

Semper Fly Helicopters

14 CFR PART 141 FLIGHT SCHOOL



**AVIA 1141 - PRIVATE PILOT FLYING STAGE II
ROTORCRAFT / HELICOPTER
CERTIFICATION COURSE
FLIGHT TRAINING MANUAL**

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SECTION 1 - FLIGHT TRAINING SYLLABUS

1.1 - Course Requirements and Objectives

Enrollment Prerequisites

The Semper Fly Helicopter Private Pilot Rotorcraft / Helicopter Flight Training Course is designed to have the students concurrently enrolled in the associated Semper Fly Helicopters Private Pilot Rotorcraft / Helicopter Ground Training Course. As such, students must meet the following criteria:

1. Minimum Age: 17
2. English Proficiency - Students must be proficient in reading, writing, and speaking English to comply with FAA regulations
3. Financial Readiness - Students must be able to provide proof of ability to finance the training program, either through personal funds, loans, or GI Bill benefits for eligible veterans
4. Interview and Assessment - Semper Fly Helicopters reserves the right to conduct an interview in which the motivation and fitness for flight training can be assessed
5. Required Documents
 - A. U.S. Citizens
 - i. Proof of U.S. Citizenship
 - ii. Valid, unexpired U.S. passport OR
 - iii. Original or government-issued birth certificate of the U.S., American Samoa, or Swains Island AND a government-issued picture identification OR
 - iv. Original certification of birth abroad with raised seal (Form FS-545 or Form DS-1350) AND a government-issued picture identification OR
 - v. Original certificate of U.S. citizenship with raised seal (Form N-560 or N-561) or a Certificate of Repatriation (Form N-581) AND government-issued picture ID OR
 - vi. Original U.S. Naturalization Certificate with raised seal (Form N-550 or N-570) AND a government-issued picture ID
 - vii. FAA Class I or Class II Medical
 - viii. FAA Airman's Certificate (if you already have a student pilot certificate or higher)
 - ix. FAA Knowledge Test (if completed)
 - B. Foreign Nationals
 - i. Passport
 - ii. Visa
 - iii. FAA Class I or Class II Medical
 - iv. Complete TSA Training application

Additionally, all students must satisfy the requirements identified in Part 141; Appendix B, applicable to the certificate or rating sought by the learner. If the student is degree seeking, they must meet the enrollment criteria of the University of Oklahoma Aviation Department.

Flight Training Course Objective

The student will obtain the knowledge, skill, and aeronautical experience necessary to meet the requirements for a Private Pilot Certificate with a Rotorcraft/Helicopter category rating.

Flight Training Course Completion Standards

The student must demonstrate through written tests, flight tests, and show through appropriate records that he or she meets the knowledge, skill, and experience requirements necessary to obtain a Private Pilot Certificate with a Rotorcraft/Helicopter category rating, while maintaining the standards set in the Semper Fly Helicopters Standard Operating Procedures and Safety Policies Manual and the Airman Certification Standards.

Flight Training Curriculum

Flight school for the Private Pilot student is accomplished by enrollment in the Semper Fly Helicopters pilot course and a minimum of 51.5 flight hours. An outline for each lesson is provided in the following Flight Training Syllabus. The flight instructor will be responsible for student knowledge who obtained credit by exam or who have not taken these courses.

Flight Training Textbooks

The flight-training course is structured by the Helicopter Pilot Textbook. Jeppesen Sanderson, Inc., the Federal Regulations FAR/AIM. Flight training lessons generally follow the sequence and content of these textbooks. Other required reference materials are listed in the Introduction Section of the Airman Certification Standards.

Training Records

Semper Fly Helicopters will establish and maintain current and accurate records of the participation of each student enrolled in the aviation program. These records will include as a minimum the date the student was enrolled, a chronological log of the student's course attendance, the subjects, and flight operations covered in the student's training, and the names and grades of any tests taken by the student. Additionally, a record will be maintained on the date the student graduated, terminated training, or transferred to another school. Whenever a student graduates, terminates training, or transfers to another school, the student's record will be certified to that effect by the chief instructor. The school will retain each student record for at least 1 year from the date that the student either graduates from the course to which the record pertains, terminates enrollment in the course to which the record pertains, or transfers to another school. These records will be kept in accordance with 14 CFR 141.101. The school will make a copy of these records available to the student upon request.

