

Washington International Flight Academy

Private Pilot FAR 61

Training Syllabus

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**Washington International Flight Academy**

**Required Course Materials**

**Private Pilot FAR Part 61**

All items available at our in-house pilot shop.

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| --- |
| **Item** |
| Logbook |
|  |
| FAA Airplane Flying Handbook / Jesppesen Private Pilot Maneuvers |
|  |
| FAA Pilot Handbook of Aviation Knowledge / Jeppesen Private Pilot Manual |
|  |
| Gleim FAA knowledge Test Prep Book |
|  |
| Sectional Chart |
|  |
| Airport / Facility Directory |
|  |
| Navigation Plotter |
|  |
| Navigation Planner Sheets |
|  |
| E6-B Flight Calculator / CX-2 |
|  |
| Pilot Operating Handbook Cessna 172 |
|  |
| Practical Test Standards PPL |
|  |
|  |
|  |

**To be eligible for a private pilot certificate, a person must:**

**Be a US Citizen or Legal Resident or, if not, the Student must apply to the Alien Flight Student Program and receive Permission to initiate flight training prior to commencement of flight lessons.**

**Further requirements of FAR 61.103:**
(a) Be at least 17 years of age for a rating in other than a glider or balloon.
(b) Be at least 16 years of age for a rating in a glider or balloon.
(c) Be able to read, speak, write, and understand the English language. If the applicant is unable to meet one of these requirements due to medical reasons, then the Administrator may place such operating limitations on that applicant's pilot certificate as are necessary for the safe operation of the aircraft.
(d) Receive a logbook endorsement from an authorized instructor who:
(1) Conducted the training or reviewed the person's home study on the aeronautical knowledge areas listed in Sec. 61.105(b) of this part that apply to the aircraft rating sought; and
(2) Certified that the person is prepared for the required knowledge test.
(e) Pass the required knowledge test on the aeronautical knowledge areas listed in Sec. 61.105(b) of this part.
(f) Receive flight training and a logbook endorsement from an authorized instructor who:
(1) Conducted the training in the areas of operation listed in Sec. 61.107(b) of this part that apply to the aircraft rating sought; and
(2) Certified that the person is prepared for the required practical test.
(g) Meet the aeronautical experience requirements of this part that apply to the aircraft rating sought before applying for the practical test.
(h) Pass a practical test on the areas of operation listed in Sec. 61.107(b) of this part that apply to the aircraft rating sought.
(i) Comply with the appropriate sections of this part that apply to the aircraft category and class rating sought.
**[**(j) Hold a U.S. student pilot certificate, sport pilot certificate, or recreational pilot certificate.**]**

**FAR 61.109**

**Aeronautical experience.**

(a) For an airplane single-engine rating. Except as provided in paragraph (k) of this section, a person who applies for a private pilot certificate with an airplane category and single-engine class rating must log at least 40 hours of flight time that includes at least 20 hours of flight training from an authorized instructor and 10 hours of solo flight training in the areas of operation listed in Sec. 61.107(b)(1) of this part, and the training must include at least--

(1) 3 hours of cross-country flight training in a single-engine airplane;

(2) Except as provided in Sec. 61.110 of this part, 3 hours of night flight training in a single-engine airplane that includes--

(i) One cross-country flight of over 100 nautical miles total distance; and

(ii) 10 takeoffs and 10 landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport.

(3) 3 hours of flight training in a single-engine airplane on the control and maneuvering of an airplane solely by reference to instruments, including straight and level flight, constant airspeed climbs and descents, turns to a heading, recovery from unusual flight attitudes, radio communications, and the use of navigation systems/facilities and radar services appropriate to instrument flight;

(4) 3 hours of flight training with an authorized instructor in a single-engine airplane in preparation for the practical test, which must have been performed within the preceding 2 calendar months from the month of the test; and

(5) 10 hours of solo flight time in a single-engine airplane, consisting of at least--

(i) 5 hours of solo cross-country time;

(ii) One solo cross country flight of 150 nautical miles total distance, with full-stop landings at three points, and one segment of the flight consisting of a straight-line distance of more than 50 nautical miles between the takeoff and landing locations; and

(iii) Three takeoffs and three landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport with an operating control tower.

**Ground Lessons:**

|  |  |  |
| --- | --- | --- |
| **Lesson** | **Subject** | **Planned Lesson Length** |
| Lesson 1 | Aerodynamic Principals | 1.5 |
| Lesson 2 | SFRA Procedures | 1.0 |
| Lesson 3 | Airplane Systems | 1.5 |
| Lesson 4 | The Flight Environment | 2.5 |
| Lesson 5 | Communication and Flight Information | 1.5 |
| EXAM | Pre Solo Exam |  |
| Lesson 6 | Pre-Solo Exam Review | 1.0 |
| Lesson 7 | Interpreting Weather Data | 1.5 |
| Lesson 8 | Airplane Performance | 1.5 |
| Lesson 9 | Navigation | 2.5 |
|  | **Total:** | **14.5** |

**Flight Lessons:**

|  |  |  |
| --- | --- | --- |
| **Lesson** | **Primary Subject** | **Planned Length** |
| Lesson 1 | Basic Maneuvers | 1.0 |
| Lesson 2 | Basic Maneuvers | 1.5 |
| Lesson 3 | Slow Flight & Steep Turns | 1.5 |
| Lesson 4 | Stalls | 1.5 |
| Lesson 5 | Ground Reference | 1.5 |
| Lesson 6 | Local Traffic Patterns  | 1.0 |
| Lesson 7 | Local Traffic Patterns | 1.0 |
| Lesson 8 | Rejected Landings and Engine out landings | 1.0 |
| Lesson 9 | Local Traffic Patterns | 1.0 |
| Lesson 10 | DMW or FDK Traffic Patterns entry and exit | 1.5 |
| Lesson 11 | Traffic Pattern Review | 1.0 |
| Lesson 12 | Solo Check Flight | 0.7 |
| Lesson 13 | Initial Solo | 1.0  |
| Lesson 14 | Solo Traffic Patterns | 1.5 |
| Lesson 15 | Solo Traffic Patterns | 1.5 |
| Lesson 16 | Solo Traffic Patterns | 1.5 |
| Lesson 17 | Performance Take Offs and Landings | 1.0 |
| Lesson 18 | Cross Country | 2.5 |
| Lesson 19 | Cross Country | 2.5 |
| Lesson 20 | Cross Country Review | 3.0 |
| Lesson 21 | Solo Cross Country | 2.5 |
| Lesson 22 | Solo Cross Country | 3.0 |
| Lesson 23 | Attitude Instrument Flying | 1.5 |
| Lesson 24 | Attitude Instrument Flying | 1.5 |
| Lesson 25 | Night Operations / Night Traffic Patterns | 1.0 |
| Lesson 26 | Night Cross Country | 2.5 |
| Lesson 27 | PPL check ride prep 1 | 1.5 |
| Lesson 28 | PPL check ride prep 2 | 1.5 |
| Lesson 29 | PPL check ride prep 3 | 1.5 |
|  | Total: | 45.2 |



Washington International Flight Academy

Private Pilot FAR 61

Ground Lesson Plans

**GROUND LESSON 1 - 1.5 Hours**

**AERODYNAMIC PRINCIPLES**

A. **Objective.** Become familiar with the four forces of flight, aerodynamic principles of stability, maneuvering flight, and load factor. Gain a basic understanding of stall/spin characteristics as they relate to training airplanes. Learn the importance of prompt recognition of stall indications

Content:

(1) **FOUR FORCES OF FLIGHT**

a) Lift

b) Airfoils

c) Pilot Control of Lift

d) Weight

e) Thrust

f) Drag

g) Ground Effect

(2) **STABILITY**

a) Three Axes of Flight

b) Longitudinal Stability

c) Center of Gravity Position

d) Lateral Stability

e) Directional Stability

f) Stalls

g) Spins

(3) **AERODYNAMICS OF MANEUVERING FLIGHT**

a) Climbing Flight

b) Left-Turning Tendencies

c) Descending Flight

d) Turning Flight

e) Load Factor

B. **Completion Standards.** Demonstrate understanding during oral quizzing by instructor at completion of lesson. Instructor issues the following home study review:

**If PHAK:** Chapter 3 and Chapter 4

**If Jeppessen:** Chapter 3

**GROUND LESSON 2 - 1.0 Hours**

**SFRA Procedures**

A. **Objective.** Become familiar with the Washington DC Special Flight Rules Area and the procedures to conduct flights within the SFRA.

