight lesson.

The maneuvers and procedures in your *Cleared for Hire* Commercial Pilot Syllabus are designed to completely prepare you with the experience, knowledge, and skills required by the FAA Commercial Pilot Practical Test Standards.

COURSE ELEMENTS

Your Multimedia Training System integrates Labs with Flight Lessons to ensure that before every flight you'll have the required knowledge to do well. Plus, you'll see the maneuvers that are introduced in your next flight lesson demonstrated in a Flight Lesson Preview. The Flight Lesson Preview will take you into the air on your computer screen, and give you a pilot's eye view of the maneuvers you are about to perform in your airplane.

Your instructor will assign Labs appropriate for the anticipated Flight Lessons. You'll enjoy the playful way the computer tests your knowledge to make sure you are ready to get the most out of each Flight Lesson. Your instructor will go over your results before you fly and answer any questions you may have.

Your flight instructor will also prepare you for each flight by reviewing the Flight Lesson elements with you. After each flight lesson, you both will discuss what you did so you will always be aware of your progress.

THE *"Cleared For Hire"* CD-ROM PROGRAM

The *Cleared for Hire* CD-ROM program is the core of your Multimedia Training System. It gives you the content of your Labs on CD-ROM, and allows you to get ready for your next flight in the comfort of your own home. After you've completed each Lab simply take the questions. Use the 3 ½" diskette included in your commercial pilot kit to update your lesson status from your home computer to the Cessna Pilot Center computer, or vice versa***.***

KING SCHOOLS COMMERCIAL PILOT KNOWLEDGE TEST COURSE BOOK

Your course book provides the content of your Labs in written format. This handy soft-cover book lets you take your aviation training with you wherever you go. Review your lessons at home, on an airliner, or on the beach.

Let's briefly look at some important items you get in your King course book. First of all you'll find course notes for all the material covered in your commercial course in the front of the book. If a question requires a figure in addition to viewing it on your screen, you may it find it useful to go to the printed version in the back of your course book. And in the middle of your book you'll find all the FAA test questions arranged by subject area.

KNOWLEDGE TEST
After you complete Lab N (Federal Aviation Regulations), we suggest that you take one or more practice knowledge tests. You can look at it as your Final Exam for this course. The practice tests have 100 questions that cover your knowledge in all the areas you have studied during your training. When you have finished the practice test, you should ask your instructor to review it with you and assign appropriate areas for review if necessary. You should then take the FAA Airman Knowledge Test as soon as possible.

INDIVIDUAL BRIEFINGS
At various times during your training program your instructor will personally review your overall progress, taking into account the results of your Flight Lessons and Labs. Your instructor will quiz you to ensure your understanding of the material. Special emphasis will be placed on the local flight environment. This is the ideal time for you to ask questions, and to make sure you understand where you are in the syllabus and what you can expect to learn next.

EXPANDED BRIEFINGS
In addition to individual briefings you will receive a Check Ride Briefing. During this expanded briefing, your instructor will ask you questions about your airplane as well as questions specific to commercial operations and procedures in preparation for the oral portion of your practical test.

This briefing will be conducted as a private tutoring session and you and your instructor will discuss the answers to each question to ensure you understand all aspects of the question.

FLIGHT LESSON SEQUENCE
The syllabus is divided into five Steps with five Progress Checks:

1. LEARNING PROFESSIONAL CROSS-COUNTRY AND NIGHT PROCEDURES — During this stage you will add to your knowledge in cross-country planning by learning the professional techniques and procedures used by commercial pilots. You will then put these professional procedures into practice in cross-country operations both during the day and at night.

2. BUILDING CROSS-COUNTRY EXPERIENCE — During this stage you will add to your experience by flying cross-country operations to commercial standards both during the day and at night.

3. FLYING COMPLEX AIRPLANES — This stage will introduce you to the systems and operations of a complex airplane.

4. FLYING COMMERCIAL MANEUVERS — Here you will be introduced to the FAA commercial maneuvers and gain proficiency in specialty landings and takeoffs.

5. PREPARING FOR YOUR COMMERCIAL PILOT CHECK RIDE — This is the time to gain proficiency and fine tune your skills to the standards required for the commercial pilot certificate. You'll review everything you have learned to make sure you are ready to take command of the airplane as a commercial pilot.

Since each step builds on what you have learned before, it is important that you complete the steps in the proper sequence. However, some degree of flexibility is necessary since weather and other factors may make it impracticable to conduct a particular Flight Lesson while another may be practicable. In this case your instructor, with the approval of the chief flight instructor, may alter the lesson sequence as is necessary.

PREFLIGHT BRIEFING
Before each Flight Lesson your instructor will brief you to make sure you both understand what you will be doing in the lesson. You should use this opportunity to ask any questions that remain from the Lab and to make sure you understand what is expected of you. Your instructor should emphasize how the local flight environment might differ from what was shown in the Lab. You will be expected to provide a view-limiting device for those dual flights with Instrument Reference "(IR)" maneuvers in the task list.

AIRPLANE PRACTICE
In the Flight Lesson your instructor will begin with a review of appropriate maneuvers or tasks from previous lessons. Then the new maneuvers or tasks will be introduced. Your instructor will emphasize the relationships between what you have previously learned and the new material.

POSTFLIGHT EVALUATION
After each flight, your instructor will review your performance during that flight and make recommendations to help you in your learning. You should be sure to ask questions about any area that is not clearly understood.

During this review, after your flight, your instructor will complete your lesson record and indicate "continued" or "completed" for each element of your Flight Lesson based on the completion standards for the lesson. Elements requiring additional work to meet lesson standards will be carried over to a later lesson.

You and your instructor should review your evaluation sheet and discuss what items need to be repeated to bring them up to standard for the present lesson. After the review you and your instructor should each sign and date the evaluation record.

You should allow at least one-half hour for preflight and postflight briefings for each lesson.

PROGRESS CHECKS
At the end of Step 1 (Learning Professional Cross-Country and Night Procedures), Step 2 (Building Cross-Country Experience), Step 3 (Flying Complex Airplanes), Step 4 (Flying Commercial Maneuvers) and Step 5 (Preparing for Your Commercial Pilot Checkride), the chief instructor, or another instructor designated by the chief instructor, will fly with you to assess your progress. This will help ensure your training program is proceeding efficiently and that no major area is being overlooked.

With the building block method of flight training, it is especially important to make sure that all previous elements of a major step of training are satisfactory before you move on to a new step. By following this principle you will be rewarded with the most efficient and fastest way to complete your program. Additionally, you will find that flying with another instructor sometimes provides fresh insight on your flying and allows you to learn new techniques.

COURSE IMPLEMENTATION
Prior to enrolling in the flight portion of a Part 141 Commercial Pilot Certification Course for an airplane you must hold a private pilot certificate with an instrument rating or be enrolled in an instrument rating course for airplanes. For Part 61 you must hold a private pilot certificate to enroll in a Commercial Pilot Certification Course.

Your *"Cleared for Hire"* commercial pilot syllabus is designed to fulfill the requirements of a complete Commercial Pilot Certification Course in accordance with FAR 141, Appendix D and can also be adapted to meet the requirements of FAR 61. The basic difference between the flight time requirements of FAR 141 and FAR 61 is that under Part 61 you must have a total of 250 hours of flight time as a pilot of which 100 hours must be as pilot in command (instead of 120 hours of training of which 55 hours must be with a certificated flight instructor for Part 141) and 50 hours in cross-country flight (instead of 4 hours of cross-country flight training for Part 141). Your *Commercial Pilot Syllabus* is a 120-hour course based on FAR Part 141, but the individual lesson times can be changed to meet the requirements of FAR Part 61. Your instructor can select particular lessons from your *Commercial*

Pilot Syllabus to meet your individual training requirements. The lessons selected and the amount of time spent on each lesson will depend on what flight training you need to meet the minimums required under FAR 61.129

The times listed in the syllabus for each flight lesson are suggested times only, to meet the minimum requirements of FAR Part 141, Appendix D, and are not mandatory. Some flight lessons may require more than one flight to cover all the material. To graduate from the course, you must meet the minimum requirements for all categories of flight and ground training as listed in FAR Part 141, Appendix D.

FLIGHT SIMULATOR/TRAINING DEVICE
If your flight school uses a flight training device or flight simulator in the commercial pilot training program, the syllabus allows for the introduction of new material in the ground training sessions. If your school has a flight simulator meeting the requirements of FAR Part 141.41(a), a total of 30 percent of the total flight training may be completed in the flight simulator. If your school has a flight training device meeting the requirements of FAR 141.41(b), a total of 20 percent of the total flight training may be completed in the flight training device.

COMMERCIAL PILOT CERTIFICATION COURSE
Your *Commercial Pilot Syllabus* shows a flow-chart (Your Path to Your Commercial Pilot Certificate), as well as lesson-by-lesson detailed information. The lesson sequence and content have been designed to provide you with a high level of knowledge and skill development before you are introduced to new maneuvers or procedures.

If necessary, the placement of Lab assignments in the integrated program may be changed by allowing you to progress more rapidly in your studies than is outlined in the course. If this happens, you normally should not progress into the Lab assignments of the next step until the flights in the current step of training have been completed. This is important, because you may forget important Lab material if there is a long time between the Lab and the Flight Lesson.