1.2 - Private Pilot Course Minimum
Time Summary

<u>TRAINING STAGE</u>	<u>DUAL</u>	<u>SOLO/PIC</u>	<u>X/C</u>	<u>NIGHT</u>	<u>ORAL</u>	<u>GROUND</u>
Flight Stage Two	19.5	7.0	10.0	3.0	14.3	
SUB-TOTAL	19.5	7.0	10.0	3.0	14.3	

TOTAL GROUND TIME FOR PRIVATE PILOT COURSE: 61.1 HOURS

TOTAL FLIGHT TIME FOR PRIVATE PILOT COURSE: 51.5 HOURS

TOTAL SIMULATOR TIME FOR PRIVATE PILOT COURSE: 5.0 HOURS

1.3 - Grading Rubric

After each lesson, the instructor will assign grades for each ground or flight activity using the following scale:

GRADE	STUDENT PERFORMANCE	DESCRIPTION
A	Exceeds Standards	The student meets the FAA Airman Certification Standards and usually (50% of the time or more) exceeds those standards.
B	Meets Standards	The student meets the FAA Airman Certification Standards.
C	Below Standards	The student does not meet the FAA Airman Certification Standards.
F	Failure	Ground: Student non-participation or refusal to re-train Flight: The safety of the flight is in question and/or the instructor was required to take control of the aircraft.
I	Incomplete	The allotted time was not sufficient for the student to perform the activity.
NG	Not Graded	The activity was not assigned to the student and will <u>not</u> be required to be completed in a separate training session.

NOTES

- With a grade of C, or F, the instructor must include amplifying comments on the grade form
- With a grade of C, F, or I, the student will be required to complete the activity to the FAA Airman Certification Standards in a separate training session.

SECTION 2 - STAGE TWO FLIGHT TRAINING

OBJECTIVES:

During this stage, the student will be instructed in all operations and procedures required at the Private Pilot level. This includes local and cross-country flights, operations into unfamiliar airports, autorotative landing procedures, confined areas, pinnacle operations, and night operations.

Each student must review the assignment for the scheduled flight lesson prior to arriving for training.

REFERENCES:

1. The Semper Fly Helicopters Training Syllabus for the Private Pilot Rotorcraft / Helicopter Certification Course
2. The Semper Fly Helicopters Standard Operating Procedures and Safety Policies Manual
3. The Semper Fly Helicopters Private / Commercial Study Guide
4. Guimbal Cabri G2 Flight Manual
5. Guimbal Cabri G2 Flight Instructor Guide
6. Helicopter Pilot Textbook. Jeppesen Sanderson, Inc
7. Aeronautical Decision Making for Private Pilots
8. The FAR/AIM Manual
9. Private Pilot for Rotorcraft Category Helicopter Rating Airman Certification Standards, FAA-S-ACS-15
10. Risk Management Handbook, FAA-H-8083-2

COMPLETION STANDARDS:

This stage will be completed when the student has demonstrated through dual and solo flights and a stage check that he/she meets/exceeds Airman Certification Standards (ACS).

