

AVIA 4622/4623
CERTIFIED FLIGHT INSTRUCTOR
MULTI-ENGINE FLYING AND GROUND
UNIVERSITY OF OKLAHOMA
2020-09-01

_____, 20____

I, _____, have acquired and have in my possession a copy of the training course outline, training syllabus, and safety procedures and practices for AVIA 4622/4623, Certified Flight Instructor Multi-Engine Flying and Ground.

Student Signature

Flight Instructor Signature

Chief Flight Instructor Signature

DEPARTMENT OF AVIATION
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE
MULTI-ENGINE AIRPLANE

This course fulfills the requirements of 14 CFR, Section 141, Appendix F to add an airplane multi-engine rating to a flight instructor certificate with an airplane single engine rating.

COURSE OBJECTIVE: The student will obtain the knowledge, skill, and aeronautical experience necessary to meet the requirements for the addition of an airplane multi-engine rating to a flight instructor certificate with an airplane single engine rating.

COURSE COMPLETION STANDARD: The student will demonstrate through written tests, oral tests, flight tests, and show through appropriate records that the knowledge, skill, and experience requirements necessary to add an airplane multi-engine rating to an existing flight instructor certificate with an airplane single engine rating have been met. The specific requirements for each test and stage check are described in the appropriate syllabus lesson. At the completion of the ground school the student will pass the end of course test with a score of 70%. At the completion of flight training the student will pass the practical test for addition of an airplane multi-engine rating, based on the current Flight Instructor Multi-Engine Practical Test Standards (PTS).

AIRPORT: Max Westheimer Airport is the operations base for training in this course. Max Westheimer Airport has a hard surface runway and meets the requirements of 14 CFR, Section 141.38 for day and night operation. Fuel is available from 7:00 A.M. to 10:00 P.M. daily. Maintenance is available from 6:30 A.M. to 3:00 P.M. Monday through Friday and at other times on call. Training will originate at Max Westheimer Airport.

AIRCRAFT: The aircraft to be used in this course of training is the PA44-180. It meets the requirements of 14 CFR, Section 141.39. VFR airplanes are equipped for day and night VFR as specified in 14 CFR, Section 91.205. Airplanes used for instrument training are equipped for IFR as specified in 14 CFR, 91.205. Radio equipment will consist of at least one VHF transceiver and at least one VOR receiver.

CHIEF FLIGHT INSTRUCTOR: The Chief Flight Instructor will meet the requirements of 14 CFR, Section 141.35. (S)he must hold at least a commercial pilot certificate with an airplane category, multi-engine land class and airplane instrument rating. In addition, (s)he must hold a flight instructor/instrument certificate with an airplane category rating and a multi-engine class rating and have at least a second class medical certificate. See Appendix A of this Training Course Outline for Chief Flight Instructor designation.

ASSISTANT CHIEF FLIGHT INSTRUCTOR: The Assistant Chief Flight Instructor will meet the requirements of 14 CFR, Section 141.36. (S)he must hold at least a commercial pilot certificate with an airplane category, multi-engine land class and airplane instrument rating. In addition, (s)he must hold a flight instructor/instrument certificate with an airplane category rating and a multi-engine class rating and have at least a second class medical certificate. See Appendix A of this Training Course Outline for Assistant Chief Flight Instructor designation.

FLIGHT INSTRUCTORS: Each flight instructor must hold at least a commercial pilot certificate with an airplane category, multi-engine land class and airplane instrument rating. In addition, (s)he must hold a flight instructor/instrument certificate with an airplane category rating and a multi-engine class rating and have at least a second class medical certificate.

CHIEF GROUND INSTRUCTOR: The Chief Ground Instructor will meet the requirements of 14 CFR, Section 141.35(e). See Appendix A of this Training Course Outline for Chief Ground Instructor designation.

ASSISTANT CHIEF GROUND INSTRUCTOR: The Assistant Chief Ground Instructor will meet the requirements of 14 CFR, Section 141.36(e). See Appendix A of this Training Course Outline for Assistant Chief Ground Instructor designation.

GROUND INSTRUCTORS: Each instructor used for ground training must hold a flight instructor or advanced ground instructor certificate for this course of training.

**DEPARTMENT OF AVIATION
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE –
MULTI-ENGINE AIRPLANE**

OFFICE AND CLASSROOM FACILITIES USED FOR AVIATION STUDENTS: The office and classroom facilities used for the training of aviation students of the University of Oklahoma are described in Appendix D of this Training Course Outline.

COURSE ENROLLMENT: You must hold a commercial pilot certificate with an aircraft category and multi-engine land and instrument airplane rating, a flight instructor certificate with an airplane single engine land rating and at least a third class medical certificate prior to enrolling in this course.

REQUIREMENTS FOR GRADUATION: To add a multi-engine rating to your flight instructor certificate with airplane single engine land rating, you must be able to read, speak, and understand the English language and have a valid FAA third-class medical certificate and be at least 18 years of age at the completion of the course. You must complete the lessons in the syllabus and satisfy the requirements described in the Course Completion Standard on page 1.

LESSON DESCRIPTION AND STAGES OF TRAINING: Each lesson is fully described within the syllabus, including the objectives, standards, and measurable units of accomplishment and learning for each lesson. You are expected to complete the course within 90 days. The objectives and standards of each stage are described within the syllabus.

COURSE POLICY: The course policies for this course of training are outlined in Appendix B of this Training Course Outline.

TESTS AND CHECKS: The syllabus incorporates one end of course stage check in accordance with 14 CFR, Section 141, Appendix F. This check is given by the Chief, or designated Assistant Chief Flight Instructor. The student will complete the appropriate stage exams, pilot briefings, and final examinations that are described within the syllabus. The final stage check will be conducted by the Chief or Assistant Chief Flight Instructor and will be conducted in accordance with the current Flight Instructor Multi-Engine Airplane Practical Test Standards and will be at least equal in scope, depth, and difficulty to that practical test.

