



Arapahoe Flight Club

Colorado Springs, CO.

ROTORCRAFT HELICOPTER

TO PRIVATE PILOT AIRPLANE – SINGLE ENGINE LAND

Additional Aircraft Category and Class Rating

COURSE SYLLABUS

Revision 2

30 January, 2020

## COURSE DESCRIPTION

This training syllabus is designed to meet all the curriculum requirements for Additional Category and Class rating of Private Pilot Airplane – Single Engine Part 61, Subpart E. The syllabus is divided into 17 flight lesson plans, summarized below:

FLIGHT LESSON HOUR SUMMARY						
Flight Lesson	Dual	Solo	Dual Cross Country	Instrument	Night	Solo Cross Country
1	2.0					
2	2.0			0.5		
3	2.0			0.5		
4	2.0			0.5		
5	2.0					
6	1.5	0.5				
7	1.5	0.5				
8		1.5				
9	3.0		3.0	1.0		3.0
10	3.0					
11	1.5				1.5	
12	1.5		1.5	0.5	1.5	
13		2.0				
14	2.0					
15		1.5				
16		1.5				
17	2.0					
<b>Total</b>	<b>26.0</b>	<b>7.5</b>	<b>4.5</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>

TRAINING STAGES	
	Pre-Solo
	Solo
	Cross Country
	Night
	Checkride Prep

## OBJECTIVE

The lesson plans are designed to quickly and efficiently transition the student from a rotor to a fixed-wing pilot. There is no ground school required for this course, however the student is responsible for all ground training for fixed-wing aircraft. Each flight lesson plan includes 0.5 hours of ground training, one on one with the instructor. At the end of the course, the student will have successfully completed all flight training and passed the practical test for add on for Private Pilot Airplane – Single Engine Land

## COURSE ELIGIBILITY

To be eligible for enrollment the student must have an FAA Commercial or Private Pilot Certificate with Rotorcraft – Helicopter category and class rating. Additionally, the pilot must have at least a Third Class medical certificate within the first two weeks of training.

**OBJECTIVE:** The student pilot will be introduced to the training aircraft with an emphasis on airplane procedures, local area procedures, radio usage and aircraft handling during basic maneuvers.

**CONTENT:**

- Demonstration of Preflight preparation, including weather analysis, computing weight and balance and performance calculations.
- Operation of power plant and aircraft systems.
- Certificates and documents to include AR(R) OW and discussion of VFR day Minimum Equipment List (MEL).
- Aircraft maintenance and equipment checks.
- Emergency equipment (first aid kits and fire extinguishers).
- Positive exchange of flight controls (discussion on the ground and demonstrated inflight).
- Demonstration from Instructor on Engine starting procedures.
- Introduction to Radio communications.
- Ground operations and taxiing including proper control inputs for winds (crosswind taxiing).
- Discussion of Airport operations to include crosswind calculations and aircraft limitations, wind shear, wake turbulence, and collision avoidance procedures.
- Before Takeoff Checks including emergency procedures on takeoff.
- Accomplishing 2 or more normal or crosswind Take Off and Climbs.
- Local area procedures to include practice area orientation, airport traffic patterns, including entry and departure procedures.
- Flight demonstration on configuration changes and procedures for various airspeeds from cruise to slow flight.
- Demonstration and Basic flight maneuvers: straight and level, turns in both directions, climbs, descents and descending turns high and low drag configurations (with and without flaps), and level off procedures from climbs and descents (with or without flaps).
- Demonstration of Ground reference maneuvers (Instructor's choice).
- Demonstration of 2 or more Normal and or Crosswind approach and landings.
- After landing procedures.
- Parking and securing the airplane.

**COMPLETION:** Display basic knowledge of local area procedures, aircraft systems and ground checks prior to flight. The student pilot will be familiar with the aircraft controls and how they are used to maneuver the airplane on the ground and in the air.

***Including 0.5 Instrument Hours***

**OBJECTIVE:** The student pilot will fly to gain proficiency in the elements from the previous flight in visual meteorological conditions and be introduced to integrated airplane control by flying the airplane by instrument reference. Additionally takeoff, traffic pattern, landing operations, flight at minimum controllable airspeed, recognition and recovery from stalls, and go around procedures will be accomplished.