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LESSON	DUAL	SOLO	X/C	NIGHT	ORAL	PAGE
2.1 - Lesson 1: Confined Area Operations	1.2				0.8	2-3
2.2 - Lesson 2: Private Pilot Maneuvers	1.2				0.8	2-4
2.3 - Lesson 3: Private Pilot Maneuvers	1.2				0.8	2-5
2.4 - Lesson 4: Pinnacle/Platform Operations	1.2				0.8	2-6
2.5 - Lesson 5: Solo Flight Training	0.2	1.0			0.8	2-7
2.6 - Lesson 6: Introduction to Glass Cockpit	1.2				0.8	2-8
2.7 - Lesson 7: Navigation - Day Cross-Country	4.0		4.0		0.8	2-9
2.8 - Lesson 8: Solo Flight Training	0.2	1.0			0.8	2-10
2.9 - Lesson 9: Pinnacle/Platform Operations	1.2				0.8	2-11
2.10 - Lesson 10: Navigation - Night Cross-Country	3.0		3.0	3.0	0.8	2-12
2.11 - Lesson 11: Solo Flight Training	0.2	1.0			0.8	2-13
2.12 - Lesson 12: Solo Flight Training	0.2	1.0			0.8	2-14
2.13 - Lesson 13: Navigation - Day Solo Cross-Country		3.0	3.0		0.8	2-15
2.14 - Lesson 14: Autorotation Review	1.2				0.8	2-16
2.15 - Lesson 15: Simulator Augmentation**						2-17
2.16 - Lesson 16: Private Pilot Final Stage Check Review	1.8				1.6	2-18
2.17 - Lesson 17: Private Pilot Final Stage Check	1.5				1.5	2-20
FLIGHT STAGE TWO - TOTAL HOURS	19.5	7.0	10.0	3.0	14.3	

TOTAL FLIGHT TIME - STAGE TWO: 26.5

****SIMULATOR HOURS - STAGE TWO: 3.0**

2.1 - LESSON 1: CONFINED AREA OPERATIONS

(Dual: 1.2 Hours, Pre/Post Flight Briefings: 0.8 Hours)

OBJECTIVES:

In this lesson the student will gain proficiency in safely conducting a landing into and departure from a confined area.

CONTENTS:

1. Elements related to confined area operations
2. High and low reconnaissance
3. Suitable approach path, termination point, and departure path
4. Track a selected approach path and angle; and rate of closure to the termination point
5. Maintain RPM within normal limits
6. Avoids settling with power conditions
7. Understands when go-around should be and can be accomplished
8. Terminates approach to a hover, or to the ground, as conditions allow
9. Accomplishes a ground reconnaissance
10. Selects suitable takeoff point, considers factors affecting takeoff and climb performance under various conditions

COMPLETION STANDARDS:

This lesson will be complete when the student has a basic understanding of and is able to safely perform confined area operations.

2.2 - LESSON 2: PRIVATE PILOT MANEUVERS

(Dual: 1.2 Hours, Pre/Post Flight Briefings: 0.8 Hours)

OBJECTIVES:

In this lesson the student will be introduced to the safe way to conduct 180° autorotations to an acceptable conclusion.

CONTENTS:

1. Rapid Deceleration (Quick Stop)
2. 180° autorotation with power recovery
3. Enhanced training in autorotation procedures
4. High altitude (Running) takeoffs

COMPLETION STANDARDS:

This lesson will be completed when the student has a basic understanding of how to conduct 180° autorotations and high altitude takeoffs in a safe manner.

2.3 - LESSON 3: PRIVATE PILOT MANEUVERS

(Dual: 1.2 Hours, Pre/Post Flight Briefings: 0.8 Hours)

OBJECTIVES:

In this lesson the student will have additional exposure to the safe way to conduct 180° autorotations to an acceptable conclusion.

CONTENTS:

1. Rapid Deceleration (Quick Stop)
2. 180° autorotation with power recovery
3. Enhanced training in autorotation procedures
4. High altitude (Running) takeoffs

COMPLETION STANDARDS:

This lesson will be completed when the student has a more knowledgeable understanding of how to conduct 180° autorotations and high altitude takeoffs in a safe manner.

2.4 - LESSON 4: PINNACLE/PLATFORM OPERATIONS

(Dual: 1.2 Hours, Pre/Post Flight Briefings: 0.8 Hours)

OBJECTIVES:

During this lesson, the student will learn to land on and depart from a pinnacle in a safe and efficient manner.