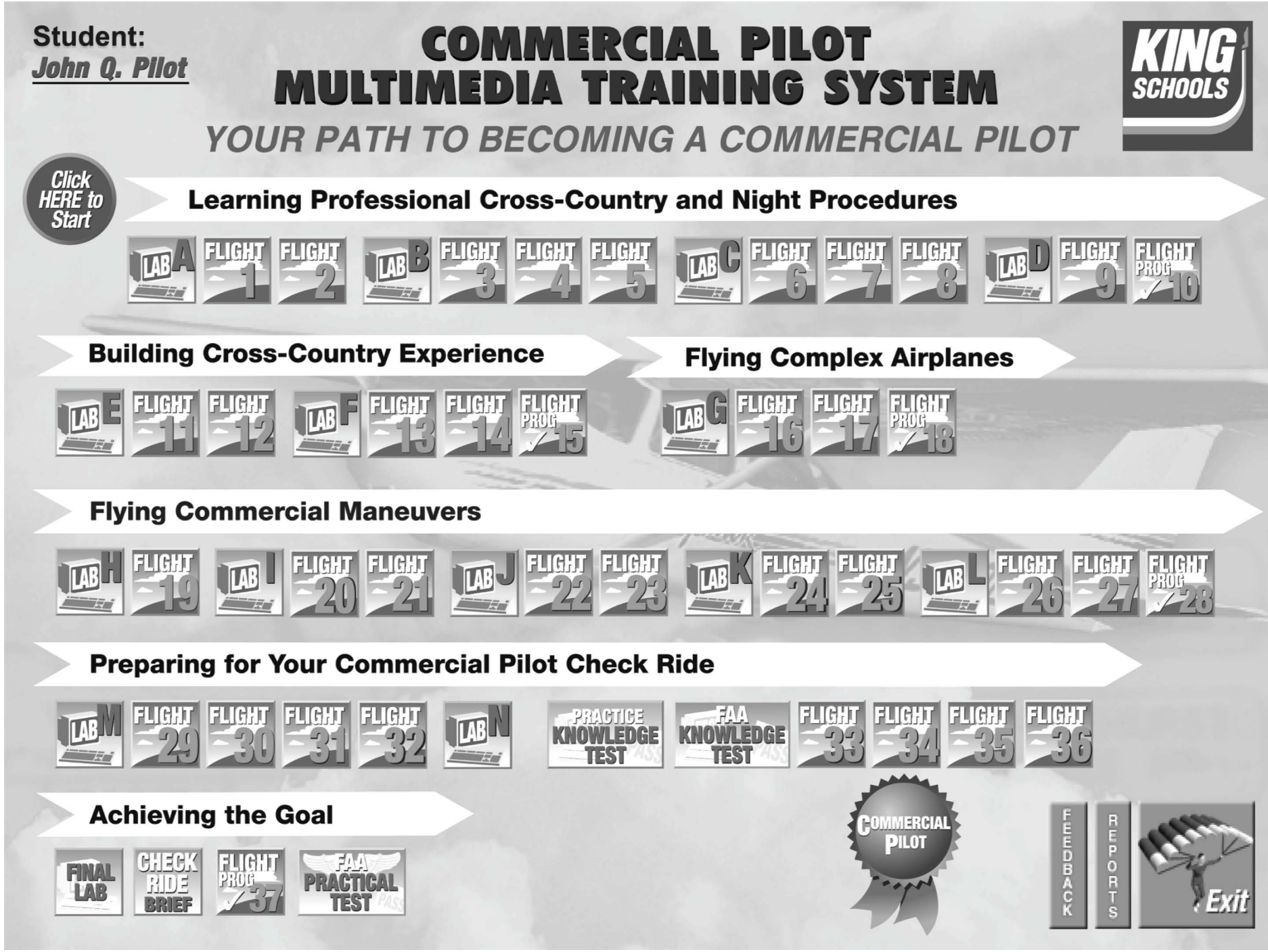
You may certainly explore all the Labs any time you wish. But if you have an extended time lapse between your Lab and your Flight Lesson, you will find it very helpful to take some time to review your last Lab just before you fly its associated Flight Lesson. In addition, your instructor will ensure you get the most benefit from this course by monitoring your progress with the Labs and their integration with the Flight Lessons.

CREDIT FOR PREVIOUS TRAINING
According to FAR 141.77(c), when you transfer from one FAA-approved school to another approved school, course credits you earned in your previous course of training may be credited for part of your training by your new school. Your new school may determine the amount of credit you are allowed by a flight check or a written test, or both. Credit for ground school instruction may be determined by an oral examination. However, you may not be credited with more than fifty percent of the curriculum requirements of your new school.

If you transfer from other than an FAA-approved school, you may receive credit for the knowledge and experience, up to a maximum of one-quarter of the curriculum requirements of the course to which you are transferring.

The amount of credit for your previous training allowed, whether received from an FAA-approved school or other source, must be placed in your enrollment record at the time of your enrollment.

YOUR GUARANTEE OF QUALITY
This multimedia curriculum is available exclusively through Cessna Pilot Centers. It is structured so that you can receive the highest level of pilot training at any Cessna Pilot Center located around the world.


Student:
John Q. Pilot
COMMERCIAL PILOT
MULTIMEDIA TRAINING SYSTEM
YOUR PATH TO BECOMING A COMMERCIAL PILOT
KING SCHOOLS
Click HERE to Start
Learning Professional Cross-Country and Night Procedures
LAB A
FLIGHT 1
FLIGHT 2
LAB B
FLIGHT 3
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Building Cross-Country Experience
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Achieving the Goal
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FEEDBACK
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Exit

NOTES

STAGE 1

LEARNING CROSS-COUNTRY AND NIGHT PROCEDURES BUILDING CROSS-COUNTRY EXPERIENCE

LAB A

CROSS-COUNTRY PLANNING

LESSON OBJECTIVES:

In this first lab you will learn how to calculate how much fuel you are using during a flight and during a descent. You'll also discover how to calculate wind speed and direction at your altitude using your E-6B computer. And you'll see how angles between you and a navigation station can tell you how far away you are and how long it will take to get there.

CONTENT:

I. Inflight Calculations

- Fuel Consumption
- Wind Calculation
- Determining Wind Direction And Speed
- Time And Distance To The Station
- Time, Distance And Fuel To The Station
- Angle To Converge
- Isosceles Triangle

FLIGHT LESSON 1

DUAL - CROSS-COUNTRY

LESSON OBJECTIVES:

In this lesson you will conduct a cross-country flight with your instructor to evaluate your piloting skills and to gain experience in cross-country flight operations. During a portion of this flight, you will also exercise control and navigation referring only to the instruments.

CONTENT:

Preflight Discussion

New This Flight

_____Cross-Country Flight Planning
_____Preflight Inspection/Checklist Use
_____Location of Fire Extinguisher
_____Doors and Safety Belts
_____Engine Starting and Warm-up
_____Use of ATIS
_____Taxiing
_____Before Takeoff Check and Engine Runup
_____Normal and Crosswind Takeoff and Climb
_____Controlled Airports/High Density Airport Operations
_____Departure
_____Opening/Closing Flight Plans
_____Use of Approach and Departure Control
_____Course Interception
_____Pilotage/Dead Reckoning
_____Attitude Instrument Flying (IR)
_____Intercepting and tracking VOR Courses (IR)
_____Intercepting and tracking ADF/GPS Courses (IR) (if aircraft equipped)
_____Power Settings and Mixture Control
_____Diversion to an Alternate
_____Lost Procedures
_____Simulated System and Engine Failures
_____Estimates of Ground Speed and ETA
_____Position Fix by Navigation Facilities
_____Flight on Federal Airways
_____CTAF (FSS or UNICOM) Airports
_____At Least One Landing More Than 100 nm from Departure Airport
_____Normal and Crosswind Landing
_____Collision Avoidance Procedures
_____Parking and Securing
_____Postflight Procedures

Postflight Discussion

COMPLETION STANDARDS:

You will have satisfactorily completed this lesson when you show that you can safely act as PIC on a cross-country flight. You will be able to hold altitude ±100 feet, heading ±10 degrees, and airspeed ±10 knots. You'll maintain a navigation log and arrive at your enroute checkpoints and destination within 3 minutes of your ETA and you'll be able to verify your airplane's location within 1 nm of the planned route at all times.

FLIGHT LESSON 2

DUAL – LOCAL, NIGHT

LESSON OBJECTIVES:

During this lesson you'll gain experience in night operations that will allow you to fly at night with more precision and confidence including recovering from unusual attitudes using instrument reference only.

CONTENT:

Preflight Discussion

New This Flight
Night Flight
_____Normal and Crosswind Takeoffs and Climbs
_____Constant Airspeed Climbs
_____Constant Airspeed Descents
_____Recovery from Unusual Attitudes (IR)
_____Power Off Stall (approach to landing stall)
_____Power On Stall (takeoff and departure stall)
_____Local VFR Navigation
_____Normal Approaches and Landings With/Without Landing Light

Postflight Discussion

COMPLETION STANDARDS:
You will have completed this lesson satisfactorily when you have made five (5) night takeoffs and landings each with a circuit of the traffic pattern, and show that you understand the importance of attitude control at night. You will be able to make coordinated stall recoveries with minimum loss of altitude, and recognize and respond to unusual flight attitudes applying correct recovery control inputs using instrument reference only. You will also be able to make night landings using a stabilized approach and a constant airspeed and rate of descent to touchdown with and without a landing light.

LAB B

SECTIONAL CHARTS

LESSON OBJECTIVES:

During this lab, you will learn how to determine the elevation of obstructions and terrain from your sectional charts. You'll also see how to use courses properly on the charts and some short cuts when you need to divert to a new course.

CONTENT:

I. Details And Courses
Chart Details

II. Charts And Courses
Courses

FLIGHT LESSON 3

PIC - CROSS-COUNTRY

LESSON OBJECTIVES:

During this lesson you'll gain experience in cross-country flight operations.

CONTENT:

Preflight Discussion

Improving Your Skills

_____Cross-Country Flight Planning
_____Preflight Inspection
_____Checklist Use
_____Normal and Crosswind Takeoff and Climb
_____Departure
_____Opening Flight Plan
_____Radar Services
_____Course Interception
_____Pilotage
_____Dead Reckoning
_____VOR Navigation
_____ADF Navigation (if aircraft equipped)
_____GPS Navigation (if aircraft equipped)
_____Power Settings and Mixture Control
_____Estimates of Ground Speed and ETA
_____Position Fix by Navigation Facilities
_____Flight on Federal Airways
_____CTAF (FSS or UNICOM) Airports
_____At Least One Landing More Than 100 nm from Departure Airport
_____Normal and Crosswind Landing
_____Collision Avoidance Procedures
_____Closing Your Flight Plan
_____Parking and Securing

Postflight Discussion

COMPLETION STANDARDS:

You will have satisfactorily completed this lesson when you complete a cross-country flight with at least one landing at an airport more than 100 nm from your departure airport. You will be able to hold altitude ±100 feet, heading ±10 degrees, and airspeed ±10 knots. You'll maintain a navigation log and arrive at your enroute checkpoints and destination within 3 minutes of your ETA and you'll be able to verify your airplane's location within 1 nm of the planned route at all times.

FLIGHT LESSON 4

DUAL - CROSS-COUNTRY, NIGHT

LESSON OBJECTIVES:

In this lesson you will conduct a cross-country flight at night with your instructor to gain experience in night cross-country flight operations. You will control the airplane using instrument reference while intercepting and tracking navigation systems.

CONTENT:

Preflight Discussion

New This Flight

Night Cross-Country Flight

_____Cross-Country Flight Planning
_____Pilotage
_____Dead Reckoning
_____Attitude Instrument Flying (IR)
_____Intercepting and Tracking Navigation Systems (IR)
_____Emergency Operations
_____Go-Around
_____Use of Unfamiliar Airports
_____Collision Avoidance Precautions
_____Diversion to Alternate
_____Lost Procedures
_____Normal Approaches and Landings With/Without Landing Light

Postflight Discussion

COMPLETION STANDARDS:

You will have completed this lesson satisfactorily when you demonstrate you understand night cross-country preflight preparation and flight procedures. You will be able to navigate accurately and give special consideration to altitude selection to avoid terrain and obstacles. You will be able to handle emergency situations promptly with proper judgment. You will complete a cross-country flight in nighttime conditions with at least one landing at an airport of a total straight-line distance of more than 100 nm from your departure airport. While controlling the airplane using instrument reference, you will maintain altitude +/- 100 feet and maintain courses within ¾ scale deflection or within 10° on an RMI,

FLIGHT LESSON 5

SOLO – LOCAL, NIGHT

LESSON OBJECTIVES:

During this lesson you'll gain experience in night operations in the local area as well as at an airport with an operating control tower.

