eLearning

Web Based Instructional Programs

Cleared for Multi-Engine Flight Instructing

Training Course

SYLLABUS

King Schools, Inc.
3840 Calle Fortunada
San Diego, CA 92123
800-854-1001 (USA) • 858-541-2200 (Worldwide)
www.kingschools.com

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Cleared for Multi-Engine Flight Instructing

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Ver. 1.00	2026	2026	ORIGINAL

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CLEARED FOR MULTI-ENGINE FLIGHT INSTRUCTING

Course Syllabus

Welcome to Cleared for Multi-Engine Flight Instructing

Welcome, and congratulations on taking this important step in your aviation career. Adding a Multi-Engine rating to your Flight Instructor Certificate opens new opportunities and allows you to share the unique and rewarding challenges of multi-engine flight with your future students.

Because you already hold a Flight Instructor Certificate, you bring a strong foundation to this course. Your experience as an instructor is an asset — this course is designed to build on what you already know and focus your skills on the multi-engine environment. You will find that many of the concepts are familiar, but the application in a multi-engine airplane requires a deeper understanding of systems, aerodynamics, and emergency procedures that this course will develop.

The Cleared for Multi-Engine Flight Instructing course will take you from the ground up — starting with the knowledge you need to understand and teach multi-engine operations, then moving into the cockpit where you will develop proficiency from the right seat. By the time you complete this course, you will be confident in your ability to instruct multi-engine students safely and effectively.

Let’s get started!

Course Overview

How to Use This Syllabus

This syllabus is your guide through the Cleared for Multi-Engine Flight Instructing course. It outlines every ground lesson and flight lesson in the order they should be completed, and tells you exactly what to study, what to expect in each lesson, and what you need to demonstrate before moving on. Keep it handy — you and your instructor will refer to it throughout the course.

Course Elements

The course has three components that work together:

- Video and PowerPoint instruction — completed independently through the King Schools web-based learning platform. These build the knowledge foundation you need for each phase of training.
- Required preflight review videos — short video reviews completed before specific flight lessons where indicated. These ensure you are prepared before getting in the airplane.
- Flight training — conducted with your instructor in the multi-engine airplane. All flight training is conducted to proficiency rather than a fixed number of hours.

Grading Scale

Throughout this course, your performance on ground and flight tasks will be evaluated using the following scale:

Level	What It Means
Describe	You can describe the physical characteristics of the task at a basic level.
Explain	You can describe the task and demonstrate understanding of the underlying concepts, principles, and procedures. Required for all ground lessons.
Practice	You can plan and execute the task with coaching or assistance from your instructor.
Perform	You can complete the task without assistance. You identify and correct errors in an expeditious manner.
Manage/Decide	You can correctly gather information, evaluate options, and make appropriate decisions without instructor intervention. Required for all flight lessons, as indicated by shading on the grading chart.

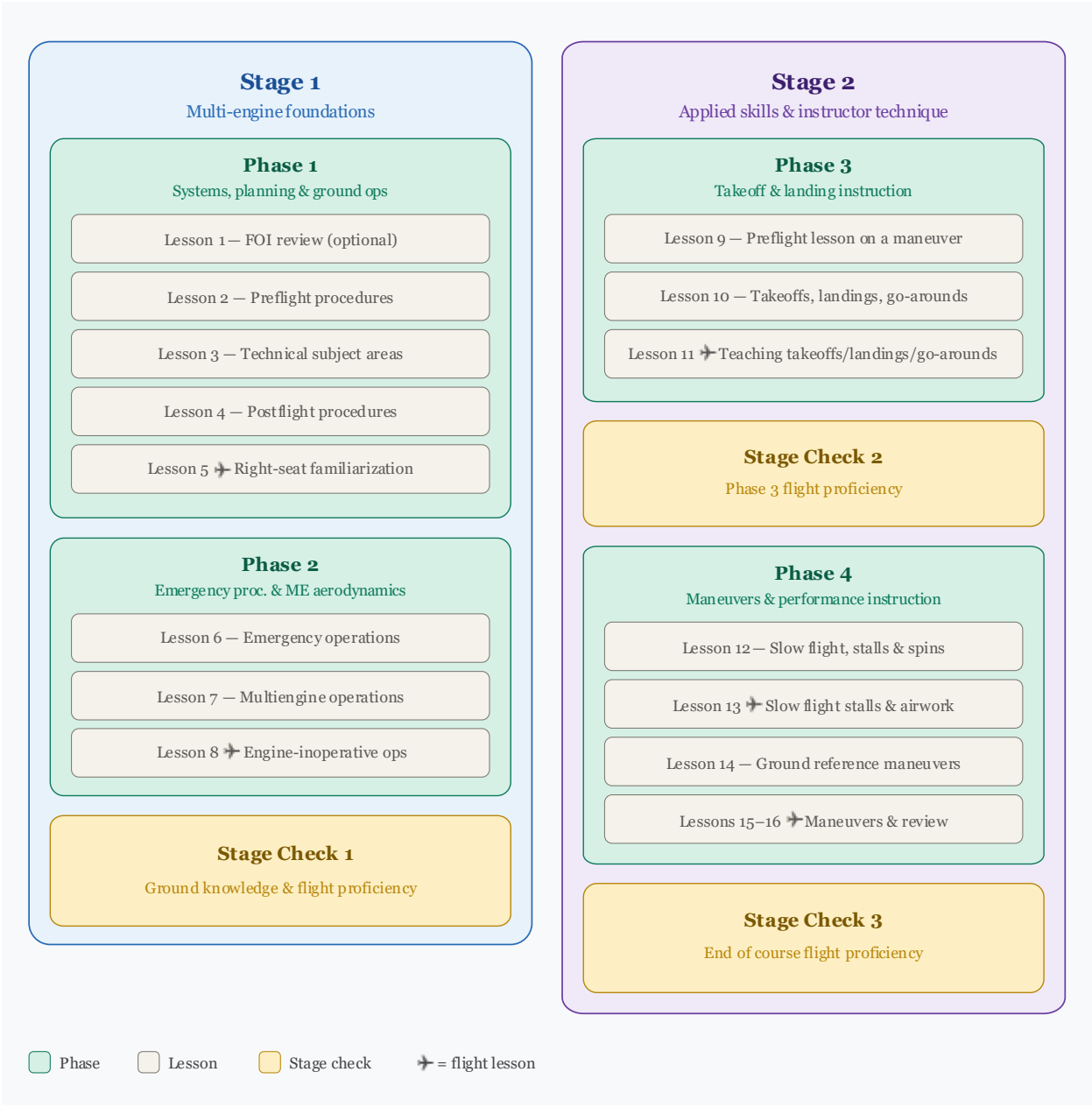
Progressing Through the Course

Lessons should be completed in order. Each web-based knowledge instruction lesson consists of video and PowerPoint content completed independently through the King Schools web-based learning platform. Where indicated, required preflight review videos should be completed before the corresponding flight lesson. If you need additional flights to reach proficiency on any task, those flights can be repeated — there is no penalty for taking more time. Your instructor will work with you to ensure you are ready before moving on.

Stage Checks

At the end of Stage 1 and at key points in Stage 2, you will complete a stage check with the Chief or Assistant Chief Flight Instructor. Stage checks are designed to confirm that you are ready to move forward — think of them as a checkpoint, not a test. If any areas need additional work, you and your instructor will address them before you proceed.

Course Structure



Enrollment Requirements

See Appendix 1 for enrollment and graduation requirements.

Course Objective

This course will prepare you to confidently instruct students in multi-engine airplanes by building on the instructing skills you already have and applying them to the unique demands of multi-engine flight.

Upon completion of this course, you will have the aeronautical knowledge, risk management skills, and flight proficiency required to meet the standards of the FAA Airman Certification Standards for Flight Instructor — Airplane (ACS-25) for the addition of a Multi-Engine rating to your Flight Instructor Certificate.

Course Description

The Cleared for Multi-Engine Flight Instructing course combines video-based lessons, PowerPoint eLearning, and flight training into a structured program that builds your knowledge and skills progressively. The Web Based eLearning is designed so that each lesson prepares you for the flight training that follows.