Content:

(1) **SFRA**

a) History

b) Purpose

c) Dimensions

d) Required Equipment

e) Required ATC Communications

(3) **P-40 and R-4009**

a) Location

b) Dimensions

(2) **SFRA Flight Plan**

a) Introduce the FSS

b) Format of SFRA Flight Plan

c) How to file an SFRA Flight Plan

(3) **Interception Procedures**

a) Why would you be intercepted

b) Immediate actions

c) Interpreting signals (gear down, turns etc)

B. **Completion Standards.** Demonstrate understanding during oral quizzing by instructor at completion of lesson. Instructor issues the following home study review:

**FAA Safety DC SFRA course**

**GROUND LESSON 3 - 1.5 Hours**

**AIRPLANE SYSTEMS**

1. **Objective**. Gain a basic understanding of the main airplane components and systems. Become familiar with flight instrument functions and operating characteristics, including errors and common malfunctions. Learn about the power plant and related systems.

Content:

(1) **AIRPLANES**

a) Fuselage

b) Wings

c) Empennage

d) Landing Gear

e) Engine/Propeller

f) Pilot's Operating Handbook (POH)

(2) **THE POWER PLANT AND RELATED SYSTEMS**

a) Reciprocating Engine

b) Induction Systems

c) Supercharging and Turbo charging

d) Ignition Systems

e) Fuel Systems

f) Refueling

g) Oil Systems

h) Cooling Systems

i) Exhaust Systems

j) Propellers

k) Propeller Hazards

I) Electrical Systems

(3) **FLIGHT INSTRUMENTS**

a) Pitot-Static Instruments

b) Airspeed Indicator

c) Altimeter

d) Vertical Speed Indicator

e) Gyroscopic Instruments

f) Magnetic Compass

1. **Completion Standards.** Demonstrate understanding during oral quizzing by instructor at completion of lesson. Instructor issues the following home study review:

**If PHAK:** Chapter 6 (6-1 to 6-19, 6-25-end) and Chapter 7

**If Jeppessen:** Chapter 2

**GROUND LESSON 4 - 2.5 Hours**

**THE FLIGHT ENVIRONMENT**

A. **Objective**. Understand important safety considerations, including collision avoidance cautions, flight-of-way rules, and minimum safe altitudes. Become familiar with airport marking and lighting, aeronautical charts, and types of airspace. Learn about collision avoidance procedures and runway incursion avoidance.

**CONTENT**:

**(1) SAFETY OF FLIGHT**

a) Collision Avoidance/Visual Scanning

b) Airport Operations

c) Right-of-Way Rules

d) Minimum Safe Altitudes

e) Taxiing in Wind

f) Positive Exchange of Flight Controls

**(2) AIRPORTS**

a) Controlled and Uncontrolled

b) Runway Layout

c) Traffic Pattern

d) Airport Visual Aids

e) Taxiway Markings

f) Ramp Area Hand Signals

g) Runway Incursion Avoidance

h) Land and Hold Short Operations (LAHSO)

i) Airport Lighting

j) Visual Glideslope Indicators

k) Approach Light Systems

I) Pilot-Controlled Lighting

 **(3) AIRSPACE**

a) Classifications

b) Uncontrolled Airspace

c) Controlled Airspace

d) Class A

e) Class B

f) Class C

g) Class D

h) Class E

i) Class G

j) Special VFR

k) Special Use Airspace

I) Other Airspace Areas

m) Emergency Air Traffic Rules

n) Air Defense Identification Zones

1. Completion Standards. Demonstrate understanding during oral quizzing by instructor at completion of lesson. Instructor will issue the follow review chapters:

**If PHAK: Chapter 13 (except 13-11 to 13-15) and chapter 14**

**If Jeppessen Material: Chapter 4 (except: section c)**

**GROUND LESSON 5 - 1.5 Hours**

**COMMUNICATION AND FLIGHT INFORMATION**

A. **Objective**. Become familiar with radar, transponder operations, and FAA radar equipment and services for VFR aircraft. Understand the types of service provided by an F5S. Learn how to use the radio for communication. Gain a basic understanding of the sources of flight information, particularly the Aeronautical Information Manual and FAA advisory circulars.

**Content**:

**(1) RADAR AND ATC SERVICES**

a) Radar

b) Transponder Operation

c) FAA Radar Systems

d) VFR Radar Services

e) Automatic Terminal Information Service (ATIS)

f) Flight Service Stations

g) VHF Direction Finder Assistance

**(2) RADIO PROCEDURES**

a) VHF Communication Equipment

b) Using the Radio

c) Phonetic Alphabet

d) Coordinated Universal Time

e) Common Traffic Advisory Frequency (CTAF)

f) ATC Facilities and Controlled Airports

g) Lost Communication Procedures

h) Emergency Procedures

i) Emergency Locator Transmitters (ELTs)

**(3) SOURCES OF FLIGHT INFORMATION**

a) Airport/Facility Directory

b) Federal Aviation Regulations

c) Aeronautical information Manual (AIM)

d) Notices to Airmen (NOTAMs)

e) Advisory Circulars

B. **Completion Standards.** Demonstrate understanding during oral quizzing by instructor at completion of lesson. Instructor issues the following chapters for home review:

**If PHAK: Chapter 13-11 to 13-14**

**If Jeppessen Materials: Chapter 5**

**GROUND LESSON 7 - 1.5 Hours**

**INTERPRETING WEATHER DATA**

A. **Objectives**. Learn how to obtain and interpret weather reports, formats, and graphic charts. Become familiar with the sources of weather information during preflight planning and while in flight. Recognize critical weather situations described by weather reports and forecasts.

**Content**:

**(1) THE FORECASTING PROCESS**

a) Forecasting Methods

b) Types of Forecasts

c) Compiling and Processing Weather Data

d) Forecasting Accuracy and Limitations

**(2) PRINTED REPORTS AND FORECASTS**

a) Aviation Routine Weather Report (METAR)

b) Radar Weather Reports

c) Pilot Weather Reports

d) Terminal Aerodrome Forecast (TAF)

e) Aviation Area Forecast

f) Winds and Temperatures Aloft Forecast

g) Severe Weather Reports and Forecasts

h) AIRNET/SIGNET/Convective SIGNET

**(3) GRAPHIC WEATHER PRODUCTS**

a) Surface Analysis Chart

b) Weather Depiction Chart Radar Summary Chart

c) Satellite Weather Pictures

d) Low-Level Significant Weather Prog

e) Severe Weather Outlook Chart

f) Forecast Winds and Temperatures Aloft Chart

g) Volcanic Ash Forecast and Dispersion Chart

**(4) SOURCES OF WEATHER INFORMATION**

a) Preflight Weather Sources

b) In-Flight Weather Sources

c) Enroute Flight Advisory Service

d) Weather Radar Services

e) Automated Weather Reporting Systems

B. **Completion Standards:** Demonstrate understanding during oral quizzing by instructor at the completion of lesson. Instructor will issue the follow home review chapters:

**If PHAK: Chapter 12**

**If Jeppessen Material: Chapter 7**

**GROUND LESSON 8 - 1.5 Hours**

**AIRPLANE PERFORMANCE**

A. **Objectives**. Learn how to use data supplied by the manufacturer to predict airplane performance, including takeoff and landing distances and fuel requirements. Learn to compute and control the weight and balance condition of a typical training airplane. Become familiar with basic functions of aviation computers. Understand the effects of density altitude on takeoff and climb performance.