CONTENT:

Preflight Discussion

Improving Your Skills

_____Normal and Crosswind Takeoffs and Climbs
_____Constant Airspeed Climbs
_____Constant Airspeed Descents)
_____Power Off Stall (approach to landing stall)
_____Power On Stall (takeoff and departure stall)
_____Local VFR Navigation
_____Normal Approaches and Landings With Landing Light

Postflight Discussion

COMPLETION STANDARDS:

You will have completed this lesson satisfactorily when you have made five (5) night takeoffs and landings at an airport with an operating control tower, each with a circuit of the traffic pattern, and show that you understand the importance of attitude control at night. You will be able to make coordinated stall recoveries with minimum loss of altitude. You will also be able to make night landings using a stabilized approach and a constant airspeed and rate of descent to touchdown.

LAB C

RADIO NAVIGATION AND FLIGHT INSTRUMENTS

LESSON OBJECTIVES:

During this lab, you will discover how using just a little basic math and your ADF radio will get you to a station. You'll also see how to use an RMI and an HSI to tell you where you are from a VOR station. And you'll find out how some of your flight instruments can help you make a perfect turn.

CONTENT:

I. ADF Navigation
- Homing And Crosswinds
- Magnetic Bearing TO The Beacon
- Magnetic Bearing FROM The Beacon
- Finding Relative Bearing
- Intercept Angles

II. VOR Navigation
- Sensitivity And Checks
- Using Your VOR

III. RMI
- How To Use Your RMI

IV. HSI
- Using Your HSI

V. Flight Instruments
- Instruments That Help You Turn

FLIGHT LESSON 6

PIC - CROSS-COUNTRY

LESSON OBJECTIVES:

During this lesson you'll gain experience in cross-country flight operations.

CONTENT:

Preflight Discussion

Improving Your Skills

_____Cross-Country Flight Planning
_____Preflight Inspection
_____Checklist Use
_____Normal and Crosswind Takeoff and Climb
_____Departure
_____Opening Flight Plan
_____Radar Services
_____Course Interception
_____Pilotage
_____Dead Reckoning
_____VOR Navigation
_____ADF Navigation (if aircraft equipped)
_____GPS Navigation (if aircraft equipped)
_____Power Settings and Mixture Control
_____Estimates of Ground Speed and ETA
_____Position Fix by Navigation Facilities
_____Flight on Federal Airways
_____CTAF (FSS or UNICOM) Airports
_____At Least One Landing More Than 100 nm from Departure Airport
_____Normal and Crosswind Landing
_____Collision Avoidance Procedures
_____Closing Your Flight Plan
_____Parking and Securing

Postflight Discussion

COMPLETION STANDARDS:

You will have satisfactorily completed this lesson when you complete a cross-country flight with at least one landing at an airport more than 100 nm from your departure airport. You will be able to hold altitude ±100 feet, heading ±10 degrees, and airspeed ±10 knots. You'll maintain a navigation log and arrive at your enroute checkpoints and destination within 3 minutes of your ETA and you'll be able to verify your airplane's location within 1 nm of the planned route at all times.

FLIGHT LESSON 7

SOLO – LOCAL, NIGHT

LESSON OBJECTIVES:

During this lesson you'll gain experience in night operations in the local area as well as at an airport with an operating control tower.

CONTENT:

Preflight Discussion

Improving Your Skills
_____Normal and Crosswind Takeoffs and Climbs
_____Constant Airspeed Climbs
_____Constant Airspeed Descents)
_____Power Off Stall (approach to landing stall)
_____Power On Stall (takeoff and departure stall)
_____Local VFR Navigation
_____Normal Approaches and Landings With Landing Light

Postflight Discussion

COMPLETION STANDARDS:
You will have completed this lesson satisfactorily when you have made five (5) night takeoffs and landings at an airport with an operating control tower, each with a circuit of the traffic pattern, and show that you understand the importance of attitude control at night. You will be able to make coordinated stall recoveries with minimum loss of altitude. You will also be able to make night landings using a stabilized approach and a constant airspeed and rate of descent to touchdown.

FLIGHT LESSON 8

SOLO - CROSS-COUNTRY, NIGHT

LESSON OBJECTIVES:

During this lesson you'll improve your night operations proficiency by conducting a solo cross-country flight with a landing at a minimum of three points. One leg of the flight will include a straight-line distance of at least 250 nm.

CONTENT:

Preflight Discussion

Improving Your Skills

_____Cross-Country Flight Planning
_____Preflight Inspection
_____Checklist Use
_____Normal and Crosswind Takeoff and Climb
_____Departure
_____Opening Flight Plan
_____Radar Services
_____Course Interception
_____Pilotage
_____Dead Reckoning
_____VOR Navigation
_____ADF Navigation (if aircraft equipped)
_____GPS Navigation (if aircraft equipped)
_____Power Settings and Mixture Control
_____Estimates of Ground Speed and ETA
_____Position Fix by Navigation Facilities
_____Flight on Federal Airways
_____CTAF (FSS or UNICOM) Airports
_____At Least One Leg a Straight-Line Distance More Than 250 nm
_____Normal and Crosswind Landing
_____Collision Avoidance Procedures
_____Closing Your Flight Plan
_____Parking and Securing

Postflight Discussion

COMPLETION STANDARDS:

You will have satisfactorily completed this lesson when you complete a cross-country flight at night with at least one leg having a straight-line distance of more than 250 nm. You will be able to hold altitude ±100 feet, heading ±10 degrees, and airspeed ±10 knots. You'll maintain a navigation log and arrive at your enroute checkpoints and destination within 3 minutes of your ETA and you'll be able to verify your airplane's location within 1 nm of the planned route at all times.

LAB D

AIRSPACE AND WEATHER MINIMUMS

LESSON OBJECTIVES:

During this lab, you will learn how the airspace system is put together, so that no matter where you fly, you will know and understand it.

CONTENT:

I. Class E Airspace
- The Airspace System And Airways
- Class E Airspace At Airports
- Class E Airspace At Airports With Control Towers

II. Class D Airspace
- Class D Airspace Requirements And Use

III. Class C Airspace
- Class C Airspace Boundaries
- Operating At Satellite Airports In Class C Airspace

IV. Class B Airspace
- Flight Operations Within Class B Airspace

V. Class A Airspace
- Flight Operations Within Class A Airspace
- Special Equipment Requirements For Class A, B, And C Airspace

VI. Speed Limits And Airports
- Speed Limits
- Airport Symbols

VII. Special Use Airspace
- Military Use

VIII. Weather Minimums
- Basic VFR
- Special VFR

FLIGHT LESSON 9

PIC - CROSS-COUNTRY

LESSON OBJECTIVES:

During this lesson you'll gain experience in cross-country flight operations.

CONTENT:

Preflight Discussion

Improving Your Skills

_____Cross-Country Flight Planning
_____Preflight Inspection
_____Checklist Use
_____Normal and Crosswind Takeoff and Climb
_____Departure
_____Opening Flight Plan
_____Radar Services
_____Course Interception
_____Pilotage
_____Dead Reckoning
_____VOR Navigation
_____ADF Navigation (if aircraft equipped)
_____GPS Navigation (if aircraft equipped)
_____Power Settings and Mixture Control
_____Estimates of Ground Speed and ETA
_____Position Fix by Navigation Facilities
_____Flight on Federal Airways
_____CTAF (FSS or UNICOM) Airports
_____At Least One Landing More Than 100 nm from Departure Airport
_____Normal and Crosswind Landing
_____Collision Avoidance Procedures
_____Closing Your Flight Plan
_____Parking and Securing

Postflight Discussion

COMPLETION STANDARDS:

You will have satisfactorily completed this lesson when you complete a cross-country flight with at least one landing at an airport more than 100 nm from your departure airport. You will be able to hold altitude ±100 feet, heading ±10 degrees, and airspeed ±10 knots. You'll maintain a navigation log and arrive at your enroute checkpoints and destination within 3 minutes of your ETA and you'll be able to verify your airplane's location within 1 nm of the planned route at all times.

FLIGHT LESSON 10 AND PROGRESS CHECK

DUAL - CROSS-COUNTRY

LESSON OBJECTIVES:

During this lesson you'll learn how to use airports that have short or soft runways while on a cross-country flight. You will control the airplane and navigate using instrument reference under simulated primary flight instrument failure. You'll also learn how to make a 180° power off accuracy approach and landing.
For the Progress Check you will have a chance to demonstrate your proficiency in planning and flying a cross-country flight according to the completion standards for a commercial pilot. It is recommended that the Chief/Assistant Chief Flight Instructor give this flight lesson.

CONTENT:

Preflight Discussion
New This Flight
_____Short Field Takeoff and Climb
_____Soft Field Takeoff and Climb
_____Short Field Approach and Landing
_____Soft Field Approach and Landing
_____Power Off 180° Approach and Landing
_____Partial Panel (IR)

Testing Your Skills
_____Cross-Country Flight Planning
_____Pilotage
_____Dead Reckoning
_____Attitude Instrument Flying (IR)
_____VOR Navigation (IR)
_____ADF Navigation (IR) (if equipped)
_____GPS Navigation (IR) (if equipped)
_____Recovery from Unusual Attitudes (IR)
_____Power Settings and Mixture Control
_____Diversion to an Alternate
_____Lost Procedures
_____Simulated System Failures
_____Simulated Engine Failure
_____Estimates of Ground Speed and ETA
_____Position Fix by Navigation Facilities
_____Flight on Federal Airways
_____CTAF (FSS or UNICOM) Airports
_____At Least One Landing More Than 100 nm from Departure Airport
_____Normal and Crosswind Landing
_____Collision Avoidance Procedures
_____Closing Your Flight Plan
_____Parking and Securing

Postflight Discussion

COMPLETION STANDARDS:
You'll have completed this lesson satisfactorily when you can perform short field takeoffs and landings, soft field takeoffs and landings and the 180° power off accuracy approach and landing at the proficiency level of the Commercial Pilot Practical Test Standards and can maintain aircraft control under partial panel conditions holding altitude within +/- 100 feet, heading within 10°, and track navigation courses within ¾ needle deflection or 10° on an RMI.
You will have completed this progress check satisfactorily when you show that you can plan and conduct cross-country flights and have a thorough knowledge of flight planning, preflight action, and sectional charts. During the flight, you will demonstrate the correct use of three methods of navigation with an emphasis on pilotage. You'll also demonstrate the ability to determine your location correctly at any time, the ability to arrive at your checkpoints within 3 minutes of your computed ETA, and the proper technique to establish a course to an alternate airport. You'll also apply appropriate pitch, bank, and power corrections in correct sequence to return to a stabilized level flight attitude from unusual flight attitudes.

LAB E

WEATHER

LESSON OBJECTIVES:

During this lab, you will learn how to interpret weather reports, forecasts, and charts so you can plan your flights without getting into trouble with the weather. In addition, you will see that you don't just look out the window to get the weather, but you can get weather reports and forecasts from many different places.