CONTENTS:

1. Elements related to pinnacle and platform operations
2. High and low reconnaissance
3. Suitable approach path, termination point, and departure path
4. Track a selected approach path and angle; and rate of closure to the termination point
5. Maintains RPM within normal limits
6. Terminates to a hover or to the ground as conditions allow
7. Accomplish a ground reconnaissance
8. Selects suitable take-off point, considers factors affecting take-off and climb performance under various conditions

COMPLETION STANDARDS:

This lesson will be complete when the student has a basic understanding of and is able to safely perform pinnacle/platform operations.

2.5 - LESSON 5: SOLO FLIGHT TRAINING

(Dual: 0.2 Hours, Solo: 1.0 Hours, Pre/Post Flight Briefings: 0.8 Hours)

OBJECTIVES:

During this lesson, the student will fly into the instructor directed designated practice areas and practice instructor designated maneuvers, pursuant to 14 CFR Appendix B to Part 141 5(c).

CONTENTS:

The flight will begin as a dual flight with the instructor and student flying together. Both occupants will make a safety assessment of the student's ability and readiness to safely complete solo flight. Either the student or instructor may postpone and repeat this lesson due to an unsafe assessment.

Prior to the flight the student will discuss the flight with their instructor and the instructor will designate maneuvers.

COMPLETION STANDARDS:

This lesson will be completed when the student has practiced all maneuvers assigned by the instructor.

2.6 - LESSON 6: INTRODUCTION TO GLASS COCKPIT

(Dual: 1.2 Hours, Pre/Post Flight Briefings: 0.8 Hours)

OBJECTIVES:

During this lesson, the student will be able to use the digital instruments in the Glass Cockpit to operate the helicopter, if available. If not available, the instructor will assign the student tasks to strengthen any possible weak areas of performance.

Additionally, this lesson is also expected to be either a real or simulated Cross-Country flight in which the student is expected to complete a flight plan, weight and balance, and briefing. The flight should take place during the day to allow the student to more easily identify checkpoints.

CONTENTS:

1. Review of flight plan
2. Review of weight and balance
3. Obtain and create Briefings
4. Introduction to the Garmin 650 and Aspen PFD
5. Practice use of glass cockpit instruments

COMPLETION STANDARDS:

This lesson will be completed when the student has an understanding and is able to use the Garmin 650 and Aspen PFD to operate the helicopter during a simulated or actual cross-country flight. If not available, the student will complete the lesson by completing any tasks the instructor assigns to assist weak areas of performance.

2.7 - LESSON 7: NAVIGATION - DAY CROSS-COUNTRY

(Dual/XC: 4.0 Hours, Pre/Post Flight Briefings: 0.8 Hours)

OBJECTIVES:

During this lesson, the student will be introduced to cross-country operations in a helicopter.

CONTENTS:

1. Obtain and create Briefings
2. Determine distance, time, fuel, and ETA
3. Pilotage and dead reckoning
4. Navigation systems, radar services and requesting assistance
5. Diversion and alternate airport selection
6. Lost procedures
7. Practice use of glass cockpit instruments
8. Select appropriate frequencies from the AFD
9. Radio aids navigation
10. Use of sectional map
11. FAA Airman Certification Standards

COMPLETION STANDARDS:

This lesson will be completed when the student is able to show the proper diversion procedures, lost procedures, and navigation usage for his/her flight.

2.8 - LESSON 8: SOLO FLIGHT TRAINING

(Dual: 0.2 Hours, Solo: 1.0 Hours, Pre/Post Flight Briefings: 0.8 Hours)

OBJECTIVES:

During this lesson, the student will fly into the instructor directed designated practice areas and practice instructor designated maneuvers, pursuant to 14 CFR Appendix B to Part 141 5(c).

CONTENTS:

The flight will begin as a dual flight with the instructor and student flying together. Both occupants will make a safety assessment of the student's ability and readiness to safely complete solo flight. Either the student or instructor may postpone and repeat this lesson due to an unsafe assessment.

Prior to the flight the student will discuss the flight with their instructor and the instructor will designate maneuvers.