Because you already hold a Flight Instructor Certificate, this course focuses on applying your existing teaching skills to the multi-engine environment rather than teaching you to instruct from scratch. The flight portion of this course is conducted to proficiency — suggested flight lessons are provided as a guide, but flights may be repeated or adjusted based on your individual progress. Your instructor will work with you to ensure you are fully prepared for your practical test.

This syllabus conforms to the knowledge and skill requirements of 14 CFR Part 61 for the addition of a Multi-Engine rating to a Flight Instructor Certificate. For applicants training under 14 CFR Part 141, this syllabus is designed to meet the requirements of Part 141 Appendix I, Additional Aircraft Category and/or Class Rating Course. Completion standards in this course are not less than those required by the FAA Airman Certification Standards for Flight Instructor — Airplane (ACS-25).

STAGE 1: MULTI-ENGINE FOUNDATIONS

Stage Objective

During this stage you will build the foundational knowledge you need to operate and instruct in multi-engine airplanes. You will develop a thorough understanding of multi-engine systems, aerodynamics, and procedures — including normal operations, emergency operations, and the unique considerations of one engine-inoperative flight. By the end of this stage you will have the knowledge base you need to start applying these concepts as an instructor in the flight environment.

Stage Completion Standard

This stage is considered complete when you have finished all lessons in Phase 1 and Phase 2, passed Stage Check 1, and can demonstrate understanding of the required knowledge and risk management items for each lesson. Desired outcomes are listed for each lesson and must be met before moving on to the next.

Stage 1 consists of two phases of web-based knowledge instruction, each followed by a flight. The focus is on building a strong knowledge foundation before moving into Stage 2.

PHASE 1: SYSTEMS, PLANNING, AND GROUND OPERATIONS

Phase Objective

During this phase you will establish the knowledge foundation for the entire course. You will start with an optional review of the Fundamentals of Instructing to frame your thinking as a multi-engine instructor, then move into multi-engine systems and aircraft operations, preflight planning, and ground procedures. By the end of this phase you will have a solid understanding of how multi-engine airplanes operate on the ground and in normal flight, and you will be ready to build on that foundation in Phase 2.

Phase Completion Standard

This phase is considered complete when you have finished all assigned ground lessons and can demonstrate understanding of the required knowledge and risk management items for each lesson to the desired outcome listed.

Complete each lesson in order through the King Schools web-based learning platform. Your instructor will be available to answer questions, but these lessons are designed to be completed independently. Complete all assigned web-based content and any required preflight review videos before each flight lesson.

Lesson 1: Fundamentals of Instructing Review (Optional)

Lesson Objective

This optional lesson is provided as a resource for applicants who would like to refresh their knowledge of the Fundamentals of Instructing. While this content is not required for the course, the examiner has discretion to evaluate FOI knowledge during the practical test. This lesson is here if you need it.

Course Content

- Fundamentals of Instructing Ground School and Test Prep Course (Full Course for Optional Review)

Estimated Completion Time

Optional — no required completion time.

Completion Standard

This lesson is optional and has no required desired outcome.

Lesson 2: Preflight Procedures

Lesson Objective

In this lesson you will learn the procedures and considerations for safe multi-engine ground operations including preflight inspection, taxi operations, and airport surface awareness. You will also develop the knowledge needed to teach these procedures to your future students.

Course Content

- Engine Start and Taxi
- Preflight Procedures

Lesson Content

- Preflight inspection procedures unique to multi-engine airplanes
- Cockpit management and engine starting
- Taxi operations including differential power and nose wheel steering
- Airport markings, signs, and lighting
- Runway incursion avoidance
- Low visibility and night taxi operations
- Use of checklists

Estimated Completion Time

1.8 hours

Completion Standard

Upon completion of this lesson you will be able to explain all knowledge items and identify all risk management items to the desired outcome listed for this lesson.

ACS Coverage

ACS Code	Description
AI.V.D.K1 – K7	Taxi knowledge items
AI.V.D.R1 – R4	Taxi risk management items

Lesson 3: Technical Subject Areas

Lesson Objective

In this lesson you will develop a thorough understanding of multi-engine performance, aerodynamics, and systems. This is some of the most important knowledge you will carry into the flight environment, and it forms the foundation for everything that follows in this course.

Course Content

- OEI Performance
- Accelerate-Stop Distance
- Accelerate-Go Distance
- Flying Into and Out of High Altitude Airports
- Why Single-Engine Climb Rate is Less Than Half
- What VMC Means to You
- Why and How Much Do You “Raise the Dead”
- It Depends Where You Are
- IFR Departures in a Twin
- Managing Fuel Systems and Heaters on Twins

Lesson Content

- Performance charts, tables, and graphs for all phases of flight
- Effects of exceeding aircraft limitations
- Atmospheric effects on performance
- Single and multi-engine performance capabilities
- OEI aerodynamics including critical engine, bank angle effects on VMC, and zero sideslip
- Relationship between VMC and stall speed
- Determining the best course of action after an engine failure
- Principles and functions of multi-engine aircraft systems

Estimated Completion Time

2.45 hours

Completion Standard

Upon completion of this lesson you will be able to explain all knowledge items and identify all risk management items to the desired outcome listed for this lesson.

ACS Coverage

ACS Code	Description
AI.II.P.K1 – K7	Performance and aerodynamics knowledge items
AI.II.P.R1 – R4	Performance risk management items

Lesson 4: Postflight Procedures

Lesson Objective

In this lesson you will learn the procedures for safely securing a multi-engine airplane after flight, including postflight inspection, shutdown, and ramp safety considerations. You will also develop the knowledge needed to teach and evaluate these procedures as an instructor.

Course Content

- Postflight, Shutdown, and Ramp Safety

Lesson Content

- Postflight inspection procedures
- Engine shutdown and securing procedures
- Ramp safety and parking considerations
- Documenting discrepancies and servicing requirements

Estimated Completion Time

1.7 hours

Completion Standard

Upon completion of this lesson you will be able to explain all knowledge items and identify all risk management items to the desired outcome listed for this lesson.

ACS Coverage

ACS Code	Description
AI.XIV.A.K1 – K3	Postflight knowledge items
AI.XIV.A.R1 – R3	Postflight risk management items

Lesson 5: Right-Seat Familiarization and Normal Operations (Flight)

Lesson Objective

This is your first flight lesson in the multi-engine training airplane. You will get comfortable operating from the right seat as an instructor, develop your sight picture and control feel from this new perspective, and practice normal and short-field takeoffs and landings. By the end of this lesson you should feel comfortable with the basic handling characteristics of the airplane from the instructor seat.

Required Preflight Review

Before beginning this flight lesson, you must complete the following video review:

- Normal Takeoff
- Being Prepared for Abnormalities Every Takeoff

Estimated Preflight Review Time

0.1 hours

Purpose

To become familiar with the training aircraft from the right seat and establish proficiency in normal ground and flight operations as an instructor.

Preflight Discussion

- Right-seat operating procedures and sight picture
- Aircraft performance and limitations review
- Preflight inspection
- Cockpit management from the right seat
- Engine starting and taxi procedures
- Normal and short-field takeoff procedures
- Normal and short-field approach and landing procedures
- Go-around procedures
- Postflight procedures

Flight Tasks

- Preflight inspection
- Cockpit management
- Engine starting
- Taxi operations
- Before takeoff checks
- Normal and crosswind takeoff and climb
- Short-field takeoff and maximum performance climb
- Traffic patterns
- Normal and crosswind approach and landing
- Short-field approach and landing
- Go-around and rejected landing
- After landing, parking, and securing

Postflight Discussion

- Review of flight tasks and instructor self-assessment
- Comparison of instructor and student evaluations
- Discussion of areas requiring additional practice
- Preview of Lesson 6

Completion Standard

Upon completion of this flight lesson you should feel comfortable demonstrating all flight skill items to the desired outcome listed for this lesson. Flight lessons may be repeated until all desired outcomes are met.