CONTENT:

I. Measurements
- Standard Temperature And Pressure

II. The Atmosphere
- Circulation
- Convection

III. Moisture And Stability
- Elements Of Air Stability
- Air Masses And Clouds

IV. Fog
- How Fog Forms
- How Wind Affects Advection Fog And Frontal Activity Fog

V. Freezing Rain And Ice
- Frontal Occlusions
- Ice And IcePellets

VI. Thunderstorms
- The Stages Of A Thunderstorm
- Thunderstorm Hazards
- Weather Radar

VII. Other Atmospheric Hazards
- Wind Shear And Turbulence
- Mountain Waves
- Jet Stream

VIII. Sources Of Weather Information
- FSS, WFO, TIBS TWEBS, AWOS, ASOS, And ATIS

IX. Surface Observation Reports
- Remarks And SPECI Reports
- METAR

X. Obtaining Weather Enroute
- PIREPs And EFAS

XI. Forecasts
- TAF
- Area Forecast

XII. In Flight Weather Advisories
- Overview Of In Flight Weather Advisories
- SIGMETs, Convective SIGMETs, And AIRMETS

XIII. In Flight Weather Broadcasts
- Weather Advisory Broadcasts And HIWAS

XIV. Radar Weather
- Radar Charts And Reports

XV. Stability Chart
- Composite Moisture Stability Chart

XVI. Observed Weather Charts
- Surface Analysis Chart
- Constant Pressure, Winds Aloft, And Weather Depiction Charts

XVII. Forecast Charts
- Low And High Level Significant Weather Prog And Convective Outlook Charts

FLIGHT LESSON 11

PIC - CROSS-COUNTRY

LESSON OBJECTIVES:

During this lesson you'll gain experience in cross-country flight operations.

CONTENT:

Preflight Discussion

Improving Your Skills

_____Cross-Country Flight Planning
_____Preflight Inspection
_____Checklist Use
_____Normal and Crosswind Takeoff and Climb
_____Departure
_____Opening Flight Plan
_____Radar Services
_____Course Interception
_____Pilotage
_____Dead Reckoning
_____VOR Navigation
_____ADF Navigation (if aircraft equipped)
_____GPS Navigation (if aircraft equipped)
_____Power Settings and Mixture Control
_____Estimates of Ground Speed and ETA
_____Position Fix by Navigation Facilities
_____Flight on Federal Airways
_____CTAF (FSS or UNICOM) Airports
_____At Least One Landing More Than 100 nm from Departure Airport
_____Short Field Takeoff and Climb
_____Soft Field Takeoff and Climb
_____Short Field Approach and Landing
_____Soft Field Approach and Landing
_____Power Off 180° Approach and Landing
_____Collision Avoidance Procedures
_____Closing Your Flight Plan
_____Parking and Securing

Postflight Discussion

COMPLETION STANDARDS:

You will have satisfactorily completed this lesson when you complete a cross-country flight with at least one landing at an airport more than 100 nm from your departure airport. You will be able to hold altitude ±100 feet, heading ±10 degrees, and airspeed ±10 knots. You'll maintain a navigation log and arrive at your enroute checkpoints and destination within 3 minutes of your ETA and you'll be able to verify your airplane's location within 1 nm of the planned route at all times.

FLIGHT LESSON 12

PIC - CROSS-COUNTRY

LESSON OBJECTIVES:

During this lesson you'll gain experience in cross-country flight operations.

CONTENT:

Preflight Discussion

Improving Your Skills

_____Cross-Country Flight Planning
_____Preflight Inspection
_____Checklist Use
_____Normal and Crosswind Takeoff and Climb
_____Departure
_____Opening Flight Plan
_____Radar Services
_____Course Interception
_____Pilotage
_____Dead Reckoning
_____VOR Navigation
_____ADF Navigation (if aircraft equipped)
_____GPS Navigation (if aircraft equipped)
_____Power Settings and Mixture Control
_____Estimates of Ground Speed and ETA
_____Position Fix by Navigation Facilities
_____Flight on Federal Airways
_____CTAF (FSS or UNICOM) Airports
_____At Least One Landing More Than 100 nm from Departure Airport
_____Short Field Takeoff and Climb
_____Soft Field Takeoff and Climb
_____Short Field Approach and Landing
_____Soft Field Approach and Landing
_____Power Off 180° Approach and Landing
_____Collision Avoidance Procedures
_____Closing Your Flight Plan
_____Parking and Securing

Postflight Discussion

COMPLETION STANDARDS:

You will have satisfactorily completed this lesson when you complete a cross-country flight with at least one landing at an airport more than 100 nm from your departure airport. You will be able to hold altitude ±100 feet, heading ±10 degrees, and airspeed ±10 knots. You'll maintain a navigation log and arrive at your enroute checkpoints and destination within 3 minutes of your ETA and you'll be able to verify your airplane's location within 1 nm of the planned route at all times.

LAB F

WEIGHT AND BALANCE

LESSON OBJECTIVES:

During this lab you'll discover how to properly load your airplane and calculate where its center of gravity is located.

CONTENT:

I. Weight And Balance Principles
- Formulas And Definitions

II. Basic Problems
- Locating The CG

III. Aircraft Loading Problems
- Determining CG Envelope And Limits
- CG After Fuel Burn
- Weight Shift

FLIGHT LESSON 13

PIC - CROSS-COUNTRY

LESSON OBJECTIVES:

During this lesson you'll gain experience in cross-country flight operations.

CONTENT:

Preflight Discussion

Improving Your Skills

_____Cross-Country Flight Planning
_____Preflight Inspection
_____Checklist Use
_____Normal and Crosswind Takeoff and Climb
_____Departure
_____Opening Flight Plan
_____Radar Services
_____Course Interception
_____Pilotage
_____Dead Reckoning
_____VOR Navigation
_____ADF Navigation (if aircraft equipped)
_____GPS Navigation (if aircraft equipped)
_____Power Settings and Mixture Control
_____Estimates of Ground Speed and ETA
_____Position Fix by Navigation Facilities
_____Flight on Federal Airways
_____CTAF (FSS or UNICOM) Airports
_____At Least One Landing More Than 100 nm from Departure Airport
_____Short Field Takeoff and Climb
_____Soft Field Takeoff and Climb
_____Short Field Approach and Landing
_____Soft Field Approach and Landing
_____Power Off 180° Approach and Landing
_____Collision Avoidance Procedures
_____Closing Your Flight Plan
_____Parking and Securing

Postflight Discussion

COMPLETION STANDARDS:

You will have satisfactorily completed this lesson when you complete a cross-country flight with at least one landing at an airport more than 100 nm from your departure airport. You will be able to hold altitude ±100 feet, heading ±10 degrees, and airspeed ±10 knots. You'll maintain a navigation log and arrive at your enroute checkpoints and destination within 3 minutes of your ETA and you'll be able to verify your airplane's location within 1 nm of the planned route at all times.

FLIGHT LESSON 14

SOLO - CROSS-COUNTRY

LESSON OBJECTIVES:

During this lesson you'll improve your cross-country flight operations proficiency by conducting a solo cross-country flight with a landing at a minimum of three points. One leg of the flight will include a straight-line distance of at least 250 nm.

CONTENT:

Preflight Discussion

Improving Your Skills

_____Cross-Country Flight Planning
_____Preflight Inspection
_____Checklist Use
_____Normal and Crosswind Takeoff and Climb
_____Departure
_____Opening Flight Plan
_____Radar Services
_____Course Interception
_____Pilotage
_____Dead Reckoning
_____VOR Navigation
_____ADF Navigation (if aircraft equipped)
_____GPS Navigation (if aircraft equipped)
_____Power Settings and Mixture Control
_____Estimates of Ground Speed and ETA
_____Position Fix by Navigation Facilities
_____Flight on Federal Airways
_____CTAF (FSS or UNICOM) Airports
_____At Least One Leg a Straight-Line Distance More Than 250 nm
_____Short Field Takeoff and Climb
_____Soft Field Takeoff and Climb
_____Short Field Approach and Landing
_____Soft Field Approach and Landing
_____Power Off 180° Approach and Landing
_____Normal and Crosswind Landing
_____Collision Avoidance Procedures
_____Closing Your Flight Plan
_____Parking and Securing

Postflight Discussion

COMPLETION STANDARDS:

You will have satisfactorily completed this lesson when you complete a cross-country flight with a landing at a minimum of three points and one leg of the flight at least a straight-line distance of 250 nm. You will be able to hold altitude ±100 feet, heading ±10 degrees, and airspeed ±10 knots. You'll maintain a navigation log and arrive at your enroute checkpoints and destination within 3 minutes of your ETA and you'll be able to verify your airplane's location within 1 nm of the planned route at all times.

FLIGHT 15
PROGRESS CHECK

FLIGHT 15 PROGRESS CHECK

DUAL - CROSS-COUNTRY

LESSON OBJECTIVES:

During this Progress Check you'll have a chance to demonstrate your ability to plan and fly a cross-country flight that meets the completion standards in the Commercial Pilot Practical Test Standards. It is recommended that the Chief/Assistant Chief Flight Instructor give this flight lesson.

CONTENT:

Preflight Discussion

Testing Your Skills

_____Cross-Country Flight Planning
_____Preflight Inspection
_____Checklist Use
_____Location of Fire Extinguisher
_____Doors and Safety Belts
_____Engine Starting and Warm-up
_____Use of ATIS
_____Taxiing
_____Before Takeoff Check and Engine Runup
_____Normal and Crosswind Takeoff and Climb
_____Controlled Airports
_____Departure
_____Opening Flight Plan
_____Use of Approach and Departure Control
_____High Density Airport Operations
_____Course Interception
_____Pilotage
_____Dead Reckoning
_____Attitude Instrument Flying (IR)
_____VOR Navigation (IR)
_____ADF Navigation (IR) (if aircraft equipped)
_____Partial Panel (IR)
_____Recovery from Unusual Attitudes (IR)
_____GPS Navigation (IR) (if aircraft equipped)
_____Power Settings and Mixture Control
_____Diversion to an Alternate
_____Lost Procedures
_____Simulated System Failures
_____Simulated Engine Failure
_____Estimates of Ground Speed and ETA
_____Position Fix by Navigation Facilities
_____Flight on Federal Airways
_____CTAF (FSS or UNICOM) Airports
_____At Least One Landing More Than 50 nm from Departure Airport
_____Short Field Takeoff and Climb
_____Soft Field Takeoff and Climb
_____Short Field Approach and Landing
_____Soft Field Approach and Landing
_____Power Off 180° Approach and Landing
_____Normal and Crosswind Landing
_____Collision Avoidance Procedures
_____Closing Your Flight Plan
_____Parking and Securing
_____Postflight Procedures

Postflight Discussion

COMPLETION STANDARDS:
You'll have completed this progress check satisfactorily when you demonstrate proficiency in the assigned maneuvers that meets the standard of performance outlined in the Commercial Pilot Practical Test Standards.