**Content**:

**(1) PREDICTING PERFORMANCE**

a) Aircraft Performance and Design

b) Chart Presentations

c) Factors Affecting Performance

d) Takeoff and Landing Performance

e) Climb Performance

f) Cruise Performance

g) Using Performance Charts

**(2) WEIGHT AND BALANCE**

a) Importance of Weight

b) Importance of Balance

c) Terminology

d) Principles of Weight and Balance

e) Computation Method

f) Table Method

g) Graph Method

h) Weight-Shift Formula

i) Effects of Operating at High Total Weights

j) Flight at Various CG Positions

B. **Completion Standards**: Demonstrate understanding during oral quizzing by instructor at completion of each lesson. Instructor will issue the following home review chapters:

**If PHAK: Chapter 10**

**If Jeppessen Materials: Chapter 8**

**GROUND LESSON 9 - 2.5 Hours**

**NAVIGATION**

A. **Objectives**. Learn the basic concepts for VFR navigation using pilotage, dead reckoning, and aircraft navigation systems. Become familiar with guidelines and recommended procedures related to flight planning, use of an FAA Right Plan, VFR cruising altitudes, and lost procedures. Gain a basic understanding of VFR navigation using pilotage, dead reckoning, and navigation systems.

 **Content**:

**(1) AERONAUTICAL CHARTS**

a) Latitude and Longitude

b) Projections

c) Sectional Charts

d) World Aeronautical Charts

e) Chart Symbology

**(2) PILOTAGE AND DEAD RECKONING**

a) Pilotage

b) Dead Reckoning

c) Flight Planning

d) VFR Cruising Altitudes

e) Flight Plans

f) Lost Procedures

**(2) VOR NAVIGATION**

a) VOR Operations

b) Ground and Airborne Equipment

c) Basic Procedures

d) VOR Orientation and Navigation

e) VOR Checkpoints and Test Signals

f) VOR Precautions

g) Distance Measuring Equipment (DME)

 **(4) ADVANCED NAVIGATION**

a) Global Positioning System

B. **Completion Standards.** Demonstrate understanding during oral quizzing by instructor at

completion of lesson. Instructor issues the following home review chapters:

**If PHAK: Chapter 15**

**If Jeppessen Material: Chapter 9**



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Flight Lesson Plans

**FLIGHT LESSON 1 – 1.0 Flight Time**

**BASIC MANEUVERS**

1. **Lesson Objectives**. Become familiar with the training airplane and its systems. Learn about certificates, documents, and checklists. Understand how to conduct the necessary preflight activities. Learn about the functions of the flight controls, and how they are used to maintain specific attitudes. Gain an understanding of preflight preparation and procedures.

**Content.**

**(1) PREFLIGHT DISCUSSION:**

a) Fitness for flight

b) Positive Exchange of Flight Controls

c) Certificates and documents

d) Airworthiness Requirements

e) Airplane logbooks

**(2) INTRODUCE:**

a) Use of Checklists

b) Preflight Inspection

c) Certificates and Documents

d) Airplane Servicing

e) Operation of Systems

f) Equipment Checks

g) Location of First Aid Kit

h) Location of Fire Extinguisher

i) Engine Starting

j) Taxiing

k) Before Takeoff Check

l) Normal Takeoff and Climb

m) Straight-and-Level Flight

n) Climbs, Descents, and Level Offs

o) Medium Banked Turns in Both Directions

p) After Landing, Parking, and Securing

1. **Completion Standards.** Display basic knowledge of aircraft systems and the necessity of checking their operation before flight. Become familiar with the control systems and how they are used to maneuver the airplane on the ground and in the air.

**Instructor will issue the following home review chapters:**

**AFH: Chapter 3 and 5**

**Jeppessen Maneuvers: Basic Maneuvers**

**FLIGHT LESSON 2 – 1.5 Flight time**

**BASIC MANEUVERS**

A. **Objectives**. Review procedures and maneuvers introduced in Flight Lesson 1, especially preflight activities, ground operations, and attitude control during basic maneuvers using visual reference (VR). Introduce additional procedures and maneuvers. Emphasis will be on correct procedures for preflight and ground operations.

**Content**:

(1) **PREFLIGHT DISCUSSION:**

a) Preflight activities andEngine starting

b) Airport and runway markings and lighting

c) Ground operations, including crosswind taxiing

d) Collision avoidance precautions

fe Airspeed and configuration changes

**(2) INTRODUCE:**

a) Airport and Runway Markings and Lighting

b) Crosswind Taxi

c) Airspeed and Configuration Changes

d) Flight at Approach Airspeed

e) Descents and climbs in High and Low Drag Configurations

**(3) REVIEW:**

a) Preflight Inspection

b) Certificates and Documents

c) Airworthiness Requirements

d) Operation of Systems

e) Positive Exchange of Flight Controls

f) Use of Checklists

g) Engine Starting

i) Taxiing

j) Before Takeoff Check

k) Normal Takeoff and Climb

I) Straight-and-Level Flight (VR)

m) Climbs (VR)

n) Descents (VR)

o) Medium Banked Turns in Both Directions (VR)

q) After Landing, Parking, and Securing

B. **Completion Standards.** Display increased proficiency in preflight activities, ground operations, and coordinated airplane attitude control. Perform takeoffs with instructor assistance. Be familiar with control usage necessary to maintain altitude within +/- 250 feet during airspeed and configuration changes. Exhibit understanding of altitude control by visual references (VR).

**The Instructor will assign the following home study Chapters:**

**AFM: Chapter 4**

**Jeppessen Maneuvers: Flight Maneuvers**

**FLIGHT LESSON 3 – 1.5 Flight Time**

**FLIGHT MANEUVERS**

1. **Objectives**. Review airspeed control during basic maneuvers. Introduce slow flight and steep turns to increase understanding of airplane control during normal and critical flight conditions.

**Content**:

**(1) PREFLIGHT DISCUSSION:**

a) Situational awareness

b) Preflight planning, operation of powerplant, aircraft systems, and engine

 run up procedures

d) Visual scanning and collision avoidance precautions

e) Windshear and wake turbulence avoidance procedures

**(2) INTRODUCE:**

a) Flight at Various Airspeeds From Cruise to Slow Flight

b) Maneuvering During Slow Flight

c) Straight-and-Level Flight

f) Constant Airspeed Climbs and Descents in slow flight

g) Steep Turns

**(3) REVIEW:**

a) Use of Checklists

b) Airplane Servicing

c) Preflight Inspection

d) Engine Starting

e) Radio Communications

f) Before Takeoff Check

g) Normal Takeoff and Climb

h) Collision Avoidance Precautions

i) Airspeed and Configuration Changes

j) Descents in High and Low Drag Configurations

k) Flight at Approach Airspeed

l) Normal Approach and Landing

 m) Airport and Runway Markings and Lighting

n) Parking and Securing the Airplane

B. **Completion Standards.** Display increased proficiency in coordinated attitude control during basic maneuvers. Perform unassisted takeoffs. Landing completed with instructor assistance. Maintain altitude within +/- 250 feet during airspeed transitions and while maneuvering at slow speeds. **Instructor will assign the following review chapters:**

**AFM: Chapter 4**

**Jeppessen: Flight Maneuvers**

**FLIGHT LESSON 4 – 1.5 Flight Time**

**FLIGHT MANEUVERS**

1. **Objectives**. Review airspeed control during basic maneuvers. Introduce stalls from various flight attitudes to increase understanding of airplane control during normal and critical flight conditions.