**DEPARTMENT OF AVIATION
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE –
MULTI-ENGINE AIRPLANE
RULES OF OPERATION**

DISPATCH PROCEDURES - The provisions of 14 CFR, Section 91.103 will be met prior to aircraft dispatch. The instructor will provide a preflight briefing to the student. The instructor's signature on the syllabus sheet for that lesson constitutes permission to dispatch the aircraft. The student will check the scheduling clipboard to determine which aircraft is assigned for the flight and complete the information on the Aircraft Sign Out Sheet, the Plastic Flight Plan form and the Aircraft Information Sheet in the aircraft checklist binder. A flight plan will be filed with an automated Flight Service Station for all cross country flights. Aircraft keys are kept in a lock box in the dispatch area and will be issued upon completion of the above procedures.

STARTING PROCEDURES - All aircraft will be started within the ramp area of the Department of Aviation unless otherwise designated by the Chief Flight Instructor or his designee. All starting procedures will comply with the procedures stated in the Pilots Operating Handbook for that aircraft.

TAXIING PROCEDURES - Taxi on yellow depicted taxi routes and at a slow and reasonable speed (use 10 miles per hour as a guide). Spacing between aircraft on taxi routes will be a minimum of two ship lengths. During the day, operate the anti-collision lights while taxiing. Use position lights and the landing light at night. To minimize the chance of runway incursion, read back taxi instructions, particularly hold short, position and hold, runway crossing and takeoff clearances. When obtaining complex taxi clearances at unfamiliar airports write down the clearance, have an airport diagram available and request progressive taxi if needed.

LANDINGS – All landings in multi-engine aircraft will be to a full stop. Takeoffs after a full stop landing will be accomplished by taxiing the aircraft back to the beginning of the runway.

FIRE PRECAUTIONS - **During fueling operations the aircraft involved will be unoccupied. Fire extinguishers will be present when fueling is in progress. In the event of aircraft fire during engine start or taxiing, follow the emergency procedures in the aircraft POH. If there is any doubt about whether emergency procedures are working to extinguish the fire, evacuate the aircraft immediately.**

REDISPATCH PROCEDURES – Given that all flight lessons have an instructor on board, in the event of a diversion and landing at an unscheduled destination, the instructor may continue the lesson without notification to the aviation department. The instructor will notify the aviation department at 405-325-7231 (Long Distance in-state toll free 1-800-522-0772, ext 7231) or the OU mobile phone 405-919-6319, if the unscheduled stop will delay the return of the aircraft to the point of impacting the flight schedule.

AIRCRAFT DISCREPANCIES: Upon noticing a discrepancy the pilot in command will take the following actions:

- Place the plastic "Maintenance Required" sign in the windshield of the aircraft (this sign is in a loose leaf binder in the aircraft).
- Complete Form OUAVMAN #2 (copies of this form are in a loose leaf binder in the aircraft). When filling out the "Maintenance Problem" section, be as specific as possible. Provide the top copy to the mechanics in the hangar and place the yellow copy on the Aircraft Sign Out Sheet. If the mechanics are not available, place the top copy of the form in the maintenance in-box in the dispatch section. If the main office is closed, put both copies of the form in the envelope slot in the hangar door.
- Upon returning to the dispatch area, turn the plastic flight plan over so that the words "No Fly" are displayed.
Note: If the main office is locked and this can't be done, the "Maintenance Required" sign in the aircraft serves as notification that the aircraft is not airworthy.
- Notify the director, the chief flight instructor or one of the assistant chief flight instructors as soon as possible.

**DEPARTMENT OF AVIATION
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE –
MULTI-ENGINE AIRPLANE
RULES OF OPERATION**

APPROVAL FOR RETURN OF AIRCRAFT TO SERVICE: The mechanics will take whatever corrective actions are required to return the aircraft to service. Upon returning the aircraft to service the mechanics will place the "Maintenance Required" sign back in the lose leaf notebook and notify the main office. At that time the plastic flight plan will be turned back over and the yellow copy of OUAVMAIN #2 placed in the mechanics in-box. If the discrepancy can't be corrected immediately, but the mechanics determine the aircraft is still airworthy, this information will be noted in the "Maintenance Performed" section along with any required operating limitations due to the discrepancy. Inoperative equipment will be removed or deactivated and placarded IAW 14 CFR, Section 91.213. The aircraft may then be returned to service and flown within any operating limitations noted.

SECURING AIRCRAFT - The pilot in command is responsible for securing aircraft on the ramp. Only aviation department personnel and contract personnel from the FBO may hangar aircraft. Students may assist in hangaring aircraft under the supervision of these personnel. All university aircraft will be secured with tie-down ropes or chocks while unattended on the Department of Aviation ramp. On cross country flights, the pilot in command will make tie-down arrangements with the local FBO for securing the aircraft. At no time will an aircraft be left unattended without it being secured by wheel chocks or tie-down ropes. When returning aircraft to the ramp in front of the terminal, solo students will not park the aircraft in the first row by the fence.

AIRCRAFT AVOIDANCE - No person may operate an aircraft so close to another aircraft as to create a collision hazard either on the ground or in the air. At all times, the Pilot-in-Command will be responsible for, and actively use "See and Avoid" procedures as described in the AIM, Chapter 7, Section 5 and comply with the right of way rules specified in 14 CFR, Section 91.113.

FUEL RESERVES - At no time will a department aircraft depart on a flight without the minimum fuel required by 14 CFR, Section 91.151 for VFR flights or 91.169 for IFR flights. Solo fuel reserves will be one hour remaining after the full stop landing on both local and cross-country flights.

MINIMUM ALTITUDES – Minimum altitudes for training with the exception of landing practice is 600' AGL or higher if the minimum altitude applicable in 14 CFR, Section 91.119 is higher than 600' AGL. Minimum altitudes for IFR operations will be in accordance with 14 CFR, Sections 91.175 and 91.177. Minimum altitude for failing an engine and feathering its propeller is 3000' AGL. At altitudes lower than 3000' AGL engine failures will be simulated by throttling the engine back to idle. Feathering the propeller will be simulated by establishing zero thrust.

PRACTICE AREAS - The University utilizes several practice areas for flight training. These areas are depicted in Appendix C of this Training Course Outline.

