



PILOT RISE  
LLC

## **Certified Flight Instructor Syllabus**

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Version 4

### **Description:**

This course helps you fulfill the requirements of 14 CFR, Section 61, Subpart H for obtaining a Certified Flight Instructor certificate for Airplane Single Engine Land. The focus of this course is to teach you instructing skills not just to pass a test, but to be a safe and knowledgeable instructor.

The student is expected to begin training with their commercial pilot certification complete or near completion.

This course is designed to have two CFI candidates trained as partners.

This course consists of four major parts:

- Flight Training
- Ground Training
- Basic Aviation Training Device (BATD)
- Observations
- Instruction Practice

### **Objective:**

The student will obtain the knowledge, skill, and aeronautical experience necessary to meet the requirements for a Certified Flight Instructor certificate with an airplane category rating and single-engine land class rating.

## **Topics:**

### **Ground Training:**

1. Fundamentals of Instructing
  - a. Human Behavior & Effective Communication
  - b. The Learning Process
  - c. The Teaching Process
  - d. Assessment & Critique
  - e. Instructor Responsibilities & Professionalism
  - f. Techniques of Flight Instruction
  - g. Risk Management
2. Technical Subjects
  - a. Aeromedical Factors
  - b. Runway Incursion Avoidance
  - c. Visual Scanning & Collision Avoidance
  - d. Principles of Flight
  - e. Airplane Flight Controls
  - f. Airplane Weight & Balance
  - g. Navigation & Flight Planning
  - h. Night Operations
  - i. High Altitude Operations
  - j. 14 CFR & Publications
  - k. Airspace System
  - l. Navigation Systems & Radar Services
  - m. Logbook Entries & Endorsements
3. Preflight Preparation
  - a. Certificates & Documents
  - b. Weather Information
  - c. Operation of Systems
  - d. Performance & Limitations
  - e. Airworthiness Requirements
4. Preflight Procedures
  - a. Pre-Flight Inspection
  - b. Radio Communications & Light Signals
  - c. Traffic Patterns
  - d. Airport & Runway Markings & Signs

### **Flight Training:**

1. Preflight Procedures
  - a. Cockpit Management
  - b. Engine Starting
  - c. Taxiing
  - d. Before Takeoff Checklist
2. Airport Operations
  - a. Radio Communications
  - b. Traffic Patterns
  - c. Airport & Runway Markings & Signs
3. Takeoff / Landings / Go-Arounds
  - a. Normal & Crosswind Takeoffs & Landings
  - b. Short-Field Takeoffs & Landings
  - c. Soft-Field Takeoffs & Landings
  - d. Slip to Landing
  - e. Go-Around
  - f. Power Off 180
4. Fundamentals of Flight
  - a. Straight & Level Flight
  - b. Level Turns
  - c. Straight Climbs & Climbing Turns
  - d. Straight Descents & Descending Turns
5. Ground Reference Maneuvers
  - a. Turns around a Point
  - b. S-Turns
  - c. Eights on Pylons
  - d. Rectangular Course
6. Performance Maneuvers
  - a. Steep Turns
  - b. Steep Spirals
  - c. Chandelles
  - d. Lazy Eights
7. Maneuvering during Slow Flight
8. Spins

5. Takeoff / Landings / Go-Arounds
  - a. Normal & Crosswind Takeoffs & Landings
  - b. Short-Field Takeoffs & Landings
  - c. Soft-Field Takeoffs & Landings
  - d. Slip to Landing
  - e. Go-Around
  - f. Power Off 180

6. Fundamentals of Flight
  - a. Straight & Level Flight
  - b. Level Turns
  - c. Straight Climbs & Climbing Turns
  - d. Straight Descents & Descending Turns

7. Ground Reference Maneuvers
  - a. Turns around a Point
  - b. S-Turns
  - c. Eights on Pylons
  - d. Rectangular Course

8. Performance Maneuvers
  - a. Steep Turns
  - b. Steep Spirals
  - c. Chandelles
  - d. Lazy Eights

9. Maneuvering during Slow Flight

10. Spins

11. Stalls

- a. Power-On Stalls
- b. Power-Off Stalls
- c. Cross-controlled Stalls
- d. Elevator Trim Stalls
- e. Secondary Stalls
- f. Accelerated Stalls

12. Basic Instrument Maneuvers

- a. Straight & Level
- b. Constant Airspeed Climbs & Descents
- c. Turns to Headings
- d. Unusual Attitudes