Grading

**All items to be graded independently by the instructor and student, then discussed and a final grade assessed. Desired outcome for all tasks is indicated by shading.*

Task	Practice	Perform	Manage/ Decide
Preflight inspection			
Cockpit management			
Engine starting			
Taxi operations			
Before takeoff checks			
Normal and crosswind takeoff and climb			
Short-field takeoff and maximum performance climb			
Traffic patterns			
Normal and crosswind approach and landing			
Short-field approach and landing			
Go-around and rejected landing			
After landing, parking, and securing			

ACS Coverage

ACS Code	Description
AI.V.D.S1 – S8	Taxi skill items
AI.VII.E.S1 – S16	Short-field takeoff skill items
AI.VII.F.S1 – S13	Short-field approach and landing skill items
AI.XIV.A.S1 – S5	Postflight skill items

PHASE 2: EMERGENCY PROCEDURES AND MULTI-ENGINE AERODYNAMICS

Phase Objective

During this phase you will build on the foundation established in Phase 1 and dive into the heart of what makes multi-engine instruction unique. You will develop a deep understanding of engine-inoperative aerodynamics, emergency procedures, and the full range of multi-engine operations — giving you the knowledge and confidence you need to teach these critical concepts to your future students.

Phase Completion Standard

This phase is considered complete when you have finished all assigned lessons and can demonstrate understanding of the required knowledge and risk management items for each lesson to the desired outcome listed.

Phase 2 covers the most critical and unique aspects of multi-engine instruction. Take your time with this material — a thorough understanding of engine-inoperative procedures and aerodynamics is essential.

Lesson 6: Emergency Operations

Lesson Objective

In this lesson you will develop a thorough understanding of multi-engine emergency procedures, with a focus on engine failures during all phases of flight. You will learn how to recognize, manage, and teach emergency situations in a multi-engine airplane so that your future students are prepared to handle them safely and confidently.

Course Content

- Emergency Operations
- VMC — Keeping it Going Straight on One Engine
- What Happens When You Get Too Slow on One Engine
- Engine Failure on Takeoff Roll
- If You Cannot Climb on One Engine
- How VMC is Determined
- Maintaining Control and Maximizing Performance After an Engine Fails
- What it Takes to Climb
- Getting the Best Rate of Climb
- Engine Failure Just After Liftoff
- Maintaining a Deliberate, Methodical Pace
- How to Make a Bad Situation Worse
- Making an Instrument Approach on One Engine
- When You Suspect an Engine Problem
- One Engine Go-Arounds and Single-Engine Climb Rate

Lesson Content

- Engine failure on the takeoff roll
- Engine failure after liftoff
- Accelerate-stop and accelerate-go distances
- Engine failure during flight and best course of action
- Identifying, verifying, and securing an inoperative engine
- Importance of drag reduction and zero sideslip
- Simulated propeller feathering procedures
- OEI approach and landing procedures
- Single-engine go-around considerations
- Common errors related to emergency operations

Estimated Completion Time

3.6 hours

Completion Standard

Upon completion of this lesson you will be able to explain all knowledge items and identify all risk management items to the desired outcome listed for this lesson.

ACS Coverage

ACS Code	Description
AI.XII.E.K1 – K4	Engine failure on takeoff roll knowledge items
AI.XII.E.R1 – R3	Engine failure on takeoff roll risk management items
AI.XII.F.K1 – K7	Engine failure after liftoff knowledge items
AI.XII.F.R1 – R5	Engine failure after liftoff risk management items
AI.XII.G.K1 – K6	OEI approach and landing knowledge items
AI.XII.G.R1 – R6	OEI approach and landing risk management items

Lesson 7: Multiengine Operations

Lesson Objective

In this lesson you will learn the full scope of multiengine flight operations including engine failure recognition and management in flight, VMC demonstration, and the effects of various configurations on engine-inoperative performance. You will develop the knowledge needed to demonstrate and teach these operations with precision and confidence.

Course Content

- Multiengine Operations
- Dealing with a Surging Engine
- If You Lose Oil Pressure or Your Engine Overheats
- If You Lose a Turbocharger at High Altitude
- When You Lose Control of a Propeller
- Demonstrating VMC

Lesson Content

- Engine failure recognition and management in flight
- Shutdown, feathering, and in-flight restart procedures
- VMC demonstration procedures and safety considerations
- Effects of various configurations on OEI performance
- Drag and performance considerations during OEI flight
- Common errors related to multiengine operations

Estimated Completion Time

1.95 hours

Completion Standard

Upon completion of this lesson you will be able to explain all knowledge items and identify all risk management items to the desired outcome listed for this lesson.

ACS Coverage

ACS Code	Description
AI.XIII.A.K1 – K6	Engine failure in flight knowledge items
AI.XIII.A.R1 – R5	Engine failure in flight risk management items
AI.XIII.B.K1 – K6	VMC demonstration knowledge items
AI.XIII.B.R1 – R3	VMC demonstration risk management items
AI.XIII.C.K1 – K8	OEI performance knowledge items
AI.XIII.C.R1 – R6	OEI performance risk management items

Lesson 8: Engine-Inoperative Operations (Flight)

Lesson Objective

In this flight lesson you will practice engine-inoperative procedures throughout all phases of flight. You will develop the skills needed to recognize, manage, and teach engine failures from the right seat, including failures on the takeoff roll, after liftoff, during climb, and during approach and landing. By the end of this lesson you should feel comfortable managing and teaching these critical emergency situations from the instructor seat.

Required Preflight Review

Before beginning this flight lesson, you must complete the following video review:

- When You Have Time to Troubleshoot
- Landing with an Engine Shutdown
- What's Different When You're Landing with One Engine

Estimated Preflight Review Time

0.3 hours

Purpose

To develop proficiency in engine-inoperative procedures and build confidence in managing and teaching these critical emergency situations from the instructor seat.

Preflight Discussion

- Engine failure recognition and memory items review
- Engine failure on the takeoff roll procedures
- Engine failure after liftoff procedures
- OEI climb procedures and performance
- Single-engine climb performance review
- OEI approach and landing procedures
- Single-engine go-around considerations
- Safety considerations for simulated engine failures

Flight Tasks

- Normal and crosswind takeoff and climb
- Engine failure on the takeoff roll (simulated)
- Engine failure after liftoff (simulated)
- OEI climb and maneuvering (simulated)
- Single-engine climb performance demonstration
- OEI approach and landing (simulated)
- Go-around with one engine inoperative (simulated)
- Normal and crosswind approach and landing
- After landing, parking, and securing

Postflight Discussion

- Review of flight tasks and instructor self-assessment
- Comparison of instructor and student evaluations
- Discussion of areas requiring additional practice
- Preview of Stage Check 1

Completion Standard

Upon completion of this flight lesson you should feel comfortable demonstrating all flight skill items to the desired outcome listed for this lesson. Flight lessons may be repeated until all desired outcomes are met.

Grading

**All items to be graded independently by the instructor and student, then discussed and a final grade assessed. Desired outcome for all tasks is indicated by shading.*

Task	Practice	Perform	Manage/ Decide
Normal and crosswind takeoff and climb			
Engine failure on the takeoff roll (simulated)			
Engine failure after liftoff (simulated)			
OEI climb and maneuvering (simulated)			
Single-engine climb performance demonstration			
OEI approach and landing (simulated)			
Go-around with one engine inoperative (simulated)			
Normal and crosswind approach and landing			
After landing, parking, and securing			

ACS Coverage

ACS Code	Description
AI.II.P.S1	Single-engine climb performance skill item
AI.XII.E.S1 – S3	Engine failure on takeoff roll skill items
AI.XII.F.S1 – S11	Engine failure after liftoff skill items
AI.XII.G.S1 – S10	OEI approach and landing skill items

Before proceeding to Stage 2, you must complete Stage Check 1 with the Chief or Assistant Chief Flight Instructor. Review all Stage 1 material before your check — any tasks covered in Lessons 1 through 8 may be assessed.

STAGE CHECK 1: MULTI-ENGINE FOUNDATIONS KNOWLEDGE REVIEW AND FLIGHT PROFICIENCY CHECK

Objective

This stage check is conducted upon completion of Stage 1 to verify that you have acquired the knowledge and flight proficiency required to progress to Phase 3. For the ground portion, you can be evaluated on any topic covered in the Stage 1 ground lessons. For the flight portion, you will be evaluated from the right seat on your ability to demonstrate normal operations, short-field operations, and engine-inoperative procedures. You should be prepared to demonstrate knowledge of or perform any task covered in Phases 1 and 2.

Who Conducts This Check

This check must be conducted by the Chief or Assistant Chief Flight Instructor.

Purpose

To evaluate the student's understanding of Stage 1 knowledge content and ability to demonstrate and teach multi-engine flight operations from the right seat, and to determine readiness to progress to Phase 3.