**Content**:

**(1) PREFLIGHT DISCUSSION:**

a) Situational awareness

b) Preflight planning, operation of powerplant, aircraft systems, and engine

 run up procedures

d) Visual scanning and collision avoidance precautions

e) Windshear and wake turbulence avoidance procedures

**(2) INTRODUCE:**

a) Power Off Stalls

b) Power On Stalls

c) Demonstrated Stalls

 **(3) REVIEW:**

a) Use of Checklists

b) Airplane Servicing

c) Preflight Inspection

d) Engine Starting

e) Radio Communications

f) Before Takeoff Check

g) Normal Takeoff and Climb

j) Collision Avoidance Precautions

k) Slow Flight

I) Steep Turns

l) Normal Approach and Landing

1. **Completion Standards.** Display increased proficiency in coordinated attitude control during basic maneuvers. Perform unassisted takeoffs. Landing completed with instructor assistance. Maintain altitude within +/- 250 feet during airspeed transitions and while maneuvering at slow speeds.

**Instructor will assign the following review chapters:**

**AFM: Chapter 6**

**Jeppessen: Ground Reference Maneuvers**

**FLIGHT LESSON 5 – 1.5 Flight Time**

**GROUND REFERENCE MANEUVERS**

A. **Objectives**. Practice the review maneuvers to gain proficiency. Introduce ground reference maneuvers and maneuvering at slow airspeeds by instrument reference. Emphasis will be on emergency landing procedures.

**Content:**

**(1) PREFLIGHT DISCUSSION:**

a) Situational awareness

b) Realistic distractions

c) Determining wind direction

**(2) INTRODUCE:**

a) Rectangular Courses

b) S-Turns

c) Turns Around a Point

**(3) REVIEW:**

a) Power-Off Stalls

b) Power-On Stalls

c) Flight at Slow Airspeeds with Realistic Distractions, and the Recognition and

d) Recovery from Stalls Entered from Straight Flight and from Turns

e) Spin Awareness

f) Emergency Descent

g) Emergency Approach and Landing (Simulated)

h) Normal Takeoffs and Landings

i) Turns to Headings (VR)

j) Turns to Headings (IR)

1. **Completion Standards.** Display increased proficiency in coordinated airplane attitude control during basic maneuvers. Perform unassisted takeoffs. Landings completed with instructor assistance. Maintain altitude +/- 200 feet and headings +/- 15 degrees during straight-and-level flight. Demonstrate the ability to recognize and recover from stalls. Indicate basic understanding of simulated emergency landing procedures.

**Instructor will assign the following home study chapters:**

**AFM: Chapter 7 and Chapter 8 (up to 8-10: Intentional Slips)**

**Jeppessen Maneuvers: Airport Operations Maneuvers 10, 12 and 13**

**FLIGHT LESSON 6 – 1.0 Flight Time**

**TRAFFIC PATTERNS**

A. **Objectives**. Introduce takeoffs and landings in the traffic pattern so the student may begin to learn the procedures during pattern operations. Emphasis will be on proper traffic pattern size and altitudes.

**Content**:

1. **PREFLIGHT DISCUSSION:**

a) Traffic Patterns

b) Communication

c) Workload management

d) Runway incursion avoidance

**(2) INTRODUCE:**

a) Traffic Pattern Legs

b) Traffic Avoidance

c) Takeoff and Climb

d) Approach and Landing

e) Runway Incursion Avoidance

 **(3) REVIEW:**

d) Normal Takeoffs and Landings

e) Traffic Patterns

f) Wake Turbulence Avoidance

1. **Completion Standards.** Display increased proficiency in coordinated airplane attitude control. Demonstrate ability to fly a specific ground track while maintaining altitude +/- 200 feet.

**Instructor will assign the following home study chapters:**

**AFM: Chapter 8-10 to 8-17: Short Field Approach and Landing**

**Jeppessen: Airport Operation, Maneuvers 11 and 14**

**FLIGHT LESSON 7 – 1.0 Flight Time**

**TRAFFIC PATTERNS**

A. **Objectives**. Introduce Rejected takeoffs and review normal landings in the traffic pattern so the student may begin to learn the procedures during pattern operations. Emphasis will be on proper traffic pattern size and altitudes.

**Content**:

1. **PREFLIGHT DISCUSSION:**

a) Traffic Patterns with crosswinds

b) RadioCommunication

c) Workload management

d) Points to correct from previous lesson

**(2) INTRODUCE:**

a) Radio Communications

b) Traffic Avoidance

c) Takeoff and Climb

d) Approach and Landing

e) Rejected Take Off

 **(3) REVIEW:**

a) Normal Takeoffs and Landings

b) Traffic Patterns

c) Wake Turbulence Avoidance

1. **Completion Standards.** Display increased proficiency in coordinated airplane attitude control. Demonstrate ability to fly a specific ground track while maintaining altitude +/- 200 feet.

**Instructor will assign the following home study chapters:**

**AFM: Chapter 8-21 to end of chapter**

**Jeppessen: Emergency Landing procedures, Maneuver 16**

**FLIGHT LESSON 8 – 1.0 Flight Time**

**TRAFFIC PATTERNS**

A. **Objectives**. Introduce rejected landings and engine out procedures in the traffic pattern . Emphasis will be on correct technique, airspeeds and use of checklists.

**Content**:

1. **PREFLIGHT DISCUSSION:**

a) Rejected landings

b) Engine Out Landings

c) Workload management

d) Points to correct from previous lesson

**(2) INTRODUCE:**

a) Rejected Landings

b) Engine Out Landings

 **(3) REVIEW:**

a) Normal Takeoffs and Landings

b) Traffic Patterns

c) Wake Turbulence Avoidance

d) Radio Communication

1. **Completion Standards.** Display basic proficiency in rejected landings and engine out landings. Demonstrate ability to fly a specific ground track while maintaining altitude +/- 200 feet.

**FLIGHT LESSON 9 – 1.0 Flight Time**

**TRAFFIC PATTERNS**

A. **Objectives**. Review Traffic Pattern operations and increase student proficiency and strengthen weak areas. Introduce Forward Slip to Land and No Flap Landings. Emphasis will be on correct technique, airspeeds and use of checklists.

**Content**:

1. **PREFLIGHT DISCUSSION:**

a) Rejected landings

b) Engine Out Landings

c) Student Weak Points

**(2) INTRODUCE:**

a) Forward Slip to Landing

b) No Flap Landings

 **(3) REVIEW:**

a) Normal Takeoffs and Landings

b) Traffic Patterns

c) Wake Turbulence Avoidance

d) Rejected Landings

e) Engine Out Landings

f) Radio Communication

1. **Completion Standards.** Display basic proficiency in normal traffic pattern operations and rejected landings and engine out landings. Demonstrate ability to fly a specific ground track while maintaining altitude +/- 200 feet.

