

## Flight Instructor Airplane Multiengine

### Fundamentals of Flight, Takeoffs and Landings, Traffic Patterns

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#### Scenario:

You are a flight instructor and your student is taking on their first flight in a multiengine airplane. You are simulating a scenario where the flight is a short cross country to another airport to get lunch at the airport restaurant and return. The airport is approximate 20 to 30 minutes away. You plan on showing the student the basic fundamentals of flight going back and forth and will demonstrate normal takeoffs, landings, and traffic patterns at each airport.

#### Lesson Objectives:

The purpose of this lesson is for the student instructor to learn to effectively perform and analyze the listed preflight operations, basic maneuvers, normal takeoffs and landings and traffic pattern procedures.

#### Pre-Briefing:

The student instructor will review the desired outcomes, discuss the scenario for the flight, and discuss the key elements of each maneuver to be flown. The student instructor will develop a maneuver lesson that describes and utilizes the scenario prescribed for this lesson. During the preflight briefing, the instructor will play the role of the student being trained and respond accordingly.

The student instructor should be able to explain the risks associated with a new student learning how to fly basic maneuvers and while in the traffic pattern doing takeoffs and landings. The student instructor should also be able to identify and discuss the risks associated with training in a multiengine airplane and tell how to mitigate those risks.

#### Completion Standards:

This lesson will be complete when the student instructor can perform, teach and analyze each maneuver to the level shown on the desired outcome table and within the tolerances specified by the Flight Instructor Practical Test Standard for Airplane, Multiengine.

| FI- AME- Fundamentals of Flight, Takeoffs and Landings, Traffic Pattern<br><b>Desired Outcome Grade Sheet</b> |  |                     | Task Grades  |          |         |          |         | SRM Grades |          |
|---|--|---------------------|--------------|----------|---------|----------|---------|------------|----------|
|   |  |                     | Not Observed | Describe | Explain | Practice | Perform | Explain    | Practice |
| Scenario Activities   | Task   | Desired Performance |              |          |         |          |         |            |          |
| Preflight Lesson on a Maneuver to be Performed in Flight.   | Maneuver Lesson  |                     |              |          |         |          |         |            |          |
|   | SRM  |                     |              |          |         |          |         |            |          |
| Preflight Procedures  | Preflight Inspection                                       |                     |              |          |         |          |         |            |          |
|   | Engine Starting  |                     |              |          |         |          |         |            |          |
|   | Taxiing  |                     |              |          |         |          |         |            |          |
|   | Before Takeoff Check                                       |                     |              |          |         |          |         |            |          |
|   | SRM  |                     |              |          |         |          |         |            |          |
| Airport Operations  | Radio Communications and ATC Light Signals                 |                     |              |          |         |          |         |            |          |
|   | Traffic Patterns   |                     |              |          |         |          |         |            |          |
|   | Airport, Runway, and Taxiway Signs, Markings, and Lighting |                     |              |          |         |          |         |            |          |
|   | SRM  |                     |              |          |         |          |         |            |          |
| Takeoffs and Departure  | Normal and Crosswind Takeoff and Climb                     |                     |              |          |         |          |         |            |          |
|   | Airport Departure Procedures                               |                     |              |          |         |          |         |            |          |
|   | SRM  |                     |              |          |         |          |         |            |          |
| Fundamentals of Flight  | Straight-and-Level Flight                                  |                     |              |          |         |          |         |            |          |
|   | Level Turns  |                     |              |          |         |          |         |            |          |
|   | Straight Climbs and Turning Climbs                         |                     |              |          |         |          |         |            |          |
|   | Straight Descents and Turning Descents                     |                     |              |          |         |          |         |            |          |
|   | SRM  |                     |              |          |         |          |         |            |          |
| Arrival and Landings  | Normal and Crosswind Approach and Landing                  |                     |              |          |         |          |         |            |          |
|   | Go-Around/Rejected Landing                                 |                     |              |          |         |          |         |            |          |
|   | SRM  |                     |              |          |         |          |         |            |          |
| Post Flight Procedures  | Postflight Procedures                                      |                     |              |          |         |          |         |            |          |
|   | SRM  |                     |              |          |         |          |         |            |          |

**De-Briefing:**

The debriefing will be lead by the student instructor using the Learner-Centered Grading method. The student instructor will critique the instructor about the instructor’s “simulated student” performance. Then the student instructor will critique his/her own performance using the Desired Outcomes Grading sheet as a guide. The instructor and student instructor will discuss any discrepancies in their respective evaluations.

### **Notes to the Instructor:**

The student instructor is learning how to prepare and to present effective scenario-based instruction. The student instructor may not have received scenario-based instruction and may need to review the information provided on the FAA/FITS website to gain a full understanding of the instructional process and its value.

The student instructor should develop a lesson plan that incorporates this scenario and conduct the flight in accordance with that plan. You should review this lesson plan during the preflight briefing and make any suggestions for improvement at that time.

You should have the student instructor “teach” you the preflight procedures for the airplane on the outbound leg. On the return flight, you could perform another preflight inspection with the student instructor analyzing your performance.

During the outbound leg of the scenario, you should play the role of the student and have the student instructor demonstrate to you the maneuvers and procedures. The student instructor should demonstrate normal takeoffs and landings and proper go-around procedures.

During the break between the two legs, you can review the student instructor’s instruction and demonstrations of the basic maneuvers. Before you return, the student instructor should give you a preflight briefing about what you will be expected to do during that portion of the flight.

On the return leg, you should fly the airplane in the role of the “student” and have the student instructor analyze and evaluate your performance and offer proper corrective instruction. While flying the second leg playing the role of the “student”, perform the maneuvers with some basic and common errors to determine if the student instructor can recognize and correct them. Be sure to discuss how to teach a student how to recognize the need to reject a landing and initiate a go-around.

Be sure to discuss the risk elements involved with teaching new students and how an instructor can mitigate those risks. This is especially critical when conducting takeoff and landing practice with new students in a multiengine airplane.