Topics Available for Evaluation

The Chief or Assistant Chief Instructor may select from any of the following areas covered in Stage 1:

- Preflight procedures and taxi operations
- Multi-engine systems, aerodynamics, and performance
- OEI aerodynamics including critical engine, VMC, and zero sideslip
- Relationship between VMC and stall speed
- Accelerate-stop and accelerate-go distances
- High altitude operations and fuel system management
- Engine failure recognition, verification, and securing procedures
- Drag reduction and zero sideslip during OEI flight
- OEI approach and landing considerations
- Single-engine go-around considerations
- VMC demonstration procedures and safety considerations
- Engine shutdown, feathering, and in-flight restart procedures
- OEI performance and configuration effects
- Postflight, shutdown, and ramp safety procedures

Preflight Discussion

- Review of all Phase 1 and 2 flight tasks
- Right-seat operating considerations
- Safety considerations for simulated engine failures
- Any areas identified for additional focus

Flight Tasks

- Preflight inspection
- Cockpit management
- Taxi operations
- Normal and crosswind takeoff and climb
- Short-field takeoff and maximum performance climb
- Engine failure on the takeoff roll (simulated)
- Engine failure after liftoff (simulated)
- OEI climb and maneuvering (simulated)
- Single-engine climb performance demonstration
- OEI approach and landing (simulated)
- Go-around with one engine inoperative (simulated)
- Normal and crosswind approach and landing
- Short-field approach and landing
- After landing, parking, and securing

Postflight Discussion

- Independent grading of all flight tasks by instructor and student
- Comparison and discussion of evaluations
- Identification of any areas requiring additional practice before progressing to Phase 3

Completion Standard

All items to be graded independently by the Chief or Assistant Chief Instructor and the student, then discussed and a final grade assessed. The desired outcome for all tasks by the end of this check is “Explain.” This stage check must be passed before beginning Stage 2.

Grading

**All items to be graded independently by the instructor and student, then discussed and a final grade assessed. Desired outcome for all tasks is indicated by shading.*

Task	Practice	Perform	Manage/ Decide
Preflight inspection			
Cockpit management			
Taxi operations			
Normal and crosswind takeoff and climb			
Short-field takeoff and maximum performance climb			
Engine failure on the takeoff roll (simulated)			

Engine failure after liftoff (simulated)			
OEI climb and maneuvering (simulated)			
Single-engine climb performance demonstration			
OEI approach and landing (simulated)			
Go-around with one engine inoperative (simulated)			
Normal and crosswind approach and landing			
Short-field approach and landing			
After landing, parking, and securing			

STAGE 2: APPLIED SKILLS AND INSTRUCTOR TECHNIQUE

Stage Objective

During this stage you will take the knowledge you built in Stage 1 and put it to work. You will learn how to plan and deliver instruction on multi-engine maneuvers, develop your skills as an instructor in the right seat, and build the flight proficiency needed to demonstrate and teach all required multi-engine tasks. By the end of this stage you will be ready for your practical test.

Stage Completion Standard

This stage is considered complete when you have finished all ground lessons and flight lessons in Phase 3 and Phase 4, passed Stage Check 2 and Stage Check 3, and can demonstrate understanding of all knowledge and risk management items to the desired outcome listed for each lesson, and all flight skill items to the desired outcome listed for each flight lesson.

Stage 2 is where your knowledge becomes skill. You will move between web-based lessons and flight training throughout this stage. Complete all assigned web-based content and any required preflight review videos before each flight lesson.

PHASE 3: TAKEOFF AND LANDING INSTRUCTION

Phase Objective

During this phase you will transition from the classroom to the cockpit. You will begin by learning how to plan and deliver a preflight lesson on a maneuver, then move into the knowledge and procedures for takeoffs, landings, and go-arounds in a multi-engine airplane. Flight lessons in this phase will give you the opportunity to apply what you have learned from the right seat as an instructor, starting with right-seat familiarization and building through normal operations and engine-inoperative flight procedures.

Phase Completion Standard

This phase is considered complete when you have finished all assigned ground lessons and flight lessons and can demonstrate understanding of all knowledge and risk management items to the desired outcome listed for each ground lesson, and all flight skill items to the desired outcome listed for each flight lesson.

Complete each ground and flight lesson in the order listed. Pay close attention to any preflight review requirements noted for flight lessons.

Lesson 9: Preflight Lesson on a Maneuver to be Performed in Flight

Lesson Objective

In this lesson you will learn how to plan and deliver an effective preflight lesson on a maneuver in the multi-engine context. Because you already hold a Flight Instructor Certificate, you are familiar with this process — this lesson focuses on applying your existing teaching skills to multi-engine maneuvers and ensuring your preflight lessons meet the standards expected at your practical test.

Course Content

- Preflight Lesson on a Maneuver to be Performed in Flight

Lesson Content

- Purpose of the maneuver and how to communicate it effectively
- Elements of the maneuver and associated common errors
- Desired outcomes and completion standards
- Selecting and using appropriate teaching aids
- Delivering instruction using a lesson plan

Estimated Completion Time

1.7 hours

Completion Standard

Upon completion of this lesson you will be able to explain all knowledge items and identify all risk management items to the desired outcome listed for this lesson.

ACS Coverage

ACS Code	Description
AI.IV.A.K1 – K3	Preflight lesson on a maneuver knowledge items
AI.IV.A.R1	Preflight lesson on a maneuver risk management item

Lesson 10: Takeoffs, Landings, and Go-Arounds

Lesson Objective

In this lesson you will develop the knowledge needed to teach short-field takeoffs, normal and crosswind landings, and go-around procedures in a multi-engine airplane. You will also learn how to identify and correct common errors so you can guide your future students through these critical phases of flight with confidence.

Course Content

- Multi-Engine Takeoffs, Landings, and Go-Arounds

Lesson Content

- Short-field takeoff procedures and maximum performance climb
- Effects of atmospheric conditions on takeoff and climb performance
- Best angle and best rate of climb speeds
- Stabilized approach concepts and energy management
- Short-field approach and landing procedures
- Wind correction techniques on approach and landing
- Go-around and rejected landing procedures
- Land and hold short operations
- Common errors related to takeoffs, landings, and go-arounds

Estimated Completion Time

3.15 hours

Completion Standard

Upon completion of this lesson you will be able to explain all knowledge items and identify all risk management items to the desired outcome listed for this lesson.

ACS Coverage

ACS Code	Description
AI.VII.E.K1 – K5	Short-field takeoff knowledge items
AI.VII.E.R1 – R6	Short-field takeoff risk management items
AI.VII.F.K1 – K5	Short-field approach and landing knowledge items
AI.VII.F.R1 – R6	Short-field approach and landing risk management items

Lesson 11: Teaching Takeoffs, Landings, and Go-Arounds (Flight)

Lesson Objective

In this flight lesson you will practice normal and short-field takeoffs and landings, as well as go-arounds. You will also practice engine-inoperative procedures during takeoff and landing. You will develop the skills needed to teach takeoffs, landings, and go-arounds from the right seat, as well as how to recognize, manage, and teach engine failures on the takeoff and landing. By the end of this lesson you should feel comfortable managing and teaching these tasks from the instructor seat.

No video review material is required before this lesson. A standard preflight briefing with your instructor will be conducted before the flight.

Purpose

To develop proficiency in takeoff, landing, go-around and engine-inoperative procedures and build confidence in managing and teaching these tasks from the instructor seat.

Preflight Discussion

- Normal, crosswind, and short-field takeoff procedures
- Engine failure recognition and memory items review
- Engine failure on the takeoff roll procedures
- Engine failure after liftoff procedures
- OEI climb procedures and performance
- Single-engine climb performance review
- Safety considerations for simulated engine failures
- Normal and short-field approach and landing procedures
- OEI approach and landing procedures
- Go-around procedures
- Single-engine go-around considerations
- Postflight procedures

Flight Tasks

- Normal and crosswind takeoff and climb
- Short-field takeoff and maximum performance climb
- Engine failure on the takeoff roll (simulated)
- Traffic patterns
- Engine failure after liftoff (simulated)
- OEI climb and maneuvering (simulated)
- Single-engine climb performance demonstration
- Normal and crosswind approach and landing
- Short-field approach and landing
- OEI approach and landing (simulated)
- Go-around
- Go-around with one engine inoperative (simulated)
- After landing, parking, and securing

Postflight Discussion

- Review of flight tasks and instructor self-assessment
- Comparison of instructor and student evaluations
- Discussion of areas requiring additional practice
- Preview of Stage Check 2

Completion Standard

Upon completion of this flight lesson you should feel comfortable demonstrating all flight skill items to the desired outcome listed for this lesson. Flight lessons may be repeated until all desired outcomes are met.