**CONTENT:**

- Preflight preparation will be student accomplished with instructor guidance.
- Ground operations including airport diagram and crosswind taxiing.
- Airport operations with understanding of traffic patterns and normal procedures for arrival and departure.
- Communications will be accomplished by Instructor.
- Local area procedures including practice area orientation and emergency landing airports.
- Basic flight maneuvers will be accomplished by student pilot.
- Accomplishing 3 or more Normal or Crosswind takeoff and landings with instructor's help.
- Traffic pattern operations- Climbing turns, Crosswind, Downwind, LCGUMPS, Base, Stabilized Approach on Final, Round out and Flare.
- Basic instrument maneuvers, straight and level, climbing, descending, and turns to headings for 0.5.
- Flight at minimum controllable airspeed / Slow Flight with and without flaps, with or without turns with 10 degree maximum in the direction of the turns.
- Practice of Power-on stalls, simulating a takeoff stall and Power-off stalls, simulating an approach to landing. Stalls should be accomplished Straight ahead and including turns with no more than a 20 degree bank (Demonstrated by Instructor and student pilot practice. Recovery initiated at the first indication of a stall and recovery from full stalls.
- Ground reference maneuvers (Instructor's choice).
- Go around and low approach procedures in practice area and at least once on Final at KCOS.

**COMPLETION:** The student pilot will be able to demonstrate the understanding of the effects of atmospheric conditions, including wind, on takeoff and climb performance. Demonstrates take off and Climbs at  $V_y$  with no assistance from the instructor. The student pilot will be able to perform the preflight and display proficiency in aircraft control both on the ground and during basic flight maneuvers. Interactions with ATC in the traffic pattern, and local training area and demonstrate understanding and knowledge through proper radio procedures and accurate communications (Instructor Demonstrates Proper Communications if needed). The student pilot will demonstrate adequate skill to maintain desired altitude within + or -100 feet, airspeed within + or -10 knots/mph, and heading within 10 degrees

***Including 0.5 Instrument Hours***

**OBJECTIVE:** The student pilot will gain proficiency in the elements from the previous flights and will continue practicing stalls and receive training on the recognition and recovery. Also demonstrations will be made by the instructor regarding high performance stalls and discussions on Spin recognition and required spin recovery technique.

**CONTENT:**

- Preflight preparation done solely by the student pilot.
- Ground operations.
- Airport operations.
- Communications will be introduced to the Student Pilot.
- Local area procedures.
- Ground reference maneuvers (Instructor's choice).
- Basic flight maneuvers – both by visual reference and solely by instrument reference for 0.5.
- Flight at minimum controllable airspeed / Slow Flight with and without flaps, turns maximum 10 degrees.
- Flight at various airspeeds and configurations.
- Accomplishing 3 or more Normal and Crosswind takeoffs and climb
- Traffic pattern operations with instructor communicating with ATC.
- Accomplishing 3 or more Normal or Crosswind approach and landings.
- Go around procedures.
- Steep turns with 45 degree bank in opposite directions, note - use the horizon and cowling
- Forward slip to landing (no flap) demonstrated in the practice area with student pilot practice note- use a road and base turns from both directions
- Power-on and power-off stall recovery series, student pilot should be able to demonstrate the recovery techniques.
- The instructor will demonstrate after the stall series above 1500 AGL:
  1. Accelerated stall and recovery during a turn
  2. Secondary stall and recovery during an approach to landing stall with flaps
  3. Elevator trim tab stall on a go around procedure
  4. Elevator Trim tab stall and recovery in a no flap landing configuration
- Spin recovery techniques should be memorized by the student pilot.
- Post flight procedures.

**COMPLETION:** The student pilot will be able to perform takeoffs without the instructor assistance. Landings will be completed with only verbal instructor assistance. The student pilot will demonstrate knowledge of critical speeds, stall recognition and recovery techniques. The student pilot will demonstrate adequate skill to maintain desired altitude within + or -100 feet, airspeed within + or -10 knots/mph, and heading within 10 degrees.

***Including 0.5 Instrument Hours***

**OBJECTIVE:** The student pilot will gain proficiency in the elements from the previous flights and be introduced to emergency procedures, emergency approach and landing, system and equipment malfunctions, emergency descents and ground reference maneuvers. The student pilot will be able to demonstrate situational awareness through answering questions about the environment, aircraft and procedures when prompted by the Instructor.

