

Examiner's Practical Test Checklist
Flight Instructor – Airplane
(Single-Engine)

Applicant's Name: _____

Examiner's Name: _____

Date: _____ **Type Check:** _____

Type Airplane: _____

Area of Operation:

I. FUNDAMENTALS OF INSTRUCTING

- A.** Human Behavior and Effective Communication
- B.** The Learning Process
- C.** The Teaching Process
- D.** Assessment and Critique
- E.** Instructor Responsibilities and Professionalism
- F.** Techniques of Flight Instruction
- G.** Risk Management

II. TECHNICAL SUBJECT AREAS

- A.** Aeromedical Factors
- B.** Runway Incursion Avoidance
- C.** Visual Scanning and Collision Avoidance
- D.** Principles of Flight
- E.** Airplane Flight Controls
- F.** Airplane Weight and Balance
- G.** Navigation and Flight Planning
- H.** Night Operations
- I.** High Altitude Operations
- J.** 14 CFR and Publications
- K.** National Airspace System
- L.** Navigation Systems and Radar Services
- M.** Logbook Entries and Certificate Endorsements
- N.** Water and Seaplane Characteristics
- O.** Seaplane Bases, Rules, and Aids to Marine Navigation

III. PREFLIGHT PREPARATION

- A.** Certificates and Documents
- B.** Weather Information
- C.** Operation of Systems
- D.** Performance and Limitations

- E. Airworthiness Requirements

IV. PREFLIGHT LESSON ON A MANEUVER TO BE PERFORMED IN FLIGHT

- A. Maneuver Lesson

V. PREFLIGHT PROCEDURES

- A. Preflight Inspection
- B. Cockpit Management
- C. Engine Starting
- D. Taxiing—Landplane
- E. Taxiing—Seaplane
- F. Sailing
- G. Before Takeoff Check

VI. AIRPORT AND SEAPLANE BASE OPERATIONS

- A. Radio Communications and ATC Light Signals
- B. Traffic Patterns
- C. Airport/Seaplane Base, Runway and Taxiway Signs, Markings, and Lighting

VII. TAKEOFFS, LANDINGS, AND GO-AROUNDS

- A. Normal and Crosswind Takeoff and Climb
- B. Short-Field (Confined Area ASES) Takeoff and Maximum Performance Climb
- C. Soft-Field Takeoff and Climb
- D. Glassy-Water Takeoff and Climb
- E. Rough-Water Takeoff and Climb
- F. Normal and Crosswind Approach and Landing
- G. Slip to a Landing
- H. Go-Around/Rejected Landing
- I. Short-Field (Confined Area ASES) Approach and Landing
- J. Soft-Field Approach and Landing
- K. Power-Off 180° Accuracy Approach and Landing
- L. Glassy-Water Approach and Landing
- M. Rough-Water Approach and Landing

VIII. FUNDAMENTALS OF FLIGHT

- A. Straight-and-Level Flight
- B. Level Turns
- C. Straight Climbs and Climbing Turns
- D. Straight Descents and Descending Turns

IX. PERFORMANCE MANEUVERS

- A. Steep Turns
- B. Steep Spirals
- C. Chandelles

- D. Lazy Eights

X. GROUND REFERENCE MANEUVERS

- A. Rectangular Course
- B. S-Turns Across a Road
- C. Turns Around a Point
- D. Eights on Pylons

XI. SLOW FLIGHT, STALLS, AND SPINS

- A. Maneuvering During Slow Flight
- B. Power-On Stalls (Proficiency)
- C. Power-Off Stalls (Proficiency)
- D. Cross-controlled Stalls (Demonstration)
- E. Elevator Trim Stalls (Demonstration)
- F. Secondary Stalls (Demonstration)
- G. Spins
- H. Accelerated Maneuver Stalls (Demonstration)

XII. BASIC INSTRUMENT MANEUVERS

- A. Straight-and-Level Flight
- B. Constant Airspeed Climbs
- C. Constant Airspeed Descents
- D. Turns to Headings
- E. Recovery from Unusual Flight Attitudes

XIII. EMERGENCY OPERATIONS

- A. Emergency Approach and Landing (Simulated)
- B. Systems and Equipment Malfunctions
- C. Emergency Equipment and Survival Gear
- D. Emergency Descent

XIV. POSTFLIGHT PROCEDURES

- A. Postflight Procedures
- B. Anchoring
- C. Docking and Mooring
- D. Beaching
- E. Ramping

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Areas of Operation:

I. Fundamentals of Instructing

Note: *The examiner shall select Task E and one other Task.*

Task A: Human Behavior and Effective Communication

Reference: FAA-H-8083-9A.