STAGE 2

FLYING COMPLEX AIRPLANES
FLYING COMMERCIAL MANEUVERS

LAB G

AERODYNAMICS

LESSON OBJECTIVES:

During this lab, you will learn the forces that act on an airplane when it is level, climbing, descending, and turning. In addition, you will learn why those forces change when flying very close to the ground. You'll also see how flaps, turning and where you load things in your airplane affect your airplane's performance.

CONTENT:

I. Basic Aerodynamics
- Angle Of Attack And Lift
- What Will Change Your Stalling Speed
- How Flaps Affect Your Airplane

II. Forces On An Aircraft
- The Four Forces On Your Airplane
- Drag
- L/D Ratio And Slipstream

III. Stability
- Static And Dynamic Stability
- Center Of Gravity And Spins

IV. Turns
- Angle Of Bank
- Rate And Radius

V. Load Factor
- Total Loading And Wing Loading
- G Forces

VI. Airspeed Limitations
- Maneuvering Speed
- Airspeed Indicator

VII. Aerodynamic Hazards
- Wingtip Vortices
- Ground Effect

FLIGHT LESSON 16

DUAL – LOCAL, COMPLEX AIRCRAFT

LESSON OBJECTIVES:

During this lesson you'll be introduced to the basic systems and flight operations of a complex airplane.

CONTENT:

Preflight Discussion

New This Flight
Complex Airplane
_____Performance and Limitations
_____Preflight Inspection
_____Engine Starting and Taxiing
_____Before Takeoff Check
_____Normal and Crosswind Takeoff and Climb
_____Use of Retractable Landing Gear
_____Climbs and Descents
_____Power Settings and Mixture Leaning
_____Use of Constant Speed Propeller
_____Maneuvering During Slow Flight
_____Normal and Crosswind Landing
_____Parking and Securing

Postflight Discussion

COMPLETION STANDARDS:
You'll have completed this lesson satisfactorily when you can demonstrate at least private pilot proficiency when performing the assigned maneuvers in a complex airplane.

FLIGHT LESSON 17

DUAL – LOCAL, COMPLEX AIRCRAFT

LESSON OBJECTIVES:

During this lesson you'll gain experience in complex airplane operations while in visual and simulated instrument conditions.

CONTENT:

Preflight Discussion

New This Flight

Complex Airplane

_____Approach to Landing Stalls
_____Power Off Stall (approach to landing stall)
_____Power On Stall (takeoff and departure stall)
_____Go-Around
_____Straight and Level Altitude Flight (IR)
_____Standard Rate Turns (IR)
_____Climbs and Climbing Turns (IR)
_____Descents and Descending Turns (IR)
_____Recovery from Unusual Attitudes (IR)
_____Maneuvering During Slow Flight (IR)

Improving Your Skills

_____Performance and Limitations
_____Preflight Inspection
_____Engine Starting and Taxiing
_____Before Takeoff Check
_____Normal and Crosswind Takeoff and Climb
_____Use of Retractable Landing Gear
_____Climbs and Descents
_____Power Settings and Mixture Leaning
_____Use of Constant Speed Propeller
_____Maneuvering During Slow Flight
_____Normal and Crosswind Landing
_____Parking and Securing

Postflight Discussion

COMPLETION STANDARDS:

You'll have completed this lesson satisfactorily when you can demonstrate at least private pilot proficiency when performing the assigned maneuvers in a complex airplane. You'll also be able to perform maneuvers under simulated instrument conditions to the standards of the Instrument Rating Practical Test Standards.

FLIGHT LESSON 18 AND PROGRESS CHECK

DUAL – LOCAL, COMPLEX AIRCRAFT

LESSON OBJECTIVES:

During this lesson you'll use techniques to operate a complex airplane out of soft or short runways. You'll also discover how some of the systems in a complex airplane can malfunction and what you can do when it happens.
For the Progress Check you will have a chance to demonstrate previously learned maneuvers according to the completion standards for this flight. It is recommended that the Chief/Assistant Chief Flight Instructor give this flight lesson.

CONTENT:

Preflight Discussion

New This Flight
Complex Airplane
_____Short Field Takeoff and Climb
_____Soft Field Takeoff and Climb
_____Short Field Approach and Landing
_____Soft Field Approach and Landing
_____Power Off 180° Approach and Landing
_____Simulated System Failures
_____Simulated Engine Failure

Testing Your Skills
_____Performance and Limitations
_____Preflight Inspection
_____Engine Starting and Taxiing
_____Before Takeoff Check
_____Normal and Crosswind Takeoff and Climb
_____Use of Retractable Landing Gear
_____Climbs and Descents
_____Power Settings and Mixture Leaning
_____Use of Constant Speed Propeller
_____Approach to Landing Stalls
_____Power Off Stall (approach to landing stall)
_____Power On Stall (takeoff and departure stall)
_____Go-Around
_____Maneuvering During Slow Flight
_____Partial Panel (IR)
_____Intercepting and Tracking Navigation Systems (IR)
_____Recovery from Unusual Attitudes (IR)
_____Normal and Crosswind Landing
_____Parking and Securing

Postflight Discussion

COMPLETION STANDARDS:
You'll have completed this lesson and Progress Check satisfactorily when you can perform the maneuvers in a complex airplane at the proficiency level of the Commercial Pilot Practical Test Standards.

LAB H

STEEP TURNS AND STEEP SPIRALS

LESSON OBJECTIVES:

During this lab, you will be introduced to the first of the Commercial Pilot maneuvers, the steep turn and the steep spiral. You will also learn how load factor affects you in a steep-bank maneuver and some of the common errors found when flying a steep turn and a steep spiral and how to correct them.

CONTENT:

I. Steep Turns And Steep Spirals

The Whats And Whys Of Steep Turns And Steep Spirals
Load Factor And You
How To Do Great Steep Turns And Steep Spirals

FLIGHT LESSON 19

DUAL - LOCAL

LESSON OBJECTIVES:

During this lesson, you'll learn the look and feel of steep banked turns.

CONTENT:

Preflight Discussion

New This Flight

_____Steep Turns
_____Steep Spirals

Improving Your Skills

_____Power Off Stall (approach to landing stall)
_____Power On Stall (takeoff and departure stall)
_____Short Field Takeoff and Climb
_____Soft Field Takeoff and Climb
_____Short Field Approach and Landing
_____Soft Field Approach and Landing
_____Power Off 180° Approach and Landing
_____Intercepting and Tracking Navigation Systems Partial Panel (IR)

Postflight Discussion

COMPLETION STANDARDS:

You'll have completed this lesson satisfactorily when you can perform steep turns and steep spirals to the standards in the Commercial Pilot Practical Test Standards.

LAB I

CHANDELLES

LESSON OBJECTIVES:

During this lab, you will be introduced to the elements of a chandelle. You will also learn some of the common errors found when flying a chandelle and how to correct them.

CONTENT:

I. Chandelles

Introduction To The Chandelle
How To Do Chandelles
Techniques For A Perfect Chandelle

FLIGHT LESSON 20

DUAL - LOCAL

LESSON OBJECTIVES:

During this lesson, you'll learn how to perform a 180 degree maximum climbing maneuver which places an emphasis on planning, coordination and orientation, the chandelle.

CONTENT:

Preflight Discussion

New This Flight

_____Chandelles

Improving Your Skills

_____Steep Turns
_____Steep Spirals
_____Short Field Takeoff and Climb
_____Soft Field Takeoff and Climb
_____Short Field Approach and Landing
_____Soft Field Approach and Landing
_____Power Off 180° Approach and Landing
_____Intercepting and Tracking Navigation Systems Partial Panel (IR)

Postflight Discussion

COMPLETION STANDARDS:

You'll have completed this lesson satisfactorily when you can perform chandelles to the standards in the Commercial Pilot Practical Test Standards.

FLIGHT LESSON 21

PIC - LOCAL

LESSON OBJECTIVES:

During this lesson, you'll improve your proficiency in commercial maneuvers.

CONTENT:

Preflight Discussion

Improving Your Skills
_____Short Field Takeoff and Climb
_____Soft Field Takeoff and Climb
_____Short Field Approach and Landing
_____Soft Field Approach and Landing
_____Power Off 180° Approach and Landing
_____Chandelles
_____Steep Turns
_____Steep Spirals

Postflight Discussion

COMPLETION STANDARDS:
You'll have completed this lesson satisfactorily when you can perform the assigned maneuvers to the proficiency level of the Commercial Pilot Practical Test Standards.

LAB J

LAZY EIGHTS

LESSON OBJECTIVES:

During this lab, you will learn about a coordination maneuver that will have you making left and right turns while climbing and descending to the same altitudes and maintaining precise airspeed control all at the same time. You'll also see some of the common errors in flying lazy eights and how to correct them.

CONTENT:

I. Lazy Eights

- Introduction To Lazy Eights
- How To Do Lazy Eights
- Techniques For Perfect Lazy Eights

FLIGHT LESSON 22

DUAL - LOCAL

LESSON OBJECTIVES:

During this lesson, you'll discover a maneuver where you'll want to change your altitude and direction every 90 degrees but not too quickly to keep your lazy eight really lazy.

CONTENT:

Preflight Discussion

New This Flight

_____Lazy Eights

Improving Your Skills

_____Chandelles
_____Steep Turns
_____Steep Spirals
_____Intercepting and Tracking Navigation Systems (IR)
_____Partial Panel (IR)
_____Recovery from Unusual Attitudes (IR)

Postflight Discussion

COMPLETION STANDARDS:

You'll have completed this lesson satisfactorily when you can perform lazy eights to the standards in the Commercial Pilot Practical Test Standards.

FLIGHT LESSON 23

PIC - LOCAL

LESSON OBJECTIVES:

During this lesson, you'll improve your proficiency in commercial maneuvers.

CONTENT:

Preflight Discussion

Improving Your Skills

_____Chandelles
_____Steep Turns
_____Steep Spirals
_____Lazy Eights
_____Power Off Stall (approach to landing stall)
_____Power On Stall (takeoff and departure stall)
_____Short Field Takeoff and Climb
_____Soft Field Takeoff and Climb
_____Short Field Approach and Landing
_____Soft Field Approach and Landing
_____Power Off 180° Approach and Landing

Postflight Discussion

COMPLETION STANDARDS:

You'll have completed this lesson satisfactorily when you demonstrate proficiency in the assigned maneuvers that meets the standard of performance outlined in the Commercial Pilot Practical Test Standards.

LAB K

EIGHTS ON PYLONS

LESSON OBJECTIVES:

During this lab, you will discover there is a turning maneuver where if you change your ground speed you'll have to change your altitude to keep your wing pointing at the same spot on the ground. You'll also see some of the common errors in flying eights on pylons and how to correct them.

CONTENT:

I. Eights On Pylons

- Introduction To Eights On Pylons
- How To Do Eights On Pylons
- Techniques For Perfect Eights On Pylons

FLIGHT LESSON 24

DUAL - LOCAL

LESSON OBJECTIVES:

During this lesson, you'll learn how to vary your altitude as your ground speed changes to turn on a point on the ground.