**CONTENT:**

- Preflight preparation done solely by the student pilot.
- Ground operations.
- Airport operations.
- Local area procedures.
- Basic flight maneuvers.
- Accomplishing 5 or more Normal and or Crosswind takeoffs and climb.
- Basic instrument maneuvers with climbs and descents with emphasis on 180 degree turns and triangulation for situational awareness.
- Steep turns.
- Flight at various airspeeds and configurations.
- Flight at minimum controllable airspeed / Slow flight with or without flaps with no more than 10 degree banks in each direction.
- Power-on and power-off stalls (straight and level and shallow bank turns no more than 20 degrees).
- Spin recovery techniques memorized by the student pilot.
- Ground reference maneuvers (Turns around a point, S Turns).
- Traffic pattern operations and communications with ATC done solely by the student pilot.
- Accomplishing 5 or more Normal and or Crosswind approach and landings.
- Accomplishing a No flap configuration with a forward slip to landing at KCOS.
- Go around procedures conducted above 500 AGL in the practice area.
- Emergency procedures and equipment malfunctions.
- Emergency descent in the practice area for at least a 750 foot descent.
- Emergency simulated engine forced landing in the practice area with go around above 500 AGL.
- Post flight procedures.

**COMPLETION:** The student pilot will be able to perform takeoffs without the instructor assistance. Landings will be completed with minimal instructor assistance. Pilot will demonstrate proficiency in performing flight at slow speeds, stall recognition and recovery from full stalls. The student pilot will demonstrate adequate skill to maintain desired altitude within = or -100 feet, airspeed within + or-10 knots/mph, and heading within 10 degree

**OBJECTIVE:** The student pilot will be evaluated to determine if he/she is prepared to depart the traffic pattern area for future solo flights. The pilot will also be evaluated in all other maneuvers, procedures, and knowledge areas appropriate for first solo flight operations in the traffic pattern.

**CONTENT:**

- Preflight preparation.
- Ground operations.
- Airport operations.
- Local area procedures.
- Basic flight maneuvers.
- Accomplishing 3 or more Normal and or Crosswind takeoffs and climb.
- Steep turns
- Slow Flight with and without flaps
- Power on simulated takeoff Stalls
- Power off simulated landing Stalls
- Ground reference maneuvers (Instructor's choice).
- Communications with ATC done solely by the student pilot.
- Landing operations.
- Traffic pattern operations.
- Accomplishing 3 or more Normal and or Crosswind approach and landings.
- Emergency procedures and simulated emergency approach and landing.
- Go around procedures.
- Post flight procedures.

**COMPLETION:** The student pilot will be able to perform all of the flight operations with instructor observation with areas of emphasis on emergencies, takeoffs, landings, and go-arounds without instructor assistance.

**Prior to Lesson #6:** The Student Pilot must have completed the Pre-solo written and received the required Instructor endorsements in the Student Pilot's Log book. The instructor will place the completed Pre- Solo written corrected to 100% in the student pilot's file along with copies of the required endorsements from the student pilot's log book.

The student pilot must have in his/her physical possession or readily accessible in the aircraft: their pilot's license, a government issued photo Identification, his or her medical certificate, and logbook with the required endorsements. These required documents will be carried on all flights.

## **Flight Lesson #6**

## **1.0 Hours Dual and 0.5 Hours Solo**

**OBJECTIVE:** The student pilot will demonstrate 3 takeoffs and landings to a full stop with the instructor on board without any assistance. Once complete the student pilot will fly solo for 3 takeoffs and landings to a full stop with taxi backs.

### **CONTENT:**

- Preflight preparation.
- Ground operations.
- Airport operations.
- Local area procedures.
- Basic flight maneuvers.
- 3 dual and 3 solo Normal and crosswind takeoffs and climbs
- Flight at various airspeeds and configurations.
- Traffic pattern operations.
- 3 dual and 3 solo Normal and or crosswind approach and landings.
- Go around procedures.
- After landing operations
- Post flight operations.

**COMPLETION:** The student pilot will perform approaches and landings that will demonstrate a stabilized approach using correct techniques: configuration, power application, rotation, and touchdown with approach airspeed within 5 knots/mph of recommended airspeed and with no instructor input. The pilot will complete three solo takeoffs and landings to a full stop with taxi backs for takeoff.