Objective: To determine that the applicant exhibits instructional knowledge of human behavior and effective communication and how these impact effective learning by describing:

1. Definitions of human behavior.
2. Human needs and motivation.
3. Defense mechanisms.
4. Student emotional reactions.
5. Basic elements of communication.
6. Barriers to effective communication.
7. Developing communication skills.

Task B: The Learning Process

Reference: FAA-H-8083-9A.

Objective: To determine that the applicant exhibits instructional knowledge of the learning process by describing:

1. Learning theory.
2. Perceptions and insight.
3. Acquiring knowledge.
4. The laws of learning.
5. Domains of learning.
6. Characteristics of learning.
7. Acquiring skill knowledge.
8. Types of practice.
9. Scenario-based training.
10. Errors.
11. Memory and forgetting.
12. Retention of learning.
13. Transfer of learning.

Task C: The Teaching Process

Reference: FAA-H-8083-9A.

Objective: To determine that the applicant exhibits instructional knowledge of the teaching process by describing:

1. Preparation of a lesson.
2. Organization of material.
3. Training delivery methods:
 - a. Lecture method.
 - b. Guided discussion method.
 - c. Computer-assisted learning method.
 - d. Demonstration-performance method.
 - e. Drill and practice method.
4. Problem based learning.
5. Instruction aids and training technologies.

Task D: Assessment and Critique

Reference: FAA-H-8083-9A.

Objective: To determine that the applicant exhibits instructional knowledge of assessments and critiques by describing:

1. Assessment:
 - a. Purpose of assessment.
 - b. General characteristics of effective assessment.
 - c. Traditional assessment.
 - d. Authentic assessment.
 - e. Oral assessment.
 - f. Characteristics of effective questions.
 - g. Types of questions to avoid.
2. Critique:
 - a. Instructors/student critique.
 - b. Student-lead critique.
 - c. Small group critique.
 - d. Individual student critique by another student.
 - e. Self-critique.
 - f. Written critique.

Task E: Instructor Responsibilities and Professionalism

Reference: FAA-H-8083-9A.

Objective: To determine that the applicant exhibits instructional knowledge of instructor responsibilities and professionalism by describing:

1. Aviation instructor responsibilities:
 - a. Helping students learn.
 - b. Providing adequate instruction.
 - c. Standards of performance.
 - d. Minimizing student frustrations.
2. Flight instructor responsibilities:
 - a. Physiological obstacles for flight students.
 - b. Ensuring student ability.
3. Professionalism.
4. Evaluation of student ability.
5. Aviation instructors and exams.
6. Professional development.

Task F: Techniques of Flight Instruction

Reference: FAA-H-8083-9A.

Objective: To determine that the applicant exhibits instructional knowledge of instructor responsibilities and professionalism by describing:

1. Obstacles in learning during flight instruction.
2. Demonstration-performance training delivery.
3. Positive exchange of controls.
4. Sterile cockpit.
5. Use of distractions.
6. Integrated flight instruction.
7. Assessment of piloting ability.
8. Aeronautical decision making.

Task G: Risk Management

References: FAA-H-8083-9A, FAA-H-8083-2

Objective: To determine that the applicant exhibits instructional knowledge of risk management by describing:

1. Principles of risk management.
2. Risk management process.
3. Level of risk.
4. Assessing risk.
5. Mitigating risk.
6. IMSAFE checklist.

7. PAVE checklist.
8. 5P checklist.

II. Technical Subject Areas

Note: *The examiner must select Tasks B, M, and at least one other Task.*

Task A: Aeromedical Factors

References: AIM; FAA-H-8083-3, FAA-S-8081-12, FAA-S-ACS-6.

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to aeromedical factors by describing:

1. How to obtain an appropriate medical certificate.
2. How to obtain a medical certificate in the event of a possible medical deficiency.
3. The causes, symptoms, effects, and corrective action of the following medical factors:
 - a. Hypoxia
 - b. Hyperventilation
 - c. Middle ear and sinus problems
 - d. Spatial disorientation
 - e. Motion sickness
 - f. Carbon monoxide poisoning
 - g. Fatigue and stress
 - h. Dehydration
4. The effects of alcohol and drugs, and their relationship to flight safety.
5. The effect of nitrogen excesses incurred during scuba dives and how this affects pilots and passengers during flight.

Task B: Runway Incursion Avoidance

References: AC 91-73, A/FD, AIM; FAA-H-8083-2, FAA-H-8083-3, FAA-H-8083-25.