**DEPARTMENT OF AVIATION
ADDITIONAL FLIGHT INSTRUCTOR RATING COURSE –
MULTI-ENGINE AIRPLANE
RULES OF OPERATION**

WEATHER MINIMUMS

Training under VFR will be in accordance with the basic VFR weather minimums in 14 CFR, Section 91.155. For IFR operations, minimum weather for landings will be in accordance with 14 CFR, Section 91.175. For takeoffs, the ceiling and visibility will be equal to or greater than the lowest Category B aircraft instrument approach minimums at the departure airport. If prevailing winds dictate a circling procedure, the lowest Category B circling minimums will apply. Determination of the requirement for an alternate airport will be in accordance with 14 CFR, Section 91.169.

WIND LIMITS:

Dual: Maximum 35 knots - Maximum 15 knots gust spread

Crosswind: Crosswind limits will not exceed those specified by the POH for the aircraft to be flown.

AIRCRAFT CHECKLIST/KEY TURN IN: After completing the flight and securing the aircraft, the student will record the hobbs time on the Aircraft Information Sheet and return the aircraft checklists and keys to the dispatch area. Give the keys to a staff member for return to the lock box and complete the information on the Aircraft Sign Out Sheet. Return the syllabus sheet to the instructor for further processing.

ATTENDANCE - TARDINESS:

Students are expected to attend all scheduled ground and flight training lessons. In the event of sickness or accident, call the Aviation Department at 325-7231. Do not make a determination of attendance due to weather. If in doubt, call the Aviation Department. Excessive absences or tardiness, are grounds for removal from the course.

MEI LESSON TIME ALLOCATION

LESSON	DUAL
101	1.0*
102	1.0
103	1.5
104	2.0
105	2.0
106	2.0
107	2.0
108	2.0
109	2.0
110	2.0
111	2.0
112	2.0
113	2.0
114	1.5
TOTAL	25.0 HOURS

* The individual lesson times shown on this table are for instructor/student guidance only, they are not mandatory for a given lesson. However, the total in each category should be attained at the completion of the stage to insure the student will acquire at least the minimum amount of instruction required by FAR Part 141. Lesson 14 is provided for checkride purposes

FLIGHT LESSON 1 DUAL-LOCAL
UNIVERSITY OF OKLAHOMA

Lesson Objective: During this lesson, the student will become acquainted with the training airplane from the right seat. The student will review attitude, power settings and configurations required for the performance of the listed maneuvers and procedures. Training will review both visual reference (VR) and instrument reference (IR).

CONTENT:
Lesson Introduction

- Preflight Preparation
 - Certificates and Documents
 - Obtaining Weather Information
- Multi-Engine Operations
 - Operation of Airplane Systems
 - Determining Performance and Limitations
- Ground Operations
 - Visual Inspection
 - Cockpit Management
 - Engine Starting
 - Taxiing: Normal, Crosswind
 - Pre-takeoff Check
- Airport and Runway Markings and Lighting
- Normal Takeoffs and Climbs
- Traffic Pattern Operations
- Radio Communications and ATC Light Signals
- Visual Scanning and Collision Avoidance
- Straight and Level Flight (VR-IR)
- Level Turns (VR-IR)
- Climbs (VR-IR)
 - Straight
 - Turning
- Descents (VR-IR)
 - Straight
 - Turning
- Slow Flight
- Stalls
 - Power On
 - Power Off
 - Accelerated
- Steep Turns
- Drag Changes for Various Configurations
- Normal Approach and Landings
- After Landing Procedures

Completion Standards: At the completion of this lesson, the student will be able to perform all the listed ground procedures from the right seat without assistance. During takeoff and landings, the student will demonstrate good directional control and maintain lift-off, climb, approach and touch down speeds within 10 knots of the correct speed. Straight and level flight, climbs and descents will be performed while maintaining airspeed within 10 knots, roll outs from turns within 15 degrees of assigned headings and specific altitudes within 150'. In addition, the student will be able to demonstrate the correct flight procedure for maneuvering during slow flight, steep power turns, and correct entry and recovery procedures for stalls from the right seat. All maneuvers at critically slow airspeed must be completed no lower than 3500' AGL.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # CRM FLIGHT STAGE # MEI LESSON # 101

SAT ____% UNSAT ____% INCOMPLETE ____% CANCELLATION _____

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)

Note:

1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

REMARKS: _____

FOR I OR U: SUBJECTS THAT ARE NOT COMPLETE/INSTRUCTOR COMMENTS

FOR XC FLIGHTS, LIST DESTINATIONS: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	CA	PP	GI
?						?			?	?	

DATE: _____

ENTERED BY _____

TIME: IN _____

INVOICE _____ FLIGHT REC _____

OUT _____

SYLL. LESSON _____

TOTAL _____

PROCESSED ON _____

HOBBS: IN _____

REMARKS: _____

OUT _____

TOTAL _____

STUDENT SIGNATURE _____

INSTRUCTOR SIGNATURE _____

FLIGHT LESSON 2 DUAL-LOCAL
UNIVERSITY OF OKLAHOMA

Lesson Objective: During this lesson, the student will continue to learn how to do multi-engine procedures from the right seat. The student will perform crosswind and maximum performance takeoff and climbs, crosswind and maximum performance approach and landings, and go-arounds from rejected (balked) landings. The student will practice single engine procedures and maneuvers. The student will demonstrate engine inoperative loss of directional control and the recovery technique.

CONTENT:
Lesson Review

Preflight Preparation
 Normal Takeoff
 Slow Flight

Lesson Introduction

Taxiing with Crosswind and the Use of Differential Power
 Crosswind Takeoff and Climb
 Ground Reference Maneuvers; Including Rectangular Patterns, S-Turns, and Turns About a Point
 Crosswind Approach and Landing
 Maximum Performance Takeoff and Climb
 Maximum Performance Approach and Landing
 Go-Around From Rejected (Balked) Landing
 Emergency Operations (Engine-Out)
 Flight Principles - Engine Inoperative
 Identification of Inoperative Engine
 Use of Controls to Counteract Yaw and Roll
 Procedures for Shutdown and Feathering
 Emergency Descent
 Maneuvering With One Engine Inoperative
 Straight-and-Level Flight
 Turns in Both Directions
 Climbs and Descents to Assigned Altitudes
 Demonstration of Engine Inoperative Loss of Directional Control
 Effects of Various Airspeeds and Configurations During
 Engine Inoperative Performance

Completion Standards: At the completion of this lesson, the student will be able to perform all the maneuvers listed in this lesson. The student will be able to identify the inoperative engine and use the correct control inputs to maintain straight flight. The student will have a complete and accurate knowledge of the cause, effect, and significance of engine-out minimum control speed (Vmc) and recognize the imminent loss of control. All engine inoperative loss of directional control demonstrations must be completed no lower than 3500 feet AGL.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # CRM FLIGHT STAGE # MEI LESSON # 102

SAT ____% UNSAT ____% INCOMPLETE ____% CANCELLATION _____

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)

Note:

1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

REMARKS: _____

FOR I OR U: SUBJECTS THAT ARE NOT COMPLETE/INSTRUCTOR COMMENTS

FOR XC FLIGHTS, LIST DESTINATIONS: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	CA	PP	GI
?									?	?	