**OBJECTIVE:** The student pilot will be introduced to high performance takeoffs and landings and demonstrate proficiency in solo operations within the airport environment.

**CONTENT:**

- Preflight preparation and discussion about Crosswind landings, No flap landings, Cross wind calculations and gust factor affecting approach speeds.
- Ground operations including crosswind taxiing.
- Airport operations.
- Local area procedures.
- Basic flight maneuvers.
- 3 Solo Normal takeoffs.
- Accomplishing 5 or more Short field takeoffs with climbs at  $V_x$  and then clear of obstacle climbs at  $V_y$ .
- Accomplishing 4 or more, Short field approach and landings on the 1000 foot markers with correct after landing procedures.
- Accomplishing 1 or more Soft field landings with an emphasis of the differences from normal and soft field landings
- Flight at various airspeeds and configurations.
- Flight at minimum controllable airspeed / Slow flight with or without flaps.
- Power-on and power-off stall recoveries.
- Ground reference maneuvers.
- Traffic pattern operations.
- 3 Solo Normal and or crosswind approach and landing.
- Forward slip to landing (no flap) dual with student pilot accomplished.
- Go around procedures.
- Post flight operations.

**COMPLETION:** The student pilot will accomplish a second solo within the airport environment and demonstrate proficiency in the airport operations. Also the student pilot will demonstrate proficiency in maneuvers in preparation for soloing to the practice area to practice maneuvers.

OBJECTIVE: The student pilot will review the listed maneuvers to gain additional proficiency and confidence in the aircraft. The student pilot will perform this solo flight in the local training area and traffic pattern, complying with all established limitations.

CONTENT:

- Preflight preparation.
- Ground operations.
- Airport operations.
- Local area procedures.
- Basic flight maneuvers.
- Normal and crosswind takeoffs and climb.
- Steep turns.
- Flight at various airspeeds and configurations.
- Flight at minimum controllable airspeed / Slow flight with or without flaps no more than a maximum of 10 degree banks in either direction.
- Ground reference maneuvers- Turns around a point and S Turns.
- Traffic pattern operations.
- Normal and or crosswind approach and landing.
- Crosswind takeoff and landing.
- Forward slip to landing (no flap) if needed.
- Go around procedures if needed.
- Post flight operations.

COMPLETION: The student pilot will be able to perform the maneuvers listed above during solo flight, complete the post flight procedures including accurate completion of fueling, ground handling and training records.

**OBJECTIVE:** The student pilot will be introduced to cross country flight planning, weather analysis, performance and limitations, emergencies, pilotage, dead reckoning, obtaining NOTAMs, and TFRs consistent for route and considerations for diversionary flight procedures.

**CONTENT:**

- Preflight preparation.
- Preflight action that includes: Risk assessments; How to obtain information on airspace operations pertaining to the flight, runway lengths at airports of intended use, calculating takeoff and landing distances, weather analysis, VFR hemispherical rules, Area and Route forecasts, Fuel management; How to plan for alternatives if the planned flight cannot be completed, delays and or emergencies are encountered.
- Cross country flight planning on appropriate paper charts and use of performance charts in the AFM to calculate takeoff distances, climb performance, cruise performance, pilotage and dead reckoning, Top of Descent calculation, Towered and non- towered airport operations.
- Filing an ICAO flight plan, procedures for opening and closing Flight plan.
- Communication procedures for cross country flight.
- Ground operations.
- Emphasis of Single-pilot Resource Management and Situational awareness.
- Enroute operations and calculations to determine time, fuel, and distance.
- Airport operations in towered and non-towered airfields.
- Local area procedures.
- Basic flight maneuvers.
- Normal and crosswind takeoffs and climb.
- Basic instrument maneuvers in case of diversion due to deteriorating VFR conditions.
- Instruction on Emergency procedures related to cross country flight.
- Discussion on Emergency descents to alternate airports.
- Traffic pattern operations and communications at a non-towered airports.
- Normal and or crosswind approach and landings.
- Normal and or Crosswind takeoff and landings.
- Navigation including the use of aeronautical charts using pilotage and dead reckoning and radio navigation to triangulate position and diversionary practices
- Diversion techniques to estimate time, fuel, and distance to an alternate.
- Lost procedures and declaring an emergency.
- Post flight operations.