**Instructor will assign the following home study chapters:**

**AFM: Chapter 8-21 to end of chapter**

**Jeppessen: Emergency Landing procedures, Maneuver 16**

**FLIGHT LESSON 10 – 1.5 Flight Time**

**TRAFFIC PATTERNS DMW or FDK**

A. **Objectives**. Introduce entry and exit of Traffic Pattern, Patterns at other airports, increase student proficiency and strengthen weak areas. Review Steep turns, Stalls and Spin Awareness

**Content**:

1. **PREFLIGHT DISCUSSION:**

a) Traffic Pattern Entry and Exit

b) Obtaining weather from other airports in-flight

c) Communications with other airport CTAF / Tower

d) Spin Awareness

**(2) INTRODUCE:**

a) Traffic Pattern Entry and Exit

b) Spin Awareness

 **(3) REVIEW:**

a) Normal Takeoffs and Landings

b) Traffic Patterns

c) Wake Turbulence Avoidance

d) Rejected Landings

e) Engine-Out Landings

f) Stalls

g) Steep Turns

h) Radio Communications

1. **Completion Standards.** Display proficiency in normal traffic pattern operations and rejected landings and engine out landings. Display proficiency in entry and exit from traffic patterns. Demonstrate ability to fly a specific ground track while maintaining altitude +/- 150 feet.

**FLIGHT LESSON 11 – 1.0 Flight Time**

**TRAFFIC PATTERNS REVIEW**

A. **Objectives**. Review Traffic Pattern operations and increase student proficiency and strengthen weak areas. Introduce Forward Slip to Land and No Flap Landings. Emphasis will be on correct technique, airspeeds and use of checklists.

**Content**:

1. **PREFLIGHT DISCUSSION:**

a) Rejected landings

b) Engine Out Landings

c) No Flap Landings

 **(3) REVIEW:**

a) Normal Takeoffs and Landings

b) Rejected Take Offs and Landings

c) Wake Turbulence Avoidance

d) No Flap Landings

e) Engine Out Landings

1. **Completion Standards.** Display proficiency in traffic pattern operations, rejected landings and engine out landings. Demonstrate ability to fly a specific ground track while maintaining altitude +/- 150 feet.

**Flight instructor will ensure that the student has completed the Pre-Solo Written exam.**

**FLIGHT LESSON 12 – 0.7 Flight Time**

**PRE-SOLO CHECK FLIGHT**

A. **Objectives**. Student will fly with Chief Instructor, Assistant Chief Instructor or designated Check Instructor to review the student’s readiness for solo.

**Content**:

1. **PREFLIGHT DISCUSSION:**

a) Rejected landings

b) Engine Out Landings

c) No Flap Landings

 **(3) AREAS TO BE CHECKED (Instructor will choose any or all of these areas):**

a) Normal Takeoffs and Landings

b) Rejected Take Offs and Landings

c) Wake Turbulence Avoidance

d) No Flap Landings

e) Engine Out Landings

f) Aeronautical Decision Making

h) Traffic Pattern Structure

i) Radio Communications

j) Situational Awareness

1. **Completion Standards.** Student will display proficiency in traffic pattern operations, and areas noted above and will demonstrate ability to fly a specific ground track while maintaining altitude +/- 150 feet.

**FLIGHT LESSON 13 – 1.0 Flight Time (0.5 Solo)**

**FIRST SOLO**

1. **Objectives**. During the dual portion of the lesson, the instructor will review takeoff and landing procedures to check the student's readiness for solo flight. In the second portion of the lesson, the student will fly the first supervised solo flight in the local traffic pattern. Emphasis will be on the correct procedures and techniques for the student's first solo.

**Content:**

**(1) PREFLIGHT DISCUSSION:**

a) Any student questions

b) Student pilot supervised solo flight operations in the local traffic pattern

**(2) REVIEW:**

a) Engine Starting

b) Radio Communications

c) Normal and/or Crosswind Taxiing

d) Before Takeoff Check

e) Normal Takeoffs

f) Traffic Patterns

g) Go-Around/Rejected Landing

h) Normal Landings

**(3) INTRODUCE:**

a) Supervised Solo

b) Radio Communications

c) Taxiing

d) Before Takeoff Check

e) Normal Takeoffs and Climbs (3)

f) Traffic Patterns

g) Normal Approaches and Landings (3)

h) After Landing, Parking, and Securing

1. **Completion Standards.** The student will display the ability to solo the training airplane safely in the traffic pattern. At no time will the safety of the flight be in question. Complete solo flight in the local traffic pattern as directed by the instructor.

**FLIGHT LESSON 14 – 1.5 Flight Time (0.3 Dual, 1.2 Solo)**

**SECOND SOLO**

1. **Objectives**. During the dual portion of the lesson, the instructor will review takeoff and landing procedures to check the student's readiness for solo flight. In the second portion of the lesson, the student will fly the first supervised solo flight in the local traffic pattern. Emphasis will be on the correct procedures and techniques for the student's first solo.

**Content:**

**(1) PREFLIGHT DISCUSSION:**

a) Any student questions

b) Student pilot supervised solo flight operations in the local traffic pattern

**(2) REVIEW:**

a) Engine Starting

b) Radio Communications

c) Normal and/or Crosswind Taxiing

d) Before Takeoff Check

e) Normal Takeoffs

f) Traffic Patterns

g) Go-Around/Rejected Landing

h) Normal Landings

**(3) INTRODUCE:**

a) Supervised Solo

b) Radio Communications

c) Taxiing

d) Before Takeoff Check

e) Normal Takeoffs and Climbs (3)

f) Traffic Patterns

g) Normal Approaches and Landings (3)

h) After Landing, Parking, and Securing

B. **Completion Standards.** The student will display the ability to solo the training airplane safely in the traffic pattern. At no time will the safety of the flight be in question. Complete solo flight in the local traffic pattern as directed by the instructor.

**FLIGHT LESSON 15 – 1.5 Flight Time (0.3 Dual, 1.2 Solo)**

**THIRD SOLO**

1. **Objectives**. During the dual portion of the lesson, the instructor will review takeoff and landing procedures to check the student's readiness for solo flight. In the second portion of the lesson, the student will fly the first supervised solo flight in the local traffic pattern. Emphasis will be on the correct procedures and techniques for the student's first solo.

**Content:**

**(1) PREFLIGHT DISCUSSION:**

a) Any student questions

b) Student pilot supervised solo flight operations in the local traffic pattern

**(2) REVIEW:**

a) Engine Starting

b) Radio Communications

c) Normal and/or Crosswind Taxiing

d) Before Takeoff Check

e) Normal Takeoffs

f) Traffic Patterns

g) Go-Around/Rejected Landing

h) Normal Landings

**(3) INTRODUCE:**

a) Supervised Solo

b) Radio Communications

c) Taxiing

d) Before Takeoff Check

e) Normal Takeoffs and Climbs (3)

f) Traffic Patterns

g) Normal Approaches and Landings (3)

h) After Landing, Parking, and Securing

B. **Completion Standards.** The student will display the ability to solo the training airplane safely in the traffic pattern. At no time will the safety of the flight be in question. Complete solo flight in the local traffic pattern as directed by the instructor.

**FLIGHT LESSON 16 – 1.5 Flight Time (0.3 Dual, 1.2 Solo)**

**FOURTH SOLO**

1. **Objectives**. During the dual portion of the lesson, the instructor will review takeoff and landing procedures to check the student's readiness for solo flight. In the second portion of the lesson, the student will fly the first supervised solo flight in the local traffic pattern. Emphasis will be on the correct procedures and techniques for the student's first solo.