DATE: _____

ENTERED BY _____

TIME: IN _____

INVOICE _____ FLIGHT REC _____

OUT _____

SYLL. LESSON _____

TOTAL _____

PROCESSED ON _____

HOBBS: IN _____

REMARKS: _____

OUT _____

TOTAL _____

STUDENT SIGNATURE _____

INSTRUCTOR SIGNATURE _____

FLIGHT LESSON 3 DUAL-LOCAL
UNIVERSITY OF OKLAHOMA

LESSON OBJECTIVE: During this lesson, the student will be introduced to engine failure on takeoff, initial climb, enroute, and approaches, and landings with an inoperative engine from the right seat. The student will learn shutdown, restart procedures, and the procedures for engine inoperative loss of directional control and proper recovery. The student will be introduced to and learn emergency operation of airplane systems and flight by reference to instruments.

CONTENT:
Lesson Review

Maximum Performance Takeoff and Climb
 Emergency Operations
 Maneuvering With One Engine Inoperative

Lesson Introduction

Flight by Reference to Instruments; Including Unusual Flight
 Attitudes, Radio Aids and Radar Services.
 Emergency Operations (Engine-Out)
 Engine Failure on Takeoff Before Vr
 Engine Failure After Liftoff
 Engine Failure Enroute
 Approach and Landing With Inoperative Engine
 Student Demonstration of Engine Inoperative Loss of Directional Control
 Full Feather and In-flight Restart
 Systems and Equipment Malfunctions

Completion Standards:

At the completion of this lesson, the student will be able to maneuver the airplane during level flight with one engine inoperative, while maintaining altitude within 100' and heading within 15°. During engine-out climbs, the airspeed will be maintained within 5 knots of that recommended by the manufacturer. During simulated engine failures, the student will be able to properly identify the inoperative engine and demonstrate the correct shutdown and feathering procedures. The student will demonstrate the correct procedure for engine failure on takeoff before Vr and after liftoff. Engine-out approaches and landings will be performed while maintaining airspeed during final approach within 10 knots but never below the correct approach speed. All this will be done from the right seat.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # CRM FLIGHT STAGE # MEI LESSON # 103

SAT ____% UNSAT ____% INCOMPLETE ____% CANCELLATION _____

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)

Note:

1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

REMARKS: _____

FOR I OR U: SUBJECTS THAT ARE NOT COMPLETE/INSTRUCTOR COMMENTS

FOR XC FLIGHTS, LIST DESTINATIONS: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	CA	PP	GI
?									?	?	

DATE: _____

ENTERED BY _____

TIME: IN _____

INVOICE _____ FLIGHT REC _____

OUT _____

SYLL. LESSON _____

TOTAL _____

PROCESSED ON _____

HOBBS: IN _____

REMARKS: _____

OUT _____

TOTAL _____

STUDENT SIGNATURE _____

INSTRUCTOR SIGNATURE _____

FLIGHT LESSON 4 DUAL-LOCAL
UNIVERSITY OF OKLAHOMA

Lesson Objective: During this lesson, the student will be introduced to and learn multi-engine maneuvers and procedures for Holding Procedures as well as precision and non-precision approaches.

CONTENT:
Lesson Introduction

- Normal Operations
 - Climbs (IR)
 - Descents (IR)
 - Holding (IR)
 - Precision Approaches (IR)
 - Non-Precision Approaches (IR)
 - Circling Approaches
 - Missed Approaches

Completion Standards: At the completion of this lesson, the student will demonstrate the ability to perform each of the listed maneuvers and procedures at a proficiency level that meets or exceeds those criteria outlines in the multi-engine sections of the current FAA Commercial Practical Test Standards and Instrument Rating Practical Test Standards.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # CRM FLIGHT STAGE # MEI LESSON # 104

SAT ____% UNSAT ____% INCOMPLETE ____% CANCELLATION _____

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)

Note:

1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

REMARKS: _____

FOR I OR U: SUBJECTS THAT ARE NOT COMPLETE/INSTRUCTOR COMMENTS

FOR XC FLIGHTS, LIST DESTINATIONS: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	CA	PP	GI
?						?			?	?	

DATE: _____

ENTERED BY _____

TIME: IN _____

INVOICE _____ FLIGHT REC _____

OUT _____

SYLL. LESSON _____

TOTAL _____

PROCESSED ON _____

HOBBS: IN _____

REMARKS: _____

OUT _____

TOTAL _____

STUDENT SIGNATURE _____

INSTRUCTOR SIGNATURE _____

FLIGHT LESSON 5 DUAL-LOCAL
UNIVERSITY OF OKLAHOMA

Lesson Objective: During this lesson, the student will be introduced to and learn engine out maneuvers and procedures and precision and non-precision approaches.

Lesson Review

- Climbs (IR)
- Descents (IR)

Lesson Introduction

- Emergency Operations (Engine-Out)
 - Identification of Inoperative Engine (IR)
 - Procedures for Shutdown and Feathering (IR)
 - Engine Failure During Straight-and-Level (IR)
 - Engine Failure During Turns (IR)
- Climbs (IR)
- Descents (IR)
- Precision Approaches (IR)
- Non-Precision Approaches (IR)
- Circling Approaches
- Missed Approaches

Completion Standards: At the completion of this lesson, the student will demonstrate the ability to perform each of the listed maneuvers and procedures at a proficiency level that meets or exceeds those criteria outlined in the multi-engine sections of the current FAA Commercial Practical Test Standards and Instrument Rating Practical Test Standards.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # CRM FLIGHT STAGE # MEI LESSON # 105

SAT ____% UNSAT ____% INCOMPLETE ____% CANCELLATION _____

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)

Note:

1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

REMARKS: _____

FOR I OR U: SUBJECTS THAT ARE NOT COMPLETE/INSTRUCTOR COMMENTS

FOR XC FLIGHTS, LIST DESTINATIONS: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	CA	PP	GI
?						?			?	?	