**COMPLETION:** The student pilot will demonstrate proficiency with cross country flight planning, pilotage, dead reckoning, and radio navigation. The pilot will also demonstrate lost and

diversionary procedures. The student pilot will show proficiency in obtaining flight planning data: Weather Analysis, Takeoff and Landing distances, NOTAMs, TFRs, Aeronautical charts, and use of Airport Flight Supplement. The student pilot will show proficiency in analyzing the available information and applying current and forecast conditions to the flight so the Cross country can be conducted safely. The student pilot will maintain altitude within + or - 100 feet, airspeed within 10 knots/mpH, heading within 10 degrees of course within 3 nautical miles and arrive at check points within 5 minutes.

**Prior to Flight Lesson #10:** The student pilot will receive all the required cross country endorsements in the Student Pilot's log book by their Instructor. Instructor should make a copy of the log book endorsement and put in the student pilot's file.

### **Flight Lesson #10**

### **3.0 Hours Solo Cross**

#### **Country**

**OBJECTIVE:** The pilot will review previously introduced maneuvers and procedures and continue to develop additional proficiency in those maneuvers and procedures. The pilot will prepare a navigation log and the instructor will review cross country flight planning prior to the flight. The student pilot will conduct a solo cross country flight.

#### **CONTENT:**

- Preflight preparation including, Risk Assessment, Weather analysis, takeoff and landing distances, Aircraft limitations and performance, Airport diagrams for each intended Airport, filing an ICAO flight plan, Appropriate navigation paper charts and Navigation log with appropriate frequencies for communications along the route.
- Cross country flight planning will be completed and reviewed by the student pilot's instructor.
- Ground operations.
- Airport operations.
- Local area procedures.
- Basic flight maneuvers.
- Normal and or crosswind takeoffs and climb.
- Cross country Navigation- Opening the flight plan and obtaining flight following.
- Navigation by using pilotage and dead reckoning calculations.
- Obtaining in flight weather if needed.
- Traffic pattern operations in towered and non-towered airports.
- Normal and or crosswind approach and landings.
- Go around procedures if needed.
- Post flight procedures that includes a discussion with the instructor on the aeronautical decisions affecting this flight.

**COMPLETION:** The student pilot will successfully complete a solo cross country flight of at least 100 NM with landings at three airports. The pilot will evaluate his/her success at maintaining altitude within + or - 100 feet, airspeed within 10 knots/mph, heading within 10 degrees. The Student Pilot will show that he/she was able to maintain course within 3 nautical miles and arrive at checkpoints within 5 minutes by entries made on the navigation log. The student pilot will have all navigation logs filled out correctly and turned into their Instructor and copies will be put in the student pilot's file.

## **Flight Lesson #11**

## **1.5 Dual Night Hours**

**OBJECTIVE:** The student pilot will be introduced to night flight procedures for airplanes in the local traffic pattern with emphasis pertaining to the airport environment lighting and night situational awareness. A completion of 8 night takeoffs and landings with familiarization of night aeromedical factors, emergencies and procedures.

### **CONTENT:**

- Preflight preparation assisted by the instructor with emphasis on Night operations, Weather analysis, Notam's, TFR's, calculations for takeoff and landing distances, required aircraft equipment for night operations, Night flight considerations and preflight checks during aircraft inspections, cockpit management and radio navigation equipment.
- Preparation and discussion of Night operations and emphasis on runway illusions and aeromedical factors.
- Ground operations with emphasis on taxiway, edge and runway lighting, aircraft lighting, and airport lighting systems.
- Airport operations with emphasis an approach lighting at a towered and non- towered environment.
- Local area procedures with emphasis on lighted obstructions and non-lighted hazards.
- Basic flight maneuvers within the traffic pattern.
- Simulated system equipment malfunctions with emphasis on light gun signals.
- 8 dual instruction but student pilot accomplished, Normal and or crosswind takeoffs and climb.
- Traffic pattern operations.
- 8 dual instruction but student pilot accomplished, Normal and or crosswind approach and landings.
- Conduct at least one Go around procedure.
- Post flight procedures.

**COMPLETION:** The student pilot will safely conduct night flight operations in the local traffic pattern completing 8 takeoffs and landings to a full stop.