COMPLETION STANDARDS:

This lesson will be completed when the student has practiced all maneuvers assigned by the instructor.

2.9 - LESSON 9: PINNACLE/PLATFORM OPERATIONS

(Dual: 1.2 Hours, Pre/Post Flight Briefings: 0.8 Hours)

OBJECTIVES:

During this lesson, the student will learn to land on and depart from a pinnacle in a safe and efficient manner.

CONTENTS:

1. Elements related to pinnacle and platform operations
2. High and low reconnaissance
3. Suitable approach path, termination point, and departure path
4. Track a selected approach path and angle; and rate of closure to the termination point
5. Maintains RPM within normal limits
6. Terminates to a hover or to the ground as conditions allow
7. Accomplish a ground reconnaissance
8. Selects suitable take-off point, considers factors affecting take-off and climb performance under various conditions

COMPLETION STANDARDS:

This lesson will be complete when the student has a basic understanding of and is able to safely perform pinnacle / platform operations.

2.10 - LESSON 10: NAVIGATION - NIGHT CROSS-COUNTRY

(Dual/XC/Night: 3.0 Hours, Pre/Post Flight Briefings: 0.8 Hours)

OBJECTIVES:

During this lesson, the student will gain proficiency in night cross-country operations in a helicopter.

The flight must be a minimum time of 3 hours and more than 50 NM total distance with 10 takeoffs and landings with each landing involving a flight in the traffic pattern at an airport per 14 CFR Appendix B to Part 141 4(b)(3)(ii).

CONTENTS:

1. Obtain and create Briefings
2. Minimum of 50 NM total distance with 10 takeoffs and landings with full traffic patterns
3. Night Cockpit light management
4. Pilotage and dead reckoning
5. Determine distance, time, fuel, and ETA
6. Navigation systems, radar services and requesting assistance
7. Diversion and alternate airport selection
8. Lost procedures
9. Select appropriate frequencies from the AFD
10. Radio aids navigation
11. Use of sectional map

COMPLETION STANDARDS:

This lesson will be completed when the student is able to show the proper diversion procedures, lost procedures, and navigation usage for his/her flight.

2.11 - LESSON 11: SOLO FLIGHT TRAINING

(Dual: 0.2 Hours, Solo: 1.0 Hours, Pre/Post Flight Briefings: 0.8 Hours)

OBJECTIVES:

During this lesson, the student will fly into the instructor directed designated practice areas and practice instructor designated maneuvers, pursuant to 14 CFR Appendix B to Part 141 5(c).

CONTENTS:

The flight will begin as a dual flight with the instructor and student flying together. Both occupants will make a safety assessment of the student's ability and readiness to safely complete solo flight. Either the student or instructor may postpone and repeat this lesson due to an unsafe assessment.

Prior to the flight the student will discuss the flight with their instructor and the instructor will designate maneuvers.

COMPLETION STANDARDS:

This lesson will be completed when the student has practiced all maneuvers assigned by the instructor.

2.12 - LESSON 12: SOLO FLIGHT TRAINING

(Dual: 0.2 Hours, Solo: 1.0 Hours, Pre/Post Flight Briefings: 0.8 Hours)

OBJECTIVES:

During this lesson, the student will fly into the instructor directed designated practice areas and practice instructor designated maneuvers, pursuant to 14 CFR Appendix B to Part 141 5(c).

CONTENTS:

The flight will begin as a dual flight with the instructor and student flying together. Both occupants will make a safety assessment of the student's ability and readiness to safely complete solo flight. Either the student or instructor may postpone and repeat this lesson due to an unsafe assessment.

Prior to the flight the student will discuss the flight with their instructor and the instructor will designate maneuvers.

COMPLETION STANDARDS:

This lesson will be completed when the student has practiced all maneuvers assigned by the instructor.