**Content:**

**(1) PREFLIGHT DISCUSSION:**

a) Any student questions

b) Student pilot supervised solo flight operations in the local traffic pattern

**(2) REVIEW:**

a) Engine Starting

b) Radio Communications

c) Normal and/or Crosswind Taxiing

d) Before Takeoff Check

e) Normal Takeoffs

f) Traffic Patterns

g) Go-Around/Rejected Landing

h) Normal Landings

**(3) INTRODUCE:**

a) Supervised Solo

b) Radio Communications

c) Taxiing

d) Before Takeoff Check

e) Normal Takeoffs and Climbs (3)

f) Traffic Patterns

g) Normal Approaches and Landings (3)

h) After Landing, Parking, and Securing

1. **Completion Standards.** The student will display the ability to solo the training airplane safely in the traffic pattern. At no time will the safety of the flight be in question. Complete solo flight in the local traffic pattern as directed by the instructor.

**Instructor will issue the following home study chapters:**

**AFM: 5-8 to 5-11 (until rejected takeoff)**

**Jeppessen Maneuvers: Performance Take Offs and Landings**

**FLIGHT LESSON 17 – 1.0 Flight Time**

**PERFORMANCE TAKEOFFS AND LANDINGS**

1. **Objectives**. Learn the basic procedures for short- and soft-field takeoffs, climbs, approaches, and landings in the training airplane. Emphasis on short- and soft-field takeoffs and landings.

**Content:**

**(1) PREFLIGHT DISCUSSION:**

a) Performance estimates

c) Effects of high density altitude

**(2) INTRODUCE:**

a) Low-Level Wind Shear Precautions

b) Short-Field Takeoff and Climb

c) Soft-Field Takeoff and Climb

d) Short-Field Approach and Landing

e) Soft-Field Approach and Landing

B. **Completion Standards.** The student will be able to explain runway conditions that necessitate the use of soft-field takeoff and landing techniques. Demonstrate the correct procedure to be used under existing or simulated conditions, although proficiency may not be at private pilot level. Ground track during ground reference maneuvers will be accurate. Maintain altitude +/- 150 feet.

**FLIGHT LESSON 18 – 2.5 Flight Time**

**CROSS-COUNTRY: KGAI-KLNS-KGAI**

A. **Objectives**. Introduce cross-country procedures and the proper techniques to be used during flights out of the local training area, including use pilotage and dead reckoning. Prepare the student to make cross-country flights as the sole occupant of the airplane. Review instrument and emergency operations. Emphasize cross-country navigation procedures that include a point of landing at least a straight-line distance of more than 50 nautical miles from the original point of departure.

**Content**:

**(1) PREFLIGHT DISCUSSION:**

a) CROSS-COUNTRY FLIGHT PLANNING

b) Sectional charts

c) Flight publications

d) Route selection and basic navigation procedures (pilotage and dead reckoning)

e) Weather information

f) Fuel requirements

g) Performance and limitations

h) Navigation log

i) Weight and balance

j) Cockpit management

k) Aeromedical factors

l) Aeronautical decision making

m) Resource use

n) Workload management

 **(2) INTRODUCE: CROSS-COUNTRY FLIGHT**

a) Departure

b) Course Interception

c) Pilotage

d) Dead Reckoning

e) Power Settings and Mixture Control

f) Diversion to an Alternate

g) Lost Procedures

h) Estimates of Groundspeed and ETA

i) Collision Avoidance Precautions

**AIRPORT OPERATIONS**

a) National Airspace System

b) Controlled Airports

c) Use of ATIS

d) Use of Approach and Departure Control

e) Go-Around/Rejected Landing

f) CTAF (FSS or UNICOM) Airports

**3) REVIEW:**

a) Emergency Operations

b) Systems and Equipment Malfunctions

c) Emergency Descent

d) Runway Incursion Avoidance

e) Emergency Approach and Landing (Simulated)

f) Emergency Equipment and Survival Gear

B. **Completion Standards:** Demonstrate the skill to perform cross-country flight safely as the sole occupant of the airplane, including the use of Pilotage and Dead Reckoning with the use of the GPS as a backup. Include a point of landing at least a straight-line distance of more than 50 nautical miles from the original point of departure. Demonstrate complete preflight planning, weather analysis, use of FAA publications and charts, adherence to the preflight plan, and the use of pilotage, dead reckoning, radio communication, and navigation systems.

**FLIGHT LESSON 19 – 2.5 Flight Time**

**CROSS-COUNTRY: KGAI-W35-KFDK-KGAI**

A. **Objectives**. Introduce cross-country procedures and the proper techniques to be used during flights out of the local training area, including use of VOR Navigation and dead reckoning. Prepare the student to make cross-country flights as the sole occupant of the airplane. Review instrument and emergency operations. Emphasize cross-country navigation procedures that include a point of landing at least a straight-line distance of more than 50 nautical miles from the original point of departure.

**Content**:

**(1) PREFLIGHT DISCUSSION:**

a) CROSS-COUNTRY FLIGHT PLANNING

b) Sectional charts

c) Flight publications

d) Route selection and basic navigation procedures (pilotage and dead reckoning)

e) Weather information

f) Fuel requirements

g) Performance and limitations

h) Navigation log

i) Weight and balance

j) Cockpit management

k) Aeromedical factors

l) Aeronautical decision making

m) Resource use

n) Workload management

 **(2) INTRODUCE: CROSS-COUNTRY FLIGHT**

a) Departure

b) Course Interception

c) VOR Navigation

d) Dead Reckoning

e) Power Settings and Mixture Control

f) Diversion to an Alternate

g) Lost Procedures

h) Estimates of Groundspeed and ETA

i) Collision Avoidance Precautions

**AIRPORT OPERATIONS**

a) National Airspace System

b) Controlled Airports

c) Use of ATIS

d) Use of Approach and Departure Control

e) Go-Around/Rejected Landing

f) CTAF (FSS or UNICOM) Airports

**3) REVIEW:**

a) Emergency Operations

b) Systems and Equipment Malfunctions

c) Emergency Descent

d) Runway Incursion Avoidance

e) Emergency Approach and Landing (Simulated)

f) Emergency Equipment and Survival Gear

B. **Completion Standards:** Demonstrate the skill to perform cross-country flight safely as the sole occupant of the airplane, including the use of VOR Navigation and Dead Reckoning with the use of the GPS. Include a point of landing at least a straight-line distance of more than 50 nautical miles from the original point of departure. Demonstrate complete preflight planning, weather analysis, use of FAA publications and charts, adherence to the preflight plan, and the use of pilotage, dead reckoning, radio communication, and navigation systems.

**FLIGHT LESSON 20 – 3.0 Flight Time**

**CROSS-COUNTRY REVIEW: KGAI-KLNS-KFDK-KGAI**

A. **Objectives**. Introduce cross-country procedures and the proper techniques to be used during flights out of the local training area, including use VOR Navigation and pilotage and dead reckoning with the GPS as a backup. Prepare the student to make cross-country flights as the sole occupant of the airplane. Review instrument and emergency operations. Emphasize cross-country navigation procedures that include a point of landing at least a straight-line distance of more than 50 nautical miles from the original point of departure.