*Including 0.5 Instrument Hours*

**OBJECTIVE:** The student pilot will be introduced to night cross country flight planning and cross country flight procedures for airplanes.

**CONTENT:**

- Preflight preparation, and night cross country planning.
- Night airport operations at towered and non-towered airports.
- Ground operations.
- Single pilot resource management, VFR hemispherical rules, Airspace requirements to remain VFR, How to obtain weather in flight, and maintaining Situational Awareness
- Airport operations for pattern entry and night situational awareness.
- Normal and crosswind takeoffs and climb.
- Emergency procedures and emergency approach and landing – simulated in night operations at top of descent point.
- Night cross country flight to a non-towered airport (more than 100nm total distance) and back to KCOS.
- Night cross country- filing, open and closing ICAO flight plan, navigation, use of radials for back up to assist with pilotage and dead reckoning, top of descent calculations, cross country communications, pilot controlled lighting at a non-towered airport.
- Basic instrument operations during a night cross country with emphasis on triangulation of position.
- Post flight procedures.

**COMPLETION:** The student pilot will be proficient with night cross country flight planning, navigation, pilotage and dead reckoning, lost procedures, triangulation and a simulated diversion to an alternate. Successful completion of this lesson includes the completion of a night dual cross country of more than 100 NM total distance and that at least 2 takeoffs and landings to a full stop at night. The required completion of 10 night landings to a full stop have been logged in the student pilot's logbook. The Night Navigational logs will be copied after the flight and the Instructor will put them in the student pilot's file.

**OBJECTIVE:** The student pilot will review the listed maneuvers to gain additional proficiency and confidence in aircraft procedures and operations. The student pilot will perform a solo flight in the local training area and traffic pattern. The student pilot will comply with all established limitations and have a working knowledge of all memory items on the emergency checklists. The student pilot will be able to meet the ACS standards for Private Pilot- Airplane Single Engine Land

**CONTENT:**

- Preflight preparation.
- Ground operations.
- Airport operations.
- Local area procedures.
- Basic flight maneuvers.
- Normal and crosswind takeoffs and climb.
- 3 or more Short and soft field takeoffs.
- Steep turns.
- Flight at various airspeeds and configurations.
- Flight at minimum controllable airspeed / Slow flight with or without flaps no more than a maximum bank of 10 degrees.
- Ground reference maneuvers – Turns around a point and S- turns.
- Traffic pattern operations.
- Normal and or Crosswind approach and landing.
- 3 or more Short and soft field landings.
- 1 or more Forward slip to landing (no flap).
- Go around procedures if needed.
- Post flight procedures.

**COMPLETION:** The student pilot will be able to perform the listed maneuvers during solo flight to at least the standards set forth in the current ACS for Private Pilot – Airplane Single Engine Land.

OBJECTIVE: The student pilot will demonstrate satisfactory knowledge and consistent flight proficiency in all tasks required by the current Private Pilot (ACS) for the additional category and class rating of Airplane – Single Engine Land.

CONTENT:

- Preflight preparation.
- Aircraft Performance and Limitations.
- Operation of Aircraft systems.
- Preflight inspection.
- Engine Starting.
- Normal and Crosswind taxiing.
- Before Takeoff Checks and Captain’s briefing.
- Airport operations and traffic patterns.
- Airport runway and taxiway signs, markings, and lighting.
- Normal and crosswind takeoff, climb, approach and landing.
- Soft field and short field takeoff, climb, approach and landing.
- Forward slip to a landing.
- Go around procedures.
- Steep turns.
- Ground reference maneuvers.
- Maneuvering during slow flight with or without flaps.
- Power-on stall simulating a takeoff stall and recovery.
- Power-off stall simulating a landing stall and recovery
- Understanding of spin awareness and recovery technique.
- Understanding Basic Instrument Maneuvers.
- Emergency descent and when it’s appropriate.
- Emergency approach and landing – simulated off airport and power off 180 to landing.
- Systems and equipment malfunctions.
- Emergency equipment and survival gear.
- After landing operations, parking and securing the airplane.
- Post flight procedures

COMPLETION: The student pilot will perform the listed maneuvers and the instructor will determine that the pilot is completing each maneuver to at least the standards set forth in the current ACS for Private Pilot – Airplane Single Engine Land.