DATE: _____

ENTERED BY _____

TIME: IN _____

INVOICE _____ FLIGHT REC _____

OUT _____

SYLL. LESSON _____

TOTAL _____

PROCESSED ON _____

HOBBS: IN _____

REMARKS: _____

OUT _____

TOTAL _____

STUDENT SIGNATURE _____

INSTRUCTOR SIGNATURE _____

FLIGHT LESSON 6 DUAL-LOCAL
UNIVERSITY OF OKLAHOMA

LESSON OBJECTIVE: During this lesson, the student will work on correcting any deficiencies in previous maneuvers. The instructor will determine that the student is proficient in all maneuvers performed from the right seat.

CONTENT:

- Multi-Engine Operations as Outlined in the FAA Commercial Practical Test Standard
- Multi-Engine Operations
- Ground Operations
- Traffic Pattern Operations
- Visual Scanning and Collision Avoidance
- Straight-and-Level Flight (VR-IR)
- Turns (VR-IR)
- Climbs (VR-IR)
- Descents (VR-IR)
- Flight at Critically Slow Airspeeds
- Approaches and Landings
- Instrument Approach - All Engines Operating
- Instrument Approach - One Engine Inoperative
- Emergency Operations (Engine-Out)
- Systems and Equipment Malfunction
- After Landing Procedures

Completion Standards:

At the completion of this lesson, the student will be able to demonstrate each of the listed areas of operations at a proficiency level that meets or exceeds those criteria outlined in the multi-engine section of the current FAA Commercial Practical Test Standards and Instrument Rating Practical Test Standards.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # CRM FLIGHT STAGE # MEI LESSON # 106

SAT ____% UNSAT ____% INCOMPLETE ____% CANCELLATION _____

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)

Note:

1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

REMARKS: _____

FOR I OR U: SUBJECTS THAT ARE NOT COMPLETE/INSTRUCTOR COMMENTS

FOR XC FLIGHTS, LIST DESTINATIONS: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	CA	PP	GI
?						?			?	?	

DATE: _____

ENTERED BY _____

TIME: IN _____

INVOICE _____ FLIGHT REC _____

OUT _____

SYLL. LESSON _____

TOTAL _____

PROCESSED ON _____

HOBBS: IN _____

REMARKS: _____

OUT _____

TOTAL _____

STUDENT SIGNATURE _____

INSTRUCTOR SIGNATURE _____

FLIGHT LESSON 7 DUAL-STAGE CHECK
UNIVERSITY OF OKLAHOMA

Lesson Objective: This lesson will be a multi-engine proficiency review conducted by the Chief Instructor or designated assistant, for the purpose of determining the student's knowledge of multi-engine procedures and capability to properly execute those procedures from the flight instructor's position in the aircraft.

Lesson Review:

- Systems and Equipment Malfunction
- After Landing Procedures
- Multi-Engine IFR Operations Both Single and Multi-Engine Flight Instructor Practical Test Standards
- Takoffs
 - Normal/Crosswind
 - Short Field
- Engine Failure
 - Takeoff Roll (Prior to Vmc)
 - Climb
 - Enroute
 - Landing
- Maneuvering With One Engine Inoperative
- Steep Turns
- Slow Flight
- Stalls
 - Power On
 - Power Off
 - Accelerated
- Vmc Demonstration
- Demonstrating Effects of Various Airspeeds and Configurations During Engine Inoperative Performance
- Emergency Descent

Completion Standards: At the completion of this lesson the student will have demonstrated multi-engine proficiency while flying from the instructor's position. All maneuvers will be performed at the level prescribed by the Commercial Pilot Practical Test Standards for Airplane, Multi-Engine Land.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

AIRCRAFT # CRM FLIGHT STAGE # MEI LESSON # 107

SAT ____% UNSAT ____% INCOMPLETE ____% CANCELLATION _____

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)

Note:

1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

REMARKS: _____

FOR I OR U: SUBJECTS THAT ARE NOT COMPLETE/INSTRUCTOR COMMENTS

FOR XC FLIGHTS, LIST DESTINATIONS: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	CA	PP	GI
?						?			?	?	

DATE: _____

ENTERED BY _____

TIME: IN _____

INVOICE _____ FLIGHT REC _____

OUT _____

SYLL. LESSON _____

TOTAL _____

PROCESSED ON _____

HOBBS: IN _____

REMARKS: _____

OUT _____

TOTAL _____

STUDENT SIGNATURE _____

INSTRUCTOR SIGNATURE _____

FLIGHT LESSON 8 DUAL-LOCAL
UNIVERSITY OF OKLAHOMA

LESSON OBJECTIVE: During this lesson, the student will begin to teach basic flight operations in a multi-engine airplane. The student will teach attitude, power setting, and configurations required for performance of the listed maneuvers. The student will also prepare and use lesson plans to aid in the teaching process.