13. Emergency Operations

- a. Emergency Approach & Landing

9. Stalls

- a. Power-On Stalls
- b. Power-Off Stalls
- c. Cross-controlled Stalls
- d. Elevator Trim Stalls
- e. Secondary Stalls
- f. Accelerated Stalls

10. Basic Instrument Maneuvers

- a. Straight & Level
- b. Constant Airspeed Climbs & Descents
- c. Turns to Headings
- d. Unusual Attitudes

11. Emergency Operations

- a. Emergency Approach & Landing
- b. Systems & Equipment Malfunctions
- c. Emergency Equipment & Survival Gear
- d. Emergency Descent

- b. Systems & Equipment Malfunctions
- c. Emergency Equipment & Survival Gear
- d. Emergency Descent

#### 14. Post-Flight Procedures

##### **Ground Training:**

Students are expected to complete their FOI and FIA written tests prior to beginning this course. Use Sheppard Air in preparation for the written tests. You do not require a sign-off to take the written tests.

In preparation for this course, review ALL of your training materials from your Private Pilot and Commercial Pilot training. If needed, we have a ton of resources you can use and we can direct you to additional online resources. This course is not designed to teach you how to fly; you will be taught how to instruct and how to find the answer to any question a student may ask.

##### **BATD:**

A BATD will be used for the majority of all lessons that need the use of an aircraft. This reduces the costs of training enormously.

This time will not be loggable toward a certificate, but it is usually over 70% cheaper per hour to practice and train using a training device.

Ways the device is useful during instructor training:

- Relocate to anywhere on Earth
- Freeze to discuss stuff
- Load saved scenarios

Simulated scenarios are impossible or unsafe to simulate in the actual aircraft

### Lesson Time Allocation

This is an estimate. It is possible to finish with fewer hours. It is also possible to need more training. Ground hours will be roughly half during the ground instruction stage if taking this course with another CFI candidate.

Lesson	Dual	Solo/PIC	Observations (free)	Ground
<b>STAGE 1 - Review</b>				
1	2.5			2.5
2		2.0		
<b>STAGE 2 - Ground Instructing</b>				
1				2.5
2			2.0	
3				2.5
4				2.5
5			2.0	
6				2.5
7				2.5
8			2.0	
9				2.5
10				2.5
<b>STAGE 3 - Flight Instructing</b>				
1	1.7			1.0
2	1.7			1.0
3	1.7			1.0
4	1.0			1.0
<b>STAGE 4 - Checkride Prep</b>				
1				5.0
2	3.5			1.0
<b>Totals</b>	9.6	2.0	6.0	30.0

## STAGE 1 - LESSON 1

### Dual - Local

#### Objective:

During this lesson, the student will review private pilot & commercial maneuvers and procedures. The student will do so from the right seat.

#### GROUND

- Technical Subjects
  - Aeromedical Factors
  - Runway Incursion Avoidance
  - Visual Scanning & Collision Avoidance
  - Principles of Flight
  - Airplane Flight Controls
  - Airplane Weight & Balance
  - Navigation & Flight Planning
  - Night Operations
  - High Altitude Operations
  - 14 CFR & Publications
  - Airspace System
  - Navigation Systems & Radar Services
  - Logbook Entries & Endorsements
- Preflight Preparation
  - Certificates & Documents
  - Weather Information
  - Operation of Systems
  - Performance & Limitations
  - Airworthiness Requirements
- Post-Flight Procedures

#### FLIGHT

- Preflight Procedures
- Airport Operations
- Takeoff / Landings / Go-Arounds / Power Off 180
- Fundamentals of Flight
- Ground Reference Maneuvers
- Performance Maneuvers
- Maneuvering during Slow Flight
- Stalls (include accelerated stalls)
- Basic Instrument Maneuvers
- Emergency Operations

#### HOMEWORK

- CFI Oral Prep Study
- Review materials as needed
- Create teaching materials & visual aids

## **STAGE 1 - LESSON 2**

### **Solo - Local**

#### **Objective:**

The student will practice weak areas from the previous lesson to make sure they have a strong foundation to become a CFI.

#### **FLIGHT**

Review:

- As required

#### **HOMEWORK**

- CFI Oral Prep Study
- Review materials as needed
- Create teaching materials & visual aids

## STAGE 2 - LESSON 1

### Ground

#### Objective:

The student will begin learning or reviewing the fundamentals of instruction. The student will teach the instructor the topics listed below. The instructor will correct any issues and instruct as needed.