Note: *If this task has been previously performed in the aircraft during an earlier instructor rating, the determination of the required knowledge can be demonstrated during the brief, at the discretion of the examiner.*

Objective: To determine that the applicant exhibits instructional knowledge of the elements of runway incursion avoidance by describing:

1. Distinct challenges and requirements during taxi operations not found in other phases of flight operations.

2. Procedures for appropriate cockpit activities during taxiing including taxi route planning, briefing the location of hot spots, communicating and coordinating with ATC.
3. Procedures for steering, maneuvering, maintaining taxiway, runway position, and situational awareness.
4. The relevance/importance of hold lines.
5. Procedures for ensuring the pilot maintains strict focus on the movement of the aircraft and ATC communications, including the elimination of all distractive activities (i.e. cell phone, texting, conversations with passengers) during aircraft taxi, takeoff and climb out to cruise altitude.
6. Procedures for holding the pilot's workload to a minimum during taxi operations which should increase the pilot's awareness while taxiing.
7. Taxi operation planning procedures, such as recording taxi instructions, reading back taxi clearances, and reviewing taxi routes on the airport diagram,
8. Procedures for ensuring that clearance or instructions that are actually received are adhered to rather than the ones expected to be received.
9. Procedures for maintaining/enhancing situational awareness when conducting taxi operations in relation to other aircraft operations in the vicinity as well as to other vehicles moving on the airport.
10. Procedures for briefing if a landing rollout to a taxiway exit will place the pilot in close proximity to another runway which can result in a runway incursion.
11. Appropriate after landing/taxi procedures in the event the aircraft is on a taxiway that is between parallel runways.
12. Specific procedures for operations at an airport with an operating air traffic control tower, with emphasis on ATC communications and runway entry/crossing authorizations.
13. ATC communications and pilot actions before takeoff, before landing, and after landing at towered and non-towered airports.
14. Procedures unique to night operations.
15. Operations at non-towered airports.
16. Use of aircraft exterior lighting.
17. Low visibility operations.

Task C: Visual Scanning and Collision Avoidance

References: AC 90-48; AIM; FAA-H-8083-3, FAA-H-8083-25.

Objective: To determine that the applicant exhibits instructional knowledge of the elements of visual scanning and collision avoidance by describing:

1. Relationship between a pilot's physical condition and vision.
2. Environmental conditions that degrade vision.

3. Vestibular and visual illusions.
4. "See and avoid" concept.
5. Proper visual scanning procedure.
6. Relationship between poor visual scanning habits and increased collision risk.
7. Proper clearing procedures.
8. Importance of knowing aircraft blind spots.
9. Relationship between aircraft speed differential and collision risk.
10. Situations that involve the greatest collision risk.

Task D: Principles of Flight

References: FAA-H-8083-3, FAA-H-8083-25.

Objective: To determine that the applicant exhibits instructional knowledge of the elements of principles of flight by describing:

1. Airfoil design characteristics.
2. Airplane stability and controllability.
3. Turning tendency (torque effect).
4. Load factors in airplane design.
5. Wingtip vortices and precautions to be taken.

Task E: Airplane Flight Controls

References: FAA-H-8083-3, FAA-H-8083-25.

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to the airplane flight controls by describing the purpose, location, direction of movement, effect, and proper procedure for use of the:

1. Primary flight controls.
2. Secondary flight controls.
3. Trim Controls.

Task F: Airplane Weight and Balance

References: FAA-H-8083-1, FAA-H-8083-3, FAA-H-8083-25.

Objective: To determine that the applicant exhibits instructional knowledge of the elements of airplane weight and balance by describing:

1. Weight and balance terms.
2. Effect of weight and balance on performance.
3. Methods of weight and balance control.

4. Determination of total weight and center of gravity and the changes that occur when adding, removing, or shifting weight.

Task G: Navigation and Flight Planning

References: FAA-H-8083-3, FAA-H-8083-25.

Objective: To determine that the applicant exhibits instructional knowledge of the elements of navigation and flight planning by describing:

1. Terms used in navigation.
2. Features of aeronautical charts.
3. Importance of using the proper and current aeronautical charts.
4. Method of plotting a course, selection of fuel stops and alternates, and appropriate actions in the event of unforeseen situations.
5. Fundamentals of pilotage and dead reckoning.
6. Fundamentals of radio navigation.
7. Diversion to an alternate.
8. Lost procedures.
9. Computation of fuel consumption.
10. Importance of preparing and properly using a flight log.
11. Importance of a weather check and the use of good judgment in making a “go/no-go” decision.
12. Purpose of and procedure used in filing a flight plan.

Task H: Night Operations

References: AIM; FAA-H-8083-3, FAA-H-8083-25, FAA-S-8081-12, FAA-S-ACS-6.