**Content**:

**(1) PREFLIGHT DISCUSSION:**

a) CROSS-COUNTRY FLIGHT PLANNING

b) Sectional charts

c) Flight publications

d) Route selection and basic navigation procedures (pilotage and dead reckoning)

e) Weather information

f) Fuel requirements

g) Performance and limitations

h) Navigation log

i) Weight and balance

j) Cockpit management

k) Aeromedical factors

l) Aeronautical decision making

m) Resource use

n) Workload management

 **(2) INTRODUCE: CROSS-COUNTRY FLIGHT**

a) Departure

b) Course Interception

c) Pilotage

d) Dead Reckoning

e) Power Settings and Mixture Control

f) Diversion to an Alternate

g) Lost Procedures

h) Estimates of Groundspeed and ETA

i) Collision Avoidance Precautions

**AIRPORT OPERATIONS**

a) National Airspace System

b) Controlled Airports

c) Use of ATIS

d) Use of Approach and Departure Control

e) Go-Around/Rejected Landing

f) CTAF (FSS or UNICOM) Airports

**3) REVIEW:**

a) Emergency Operations

b) Systems and Equipment Malfunctions

c) Emergency Descent

d) Runway Incursion Avoidance

e) Emergency Approach and Landing (Simulated)

f) Emergency Equipment and Survival Gear

B. **Completion Standards:** Demonstrate the skill to perform cross-country flight safely as the sole occupant of the airplane, including the use of Pilotage and Dead Reckoning with the use of the GPS. Include a point of landing at least a straight-line distance of more than 50 nautical miles from the original point of departure. Demonstrate complete preflight planning, weather analysis, use of FAA publications and charts, adherence to the preflight plan, and the use of pilotage, dead reckoning, radio communication, and navigation systems.

**FLIGHT LESSON 21 – 2.5 Flight Time**

**CROSS-COUNTRY SOLO: KGAI-KLNS-KGAI**

A. **Objectives**. Use previous experience and training to complete solo cross- country. Increase proficiency and confidence. The Flight should include a point of landing that is at least a straight line distance of more than 50 nautical miles from the original point of departure. Emphasize planning and following the plan, including alternatives.

**Content**:

**(1) PREFLIGHT DISCUSSION:**

a) Review the Solo Cross-Country Briefing

b) Required documents and endorsements

c) Basic VFR weather minimums and airspace rules

d) Enroute communication

e) ATC services available to pilots

f) Enroute weather information

g) VFR position report

h) Emergency operations

i) Lost procedures

j) Diversion

k) Lost communication procedures

I) ATC light signals

m) Aeronautical decision making

n) Resource use

o) Workload management

**(2) REVIEW:**

**Preflight Preparation**

a) Sectional Charts

b) Flight Publications

c) Route Selection

d) Weather Information

e) Fuel Requirements

f) Performance and Limitations

g) Weight and Balance

h) Navigation Log

i) FAA Flight Plan

j) Aeromedical Factors

**Cross-Country Flight**

k) Opening the Flight Plan

l) VOR and GPS Navigation

m) Position Fix by Navigation Facilities

n) Pilotage

o) Dead Reckoning

p) Use of Unfamiliar Airports

q) Estimates of Groundspeed

r) Estimates of ETA

s) Closing the Flight Plan

B. Completion Standards. Demonstrate accurate planning and conduct a VFR cross-country flight using three methods of navigation. During the post-flight evaluation, the student will exhibit an understanding of unfamiliar airport operations. At least one landing more than 50 n.m. from the departure airport. At least one landing at a Towered airport including flight within a traffic pattern.

**FLIGHT LESSON 22 – 3.0 Flight Time**

**CROSS-COUNTRY SOLO: KGAI-KLNS-KFDK-KGAI**

A. **Objectives**. Use previous experience and training to complete solo cross- country. Increase proficiency and confidence. The Flight should include a point of landing that is at least a straight line distance of more than 50 nautical miles from the original point of departure. Emphasize planning and following the plan, including alternatives.

**Content**:

**(1) PREFLIGHT DISCUSSION:**

a) Review the Solo Cross-Country Briefing

b) Required documents and endorsements

c) Basic VFR weather minimums and airspace rules

d) Enroute communication

e) ATC services available to pilots

f) Enroute weather information

g) VFR position report

h) Emergency operations

i) Lost procedures

j) Diversion

k) Lost communication procedures

I) ATC light signals

m) Aeronautical decision making

n) Resource use

o) Workload management

**(2) REVIEW:**

**Preflight Preparation**

a) Sectional Charts

b) Flight Publications

c) Route Selection

d) Weather Information

e) Fuel Requirements

f) Performance and Limitations

g) Weight and Balance

h) Navigation Log

i) FAA Flight Plan

j) Aeromedical Factors

**Cross-Country Flight**

k) Opening the Flight Plan

l) VOR and GPS Navigation

m) Position Fix by Navigation Facilities

n) Pilotage

o) Dead Reckoning

p) Use of Unfamiliar Airports

q) Estimates of Groundspeed

r) Estimates of ETA

s) Closing the Flight Plan

B. Completion Standards. Demonstrate accurate planning and conduct a VFR cross-country flight using three methods of navigation. During the post-flight evaluation, the student will exhibit an understanding of unfamiliar airport operations. A total flight distance of at least 150NM and at least one landing more than 50 n.m. from the departure airport. Three landings total with at least two landings at a towered airports including flight within a traffic pattern.

**Instructor will issue the following home study chapters:**

**AFM: No applicable chapters**

**Jeppessen: Special Flight Operations: Attitude Instrument Flying**

**FLIGHT LESSON 23 – 1.5 Flight Time**

**ATTITUDE INSTRUMENT FLYING**

1. **Objectives**. Practice the listed maneuvers to gain proficiency and confidence. Introduce airplane control by instrument reference during emergency situations to broaden the student's knowledge. Emphasis will be on the introduction of VOR orientation, tracking, and homing, as well as attitude instrument flying.

**Content**:

**(1) PREFLIGHT DISCUSSION:**

a) Basic instrument maneuvers and unusual flight attitudes

b) Situational Awareness

c) Disorientation

**(2) INTRODUCE:**

a) VOR Orientation and Tracking (VR)

b) ADF Orientation and Homing (VR)

c) Recovery from Unusual Flight Attitudes

g) Using Radio Communications, Navigation Systems/Facilities (IR)

**(3) REVIEW:**

a) Low Level Wind Shear Precautions

b) Short-Field Takeoffs and Climbs

c) Short-Field Approaches and Landings

d) Power-Off Stalls

e) Power-On Stalls

f) Maneuvering During Slow Flight (IR)

B. **Completion Standards.** Perform takeoffs and landings smoothly, while maintaining good directional control. Approaches will be stabilized and airspeed will be within five knots of that desired. Demonstrate basic understanding of VOR orientation, tracking and homing. Display the correct unusual attitude recovery techniques.

**FLIGHT LESSON 24 – 1.5 Flight Time**

**ATTITUDE INSTRUMENT FLYING**

1. **Objectives**. Practice the listed maneuvers to gain proficiency and confidence. Introduce airplane control by instrument reference during emergency situations to broaden the student's knowledge. Emphasis will be on the introduction of VOR orientation, tracking, and homing, as well as attitude instrument flying.

**Content**:

**(1) PREFLIGHT DISCUSSION:**

a) Basic instrument maneuvers and unusual flight attitudes

b) Situational Awareness

c) Disorientation

**(2) INTRODUCE:**

a) VOR Orientation and Tracking (VR)

b) ADF Orientation and Homing (VR)

c) Recovery from Unusual Flight Attitudes

g) Using Radio Communications, Navigation Systems/Facilities (IR)

**(3) REVIEW:**

a) Low Level Wind Shear Precautions

b) Short-Field Takeoffs and Climbs

c) Short-Field Approaches and Landings

d) Power-Off Stalls

e) Power-On Stalls

f) Maneuvering During Slow Flight (IR)

1. **Completion Standards.** Perform takeoffs and landings smoothly, while maintaining good directional control. Approaches will be stabilized and airspeed will be within five knots of that desired. Demonstrate basic understanding of VOR orientation, tracking and homing. Display the correct unusual attitude recovery techniques.