CONTENT:

Preflight Discussion

New This Flight

_____Eights On Pylons

Improving Your Skills

_____Chandelles
_____Steep Turns
_____Steep Spirals
_____Lazy Eights
_____Short Field Takeoff and Climb
_____Soft Field Takeoff and Climb
_____Short Field Approach and Landing
_____Soft Field Approach and Landing
_____Power Off 180° Approach and Landing
_____Attitude Instrument Flying (IR)
_____Intercepting and Tracking Navigation Systems Partial Panel (IR)
_____Recovery from Unusual Attitudes (IR)

Postflight Discussion

COMPLETION STANDARDS:

You'll have completed this lesson satisfactorily when you can perform eights on pylons to the standards in the Commercial Pilot Practical Test Standards.

FLIGHT LESSON 25

PIC - LOCAL

LESSON OBJECTIVES:

During this lesson, you'll improve your proficiency in commercial maneuvers.

CONTENT:

Preflight Discussion

Improving Your Skills

_____Chandelles
_____Steep Turns
_____Steep Spirals
_____Lazy Eights
_____Eights On Pylons
_____Power Off Stall (approach to landing stall)
_____Power On Stall (takeoff and departure stall)
_____Short Field Takeoff and Climb
_____Soft Field Takeoff and Climb
_____Short Field Approach and Landing
_____Soft Field Approach and Landing
_____Power Off 180° Approach and Landing

Postflight Discussion

COMPLETION STANDARDS:

You'll have completed this lesson satisfactorily when you can perform the assigned maneuvers to the standards in the Commercial Pilot Practical Test Standards.

LAB L

AIRCRAFT PERFORMANCE

LESSON OBJECTIVES:

During this lab, you will learn how the temperature of the air affects the power of your engine. You'll also see how to calculate what that change does to your take-off distance, climb rate, fuel consumption and landing distance. And you'll be able to tell how much of a crosswind a crosswind really is.

CONTENT:

I. Pressure And Density Altitude
- Figuring Pressure And Density Altitude
- How Temperature Affects Turbine Engines And Airspeed Corrections

II. Takeoff And Climb
- Obstacle Takeoff
- Maximum Climb Rate
- Fuel Use With Maximum Climb
- Climbing To Cruise Altitude
- Normal Climb

III. Cruise Performance
- Maximum Flight Time
- Fuel Consumption vs. Percent Horsepower
- Endurance
- Available Flight Time

IV. Landing
- Figuring The Wind Component
- Normal Landing

FLIGHT LESSON 26

PIC – CROSS-COUNTRY

LESSON OBJECTIVES:

During this lesson you'll gain experience in cross-country flight operations.

CONTENT:

Preflight Discussion

Improving Your Skills

_____Cross-Country Flight Planning
_____Preflight Inspection
_____Checklist Use
_____Normal and Crosswind Takeoff and Climb
_____Departure
_____Opening Flight Plan
_____Radar Services
_____Course Interception
_____Pilotage
_____Dead Reckoning
_____VOR Navigation
_____ADF Navigation (if aircraft equipped)
_____GPS Navigation (if aircraft equipped)
_____Power Settings and Mixture Control
_____Estimates of Ground Speed and ETA
_____Position Fix by Navigation Facilities
_____Flight on Federal Airways
_____CTAF (FSS or UNICOM) Airports
_____At Least One Landing More Than 50 nm from Departure Airport
_____Short Field Takeoff and Climb
_____Soft Field Takeoff and Climb
_____Short Field Approach and Landing
_____Soft Field Approach and Landing
_____Power Off 180° Approach and Landing
_____Collision Avoidance Procedures
_____Closing Your Flight Plan
_____Parking and Securing

Postflight Discussion

COMPLETION STANDARDS:

You will have satisfactorily completed this lesson when you complete a cross-country flight with at least one landing at an airport more than 50 nm from your departure airport. You will be able to hold altitude ±100 feet, heading ±10 degrees, and airspeed ±10 knots. You'll maintain a navigation log and arrive at your enroute checkpoints and destination within 2 minutes of your ETA and you'll be able to verify your airplane's location within 1 nm of the planned route at all times.

FLIGHT LESSON 27

DUAL - LOCAL

LESSON OBJECTIVES:

During this lesson, you'll improve your proficiency in commercial maneuvers.

CONTENT:

Preflight Discussion

Improving Your Skills

_____Chandelles
_____Steep Turns
_____Steep Spirals
_____Lazy Eights
_____Eights On Pylons
_____Short Field Takeoff and Climb
_____Soft Field Takeoff and Climb
_____Short Field Approach and Landing
_____Soft Field Approach and Landing
_____Power Off 180° Approach and Landing
_____Straight and Level Altitude Flight (IR)
_____Standard Rate Turns (IR)
_____Climbs and Climbing Turns (IR)
_____Descents and Descending Turns (IR)
_____Recovery from Unusual Attitudes (IR)
_____Maneuvering During Slow Flight (IR)

Postflight Discussion

COMPLETION STANDARDS:

You'll have completed this lesson satisfactorily when you can perform the assigned maneuvers to the standards in the Commercial Pilot Practical Test Standards.

FLIGHT 28 PROGRESS CHECK

DUAL - LOCAL

LESSON OBJECTIVES:

During this progress check you'll have an opportunity to demonstrate you are the master of the commercial maneuvers. It is recommended that the Chief/Assistant Chief Flight Instructor give this flight lesson.

CONTENT:

Preflight Discussion

Testing Your Skills

_____Chandelles
_____Steep Turns
_____Steep Spirals
_____Lazy Eights
_____Eights On Pylons
_____Short Field Takeoff and Climb
_____Soft Field Takeoff and Climb
_____Short Field Approach and Landing
_____Soft Field Approach and Landing
_____Power Off 180° Approach and Landing
_____Power Off Stall (approach to landing stall)
_____Power On Stall (takeoff and departure stall)
_____Straight and Level Altitude Flight (IR)
_____Standard Rate Turns (IR)
_____Climbs and Climbing Turns (IR)
_____Descents and Descending Turns (IR)
_____Recovery from Unusual Attitudes (IR)
_____Maneuvering During Slow Flight (IR)
_____Intercepting and Tracking Navigation Systems Partial Panel (IR)

Postflight Discussion

COMPLETION STANDARDS:

You'll have completed this progress check satisfactorily when you can perform the assigned maneuvers at the proficiency level of the Commercial Pilot Practical Test Standards. You'll also be able to perform maneuvers under simulated instrument conditions to the standards of the Instrument Rating Practical Test Standards.

STAGE 3

PREPARING FOR YOUR COMMERCIAL PILOT CHECK RIDE

LAB M

FLIGHT OPERATIONS

LESSON OBJECTIVES:

During this lab, you will learn many of the techniques to keep both your engine and your passengers happy during a flight. You'll also learn that there are many outside influences and factors that affect pilot decision making, as well as how you can make good preflight and in-flight decisions.

CONTENT:

I. Some Flying Basics
- Fundamentals
- Cold Weather Operations
- Night Flying And Avoiding Controlled Flight Into Terrain
- Land And Hold Short Operations (LAHSO)

II. Taxiing
- Taxiway Signs And Preventing Runway Incursions
- Taxiing In The Wind

III. Wind Shear And Turbulence
- Takeoff And Landing
- Wind Shear
- Turbulence

IV. Staying Safe
- Avoiding Midairs

V. Engine Operations
- Engine Stress
- Oil
- Ignition Systems And Starting With A Low Battery
- Mixture
- Carburetor Heat

VI. Propellers
- Propeller Efficiency
- Constant Speed Propellers

VII. Locating Your Position
- DF Steer

VIII. Aeromedical Factors
- Hyperventilation
- Hypoxia And Carbon Monoxide
- Spatial Disorientation, Alcohol, Night Vision, And Fitness For Flight

IX. Aeronautical Decision Making
- Making Decisions As A Pilot
- Classic Behavioral Traps
- Hazardous Attitudes
- Neutralizing Hazardous Attitudes
- Stress Management
- Using The "DECIDE" Model For Making Decisions

FLIGHT LESSON 29

DUAL - LOCAL

LESSON OBJECTIVES:

During this lesson, you'll improve your proficiency in commercial flight maneuvers.

CONTENT:

Preflight Discussion

Improving Your Skills

_____Chandelles
_____Steep Turns
_____Steep Spirals
_____Lazy Eights
_____Eights On Pylons
_____Power Off Stall (approach to landing stall)
_____Power On Stall (takeoff and departure stall)
_____Short Field Takeoff and Climb
_____Soft Field Takeoff and Climb
_____Short Field Approach and Landing
_____Soft Field Approach and Landing
_____Power Off 180° Approach and Landing
_____Intercepting and Tracking Navigation Systems (IR)
_____Partial Panel (IR)
_____Recovery from Unusual Attitudes (IR)

Postflight Discussion

COMPLETION STANDARDS:

You'll have completed this lesson satisfactorily when you can perform the assigned maneuvers at the proficiency level of the Commercial Pilot Practical Test Standards.

FLIGHT LESSON 30

PIC - LOCAL

LESSON OBJECTIVES:

During this lesson, you'll improve your proficiency in commercial flight maneuvers.

CONTENT:

Preflight Discussion

Improving Your Skills

_____Chandelles
_____Steep Turns
_____Steep Spirals
_____Lazy Eights
_____Eights On Pylons
_____Short Field Takeoff and Climb
_____Soft Field Takeoff and Climb
_____Short Field Approach and Landing
_____Soft Field Approach and Landing
_____Power Off 180° Approach and Landing

Postflight Discussion

COMPLETION STANDARDS:

You'll have completed this lesson satisfactorily when you can perform the assigned maneuvers at the proficiency level of the Commercial Pilot Practical Test Standards.

FLIGHT LESSON 31

DUAL – CROSS-COUNTRY, COMPLEX

LESSON OBJECTIVES:

During this lesson, you'll gain proficiency in cross-country flight operations in a complex airplane.

CONTENT:

Preflight Discussion

Improving Your Skills

Complex Airplane

_____Cross-Country Flight Planning
_____Performance and Limitations
_____Preflight Inspection
_____Checklist Use
_____Engine Starting and Taxiing
_____Before Takeoff Check
_____Normal and Crosswind Takeoff and Climb
_____Use of Retractable Landing Gear
_____Departure
_____Opening Flight Plan
_____Radar Services
_____Course Interception
_____Climbs and Descents
_____Power Settings and Mixture Leaning
_____Use of Constant Speed Propeller
_____Short Field Takeoff and Climb
_____Soft Field Takeoff and Climb
_____Simulated System Failures
_____Pilotage
_____Dead Reckoning
_____Simulated Engine Failure
_____VOR Navigation (IR)
_____ILS Approach (IR)
_____NDB/VOR Approach (IR)
_____GPS Approach (IR) (if aircraft equipped)
_____ADF Navigation (IR) (if aircraft equipped)
_____GPS Navigation (IR) (if aircraft equipped)
_____Power Settings and Mixture Control
_____Estimates of Ground Speed and ETA
_____Position Fix by Navigation Facilities
_____Flight on Federal Airways
_____CTAF (FSS or UNICOM) Airports
_____At Least One Landing More Than 100 nm from Departure Airport
_____Power Off Stall (approach to landing stall)
_____Power On Stall (takeoff and departure stall)
_____Go-Around
_____Maneuvering During Slow Flight
_____Short Field Approach and Landing
_____Soft Field Approach and Landing
_____Power Off 180° Approach and Landing
_____Normal and Crosswind Landing
_____Parking and Securing

Postflight Discussion

COMPLETION STANDARDS:

You'll have completed this lesson satisfactorily when you can perform the maneuvers in a complex airplane at the proficiency level of the Commercial Pilot Practical Test Standards.