**Prior to Flight Lesson #15:** The Student pilot and Instructor should go to: <https://iacra.faa.gov/iacra> and register. Instructor should retain the FTN number and make copies and place in the student Pilot's file. Due to the availability of Designated Pilot Examiners the Instructor should coordinate a date with examiner and student and schedule the check ride.

## **Flight Lesson #15**

**1.5 Hours Solo**

**OBJECTIVE:** The student pilot will review the listed maneuvers to gain further proficiency and confidence to prepare for the FAA check ride. The pilot will perform a solo flight in the local training area and traffic pattern. The pilot will comply with all established limitations and regulations.

### **CONTENT:**

- Preflight preparation.
- Ground operations.
- Airport operations.
- Local area procedures.
- Basic flight maneuvers.
- Normal and crosswind takeoffs and climb.
- 3 or more Short and soft field takeoffs.
- Steep turns.
- Flight at various airspeeds and configurations.
- Flight at minimum controllable airspeed / Slow flight with or without flaps with no more than a maximum bank of 10 degrees.
- Power-on and power-off stalls.
- Stall recovery techniques.
- Ground reference maneuvers – Turns around a point, S Turns.
- Traffic pattern operations.
- Normal and crosswind approach and landing.
- Crosswind takeoff and landing.
- 3 or more Short and soft field landings.
- Forward slip to landing (no flap).
- Go around procedures.
- Post flight procedures.

**COMPLETION:** The student pilot will be able to perform the listed maneuvers during solo flight to at least the standards set forth in the current ACS for Private Pilot – Airplane Single Engine Land.

OBJECTIVE: The student pilot will review the listed maneuvers to prepare for the FAA check ride. The student pilot will perform a solo flight in the local training area and traffic pattern. The pilot will comply with all established limitations.

CONTENT:

- Preflight preparation.
- Ground operations.
- Airport operations.
- Local area procedures.
- Basic flight maneuvers.
- Normal and crosswind takeoffs and climb.
- 3 or more Short and soft field takeoffs.
- Steep turns.
- Flight at various airspeeds and configurations.
- Flight at minimum controllable airspeed / Slow flight with or without flaps with no more than a maximum bank of 10 degrees.
- Power-on and power-off stalls.
- Stall recovery techniques.
- Ground reference maneuvers – Turns around a point, S Turns.
- Traffic pattern operations.
- Normal and crosswind approach and landing.
- Crosswind takeoff and landing.
- 3 or more Short and soft field landings.
- Forward slip to landing (no flap).
- Go around procedures.
- Post flight procedures.

COMPLETION: The student pilot will be able to perform the listed maneuvers during solo flight to at least the standards set forth in the current Practical Test Standards for Private Pilot – Airplane Single Engine Land.

**OBJECTIVE:** The student pilot will demonstrate satisfactory knowledge and consistent flight proficiency in all tasks required by the current ACS Private Pilot Practical Test for the additional category and class rating of Airplane – Single Engine Land. The student pilot will demonstrate these maneuvers to a different flight instructor for the purpose of preparing for the final check ride.

**CONTENT:**

- Preflight preparation.
- Aircraft Performance and Limitations.
- Operation of systems.
- Preflight inspection.
- Engine Starting.
- Taxiing and crosswind taxiing.
- Before Takeoff Checks and Captain's briefing.
- Airport operations and traffic patterns.
- Airport runway and taxiway signs, markings, and lighting.
- Normal and crosswind takeoff, climb, approach and landing.
- Soft field and short field takeoff, climb, approach, and landing.
- Forward slip to a landing.
- Go around procedures.
- Steep turns.
- Ground reference maneuvers- Turns around a point, S Turns.
- Maneuvering during slow flight with or without flaps, climbing and descending, with no more than a maximum bank turns of 10 degrees.
- Power-on stall simulating a takeoff stall and recovery.
- Power-off stall simulating a landing stall and recovery.
- Explanation of Spin awareness and recovery technique.
- Basic Instrument Maneuvers.
- Emergency descent.
- Emergency approach and landing – simulated.
- System and equipment malfunctions.
- Emergency equipment and survival gear.
- After landing operations, parking and securing.

**COMPLETION:** The student pilot will perform the listed maneuvers and the instructor will determine that the pilot is completing each maneuver to at least the standards set forth in the current ACS for Private Pilot – Airplane Single Engine Land.