2.13 - LESSON 13: NAVIGATION - DAY SOLO CROSS-COUNTRY

(Solo/XC: 3.0 Hours, Pre/Post Flight Briefings: 0.8 Hours)

OBJECTIVES:

During this lesson, the student will conduct a solo cross-country flight, pursuant to 14 CFR Appendix B to Part 141 5(c)(1).

CONTENTS:

1. Obtain and create Briefings
2. Determine distance, time, fuel, and ETA
3. 100 NM minimum, with landings at 3 airports, and one segment of more than 25 NM between takeoff and landing locations
4. Compute weight and balance
5. Compute performance planning
6. Plan the flight with the proper maps and AFD

COMPLETION STANDARDS:

This lesson will be completed when the student conducts the cross-country flight to the satisfaction of his/her instructor. He/she will be expected to complete the flight safely and to react appropriately to any critical situation encountered. He/she will also be expected to comply with all regulations and school operating procedures for solo flight and solo cross-country flight with a landing at an airport with an operating control tower.

2.14 - LESSON 14: AUTOROTATION REVIEW

(Dual: 1.2 Hours, Pre/Post Flight Briefings: 0.8 Hours)

OBJECTIVES:

During this lesson, the student will review straight-in and 180° autorotations.

This lesson will take place no later than 60 days preceding the date of the checkride and in pursuant of 14 CFR Appendix B to Part 141 4(b)(3)(iii).

CONTENTS:

1. Rapid Deceleration (Quick Stop)
2. Review and practice straight-in and 180° autorotations.

COMPLETION STANDARDS:

This lesson will be completed when the student is able to conduct autorotations in accordance with the ACS as guidance.

2.15 - LESSON 15: SIMULATOR AUGMENTATION

(Simulator: 3.0 Hours)

OBJECTIVES:

This lesson gives the student an opportunity to utilize the simulator to improve any Stage Two maneuver or procedures which may require additional practice in preparation for the Stage Check, as determined by the instructor.

CONTENTS:

1. Hovering Maneuvers
 - A. Vertical Takeoff and Landing
 - B. Slope Operations
 - C. Surface Taxi
 - D. Hover Taxi
 - E. Air Taxi
2. Takeoffs, Landings, and Go-arounds
 - A. Normal and Crosswind Takeoff
 - B. Normal and Crosswind Approach
 - C. Maximum Performance Takeoff and Climb
 - D. Steep Approach
 - E. Rolling Takeoff
 - F. Shallow Approach and Run-on Landing
 - G. Go-arounds
3. Performance Maneuvers
 - A. Rapid Deceleration
 - B. Straight in Autorotation
 - C. 180° Autorotation
4. Emergency Operations
 - A. Power Failure at a Hover
 - B. Power Failure at Altitude
 - C. Systems and Equipment Malfunctions
 - D. Settling-With-Power
 - E. Low Rotor RPM Recovery
5. Special Operations
 - A. Confined Area Operation
 - B. Pinnacle / Platform Operations
 - C. Night Operations
6. Instrument Operations

COMPLETION STANDARDS:

The student should demonstrate continued increased proficiency of aircraft control and a basic level of understanding of all maneuvers introduced during the lesson.

2.16 - LESSON 16: PRIVATE PILOT FINAL STAGE CHECK REVIEW

(Dual: 1.8 Hours, Pre/Post Flight Briefings: 1.6 Hours)

OBJECTIVES:

In this lesson, the student will review all of the maneuvers required for the Private Pilot Check ride.

This lesson will take place no later than 60 days preceding the date of the checkride and in pursuant of 14 CFR Appendix B to Part 141 4(b)(3)(iii).