#### GROUND

Lesson Introduction:

- Fundamentals of Instructing
  - Human Behavior & Effective Communication
  - The Learning Process
  - The Teaching Process
  - Assessment & Critique
  - Instructor Responsibilities & Professionalism
  - Techniques of Flight Instruction
  - Risk Management

#### HOMEWORK

- CFI Oral Prep Study
- Review materials as needed
- Create teaching materials & visual aids
- Review Fundamentals of Instructing
- Review Technical Subject Areas



## **STAGE 2 - LESSON 2**

### **Observation**

#### **Objective:**

The student will sit in on another instructor's lesson and observe the ground and flight training. They will take notes and provide a critique for the instructor & student. This will be discussed in the following ground lesson.

#### **HOMEWORK**

- CFI Oral Prep Study
- Review materials as needed
- Create teaching materials & visual aids

## STAGE 2 - LESSON 3

### Ground

#### Objective:

The student will begin “teaching” some technical subject areas. The student will teach the instructor the topics listed below. The instructor will correct any issues and instruct as needed.

#### GROUND

##### Review:

- Fundamentals of Instructing
  - Human Behavior & Effective Communication
  - The Learning Process
  - The Teaching Process
  - Assessment & Critique
  - Instructor Responsibilities & Professionalism
  - Techniques of Flight Instruction
  - Risk Management

##### Lesson Introduction:

- Technical Subjects
  - Aeromedical Factors
  - Runway Incursion Avoidance
  - Visual Scanning & Collision Avoidance
  - Principles of Flight
  - Airplane Flight Controls
  - 14 CFR & Publications
  - Logbook Entries & Endorsements

#### HOMEWORK

- CFI Oral Prep Study
- Review materials as needed
- Create teaching materials & visual aids
- Review Technical Subject Areas

## STAGE 2 - LESSON 4

### Ground

#### Objective:

The student will “teach” more technical subject areas. The student will teach the instructor the topics listed below. The instructor will correct any issues and instruct as needed.

#### GROUND

##### Review:

- Fundamentals of Instructing
  - Human Behavior & Effective Communication
  - The Learning Process
  - The Teaching Process
  - Assessment & Critique
  - Instructor Responsibilities & Professionalism
  - Techniques of Flight Instruction
  - Risk Management
- Technical Subjects
  - Aeromedical Factors
  - Runway Incursion Avoidance
  - Visual Scanning & Collision Avoidance
  - Principles of Flight
  - Airplane Flight Controls
  - 14 CFR & Publications
  - Logbook Entries & Endorsements

##### Lesson Introduction:

- Technical Subjects
  - Airplane Weight & Balance
  - Navigation & Flight Planning
  - Night Operations
  - High Altitude Operations
  - Airspace System
  - Navigation Systems & Radar Services

#### HOMEWORK

- CFI Oral Prep Study
- Review weak areas

## **STAGE 2 - LESSON 5**

### **Observation**

#### **Objective:**

The student will sit in on another instructor's lesson and observe the ground and flight training. They will take notes and provide a critique for the instructor & student. This will be discussed in the following ground lesson.

#### **HOMEWORK**

- CFI Oral Prep Study
- Review weak areas

## STAGE 2 - LESSON 6

### Ground

#### Objective:

The student will review & practice “teaching” areas already covered. The student will teach the instructor the topics listed below. The instructor will correct any issues and instruct as needed.

#### GROUND

##### Review:

- Fundamentals of Instructing
  - Human Behavior & Effective Communication
  - The Learning Process
  - The Teaching Process
  - Assessment & Critique
  - Instructor Responsibilities & Professionalism
  - Techniques of Flight Instruction
  - Risk Management
- Technical Subjects
  - Aeromedical Factors
  - Runway Incursion Avoidance
  - Visual Scanning & Collision Avoidance
  - Principles of Flight
  - Airplane Flight Controls
  - 14 CFR & Publications
  - Logbook Entries & Endorsements
  - Airplane Weight & Balance
  - Navigation & Flight Planning
  - Night Operations
  - High Altitude Operations
  - Airspace System
  - Navigation Systems & Radar Services

#### HOMEWORK

- CFI Oral Prep Study
- Prepare Preflight Procedure lessons

## STAGE 2 - LESSON 7

### Ground

#### Objective:

The student will review needed areas and begin “teaching” preflight lessons. The student will teach the instructor the topics listed below. The instructor will correct any issues and instruct as needed.