You will complete a cross-country flight in daytime conditions with at least one landing at an airport of a total straight-line distance of more than 100 nm from your departure airport. You will be able to hold altitude ±100 feet, heading ±10 degrees, and airspeed ±10 knots. You'll maintain a navigation log and arrive at your enroute checkpoints and destination within 3 minutes of your ETA and you'll be able to verify your airplane's location within 1 nm of the planned route at all times.

FLIGHT LESSON 32

PIC – CROSS-COUNTRY

LESSON OBJECTIVES:

During this lesson you'll gain experience in cross-country flight operations.

CONTENT:

Preflight Discussion

Improving Your Skills

_____Cross-Country Flight Planning
_____Preflight Inspection
_____Checklist Use
_____Normal and Crosswind Takeoff and Climb
_____Departure
_____Opening Flight Plan
_____Radar Services
_____Course Interception
_____Pilotage
_____Dead Reckoning
_____VOR Navigation
_____ADF Navigation (if aircraft equipped)
_____GPS Navigation (if aircraft equipped)
_____Power Settings and Mixture Control
_____Estimates of Ground Speed and ETA
_____Position Fix by Navigation Facilities
_____Flight on Federal Airways
_____CTAF (FSS or UNICOM) Airports
_____At Least One Landing More Than 50 nm from Departure Airport
_____Short Field Takeoff and Climb
_____Soft Field Takeoff and Climb
_____Short Field Approach and Landing
_____Soft Field Approach and Landing
_____Power Off 180° Approach and Landing
_____Collision Avoidance Procedures
_____Closing Your Flight Plan
_____Parking and Securing

Postflight Discussion

COMPLETION STANDARDS:

You will have satisfactorily completed this lesson when you complete a cross-country flight with at least one landing at an airport more than 50 nm from your departure airport. You will be able to hold altitude ±100 feet, heading ±10 degrees, and airspeed ±10 knots. You'll maintain a navigation log and arrive at your enroute checkpoints and destination within 3 minutes of your ETA and you'll be able to verify your airplane's location within 1 nm of the planned route at all times.

LAB N

FEDERAL AVIATION REGULATIONS

LESSON OBJECTIVES:

During this lab you will learn aviation terms and rules so that you can keep you, your passengers, and your airplane safe and legal.

CONTENT:

I. Documents And Certifications
- Category, Class And Type Ratings
- Pilot And Medical Certificates
- Aircraft Categories

II. Responsibilities And Restrictions
- Responsibilities
- Restrictions

III. Recency, Checks And Experience
- Recency
- Checks And Experience

IV. Preflight Action
- PIC Preflight Responsibilities

V. Maintenance
- Airworthiness Responsibilities And Special Flight Permits
- Maintenance Records
- Inspection And Repair
- Airworthiness Directives

VI. Collision Avoidance
- Right-Of-Way Rules
- Position Lights
- Altitudes

VII. Equipment Requirements
- Safety Belts, Oxygen, ELT's And Required Instruments And Equipment

VIII. Flight Restrictions
- Aerobatics, Dropping Objects And Transponders

IX. FAA And NTSB Notification
- Accident And Incident Notification
- Alcohol And Drugs
- Change Of Address

X. Abbreviations And Symbols
- V Speeds

XI. Commercial Operations
- Commercial Operator
- Operating Under Part 91

WHEN YOU FINISH THIS LAB, TAKE ONE OF THE PRACTICE KNOWLEDGE TESTS, WHICH IS ALSO YOUR CPC FINAL EXAM, AND THEN TAKE YOUR FAA KNOWLEDGE TEST.

FLIGHT LESSON 33

DUAL - LOCAL

LESSON OBJECTIVES:

During this lesson you'll improve your proficiency in commercial flight maneuvers.

CONTENT:

Preflight Discussion

Improving Your Skills

_____Chandelles
_____Steep Turns
_____Steep Spirals
_____Lazy Eights
_____Eights On Pylons
_____Short Field Takeoff and Climb
_____Soft Field Takeoff and Climb
_____Short Field Approach and Landing
_____Soft Field Approach and Landing
_____Power Off 180° Approach and Landing
_____Partial Panel (IR)
_____Recovery from Unusual Attitudes (IR)

Postflight Discussion

COMPLETION STANDARDS:

You'll have completed this lesson satisfactorily when you can perform the assigned maneuvers at the proficiency level of the Commercial Pilot Practical Test Standards.

FLIGHT LESSON 34

DUAL – CROSS-COUNTRY

LESSON OBJECTIVES:

During this lesson you'll improve your proficiency in cross-country flight operations.

CONTENT:

Preflight Discussion

Improving Your Skills

_____Cross-Country Flight Planning
_____Preflight Inspection
_____Checklist Use
_____Normal and Crosswind Takeoff and Climb
_____Departure
_____Opening Flight Plan
_____Radar Services
_____Course Interception
_____Pilotage
_____Dead Reckoning
_____VOR Navigation (IR)
_____ILS Approach (IR)
_____NDB/VOR Approach (IR)
_____GPS Approach (IR) (if aircraft equipped)
_____ADF Navigation (IR) (if aircraft equipped)
_____GPS Navigation (IR) (if aircraft equipped)
_____Intercepting and Tracking Navigation Systems Partial Panel (IR)
_____Power Settings and Mixture Control
_____Estimates of Ground Speed and ETA
_____Position Fix by Navigation Facilities
_____Flight on Federal Airways
_____CTAF (FSS or UNICOM) Airports
_____At Least One Landing More Than 100 nm from Departure Airport
_____Normal and Crosswind Landing
_____Collision Avoidance Procedures
_____Closing Your Flight Plan
_____Parking and Securing

Postflight Discussion

COMPLETION STANDARDS:

You will have satisfactorily completed this lesson when you complete a cross-country flight with at least one landing at an airport more than 100 nm from your departure airport. You will be able to hold altitude ±100 feet, heading ±10 degrees, and airspeed ±10 knots. You'll maintain a navigation log and arrive at your enroute checkpoints and destination within 3 minutes of your ETA and you'll be able to verify your airplane's location within 1 nm of the planned route at all times.

FLIGHT LESSON 35

PIC SOLO – CROSS-COUNTRY

LESSON OBJECTIVES:

During this lesson you'll gain additional experience in cross-country flight operations.

CONTENT:

Preflight Discussion

Improving Your Skills

_____Cross-Country Flight Planning
_____Preflight Inspection
_____Checklist Use
_____Normal and Crosswind Takeoff and Climb
_____Departure
_____Opening Flight Plan
_____Radar Services
_____Course Interception
_____Pilotage
_____Dead Reckoning
_____VOR Navigation
_____ADF Navigation (if aircraft equipped)
_____GPS Navigation (if aircraft equipped)
_____Power Settings and Mixture Control
_____Estimates of Ground Speed and ETA
_____Position Fix by Navigation Facilities
_____Flight on Federal Airways
_____CTAF (FSS or UNICOM) Airports
_____At Least One Landing More Than 50 nm from Departure Airport
_____Short Field Takeoff and Climb
_____Soft Field Takeoff and Climb
_____Short Field Approach and Landing
_____Soft Field Approach and Landing
_____Power Off 180° Approach and Landing
_____Collision Avoidance Procedures
_____Closing Your Flight Plan
_____Parking and Securing

Postflight Discussion

COMPLETION STANDARDS:

You will have satisfactorily completed this lesson when you complete a cross-country flight with at least one landing at an airport more than 50 nm from your departure airport. You will be able to hold altitude ±100 feet, heading ±10 degrees, and airspeed ±10 knots. You'll maintain a navigation log and arrive at your enroute checkpoints and destination within 3 minutes of your ETA and you'll be able to verify your airplane's location within 1 nm of the planned route at all times.

FLIGHT LESSON 36

DUAL - LOCAL

LESSON OBJECTIVES:

During this lesson, you'll improve your proficiency in commercial flight maneuvers. You'll have an opportunity to work with your instructor to correct any weak areas of your flying in preparation for your final Progress Check.

CONTENT:

Preflight Discussion

Improving Your Skills

_____VOR Navigation (IR)
_____ILS Approach (IR)
_____NDB/VOR Approach (IR)
_____GPS Approach (IR) (if aircraft equipped)
_____ADF Navigation (IR) (if aircraft equipped)
_____GPS Navigation (IR) (if aircraft equipped)
_____Chandelles
_____Steep Turns
_____Steep Spirals
_____Lazy Eights
_____Eights On Pylons
_____Power Off Stall (approach to landing stall)
_____Power On Stall (takeoff and departure stall)
_____Short Field Takeoff and Climb
_____Soft Field Takeoff and Climb
_____Short Field Approach and Landing
_____Soft Field Approach and Landing
_____Power Off 180° Approach and Landing

Postflight Discussion

COMPLETION STANDARDS:

You'll have completed this lesson satisfactorily when you can perform the assigned maneuvers at the proficiency level of the Commercial Pilot Practical Test Standards. You'll also be able to perform maneuvers under simulated instrument conditions to the standards of the Instrument Rating Practical Test Standards.

FINAL LAB

YOUR FINAL LAB

LESSON OBJECTIVES:

During this lab you will learn how to get it all together before you show up for your checkride. You will also learn some useful tips for flying as a professional pilot.

CONTENT:

I. Now That You're About to Become a Commercial Pilot

How to Make Your Check Ride A Piece Of Cake
Managing The Risks When You're Being Paid To Fly
The Consummate Professional

CHECK RIDE BRIEFING

OBJECTIVES:

During this briefing you will take your final Oral Exam to make sure you are ready for the ground portion of the FAA Commercial Pilot Practical Test. This is the time to discuss any questions you have with your instructor.