CONTENT:

- Preflight Preparation
 - Certificates and Documents
 - Obtaining Weather Information
- Multi-Engine Operations
 - Operation of Airplane Systems
 - Determining Performance and Limitations
- Ground Operations
 - Visual Inspection
 - Cockpit Management
 - Engine Starting
 - Taxiing
 - Pre-Takeoff Check
- Airport and Runway Markings and Lightings
- Normal Takeoffs and Climbs
- Traffic Pattern Operations
- Radio Communication and ATC Light Signals
- Visual Scanning and Collision Avoidance
- Straight-and-Level Flight (VR-IR)
- Level Turns (VR-IR)
- Climbs (VR-IR)
 - Straight
 - Turning
- Descents (VR-IR)
 - Straight
 - Turning
- Flight at Critically Slow Airspeeds
 - Maneuvering During Slow Flight
 - Stalls - Gear Up and Flaps Up
 - Stalls - Gear Down and Approach Flaps
 - Stalls - Gear Down and Full Flaps
 - Steep Turns
- Drag Changes for Various Configurations
- Normal Approach and Landings
- After Landing Procedures
- Lesson Planning
 - Preflight/Ground Operations
 - Aircraft Systems

Completion Standards:

At the completion of this lesson, the student will be able to demonstrate all of the listed maneuvers while using instructional techniques and explaining the key elements of the maneuvers. The student should maintain heading, altitude, and airspeed for each maneuver within the limits set by the current FAA Multi-Engine and Flight Instructor Practical Test Standards.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # CRM FLIGHT STAGE # MEI LESSON # 108

SAT ____% UNSAT ____% INCOMPLETE ____% CANCELLATION _____

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)

Note:

1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

REMARKS: _____

FOR I OR U: SUBJECTS THAT ARE NOT COMPLETE/INSTRUCTOR COMMENTS

FOR XC FLIGHTS, LIST DESTINATIONS: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	CA	PP	GI
?						?			?	?	

DATE: _____

ENTERED BY _____

TIME: IN _____

INVOICE ____ FLIGHT REC ____

OUT _____

SYLL. LESSON _____

TOTAL _____

PROCESSED ON _____

HOBBS: IN _____

REMARKS: _____

OUT _____

TOTAL _____

STUDENT SIGNATURE _____

INSTRUCTOR SIGNATURE _____

FLIGHT LESSON 9 DUAL-LOCAL
UNIVERSITY OF OKLAHOMA

Lesson Objective: During this lesson, the student will continue working on instructional technique by explaining the maneuvers clearly and concisely while flying. The student will introduce and explain crosswind and maximum performance takeoffs and landings, go-arounds, engine-out procedures including Vmc demo.

CONTENT:
Lesson Review

Preflight Preparation
 Normal Takeoff
 Slow Flight

Lesson Introduction

Taxiing With Crosswind and Use of Differential Power
 Crosswind Takeoff and Climb
 Ground Reference Maneuvers; Including Rectangular Patterns, S-Turns, and Turns About A Point
 Crosswind Approach and Landing
 Maximum Performance Takeoff and Climb
 Maximum Performance Approach and Landing
 Go-Around From Rejected (Balked) Landing
 Emergency Operations (Engine-Out)
 Flight Principles - Engine Inoperative
 Identification of Inoperative Engine
 Use of Controls to Counteract Yaw and Roll
 Procedures for Shutdown and Feathering
 Emergency Descent
 Maneuvering With One Engine Inoperative
 Straight-and-Level Flight
 Turns in Both Directions
 Climbs and Descents to Assigned Altitudes
 Demonstration of Engine Inoperative Loss of Directional Control
 Effects of Various Airspeeds and Configurations During Engine Inoperative Performance
 Lesson Planning
 Ground Reference Maneuvers
 Engine-Out Procedures
 Demonstration of Engine Inoperative Loss of Direction Control

Completion Standards: The student's ability to instruct while flying the aircraft should improve. The student should be clear and concise in his/her explanation of the maneuver. The maneuvers should be flown smoothly and within the limits set by the current FAA Multi-Engine and Flight Instructor Practical Test Standards.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # CRM FLIGHT STAGE # MEI LESSON # 109

SAT ____% UNSAT ____% INCOMPLETE ____% CANCELLATION _____

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)

Note:

1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

REMARKS: _____

FOR I OR U: SUBJECTS THAT ARE NOT COMPLETE/INSTRUCTOR COMMENTS

FOR XC FLIGHTS, LIST DESTINATIONS: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	CA	PP	GI
?									?	?	

DATE: _____

ENTERED BY _____

TIME: IN _____

INVOICE _____ FLIGHT REC _____

OUT _____

SYLL. LESSON _____

TOTAL _____

PROCESSED ON _____

HOBBS: IN _____

REMARKS: _____

OUT _____

TOTAL _____

STUDENT SIGNATURE _____

INSTRUCTOR SIGNATURE _____

FLIGHT LESSON 10 DUAL-LOCAL
UNIVERSITY OF OKLAHOMA

LESSON OBJECTIVE: During this lesson, the student will teach engine failure on takeoff, initial climb, Enroute, and approaches and landings with an inoperative engine. The student will teach shutdown and restart procedures and review procedures for engine inoperative loss of directional control and recovery. Also, the student will teach emergency operation of airplane systems.

CONTENT:
Lesson Review

Maximum Performance Takeoff and Climb

Emergency Operations

Maneuvering With One Engine Inoperative

Lesson Introduction

Flight by Reference to Instruments; Including Unusual Flight

Attitudes, Radio Aids, and Radar Services

Emergency Operations (Engine-Out)

- Engine Failure on Takeoff Before Vr

- Engine Failure After Liftoff

- Engine Failure Enroute

- Approach and Landing with Inoperative Engine

- Engine Inoperative Loss of Directional Control

- Full Feather and In-flight Restart

- Systems and Equipment Malfunctions

Completion Standards:

At the completion of this lesson, the student will be able to teach and demonstrate all of the listed maneuvers. The student should maintain heading, altitude and airspeed within the limits set by the current FAA Multi-Engine and Flight Instructor Practical Test Standards.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # CRM FLIGHT STAGE # MEI LESSON # 110

SAT ____% UNSAT ____% INCOMPLETE ____% CANCELLATION _____

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)

Note:

1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

REMARKS: _____

FOR I OR U: SUBJECTS THAT ARE NOT COMPLETE/INSTRUCTOR COMMENTS

FOR XC FLIGHTS, LIST DESTINATIONS: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	CA	PP	GI
?									?	?	

DATE: _____

ENTERED BY _____

TIME: IN _____

INVOICE _____ FLIGHT REC _____

OUT _____

SYLL. LESSON _____

TOTAL _____

PROCESSED ON _____

HOBBS: IN _____

REMARKS: _____

OUT _____

TOTAL _____

STUDENT SIGNATURE _____

INSTRUCTOR SIGNATURE _____

FLIGHT LESSON 11 DUAL-LOCAL
UNIVERSITY OF OKLAHOMA

Lesson Objective: During this lesson, the student will teach multi-engine maneuvers and procedures holding as well as precision and non-precision approaches.