#### GROUND

##### Review:

- Fundamentals of Instructing
- Technical Subjects

##### Lesson Introduction:

- Preflight Preparation
  - Certificates & Documents
  - Weather Information
  - Operation of Systems
  - Performance & Limitations
  - Airworthiness Requirements
- Preflight Procedures
  - Pre-Flight Inspection
  - Radio Communications & Light Signals
  - Traffic Patterns
  - Airport & Runway Markings & Signs

#### HOMEWORK

- CFI Oral Prep Study
- Prepare Lessons for:
  - Takeoff / Landings / Go-Arounds
  - Fundamentals of Flight
  - Ground Reference Maneuvers
  - Performance Maneuvers
  - Slow Flight
  - Spins
  - Stalls

## STAGE 2 - LESSON 8

### Observation

#### **Objective:**

The student will sit in on another instructor's lesson and observe the ground and flight training. They will take notes and provide a critique for the instructor & student. This will be discussed in the following ground lesson.

#### **HOMEWORK**

- CFI Oral Prep Study
- Prepare Lessons for:
  - Takeoff / Landings / Go-Arounds
  - Fundamentals of Flight
  - Ground Reference Maneuvers
  - Performance Maneuvers
  - Slow Flight
  - Spins
  - Stalls

## STAGE 2 - LESSON 9

### Ground

#### Objective:

The student will review needed areas and begin “teaching” in-flight maneuvers. The student will teach the instructor the topics listed below. The instructor will correct any issues and instruct as needed.

#### GROUND

##### Review:

- Fundamentals of Instructing

##### Lesson Introduction:

- Takeoff / Landings / Go-Arounds
  - Normal & Crosswind Takeoffs & Landings
  - Short-Field Takeoffs & Landings
  - Soft-Field Takeoffs & Landings
  - Slip to Landing
  - Go-Around
  - Power Off 180
- Fundamentals of Flight
  - Straight & Level Flight
  - Level Turns
  - Straight Climbs & Climbing Turns
  - Straight Descents & Descending Turns
- Ground Reference Maneuvers
  - Turns around a Point
  - S-Turns
  - Eights on Pylons
  - Rectangular Course
- Performance Maneuvers
  - Steep Turns
  - Steep Spirals
  - Chandelles
  - Lazy Eights
- Maneuvering during Slow Flight
- Spins
- Stalls
  - Power-On Stalls
  - Power-Off Stalls
  - Cross-controlled Stalls
  - Elevator Trim Stalls
  - Secondary Stalls
  - Accelerated Stalls

#### HOMEWORK

- CFI Oral Prep Study
- Prepare Lessons for:
  - Instrument Maneuvers
  - Emergency Operations
  - Post-Flight Procedures



## STAGE 2 - LESSON 10

### Ground

#### Objective:

The student will review needed areas and begin “teaching” all remaining ground lessons. The student will teach the instructor the topics listed below. The instructor will correct any issues and instruct as needed. Even if the student is not able to teach all lessons satisfactorily, the student will move forward and correct these issues during checkride prep.

#### GROUND

##### Review:

- Fundamentals of Instructing
- Technical Subjects

##### Lesson Introduction:

- Basic Instrument Maneuvers
  - Straight & Level
  - Constant Airspeed Climbs & Descents
  - Turns to Headings
  - Unusual Attitudes
- Emergency Operations
  - Emergency Approach & Landing
  - Systems & Equipment Malfunctions
  - Emergency Equipment & Survival Gear
  - Emergency Descent
- Post-Flight Procedures

#### HOMEWORK

- CFI Oral Prep Study
- Continue to prepare materials for the checkride & instructing.

## STAGE 3 - LESSON 1

### Dual - Local

#### Objective:

The student will complete their required spin training & they will apply the principles of FOI while practicing flight instructing.

#### GROUND

Review:

- Spins
- Maneuvering During Slow Flight
- Stalls

#### HOMEWORK

- CFI Oral Prep Study
- Continue to prepare materials for the checkride & instructing.

#### FLIGHT

Lesson Introduction:

- Maneuvering During Slow Flight
- Spins
- Stalls
  - Power-On Stalls
  - Power-Off Stalls
  - Cross-controlled Stalls
  - Elevator Trim Stalls
  - Secondary Stalls
  - Accelerated Stalls

## STAGE 3 - LESSON 2

### Dual - Local

#### Objective:

The student will teach various flight lessons & with various scenarios throughout the lesson.