Grading

**All items to be graded independently by the instructor and student, then discussed and a final grade assessed. Desired outcome for all tasks is indicated by shading.*

Task	Practice	Perform	Manage/ Decide
Normal and crosswind takeoff and climb			
Short-field takeoff and maximum performance climb			
Engine failure on the takeoff roll (simulated)			
Traffic patterns			
Engine failure after liftoff (simulated)			
OEI climb and maneuvering (simulated)			
Single-engine climb performance demonstration			
Normal and crosswind approach and landing			
Short-field approach and landing			
OEI approach and landing (simulated)			
Go-around			
Go-around with one engine inoperative (simulated)			
After landing, parking, and securing			

ACS Coverage

ACS Code	Description
AI.II.P.S1	Single-engine climb performance skill item
AI.VII.E.S1 – S16	Short-field takeoff skill items
AI.VII.F.S1 – S13	Short-field approach and landing skill items
AI.XII.E.S1 – S3	Engine failure on takeoff roll skill items
AI.XII.F.S1 – S11	Engine failure after liftoff skill items
AI.XII.G.S1 – S10	OEI approach and landing skill items
AI.XIV.A.S1 – S5	Postflight skill items

Before proceeding to Phase 4, you must complete Stage Check 2 with the Chief or Assistant Chief Flight Instructor. You should be comfortable demonstrating all Phase 3 flight tasks from the right seat before scheduling this check.

STAGE CHECK 2: TAKEOFF AND LANDING INSTRUCTION CHECK

Objective

This stage check is conducted upon completion of Phase 3 to verify that you have acquired the knowledge and flight proficiency required to progress to Phase 4. You will be evaluated from the right seat on your ability to demonstrate and teach normal operations, short-field operations, and engine-inoperative procedures.

Who Conducts This Check

This check must be conducted by the Chief or Assistant Chief Flight Instructor.

Purpose

To evaluate the student's ability to demonstrate and teach takeoff, landing, go-around and engine-inoperative operations from the right seat, and to determine readiness to progress to Phase 4.

Preflight Discussion

- Review of all Phase 3 flight tasks
- Safety considerations for simulated engine failures
- Any areas identified for additional focus

Flight Tasks

- Preflight inspection
- Cockpit management
- Taxi operations
- Normal and crosswind takeoff and climb
- Short-field takeoff and maximum performance climb
- Engine failure on the takeoff roll (simulated)
- Engine failure after liftoff (simulated)
- OEI climb and maneuvering (simulated)
- Single-engine climb performance demonstration
- OEI approach and landing (simulated)
- Go-around with one engine inoperative (simulated)
- Normal and crosswind approach and landing
- Short-field approach and landing
- After landing, parking, and securing

Postflight Discussion

- Independent grading of all flight tasks by instructor and student
- Comparison and discussion of evaluations
- Identification of any areas requiring additional practice before progressing to Phase 4

Completion Standard

All items to be graded independently by the Chief or Assistant Chief Instructor and the student, then discussed and a final grade assessed. The desired outcome for all tasks is “Manage/Decide.” This stage check must be passed before beginning Phase 4.

Grading

**All items to be graded independently by the instructor and student, then discussed and a final grade assessed. Desired outcome for all tasks is indicated by shading.*

Task	Practice	Perform	Manage/ Decide
Preflight inspection			
Cockpit management			
Taxi operations			
Normal and crosswind takeoff and climb			
Short-field takeoff and maximum performance climb			
Engine failure on the takeoff roll (simulated)			
Engine failure after liftoff (simulated)			
OEI climb and maneuvering (simulated)			
Single-engine climb performance demonstration			
OEI approach and landing (simulated)			
Go-around with one engine inoperative (simulated)			
Normal and crosswind approach and landing			
Short-field approach and landing			
After landing, parking, and securing			

PHASE 4: MANEUVERS AND PERFORMANCE INSTRUCTION

Phase Objective

During this phase you will complete your flight training by developing proficiency in the remaining multi-engine maneuvers and demonstrating your ability to teach them from the right seat. You will practice VMC demonstration, engine-inoperative performance, shutdown and restart procedures, and a comprehensive review of all course tasks. By the end of this phase you should feel confident and prepared for your practical test.

Phase Completion Standard

This phase is considered complete when you have finished all assigned ground lessons and flight lessons and can demonstrate understanding of all knowledge and risk management items to the desired outcome listed for each ground lesson, and all flight skill items to the desired outcome listed for each flight lesson.

Phase 4 completes your flight training. By this point you should be comfortable in the right seat — this phase focuses on developing the precision and teaching ability needed to demonstrate and explain multi-engine maneuvers to your future students.

Lesson 12: Slow Flight, Stalls, and Spins

Lesson Objective

In this lesson you will develop a thorough understanding of slow flight, stall aerodynamics, and spin awareness in the multi-engine airplane. You will learn how to recognize, prevent, and recover from stalls in various configurations and develop the knowledge needed to teach these maneuvers safely and effectively from the right seat.

Course Content

- Slow Flight, Stalls, and Spins

Lesson Content

- Slow flight aerodynamics and procedures
- Relationship between angle of attack, airspeed, load factor, and power setting
- Power-off stall procedures, recognition, and recovery
- Power-on stall procedures, recognition, and recovery
- Accelerated stall procedures, recognition, and recovery
- Secondary stalls, cross-control stalls, and elevator trim stalls
- Spin awareness and avoidance in multi-engine airplanes
- Common errors related to slow flight and stall maneuvers

Estimated Completion Time

1.7 hours

Completion Standard

Upon completion of this lesson you will be able to explain all knowledge items and identify all risk management items to the desired outcome listed for this lesson.

ACS Coverage

ACS Code	Description
AI.X.A.K1 – K3	Slow flight knowledge items
AI.X.A.R1 – R6	Slow flight risk management items
AI.X.C.K1 – K6	Power-off stall knowledge items
AI.X.C.R1 – R8	Power-off stall risk management items
AI.X.D.K1 – K6	Power-on stall knowledge items
AI.X.D.R1 – R8	Power-on stall risk management items
AI.X.E.K1 – K6	Accelerated stall knowledge items
AI.X.E.R1 – R8	Accelerated stall risk management items

Lesson 13: Slow Flight, Stalls, and Airwork (Flight)

Lesson Objective

In this flight lesson you will develop proficiency in slow flight, stall recognition and recovery, and maneuvering flight from the right seat. You will also practice delivering a preflight lesson on a maneuver, applying your instructor skills in the multi-engine context. By the end of this lesson you should feel comfortable teaching and demonstrating these maneuvers to your future students.

No video review material is required before this lesson. A standard preflight briefing with your instructor will be conducted before the flight.

Purpose

To develop proficiency in slow flight, stall maneuvers, steep turns, ground reference maneuvers, and preflight lesson delivery in the multi-engine airplane.

Preflight Discussion

- Slow flight procedures and common errors
- Power-off and power-on stall procedures and common errors
- Accelerated stall procedures and common errors
- Steep turn procedures and common errors
- Ground reference maneuver procedures and common errors
- Preflight lesson planning and delivery review

Flight Tasks

- Maneuvering during slow flight
- Power-off stalls with and without turns
- Power-on stalls with and without turns
- Accelerated stalls
- Steep turns
- Rectangular course
- S-turns
- Turns around a point
- Delivery of a preflight lesson on a selected maneuver
- After landing, parking, and securing

Postflight Discussion

- Review of flight tasks and instructor self-assessment
- Comparison of instructor and student evaluations
- Discussion of areas requiring additional practice
- Preview of Lesson 14

Completion Standard

Upon completion of this flight lesson you should feel comfortable demonstrating all flight skill items to the desired outcome listed for this lesson. Flight lessons may be repeated until all desired outcomes are met.