**Instructor will issue the following home study chapters:**

**AFM: Chapter 10**

**Jeppessen Maneuvers: Special Flight Operations, Night Operations**

**FLIGHT LESSON 25 – 1.0 Flight Time**

**NIGHT OPERATIONS**

1. Objectives. Introduce the special operational considerations associated with night flying. Practice night traffic patterns, approaches, and landings. Stress importance of including instrument references for maintaining attitude. Emphasize the physiological factors and additional planning associated with the night environment.

**Content:**

**(1) PREFLIGHT DISCUSSION:**

a) Preparation for night flying

b) Night vision

c) Disorientation

d) Visual illusions

e) Night scanning/collision avoidance

f) Aircraft, airport, and obstruction lighting

g) Personal equipment

**(2) INTRODUCE:**

a) Aeromedical Factors

b) Flight Planning Considerations

c) Taxiing

d) Before Takeoff Check

e) Normal Approaches and Landings

f) Go-Around / Rejected Landing

1. **Completion Standards**. Demonstrate an understanding of the importance of attitude control. Control altitude +/- 150 feet during level turns, straight and level flight. Complete 5 takeoffs and landings to a full stop with each landing involving flight in traffic pattern. All landing approaches should be stabilized with a touchdown at a predetermined area on the runway.

**FLIGHT LESSON 26 – 2.5 Flight Time**

**NIGHT CROSS-COUNTRY KGAI-KLNSorKCXYorKESNorKMQS-KGAI**

A. **Objectives**. Introduce night navigation and emergency operations. Recognize the importance of thorough planning and accurate navigation. The flight should include a total distance of more than 100 nautical miles and a point of landing at least a straight-line distance of more than 50 nautical miles from the original point of departure. Attitude instrument flying practice. Emphasize precise aircraft control and the navigation accuracy required for night VFR cross-country flights.

**Content**:

**1) PREFLIGHT DISCUSSION:**

a) Night orientation, navigation, and chart reading techniques

b) Weather information

c) Route selection

d) Altitude selection

e) Fuel requirements

f) Departure and arrival procedures

**(2) INTRODUCE:**

a) Use of ATIS, Approach, and Departure Control

b) Pilotage

c) Dead Reckoning

d) Radio Navigation (VR-IR)

e) Emergency Operations

f) Use of Unfamiliar Airports

g) Collision Avoidance Precautions

h) Diversion to Alternate

i) Lost Procedures

j) Unusual Attitude Recoveries (IR)

**(3) REVIEW:**

a) Aeromedical Factors

b) Normal Takeoffs and Climbs

c) Normal Approaches and Landings

d) Go-Around/Rejected Landing

1. **Completion Standards:** Demonstrated an understanding of night cross- country preparation and flight procedures, including ability to maintain attitude by instrument reference. Navigation should be accurate, and simulated emergency situations should be handled promptly, utilizing proper judgment. Total distance of more than 100 nautical miles required. In addition, the flight must include a point of landing at least a straight-line distance of more than 50 nautical miles from the original point of departure. Complete 5 takeoffs and landings to a full stop with each involving flight in the traffic pattern. Landing approaches stabilized with touch-down at or near the appropriate touchdown area on the runway

**FLIGHT LESSON 27– 1.5 Flight Time**

**PRIVATE PILOT CHECKRIDE TEST PREP 1**

1. **Objectives**. Review the areas of operation, including specified maneuvers and procedures determined by the instructor to increase proficiency to the level required of a private pilot. Further develop the student's knowledge and skill in preparation for the private pilot practical test. Emphasis will be on correction of any deficient skill or knowledge areas.

**Content**:

**(1) PREFLIGHT DISCUSSION**:

a) Maneuvers and procedures in preparation for the FAA Practical Test, including spin awareness.

**(2) REVIEW:**

b) Preflight Preparation

c) Ground Operations

d) Maneuvering During Slow Flight (VR-IR)

e) PowerOff and PowerOn Stalls (VR-IR)

f) Steep Turns

g) Ground Reference Maneuvers

i) Using Radio Communications, Navigation Systems/Facilities, and Radar Services (IR)

j) Unusual Attitude Recoveries (IR)

k) Airport Operations

I) Normal and/or Crosswind Takeoffs and Landings

m) GoAround/Rejected Landing

n) ShortField Takeoffs and Landings

o) SoftField Takeoffs and Landings

p) Forward Slips to Landing

q) Emergency Operations

r) After Landing, Parking, and Securing Cross-country Flight Procedures

s) Specific Maneuvers or Procedures Assigned by the Flight Instructor

B. **Completion Standards**. The student will exhibit progress and acceptable proficiency by performing each assigned maneuver smoothly and with proper coordination and precision according to the criteria established by the Private Pilot Practical Test Standards.

**FLIGHT LESSON 28– 1.5 Flight Time**

**PRIVATE PILOT CHECKRIDE TEST PREP 2**

1. **Objectives**. Review the areas of operation, including specified maneuvers and procedures determined by the instructor to increase proficiency to the level required of a private pilot. Further develop the student's knowledge and skill in preparation for the private pilot practical test. Emphasis will be on correction of any deficient skill or knowledge areas.

**Content**:

**(1) PREFLIGHT DISCUSSION**:

a) Maneuvers and procedures in preparation for the FAA Practical Test, including spin awareness.

**(2) REVIEW:**

b) Preflight Preparation

c) Ground Operations

d) Maneuvering During Slow Flight (VR-IR)

e) PowerOff and PowerOn Stalls (VR-IR)

f) Steep Turns

g) Ground Reference Maneuvers

i) Using Radio Communications, Navigation Systems/Facilities, and Radar Services (IR)

j) Unusual Attitude Recoveries (IR)

k) Airport Operations

I) Normal and/or Crosswind Takeoffs and Landings

m) GoAround/Rejected Landing

n) ShortField Takeoffs and Landings

o) SoftField Takeoffs and Landings

p) Forward Slips to Landing

q) Emergency Operations

r) After Landing, Parking, and Securing Cross-country Flight Procedures

s) Specific Maneuvers or Procedures Assigned by the Flight Instructor

B. **Completion Standards**. The student will exhibit progress and acceptable proficiency by performing each assigned maneuver smoothly and with proper coordination and precision according to the criteria established by the Private Pilot Practical Test Standards.

**FLIGHT LESSON 29– 1.5 Flight Time**

**PRIVATE PILOT CHECKRIDE TEST PREP 3**

1. **Objectives**. Review the areas of operation, including specified maneuvers and procedures determined by the instructor to increase proficiency to the level required of a private pilot. Further develop the student's knowledge and skill in preparation for the private pilot practical test. Emphasis will be on correction of any deficient skill or knowledge areas.

**Content**:

**(1) PREFLIGHT DISCUSSION**:

a) Maneuvers and procedures in preparation for the FAA Practical Test, including spin awareness.

**(2) REVIEW:**

b) Preflight Preparation

c) Ground Operations

d) Maneuvering During Slow Flight (VR-IR)

e) PowerOff and PowerOn Stalls (VR-IR)

f) Steep Turns

g) Ground Reference Maneuvers

h) Using Radio Communications, Navigation Systems/Facilities, and Radar Services (IR)

i) Unusual Attitude Recoveries (IR)

j) Airport Operations

k) Normal and/or Crosswind Takeoffs and Landings

l) GoAround/Rejected Landing

m) ShortField Takeoffs and Landings

n) SoftField Takeoffs and Landings

o) Forward Slips to Landing

p) Emergency Operations

q) After Landing, Parking, and Securing Cross-country Flight Procedures

r) Specific Maneuvers or Procedures Assigned by the Flight Instructor

B. **Completion Standards**. The student will exhibit progress and acceptable proficiency by performing each assigned maneuver smoothly and with proper coordination and precision according to the criteria established by the Private Pilot Practical Test Standards.