#### GROUND

##### Review:

- Preflight Procedures
- Airport Operations
- Fundamentals of Flight
- Takeoff / Landings / Go-Arounds
- Performance Maneuvers
- Emergency Operations

#### HOMEWORK

- CFI Oral Prep Study
- Continue to prepare materials for the checkride & instructing.

#### FLIGHT

##### Review:

- Slow Flight
- Stalls
- Spins (if needed)

##### Lesson Introduction:

- Preflight Procedures
  - Cockpit Management
  - Engine Starting
  - Taxiing
  - Before Takeoff Checklist
- Airport Operations
  - Radio Communications
  - Traffic Patterns
  - Airport & Runway Markings & Signs
- Fundamentals of Flight
  - Straight & Level Flight
  - Level Turns
  - Straight Climbs & Climbing Turns
  - Straight Descents & Descending Turns
- Takeoff / Landings / Go-Arounds
  - Normal & Crosswind Takeoffs & Landings
  - Short-Field Takeoffs & Landings
  - Soft-Field Takeoffs & Landings
  - Slip to Landing
  - Go-Around
  - Power Off 180
- Performance Maneuvers
  - Steep Turns
  - Steep Spirals
  - Chandelles
  - Lazy Eights
- Emergency Operations
  - Emergency Approach & Landing
  - Systems & Equipment Malfunctions
  - Emergency Equipment & Survival Gear
  - Emergency Descent

## STAGE 3 - LESSON 3

### Dual - Local

#### Objective:

The student will teach various flight lessons & with various scenarios throughout the lesson.

#### GROUND

##### Review:

- Preflight Procedures
- Airport Operations
- Fundamentals of Flight
- Takeoff / Landings / Go-Arounds
- Performance Maneuvers
- Emergency Operations

#### HOMEWORK

- CFI Oral Prep Study
- Continue to prepare materials for the checkride & instructing.

#### FLIGHT

##### Review:

- Slow Flight
- Stalls
- Emergency Operations
- Performance Maneuvers
- Takeoff / Landings / Go-Arounds

##### Lesson Introduction:

- Ground Reference Maneuvers
  - Turns around a Point
  - S-Turns
  - Eights on Pylons
  - Rectangular Course
- Basic Instrument Maneuvers
  - Straight & Level
  - Constant Airspeed Climbs & Descents
  - Turns to Headings
  - Unusual Attitudes

## STAGE 3 - LESSON 4

### Dual - Local

#### **Objective:**

The student will be assigned a scenario to teach the instructor in order to cover deficient areas.

Example: "I am a Commercial student and I am struggling with my maneuvers and performance landings. Create and teach a lesson for me."

#### **GROUND**

Review:

- As required

#### **FLIGHT**

Review:

- As required

#### **HOMEWORK**

- CFI Oral Prep Study
- Continue to prepare materials for the checkride & instructing.

**STAGE 4 - LESSON 1**  
**Ground Practice Checkride**

**Objective:**

The instructor will conduct the ground portion of a practice checkride. The instructor will select lessons the student will prepare and teach in accordance with the instructor's PTS. The student will also be expected to draft their own endorsements required for their checkride.

**GROUND**

Examine:

- Fundamentals of Instructing
- Technical Subjects
- Preflight Preparation
- Preflight Procedures
- Takeoff / Landings / Go-Arounds
- Fundamentals of Flight
- Ground Reference Maneuvers
- Performance Maneuvers
- Maneuvering during Slow Flight
- Spins
- Stalls
- Basic Instrument Maneuvers
- Emergency Operations
- Post-Flight Procedures

**HOMEWORK**

- CFI Oral Prep Study
- Continue to prepare materials for the checkride & instructing.

**STAGE 4 - LESSON 2**  
**Flight Practice Checkride**

**Objective:**

The instructor will conduct the flight portion of a practice checkride. The instructor will select lessons the student will prepare and teach in accordance with the instructor's PTS.

**GROUND**

Review:

- As required

**HOMEWORK**

- Final preparation for checkride

**FLIGHT**

Examine:

- Preflight Procedures
- Airport Operations
- Takeoff / Landings / Go-Arounds
- Fundamentals of Flight
- Ground Reference Maneuvers
- Performance Maneuvers
- Maneuvering during Slow Flight
- Spin Awareness
- Stalls
- Basic Instrument Maneuvers
- Emergency Operations