Grading

**All items to be graded independently by the instructor and student, then discussed and a final grade assessed. Desired outcome for all tasks is indicated by shading.*

Task	Practice	Perform	Manage/ Decide
Maneuvering during slow flight			
Power-off stalls with and without turns			
Power-on stalls with and without turns			
Accelerated stalls			
Steep turns			
Rectangular course			
S-turns			
Turns around a point			
Delivery of a preflight lesson on a selected maneuver			
After landing, parking, and securing			

ACS Coverage

ACS Code	Description
AI.IV.A.S1	Preflight lesson on a maneuver skill item
AI.IX.A.S1 – S6	Steep turn skill items
AI.IX.E.S1 – S5	Ground reference maneuver skill items
AI.X.A.S1 – S6	Slow flight skill items
AI.X.C.S1 – S11	Power-off stall skill items
AI.X.D.S1 – S11	Power-on stall skill items
AI.X.E.S1 – S10	Accelerated stall skill items

Lesson 14: Performance and Ground Reference Maneuvers

Lesson Objective

In this lesson you will develop the knowledge needed to teach steep turns and ground reference maneuvers in the multi-engine airplane. You will learn the aerodynamics, procedures, and common errors associated with each maneuver so you can guide your future students through them with precision and confidence.

Course Content

- Performance and Ground Reference Maneuvers

Lesson Content

- Steep turn aerodynamics and procedures
- Load factor, overbanking tendencies, and maneuvering speed
- Rate and radius of turn
- Ground reference maneuver procedures and wind correction techniques
- Rectangular course, S-turns, and turns around a point
- Relationship of rectangular course to airport traffic pattern
- Common errors related to steep turns and ground reference maneuvers

Estimated Completion Time

2.5 hours

Completion Standard

Upon completion of this lesson you will be able to explain all knowledge items and identify all risk management items to the desired outcome listed for this lesson.

ACS Coverage

ACS Code	Description
AI.IX.A.K1 – K4	Steep turn knowledge items
AI.IX.A.R1 – R5	Steep turn risk management items
AI.IX.E.K1 – K5	Ground reference maneuver knowledge items
AI.IX.E.R1 – R5	Ground reference maneuver risk management items

Lesson 15: Engine-Inoperative Performance and Multiengine Operations (Flight)

Lesson Objective

In this flight lesson you will develop proficiency in engine failure management during flight, including shutdown and restart procedures, VMC demonstration, and engine-inoperative performance demonstration. By the end of this lesson you should feel comfortable demonstrating and teaching these maneuvers from the right seat.

Required Preflight Review

Before beginning this flight lesson, you must complete the following video review:

- Deciding When to Shut Down an Engine
- Feathering and Securing an Engine
- Restarting an Engine with a Feathered Prop
- Restarting an Engine in Flight

Estimated Preflight Review Time

0.3 hours

Purpose

To develop proficiency in engine-inoperative flight management, VMC demonstration, and OEI performance demonstration in the multi-engine airplane.

Preflight Discussion

- Engine failure recognition and management in flight review
- Shutdown, feathering, and restart procedures review
- VMC demonstration procedures and safety considerations
- OEI performance demonstration procedures
- Single-engine climb performance review
- Common errors related to these maneuvers

Flight Tasks

- Normal and crosswind takeoff and climb
- Engine failure recognition and management in flight (simulated)
- Engine shutdown and feathering (simulated)
- In-flight engine restart (simulated)
- VMC demonstration
- OEI performance demonstration
- OEI maneuvering
- Normal and crosswind approach and landing
- After landing, parking, and securing

Postflight Discussion

- Review of flight tasks and instructor self-assessment
- Comparison of instructor and student evaluations
- Discussion of areas requiring additional practice
- Preview of Lesson 16

Completion Standard

Upon completion of this flight lesson you should feel comfortable demonstrating all flight skill items to the desired outcome listed for this lesson. Flight lessons may be repeated until all desired outcomes are met.

Grading

**All items to be graded independently by the instructor and student, then discussed and a final grade assessed. Desired outcome for all tasks is indicated by shading.*

Task	Practice	Perform	Manage/ Decide
Normal and crosswind takeoff and climb			
Engine failure recognition and management in flight (simulated)			
Engine shutdown and feathering (simulated)			
In-flight engine restart (simulated)			
VMC demonstration			
OEI performance demonstration			
OEI maneuvering			
Normal and crosswind approach and landing			
After landing, parking, and securing			

ACS Coverage

ACS Code	Description
AI.XIII.A.S1 – S9	Engine failure in flight skill items
AI.XIII.B.S1 – S9	VMC demonstration skill items
AI.XIII.C.S1 – S5	OEI performance skill items

Lesson 16: Comprehensive Review (Flight)

Lesson Objective

This is your final suggested flight lesson before your practical test. You will demonstrate proficiency in all required multi-engine tasks from the right seat, combining the skills and knowledge developed throughout the course into a complete review flight. By the end of this lesson you should feel confident and fully prepared for your practical test.

A review preflight briefing will be conducted with your instructor before this flight. No additional video review material is required.

Purpose

To demonstrate proficiency in all required multi-engine flight tasks and confirm readiness for the practical test.

Preflight Discussion

- Review of all course flight tasks
- Practical test expectations and procedures
- Examiner's discretion items review
- Any areas identified for additional focus

Flight Tasks

- Preflight inspection
- Cockpit management
- Taxi operations
- Normal and crosswind takeoff and climb
- Short-field takeoff and maximum performance climb
- Engine failure on the takeoff roll (simulated)
- Engine failure after liftoff (simulated)
- OEI climb and maneuvering (simulated)
- Single-engine climb performance demonstration
- Maneuvering during slow flight
- Power-off stalls with and without turns
- Power-on stalls with and without turns
- Accelerated stalls
- Steep turns
- Engine failure in flight (simulated)
- Engine shutdown and feathering (simulated)
- In-flight engine restart (simulated)
- VMC demonstration
- OEI performance demonstration
- OEI approach and landing (simulated)
- Go-around with one engine inoperative (simulated)
- Normal and crosswind approach and landing

- Short-field approach and landing
- Delivery of a preflight lesson on a selected maneuver
- After landing, parking, and securing

Postflight Discussion

- Review of all flight tasks and instructor self-assessment
- Comparison of instructor and student evaluations
- Identification of any remaining areas requiring additional practice before practical test
- Confirmation of practical test readiness and preview of Stage Check 3

Completion Standard

Upon completion of this flight lesson you should feel comfortable demonstrating all flight skill items for the entire course to the desired outcome listed. Additional flights may be scheduled as needed until all desired outcomes are met and you are confirmed ready for Stage Check 3.

Stage Check 3 is your final evaluation before the practical test. Schedule this check only when you and your instructor are confident that you can demonstrate all course flight tasks to the Manage/Decide standard.

STAGE CHECK 3: END OF COURSE FLIGHT PROFICIENCY CHECK

Objective

This is your final stage check and serves as the last evaluation before your practical test. The Chief or Assistant Chief Instructor will evaluate your ability to demonstrate and teach all required multi-engine tasks from the right seat to the standards of ACS-25. You should be prepared to demonstrate any flight task covered in the course.

Who Conducts This Check

This check must be conducted by the Chief or Assistant Chief Flight Instructor.

Purpose

To evaluate flight proficiency across all course flight tasks and confirm readiness for the practical test.

Preflight Discussion

- Review of all course flight tasks
- Practical test expectations and procedures
- Examiner's discretion items review
- Any areas identified for additional focus

Flight Tasks

- Preflight inspection
- Cockpit management
- Taxi operations
- Normal and crosswind takeoff and climb
- Short-field takeoff and maximum performance climb
- Engine failure on the takeoff roll (simulated)
- Engine failure after liftoff (simulated)
- OEI climb and maneuvering (simulated)
- Single-engine climb performance demonstration
- Maneuvering during slow flight
- Power-off stalls with and without turns
- Power-on stalls with and without turns
- Accelerated stalls
- Steep turns
- Engine failure in flight (simulated)
- Engine shutdown and feathering (simulated)
- In-flight engine restart (simulated)
- VMC demonstration
- OEI performance demonstration
- OEI approach and landing (simulated)
- Go-around with one engine inoperative (simulated)

- Normal and crosswind approach and landing
- Short-field approach and landing
- Delivery of a preflight lesson on a selected maneuver
- After landing, parking, and securing

Postflight Discussion

- Independent grading of all flight tasks by instructor and student
- Comparison and discussion of evaluations
- Confirmation of practical test readiness
- Identification of any remaining areas requiring additional practice

Completion Standard

All items to be graded independently by the Chief or Assistant Chief Instructor and the student, then discussed and a final grade assessed. The desired outcome for all tasks is “Manage/Decide.” Successful completion of this stage check confirms readiness for the practical test.