CONTENT:
Lesson Introduction

Normal Operations

- Climbs (IR)
- Descent (IR)
- Holdings (IR)
- Precision Approaches (IR)
- Non-Precision Approaches (IR)
- Circling Approaches
- Missed Approaches

Prepared Lesson Plans

Normal Instrument Procedure

Completion Standards: At the completion of this lesson, the student will demonstrate the ability to teach each of the maneuvers and procedures that meets or exceeds those criteria outlined in the multi-engine sections of the Multi-Engine and Flight Instructor Practical Test Standards.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # CRM FLIGHT STAGE # MEI LESSON # 111

SAT ____% UNSAT ____% INCOMPLETE ____% CANCELLATION _____

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)

Note:

1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

REMARKS: _____

FOR I OR U: SUBJECTS THAT ARE NOT COMPLETE/INSTRUCTOR COMMENTS

FOR XC FLIGHTS, LIST DESTINATIONS: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	CA	PP	GI
?						?			?	?	

DATE: _____

ENTERED BY _____

TIME: IN _____

INVOICE _____ FLIGHT REC _____

OUT _____

SYLL. LESSON _____

TOTAL _____

PROCESSED ON _____

HOBBS: IN _____

REMARKS: _____

OUT _____

TOTAL _____

STUDENT SIGNATURE _____

INSTRUCTOR SIGNATURE _____

FLIGHT LESSON 12 DUAL-LOCAL
UNIVERSITY OF OKLAHOMA

Lesson Objective: During this lesson, the student will teach engine-out maneuvers and for precision and non-precision approaches.

CONTENT:
Lesson Review

Climbs (IR)

Descents (IR)

Lesson Introduction

Emergency Operations (Engine-Out)

Identification of Inoperative Engine (IR)

Procedures for shutdown and Feathering (IR)

Engine Failure During Straight-and-Level (IR)

Engine Failure During Turns (IR)

Climbs (IR)

Descents (IR)

Precision Approaches (IR)

Non-Precision Approaches

Circling Approaches

Missed Approaches

Completion Standards: At the completion of the lesson, the student will be able to teach and demonstrate all of the listed maneuvers. The student should maintain altitude, heading, and airspeed for each maneuver within the limits set by the Multi-Engine and Flight Instructor Practical Test Standards.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # CRM FLIGHT STAGE # MEI LESSON # 112

SAT ____% UNSAT ____% INCOMPLETE ____% CANCELLATION _____

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)

Note:

1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

REMARKS: _____

FOR I OR U: SUBJECTS THAT ARE NOT COMPLETE/INSTRUCTOR COMMENTS

FOR XC FLIGHTS, LIST DESTINATIONS: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	CA	PP	GI
?						?			?	?	

DATE: _____

ENTERED BY _____

TIME: IN _____

INVOICE _____ FLIGHT REC _____

OUT _____

SYLL. LESSON _____

TOTAL _____

PROCESSED ON _____

HOBBS: IN _____

REMARKS: _____

OUT _____

TOTAL _____

STUDENT SIGNATURE _____

INSTRUCTOR SIGNATURE _____

FLIGHT LESSON 13 DUAL-LOCAL
UNIVERSITY OF OKLAHOMA

LESSON OBJECTIVE: During this lesson, the student will review procedures and instruction techniques for any previous maneuver the instructor deems necessary. This lesson will be used to ensure that any weak areas the student has are addressed.

CONTENT:
Lesson Review

Multi-Engine Operations as outlined in the FAA Multi-Engine Flight Instructor Practical Test Standards.

Multi-Engine Operations

Ground Operations

Traffic Pattern Operations

Visual Scanning and collision Avoidance

Straight-and-Level Flight (VR-IR)

Turns (VR-IR)

Climbs (VR-IR)

Descents (VR-IR)

Maneuvering During Slow Flight

Approaches and Landings - All Engines Operating

Approaches and Landings - One Engine Inoperative

Instrument Approach - All Engines Operating

Instrument Approach - One Engine Operating

Emergency Operations (Engine Out)

Systems and Equipment Malfunction

After Landing Procedures

Completion Standards:

At the completion of this lesson, the student will be able to teach and demonstrate within the limits set by the current FAA Multi-Engine and Flight Instructor Practical Test Standards.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

AIRCRAFT # CRM FLIGHT STAGE # MEI LESSON # 113

SAT ____% UNSAT ____% INCOMPLETE ____% CANCELLATION _____

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)

Note:

1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

REMARKS: _____

FOR I OR U: SUBJECTS THAT ARE NOT COMPLETE/INSTRUCTOR COMMENTS

FOR XC FLIGHTS, LIST DESTINATIONS: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	CA	PP	GI
?						?			?	?	

DATE: _____

ENTERED BY _____

TIME: IN _____

INVOICE _____ FLIGHT REC _____

OUT _____

SYLL. LESSON _____

TOTAL _____

PROCESSED ON _____

HOBBS: IN _____

REMARKS: _____

OUT _____

TOTAL _____

STUDENT SIGNATURE _____

INSTRUCTOR SIGNATURE _____

FLIGHT LESSON 14 DUAL-FINAL STAGE CHECK
UNIVERSITY OF OKLAHOMA

Lesson Objective: This lesson is a stage check conducted by the Chief Flight/Assistant Chief Flight Instructor or Check Instructor approved by the FSDO. The student must demonstrate flight instructor proficiency. Note: Several areas indicate a minimum number of tasks which must be evaluated. The student must be prepared to demonstrate proficiency in all the listed tasks.