CONTENT:

1. Certificates and Documents
2. Preflight Inspection
3. Weather Information
4. Cross-Country Flight Planning and Navigation
5. IFR Procedures
6. Enroute Charts
7. Approach Charts
8. The Airspace System
9. Departure Procedures
10. Enroute Procedures
11. Arrival Procedures
12. Basic VFR Weather Minimums
13. Aircraft Performance and Limitations
14. Takeoff Procedures
15. Weight and Balance
16. Operation of Systems
17. Engine Operation
18. Fuel System
19. Electrical System
20. Minimum Equipment
21. Aeromedical Factors
22. Supplemental Oxygen
23. Emergency Operations
24. FARs and NTSB 830
25. Basic and Advanced Aerodynamics
26. Flight Publications
27. Night Operations
28. High-Altitude Operations

COMPLETION STANDARDS:
You will have completed this briefing satisfactorily when you exhibit the knowledge requirements outlined in the Commercial Pilot Practical Test Standards. In addition, you must have a clear understanding of the factors affecting good judgment.

FLIGHT 37
PROGRESS CHECK

FLIGHT 37 FINAL PROGRESS CHECK

DUAL – LOCAL, COMPLEX

LESSON OBJECTIVES:

This is the final Progress Check. During the flight, you should demonstrate Commercial Pilot proficiency in all your flying including maneuvers in a complex airplane. In addition, you will exhibit sound judgement in your decision making. It is recommended that the Chief/Assistant Chief Flight Instructor give this flight lesson.

CONTENT:

Testing Your Skills

_____Cross-Country Flight Planning
_____Preflight Inspection
_____Checklist Use
_____Doors and Safety Belts
_____Engine Starting and Warm-up
_____Use of ATIS
_____Taxiing
_____Before Takeoff Check and Engine Runup
_____Normal and Crosswind Takeoff and Climb
_____Controlled Airports
_____Departure
_____Course Interception
_____Pilotage
_____Dead Reckoning
_____VOR Navigation (IR)
_____ADF Navigation (IR) (if aircraft eq.)
_____GPS Navigation (IR) (if aircraft eq.)
_____ILS/NDB or VOR Approach (IR)
_____Partial Panel (IR)
_____Recovery from Unusual Attitudes (IR)
_____Power Settings and Mixture Control
_____Diversion to an Alternate
_____Lost Procedures
_____Use of Retractable Landing Gear
_____Simulated System Failures
_____Simulated Engine Failure
_____Estimates of Ground Speed and ETA
_____Position Fix by Navigation Facilities
_____Flight on Federal Airways
_____CTAF (FSS or UNICOM) Airports
_____Straight and Level Altitude Flight (IR)
_____Standard Rate Turns (IR)
_____Climbs and Climbing Turns (IR)
_____Descents and Descending Turns (IR)
_____Recovery from Unusual Attitudes (IR)
_____Maneuvering During Slow Flight (IR)
_____Power Off Stall (approach to landing stall)
_____Power On Stall (takeoff and departure stall)
_____Short Field Takeoff and Climb
_____Soft Field Takeoff and Climb
_____Short Field Approach and Landing
_____Soft Field Approach and Landing
_____Power Off 180° Approach and Landing
_____Normal and Crosswind Landing
_____Collision Avoidance Procedures
_____Chandelles
_____Steep Turns
_____Steep Spirals
_____Lazy Eights
_____Eights On Pylons
_____Parking and Securing
_____Postflight Procedures

Postflight Discussion

COMPLETION STANDARDS:
You'll have completed this progress check satisfactorily when you can perform the assigned maneuvers at the proficiency level of the Commercial Pilot Practical Test Standards. You'll also be able to perform maneuvers under simulated instrument conditions to the standards of the Instrument Rating Practical Test Standards.

COMMERCIAL PILOT COURSE
MINIMUM COURSE HOURS AND CHRONOLOGICAL LOG

For Part 141, Appendix D Compliance

These times are for student/instructor guidance only. They are a suggested time schedule which will ensure compliance with the minimum flight and ground training required under FAR Part 141. Preflight and postflight briefings are required under FAR Part 141 for each flight training flight. It is suggested that you allow a minimum of .5 hour per flight for these briefings. The written exams may be credited toward the 35 hours of required ground training, and the check flights may be credited toward the 55 hours of flight training.

Date	Lesson	Total Flight Trng	X-C Flight Trng	Instrmnt Flight Trng	Complx Aircraft Flt Trng	Night Flight Trng	PIC/ Solo	Night Solo	X-C PIC Day	X-C PIC Nite	Total Time	Grnd Trng
	STAGE 1 **LEARNING PROFESSIONAL CROSS-COUNTRY AND NIGHT PROCEDURES**											
	LAB A CROSS-COUNTRY PLANNING											1.0
	FLIGHT LESSON 1	3.0	3.0	.5								1.0
	FLIGHT LESSON 2	1.0		.2		1.0						.5
	LAB B SECTIONAL CHARTS											.5
	FLIGHT LESSON 3								4.0			
	FLIGHT LESSON 4	4.0	4.0	.7		4.0						1.0
	FLIGHT LESSON 5						Solo 1.5	1.5				
	LAB C RADIO NAV AND FLIGHT INSTRUMENTS											1.5
	FLIGHT LESSON 6								4.0			
	FLIGHT LESSON 7						Solo 1.5	1.5				
	FLIGHT LESSON 8						Solo 4.0	4.0		Solo 4.0		
	LAB D AIRSPACE AND WEATHER MINUMUMS											1.5
	FLIGHT LESSON 9								4.0			
	FLIGHT LESSON 10 AND PROGRESS CHECK	3.0	3.0	.4								1.0
	BUILDING CROSS-COUNTRY EXPERIENCE											
	LAB E WEATHER											3.0
	FLIGHT LESSON 11								4.0			
	FLIGHT LESSON 12								4.0			
	LAB F WEIGHT AND BALANCE											1.0
	FLIGHT LESSON 13								4.0			
	FLIGHT LESSON 14						Solo 5.0		5.0			
	FLIGHT 15 PROGRESS CHECK	2.0	2.0	.5								1.0
	TOTAL RECEIVED STAGE **1**											
	TOTAL REQUIRED STAGE 1	**13.0**	**12.0**	**2.3**		**5.0**	**36.0 ***	**7.0**	**29.0**	**4.0**		**13.0**

Date	Lesson	Total Flight Trng	X-C Flight Trng	Instrmnt Flight Trng	Complx Aircraft Flt Trng	Night Flight Trng	PIC/ Solo	Night Solo	X-C PIC Day	X-C PIC Nite	Total Time	Grnd Trng
	STAGE 2 **FLYING COMPLEX AIRPLANES**											
	LAB G AERODYNAMIICS											2.0
	FLIGHT LESSON 16	2.0			2.0							1.0
	FLIGHT LESSON 17	2.0		.5	2.0							.5
	FLIGHT LESSON 18 AND PROGRESS CHECK	2.0		.5	2.0							.5
	FLYING COMMERCIAL MANEUVERS											
	LAB H STEEP TURNS											1.0
	FLIGHT LESSON 19	2.0		.3								.5
	LAB I CHANDELLES											1.0
	FLIGHT LESSON 20	2.0		.3								.5
	FLIGHT LESSON 21						3.0					
	LAB J LAZY EIGHTS											1.0
	FLIGHT LESSON 22	3.0		.5								.5
	FLIGHT LESSON 23						3.0					
	LAB K EIGHTS ON PYLONS											1.0
	FLIGHT LESSON 24	3.0		.6								.5
	FLIGHT LESSON 25						3.0					
	LAB L AIRCRAFT PERFORMANCE											2.0
	FLIGHT LESSON 26								5.0			
	FLIGHT LESSON 27	2.0		.5								.5
	FLIGHT 28 **PROGRESS CHECK**	2.0		.5								1.0
	TOTAL RECEIVED STAGE **2**											
	TOTAL REQUIRED STAGE 2	**20.0**		**3.7**	**6.0**		**9.0 ***		**5.0**			**13.5**

Date	Lesson	Total Flight Trng	X-C Flight Trng	Instrmnt Flight Trng	Complx Aircraft Flt Trng	Night Flight Trng	PIC/ Solo	Night Solo	X-C PIC Day	X-C PIC Nite	Total Time	Grnd Trng
	STAGE 3 **PREPARING FOR YOUR COMMERCIAL PILOT CHECK RIDE**											
	LAB M FLIGHT OPERATIONS											1.8
	FLIGHT LESSON 29	4.0		.8								.5
	FLIGHT LESSON 30						4.0					
	FLIGHT LESSON 31	3.0	3.0	.7	3.0							.5
	FLIGHT LESSON 32						6.0		6.0			
	LAB N FEDERAL AVIATION REGULATIONS											1.7
	FLIGHT LESSON 33	3.0		.3								.5
	FLIGHT LESSON 34	5.0	5.0	1.0								.5
	FLIGHT LESSON 35						5.0		5.0			
	FLIGHT LESSON 36	4.0		.5								.5
	FINAL LAB											.5
	CHECK RIDE BRIEFING											
	FLIGHT 37 FINAL PROGRESS CHECK	3.0		.7	1.0							2.0
	TOTAL RECEIVED STAGE **3**											
	TOTAL REQUIRED STAGE 3	**22.0**	**8.0**	**4.0**	**4.0**		**15.0**		**11.0**			**8.5**
	TOTAL RECEIVED IN COURSE											
	MINIMUM REQUIRED FOR THIS PART 141 COURSE	**55.0**	**20.0**	**10.0**	**10.0**	**5.0**	**65.0 ***	**7.0**	**35.0**	**4.0**	**120**	**35.0**

*** 10.0 minimum total solo**

	MINIMUM REQUIRED FOR PART 61	**20.0**	**4.0 (a)**	**10.0**	**10.0**	**2.0**	**10.0 (b)**	**5.0**	**50.0 (c)**		**250**	**35.0**

(a) 2 hours day VFR & 2 hours night VFR

(b) Solo

(c) May be day or night

NOTES

PRACTICAL TEST CHECKLIST

APPOINTMENT WITH EXAMINER

EXAMINER'S NAME_____ **DATE/TIME**_____

LOCATION_____ **AIRPLANE**_____

ACCEPTABLE AIRPLANE

- ❑ Airplane Documents:
  - Airworthiness Certificate
  - Registration Certificate
  - Operating Limitations
- ❑ Airplane Maintenance Records:
  - Logbook Record of Airworthiness Inspections and AD Compliance
- ❑ Pilot's Operating Handbook, FAA-Approved Airplane Flight Manual

PERSONAL EQUIPMENT

- ❑ View-Limiting Device
- ❑ Current Aeronautical Charts
- ❑ Computer and Plotter
- ❑ Flight Plan Form
- ❑ Flight Logs
- ❑ Current AIM, Airport Facility Directory, and Appropriate Publications

PERSONAL RECORDS

- ❑ Identification – Photo/Signature ID
- ❑ Pilot Certificate
- ❑ Current and Appropriate Medical Certificate
- ❑ Completed FAA Form 8710-1, Airman Certificate and/or Rating Application with Instructor's Signature (if applicable)
- ❑ Airman Knowledge Test Report (computer test report)
- ❑ Pilot Logbook with Appropriate Instructor Endorsements
- ❑ FAA Form 8060-5, Notice of Disapproval (if applicable)
- ❑ Approved School Graduation Certificate (if applicable)
- ❑ Examiner's Fee (if applicable)

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