Grading

**All items to be graded independently by the instructor and student, then discussed and a final grade assessed. Desired outcome for all tasks is indicated by shading.*

Task	Practice	Perform	Manage/ Decide
Preflight inspection			
Cockpit management			
Taxi operations			
Normal and crosswind takeoff and climb			
Short-field takeoff and maximum performance climb			
Engine failure on the takeoff roll (simulated)			
Engine failure after liftoff (simulated)			
OEI climb and maneuvering (simulated)			
Single-engine climb performance demonstration			
Maneuvering during slow flight			
Power-off stalls with and without turns			
Power-on stalls with and without turns			
Accelerated stalls			
Steep turns			

Engine failure in flight (simulated)			
Engine shutdown and feathering (simulated)			
In-flight engine restart (simulated)			
VMC demonstration			
OEI performance demonstration			
OEI approach and landing (simulated)			
Go-around with one engine inoperative (simulated)			
Normal and crosswind approach and landing			
Short-field approach and landing			
Delivery of a preflight lesson on a selected maneuver			
After landing, parking, and securing			

APPENDIX 1: COURSE TRAINING REQUIREMENTS

Requirements for Enrollment

Prior to enrolling in the Cleared for Multi-Engine Flight Instructing course, you must:

- Hold a Commercial Pilot Certificate with an Airplane Multi-Engine Land rating
- Hold a Flight Instructor Certificate
- Hold a current FAA medical certificate appropriate to the privileges exercised
- Have multi-engine PIC experience (recommended; required prior to checkride)

Ground Training Requirements

You must successfully complete:

- All video-based and PowerPoint ground instruction
- All ground lesson desired outcomes
- All progress checks

Flight Training Requirements

Prior to completing the Cleared for Multi-Engine Flight Instructing course:

- All flight lesson desired outcomes must be met
- Successful completion of all stage checks is required
- The flight portion of this course is conducted to proficiency rather than a specified number of hours
- Log at least 15 hours as pilot in command in the category and class of aircraft that is appropriate to the flight instructor rating sought

Requirements for Graduation

To obtain a graduation certificate, you must:

- Complete all ground training requirements
- Complete all flight training requirements
- Demonstrate satisfactory knowledge and skill to the standards of ACS-25

Minimum Ground Training Requirements

This course is designed to meet the FAA minimum ground training requirement of 20 hours in accordance with 14 CFR Part 61 for the addition of a flight instructor rating.

What You Get at an FAA Certificated Flight School (under 14 CFR Part 141)

If you take this course under Part 141 of the Federal Aviation Regulations, you are assured that the flight school has been approved by the FAA and is required to demonstrate and maintain:

- Standardized flight operations, including Safety Procedures and Practices
- A structured training environment
- Detailed training records available for regular and unannounced FAA checks and inspection

- At least an 80% first attempt pass rate for certificate or rating applicants training under Part 141

APPENDIX 2: MASTER ACS COVERAGE CHART

The following chart lists all ACS-25 knowledge, risk management, and skill items required for the Multi-Engine Flight Instructor rating and identifies the lesson in which each item is addressed.

ACS Code	Description	Type	Lesson
AI.II.P.K1	Proficient use of appropriate performance charts, tables, graphs, or other data to determine airplane performance and limitations for all phases of flight.	Knowledge	3
AI.II.P.K2	Effects of exceeding limitations.	Knowledge	3
AI.II.P.K3	Effects of atmospheric conditions on performance.	Knowledge	3
AI.II.P.K4	Factors to be considered to determine required performance is within the airplane's single and multiengine capabilities.	Knowledge	3
AI.II.P.K5	Aerodynamics of OEI operation including: a. Critical engine b. Effects of bank angle on VMC c. Zero side slip d. Reasons for loss of directional control	Knowledge	3
AI.II.P.K6	The relationship between minimum control speed (VMC) and stall speed and the effect of density altitude on that relationship.	Knowledge	3
AI.II.P.K7	How to determine the best course of action after an engine failure.	Knowledge	3
AI.II.P.R1	Exceeding the critical angle of attack.	Risk Mgmt	3
AI.II.P.R2	Loss of directional control.	Risk Mgmt	3
AI.II.P.R3	Flying over terrain that exceeds the single engine service ceiling.	Risk Mgmt	3
AI.II.P.R4	Fuel management.	Risk Mgmt	3
AI.II.P.S1	Compute the expected single engine climb performance.	Skill	8
AI.IV.A.K1	Purpose of the maneuver.	Knowledge	9

AI.IV.A.K2	Elements of the maneuver and the associated common errors.	Knowledge	9
AI.IV.A.K3	Desired outcome(s), including completion standards.	Knowledge	9
AI.IV.A.R1	The selected maneuver Task.	Risk Mgmt	9
AI.IV.A.S1	Deliver instruction on the selected maneuver using a lesson plan, teaching methods, and teaching aids, as appropriate, that incorporate K1 through K3.	Skill	13
AI.V.D.K1	Elements of safe taxi operations.	Knowledge	2
AI.V.D.K2	Current airport aeronautical references and information resources such as the Chart Supplement, airport diagram, and NOTAMs.	Knowledge	2
AI.V.D.K3	Taxi instructions/clearances.	Knowledge	2
AI.V.D.K4	Airport markings, signs, and lights.	Knowledge	2
AI.V.D.K5	Visual indicators for wind.	Knowledge	2
AI.V.D.K6	Aircraft lighting, as appropriate.	Knowledge	2
AI.V.D.K7	Procedures for appropriate flight deck activities, radio communications, entering or crossing runways, night and low visibility taxi operations.	Knowledge	2
AI.V.D.R1	Activities and distractions.	Risk Mgmt	2
AI.V.D.R2	Confirmation or expectation bias as related to taxi instructions.	Risk Mgmt	2
AI.V.D.R3	A taxi route or departure runway change.	Risk Mgmt	2
AI.V.D.R4	Runway incursion.	Risk Mgmt	2
AI.V.D.S1	Receive and correctly read back clearances/instructions, if applicable.	Skill	5
AI.V.D.S2	Use an airport diagram or taxi chart during taxi, if published, and maintain situational awareness.	Skill	5
AI.V.D.S3	Position the flight controls for the existing wind, if applicable.	Skill	5
AI.V.D.S4	Complete the appropriate checklist(s).	Skill	5

AI.V.D.S5	Perform a brake check immediately after the airplane begins moving.	Skill	5
AI.V.D.S6	Maintain positive control of the airplane during ground operations by controlling direction and speed without excessive use of brakes.	Skill	5
AI.V.D.S7	Comply with airport/taxiway markings, signals, and ATC clearances and instructions.	Skill	5
AI.V.D.S8	Position the airplane properly relative to hold lines.	Skill	5
AI.VII.E.K1	Purpose of and procedures for short-field takeoff and maximum performance climb.	Knowledge	10
AI.VII.E.K2	Effects of atmospheric conditions, including wind, on takeoff and climb performance.	Knowledge	10
AI.VII.E.K3	Best angle of climb speed (VX) and best rate of climb speed (VY).	Knowledge	10
AI.VII.E.K4	Appropriate airplane configuration.	Knowledge	10
AI.VII.E.K5	Common errors related to this Task.	Knowledge	10
AI.VII.E.R1	Selection of runway based on pilot capability, airplane performance and limitations, available distance, and wind.	Risk Mgmt	10
AI.VII.E.R2	Effects of crosswind, windshear, tailwind, wake turbulence, and landing surface/condition.	Risk Mgmt	10
AI.VII.E.R3	Abnormal operations, including planning for rejected takeoff and potential engine failure in takeoff/climb phase of flight.	Risk Mgmt	10
AI.VII.E.R4	Collision hazards.	Risk Mgmt	10
AI.VII.E.R5	Low altitude maneuvering, including stall, spin, or CFIT.	Risk Mgmt	10
AI.VII.E.R6	Distractions, task prioritization, loss of situational awareness, or disorientation.	Risk Mgmt	10
AI.VII.E.S1-S16	Short-field takeoff and maximum performance climb skill items.	Skill	5
AI.VII.F.K1	Purpose of and procedures for short-field approach and landing.	Knowledge	10