Objective: To determine that the applicant exhibits instructional knowledge of the elements of night operations by describing:

1. Factors related to night vision.
2. Disorientation and night optical illusions.
3. Proper adjustment of interior lights.
4. Importance of having a flashlight with a red lens.
5. Night preflight inspection.
6. Engine starting procedures, including use of position and anti-collision lights prior to start.
7. Taxiing and orientation on an airport.
8. Takeoff and climb-out.
9. In-flight orientation.
10. Importance of verifying the airplane’s attitude by reference to flight instruments.

11. Night emergencies procedures.
12. Traffic patterns.
13. Approaches and landings with and without landing lights.
14. Go-around.

Task I: High Altitude Operations

References: 14 CFR part 91, AC 61-107, AIM, POH/AFM; FAA-H-8083-3, FAA-S-8081-12.

Objective: To determine that the applicant exhibits instructional knowledge of the elements of high altitude operations by describing:

1. Regulatory requirements for use of oxygen.
2. Physiological hazards associated with high altitude operations.
3. Characteristics of a pressurized airplane and various types of supplemental oxygen systems.
4. Importance of "aviator's breathing oxygen."
5. Care and storage of high-pressure oxygen bottles.
6. Problems associated with rapid decompression and corresponding solutions.
7. Fundamental concept of cabin pressurization.
8. Operation of a cabin pressurization system.

Task J: 14 CFR and Publications

References: 14 CFR parts 1, 61, 91; AC 00-2, AIM, FAA-H-8083-25, NTSB part 830, POH/AFM.

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to the Code of Federal Regulations and related publications by describing:

1. Availability and method of revision of 14 CFR parts 1, 61, 91, and NTSB part 830 by describing:
 - a. Purpose
 - b. general content
2. Availability of flight information publications, advisory circulars, practical test standards, pilot operating handbooks, and FAA-approved airplane flight manuals by describing:
 - a. Availability.

- b. Purpose.
- c. General content.

Task K: National Airspace System

References: 14 CFR part 91, AIM; FAA-S-8081-12, FAA-S-ACS-6.

Objective: To determine that the applicant exhibits instructional knowledge of the elements of the national airspace system by describing:

- 1. Basic VFR Weather Minimums for all classes of airspace.
- 2. Airspace classes—the operating rules, pilot certification, and airplane equipment requirements for the following:
 - a. Class A.
 - b. Class B.
 - c. Class C.
 - d. Class D.
 - e. Class E.
 - f. Class G.
- 3. Special use airspace (SUA).
- 4. Temporary flight restrictions (TFR).

Task L: Navigation Systems and Radar Services

References: AIM; FAA-H-8083-3, FAA-H-8083-15, FAA-S-8081-12, FAA-S-ACS-6.

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to navigation systems and radar service by describing:

- 1. One ground-based navigational system (VOR/VORTAC, NDB, and DME).
- 2. Satellite-based navigation system.
- 3. Radar service and procedures.
- 4. Global positioning system (GPS).

Task M: Logbook Entries and Certificate Endorsements

References: 14 CFR part 61, AC 61-65.

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to logbook entries and certificate endorsements by describing:

- 1. Required logbook entries for instruction given.

2. Required student pilot certificate endorsements, including appropriate logbook entries.
3. Preparation of a recommendation for a pilot practical test, including appropriate logbook entry for:
 - a. Initial pilot certification.
 - b. Additional pilot certification.
 - c. Additional aircraft qualification.
4. Required endorsement of a pilot logbook for the satisfactory completion of the required FAA flight review.
5. Required flight instructor records.

Task N: Water and Seaplane Characteristics (ASES)

References: FAA-H-8083-3, FAA-H-8083-23, FAA-S-8081-12, FAA-S-ACS-6; POH/AFM.

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to water and seaplane characteristics by describing:

1. The characteristics of water surface as affected by features, such as:
 - a. Size and location of water operating area.
 - b. Protected and unprotected operating areas.
 - c. Surface wind.
 - d. Direction and height of waves.
 - e. Direction and strength of water current.
 - f. Floating and partially submerged debris.
 - g. Sandbars, islands, and shoals.
2. Seaplane's float or hull construction and its relationship to performance.
3. Causes of porpoising and skipping and pilot action necessary to prevent or correct those occurrences.

Task O: Seaplane Bases, Rules, and Aids to Marine Navigation (ASES)

References: 14 CFR part 91, COMDTINST; FAA-H-8083-3, FAA-H-8083-23, FAA-S-8081-12, FAA-S-ACS-6; M16672.2D.

Objective: To determine that the applicant exhibits instructional knowledge of the elements related to seaplane bases, rules, and aids to marine navigation by describing:

1. How to locate and identify seaplane bases on charts or in directories.