CONTENTS:

1. Preflight preparation
 - A. Certificates and documents
 - B. Airworthiness requirements
 - C. Weather information
 - D. Cross-country flight planning
 - E. National airspace system
 - F. Performance and limitations
 - G. Operation of systems
2. Preflight procedures
 - A. Preflight inspection
 - B. Cockpit management
 - C. Engine starting and rotor engagement
 - D. Before takeoff check
3. Airport and heliport operations
 - A. Radio communications and ATC light signals
 - B. Traffic patterns
 - C. Airport/heliport runway, helipad, and taxiway signs, markings, and lighting
4. Hovering maneuvers
 - A. Vertical takeoff and landing
 - B. Slope operations
 - C. Hover taxi
 - D. Air taxi
5. Takeoffs, landings, and go-arounds
 - A. Normal and crosswind takeoff and climb
 - B. Normal and crosswind approach
 - C. Maximum performance takeoff and climb
 - D. Steep approach
 - E. Confined area operations
 - F. Pinnacle/platform operations
 - G. Shallow approach and running landing
 - H. Go-around

6. Performance maneuvers
 - A. Rapid deceleration
 - B. Straight in autorotation
 - C. 180 degree autorotation
7. Navigation
 - A. Pilotage and dead reckoning
 - B. Radio navigation and radar services
 - C. Diversion
 - D. Lost procedures
8. Emergency procedures
 - A. Power failure at a hover
 - B. Power failure at altitude
 - C. Systems and equipment malfunction
 - D. Settling-with-power
 - E. Low rotor RPM recovery
 - F. Anti-torque system failure
 - G. Dynamic rollover
 - H. Ground Resonance
 - I. Low G conditions
 - J. Emergency equipment and survival gear
9. Night operations
 - A. Night preparation
10. Post-Flight procedures
 - A. After landing and securing

COMPLETION STANDARDS:

The student should be able to conduct all maneuvers in accordance with the Airman Certification Standards.

Additional oral time is provided in this lesson to provide the instructor an opportunity to discuss topics relating to Stage Check and Check Ride preparations.

2.17 - LESSON 17: PRIVATE PILOT FINAL STAGE CHECK

(Dual: 1.5 Hours, Pre/Post Flight Briefings: 1.5 Hours)

OBJECTIVES:

During this Stage Check, the designated check pilot will evaluate the student's proficiency to be able to pass a FAA Private Pilot CheckRide within the Airman Certification Standards.

CONTENTS:

1. Preflight preparation
 - A. Certificates and documents
 - B. Airworthiness requirements
 - C. Weather information
 - D. Cross-country flight planning
 - E. National airspace system
 - F. Performance and limitations
 - G. Operation of systems
2. Preflight procedures
 - A. Preflight inspection
 - B. Cockpit management
 - C. Engine starting and rotor engagement
 - D. Before takeoff check
3. Airport and heliport operations
 - A. Radio communications and ATC light signals
 - B. Traffic patterns
 - C. Airport/heliport runway, helipad, and taxiway signs, markings, and lighting
4. Hovering maneuvers
 - A. Vertical takeoff and landing
 - B. Slope operations
 - C. Hover taxi
 - D. Air taxi
5. Takeoffs, landings, and go-arounds
 - A. Normal and crosswind takeoff and climb
 - B. Normal and crosswind approach
 - C. Maximum performance takeoff and climb
 - D. Steep approach
 - E. Confined area operations
 - F. Pinnacle/platform operations
 - G. Shallow approach and running landing
 - H. Go-around
6. Performance maneuvers
 - A. Rapid deceleration
 - B. Straight in autorotation
 - C. 180° autorotation

7. Navigation
 - A. Pilotage and dead reckoning
 - B. Radio navigation and radar services
 - C. Diversion
 - D. Lost procedures
8. Emergency procedures
 - A. Power failure at a hover
 - B. Power failure at altitude
 - C. Systems and equipment malfunction
 - D. Settling-with-power
 - E. Low rotor RPM recovery
 - F. Anti-torque system failure
 - G. Dynamic rollover
 - H. Ground Resonance
 - I. Low G conditions
 - J. Emergency equipment and survival gear
9. Night operations
 - A. Night preparation
10. Post-Flight procedures
 - A. After landing and securing

COMPLETION STANDARDS:

This lesson will be complete when the student demonstrates the required maneuvers to a satisfactory level necessary to complete the Helicopter Private Pilot Airman Certification Standards.