AI.VII.F.K2	A stabilized approach, including energy management concepts.	Knowledge	10
AI.VII.F.K3	Effects of atmospheric conditions, including wind, on approach and landing performance.	Knowledge	10
AI.VII.F.K4	Wind correction techniques on approach and landing.	Knowledge	10
AI.VII.F.K5	Common errors related to this Task.	Knowledge	10
AI.VII.F.R1	Selection of runway based on pilot capability, airplane performance and limitations, available distance, and wind.	Risk Mgmt	10
AI.VII.F.R2	Effects of crosswind, windshear, tailwind, wake turbulence, and landing surface/condition.	Risk Mgmt	10
AI.VII.F.R3	Planning for rejected landing and go-around, and land and hold short operations (LAHSO).	Risk Mgmt	10
AI.VII.F.R4	Collision hazards.	Risk Mgmt	10
AI.VII.F.R5	Low altitude maneuvering, including stall, spin, or CFIT.	Risk Mgmt	10
AI.VII.F.R6	Distractions, task prioritization, loss of situational awareness, or disorientation.	Risk Mgmt	10
AI.VII.F.S1-S13	Short-field approach and landing skill items.	Skill	5
AI.IX.A.K1	Purpose of and procedures for steep turn.	Knowledge	14
AI.IX.A.K2	Pilot sensations and control forces.	Knowledge	14
AI.IX.A.K3	Aerodynamics associated with steep turns, including coordinated flight, overbanking tendencies, maneuvering speed, load factor and accelerated stalls, and rate and radius of turn.	Knowledge	14
AI.IX.A.K4	Common errors related to this Task.	Knowledge	14
AI.IX.A.R1	Division of attention between aircraft control and orientation.	Risk Mgmt	14
AI.IX.A.R2	Collision hazards.	Risk Mgmt	14
AI.IX.A.R3	Low altitude maneuvering, including stall, spin, or CFIT.	Risk Mgmt	14

AI.IX.A.R4	Distractions, task prioritization, loss of situational awareness, or disorientation.	Risk Mgmt	14
AI.IX.A.R5	Uncoordinated flight.	Risk Mgmt	14
AI.IX.A.S1-S6	Steep turn skill items.	Skill	13
AI.IX.E.K1	Purpose of and procedures for ground reference maneuvers.	Knowledge	14
AI.IX.E.K2	Effects of wind on ground track and relation to a ground reference.	Knowledge	14
AI.IX.E.K3	Effects of bank angle and groundspeed on rate and radius of turn.	Knowledge	14
AI.IX.E.K4	Relationship of rectangular course to airport traffic pattern.	Knowledge	14
AI.IX.E.K5	Common errors related to this Task.	Knowledge	14
AI.IX.E.R1	Division of attention between aircraft control and orientation.	Risk Mgmt	14
AI.IX.E.R2	Collision hazards.	Risk Mgmt	14
AI.IX.E.R3	Low altitude maneuvering, including stall, spin, or CFIT.	Risk Mgmt	14
AI.IX.E.R4	Distractions, task prioritization, loss of situational awareness, or disorientation.	Risk Mgmt	14
AI.IX.E.R5	Uncoordinated flight.	Risk Mgmt	14
AI.IX.E.S1-S5	Ground reference maneuver skill items.	Skill	13
AI.X.A.K1	Purpose of and procedures for proper slow flight.	Knowledge	12
AI.X.A.K2	Aerodynamics associated with slow flight in various airplane configurations.	Knowledge	12
AI.X.A.K3	Common errors related to this Task.	Knowledge	12
AI.X.A.R1-R6	Slow flight risk management items.	Risk Mgmt	12
AI.X.A.S1-S6	Slow flight skill items.	Skill	13
AI.X.C.K1-K6	Power-off stall knowledge items.	Knowledge	12
AI.X.C.R1-R8	Power-off stall risk management items.	Risk Mgmt	12
AI.X.C.S1-S11	Power-off stall skill items.	Skill	13
AI.X.D.K1-K6	Power-on stall knowledge items.	Knowledge	12
AI.X.D.R1-R8	Power-on stall risk management items.	Risk Mgmt	12
AI.X.D.S1-S11	Power-on stall skill items.	Skill	13

AI.X.E.K1-K6	Accelerated stall knowledge items.	Knowledge	12
AI.X.E.R1-R8	Accelerated stall risk management items.	Risk Mgmt	12
AI.X.E.S1-S10	Accelerated stall skill items.	Skill	13
AI.XII.E.K1-K4	Engine failure on takeoff roll knowledge items.	Knowledge	6
AI.XII.E.R1-R3	Engine failure on takeoff roll risk management items.	Risk Mgmt	6
AI.XII.E.S1-S3	Engine failure on takeoff roll skill items.	Skill	8
AI.XII.F.K1-K7	Engine failure after liftoff knowledge items.	Knowledge	6
AI.XII.F.R1-R5	Engine failure after liftoff risk management items.	Risk Mgmt	6
AI.XII.F.S1-S11	Engine failure after liftoff skill items.	Skill	8
AI.XII.G.K1-K6	OEI approach and landing knowledge items.	Knowledge	6
AI.XII.G.R1-R6	OEI approach and landing risk management items.	Risk Mgmt	6
AI.XII.G.S1-S10	OEI approach and landing skill items.	Skill	8
AI.XIII.A.K1-K6	Engine failure in flight knowledge items.	Knowledge	7
AI.XIII.A.R1-R5	Engine failure in flight risk management items.	Risk Mgmt	7
AI.XIII.A.S1-S9	Engine failure in flight skill items.	Skill	15
AI.XIII.B.K1-K6	VMC demonstration knowledge items.	Knowledge	7
AI.XIII.B.R1-R3	VMC demonstration risk management items.	Risk Mgmt	7
AI.XIII.B.S1-S9	VMC demonstration skill items.	Skill	15
AI.XIII.C.K1-K8	OEI performance knowledge items.	Knowledge	7
AI.XIII.C.R1-R6	OEI performance risk management items.	Risk Mgmt	7
AI.XIII.C.S1-S5	OEI performance skill items.	Skill	15
AI.XIV.A.K1-K3	Postflight knowledge items.	Knowledge	4
AI.XIV.A.R1-R3	Postflight risk management items.	Risk Mgmt	4
AI.XIV.A.S1-S5	Postflight skill items.	Skill	5

APPENDIX 3: GROUND TRAINING HOURS

The following chart shows the ground training time associated with each lesson in the Cleared for Multi-Engine Flight Instructing course. The course meets the FAA minimum ground training requirement of 20 hours.

Note: Flight lessons include a preflight briefing conducted with the student's instructor. These briefings are not included in the minimum ground training hours for the course.

Lesson #	ACS Area of Operation	Ground Training Time
1	Fundamentals of Instructing (Optional Review)	Optional
2	Preflight Procedures	1.8 hrs
3	Technical Subject Areas	2.5 hrs
4	Postflight Procedures	1.7 hrs
5	Right-Seat Familiarization and Normal Operations (Flight)	0.0 hrs
6	Emergency Operations	4.3 hrs
7	Multiengine Operations	2.25 hrs
8	Engine-Inoperative Operations (Flight)	0.0 hrs
9	Preflight Lesson on a Maneuver to be Performed in Flight	1.7 hrs
10	Takeoffs, Landings, and Go-Arounds	3.45 hrs
11	Teaching Takeoffs, Landings, and Go-Arounds (Flight)	0.0 hrs
12	Slow Flight, Stalls, and Spins	1.7 hrs
13	Slow Flight, Stalls, and Airwork (Flight)	0.0 hrs
14	Performance and Ground Reference Maneuvers	2.5 hrs
15	Engine-Inoperative Performance and Multiengine Operations (Flight)	0.0 hrs
16	Comprehensive Review (Flight)	0.0 hrs
Total Required Ground Training		**21.9 hrs**
FAA Minimum Requirement		**20.0 hrs**