CONTENT:

Preflight Procedures (A minimum of one of the following)

- Preflight Inspection
- Single-Pilot Resource Management
- Engine Starting

Takeoffs, Landings and Go-Arounds (At least two takeoff tasks and two landing tasks from the following)

- Normal and Crosswind Takeoff and Climb
- Short-Field Takeoff and Maximum Performance Climb
- Normal and Crosswind Approach and Landing
- Go-Around/Rejected Landing
- Short-Field Approach and Landing

Performance Maneuver – Steep Turns

Slow Flight and Stalls (At least one of the following)

- Maneuvering During Slow Flight
- Power-On Stalls
- Power-Off Stalls
- Accelerated Maneuver Stalls (Demonstration)

Emergency Operations (At least the second or third, the fourth and one other of the following)

- Systems and Equipment Malfunctions
- Engine Failure During Takeoff Before Vmc
- Engine Failure After Liftoff
- Approach and Landing With an Inoperative Engine
- Emergency Descent
- Emergency Equipment and Survival Gear

Multi-Engine Operations (At least the fourth and fifth and one other of the following)

- Operation of Systems
- Performance and Limitations
- Flight Principles – Engine Inoperative
- Maneuvering With One Engine Inoperative
- Vmc Demonstration
- Demonstrating The Effects Of Various Airspeeds and Configurations During Engine Inoperative Performance

Completion Standards: The student will demonstrate proficiency in strict accordance with the current FAA Airplane Multi-Engine Flight Instructor Practical Test Standards. This stage check will be at least equal in scope, depth and difficulty to that practical test.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

AIRCRAFT # CRM FLIGHT STAGE # MEI LESSON # 114

SAT ____% UNSAT ____% INCOMPLETE ____% CANCELLATION _____

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)

Note:

1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

REMARKS: _____

FOR I OR U: SUBJECTS THAT ARE NOT COMPLETE/INSTRUCTOR COMMENTS

FOR XC FLIGHTS, LIST DESTINATIONS: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	CA	PP	GI
?									?	?	

DATE: _____

ENTERED BY _____

TIME: IN _____

INVOICE _____ FLIGHT REC _____

OUT _____

SYLL. LESSON _____

TOTAL _____

PROCESSED ON _____

HOBBS: IN _____

REMARKS: _____

OUT _____

TOTAL _____

STUDENT SIGNATURE _____

INSTRUCTOR SIGNATURE _____

STAGE OBJECTIVE

During this course the student will review and reinforce his knowledge of aerodynamics, aircraft systems, aircraft performance, emergency procedures, flight maneuvers and operations, and instrument flight as they apply to multi-engine aircraft. The student will also develop the instructional knowledge of these subject areas necessary for the Multi-engine Flight Instructor Certificate.

COMPLETION STANDARD

This course is complete when the student has taken the multi-engine instructor course final exam with a minimum passing score of 70%, and the instructor has reviewed each incorrect response to ensure complete understanding of the material.

GROUND LESSON TIME ALLOCATION

LESSON	TIME
201	3.0*
202	2.0
203	3.0
204	2.0
205	2.0
206	3.0
207	3.0
208	2.0
TOTAL	20.0

* The individual lesson times shown on this table are for instructor/student guidance only, they are not mandatory for a given lesson. However, at the completion of the course the total ground instruction provided will be at least 20 hours.

UNIVERSITY OF OKLAHOMA
GROUND LESSON 1 – 3.0 HOURS

Text Reference: Airplane Flying Handbook, FAA-H-8083-3, Chapter 13 “Transition to Different Airplanes and Systems,” Multi-Engine Manual, Jeppesen Sanderson, Chapter 2, "Understanding Your Airplane"

Lesson Objective: The student will review basic and advanced aircraft systems as well as their associated emergency procedures as they apply to multi-engine aircraft and will develop instructional knowledge of these areas.

Content:

- Powerplant
- Propeller Systems
- Fuel System
- Fuel Injection Systems
- Turbocharging/Supercharging
- Electrical Systems
- Hydraulic Systems
- Landing Gear Systems
- De-Icing/Anti-Icing Systems
- Cabin Heat Systems
- Pressurization Systems
- Minimum Equipment List

Basic Emergency Procedures

- Pilots Operating Handbook
- Forced Landing
- Hydraulic System Failures
- Electrical System Failures
- Landing Gear Malfunctions
- Communication/Navigation Systems Failure
- In-flight Fire
- Lost Procedures

Completion Standards:

The student will demonstrate through oral discussion, practical demonstration, or quizzing the knowledge and understanding required to effectively teach multi-engine aircraft systems and emergency procedures.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # GROUND STAGE # MEI LESSON # 201

SAT ____% UNSAT ____% INCOMPLETE ____% CANCELLATION _____

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)

Note:

1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

REMARKS: _____

FOR I OR U: SUBJECTS THAT ARE NOT COMPLETE/INSTRUCTOR COMMENTS

FOR XC FLIGHTS, LIST DESTINATIONS: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	CA	PP	GI
											?

DATE: _____

ENTERED BY _____

TIME: IN _____

INVOICE ____ FLIGHT REC ____

OUT _____

SYLL. LESSON _____

TOTAL _____

PROCESSED ON _____

HOBBS: IN _____

REMARKS: _____

OUT _____

TOTAL _____

STUDENT SIGNATURE _____

INSTRUCTOR SIGNATURE _____

GROUND LESSON 2 – 2.0 HOURS
UNIVERSITY OF OKLAHOMA

Text Reference: Airplane Flying Handbook, FAA-H-8083-3, Chapter 14 "Transition to a Multiengine Airplane," Multi-Engine Manual, Jeppesen Sanderson, Chapter 2, "Understanding Your Airplane"

Lesson Objective: The student will review aircraft performance considerations as they apply to multi-engine aircraft and will develop instructional knowledge of these areas.

Content:

- Multi-Engine V-speeds
- Service Ceilings
- Weight and Balance Effects
- Weight and Balance Computations
- Performance Factors
- Takeoff Charts
- Accelerate/Stop Distance
- Climb Rate Charts
- Cruise Performance Charts
- Landing Distance Charts
- Stall Speed Charts
- Power/Performance Charts

Completion Standards:

The student will demonstrate through oral discussion, practical demonstration, or quizzing the knowledge and understanding required to effectively teach multi-engine performance considerations.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # GROUND STAGE # MEI LESSON # 202

SAT ____% UNSAT ____% INCOMPLETE ____% CANCELLATION _____

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)

Note:

1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

REMARKS: _____

FOR I OR U: SUBJECTS THAT ARE NOT COMPLETE/INSTRUCTOR COMMENTS

FOR XC FLIGHTS, LIST DESTINATIONS: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	CA	PP	GI
											?

DATE: _____

ENTERED BY _____

TIME: IN _____

INVOICE _____ FLIGHT REC _____

OUT _____

SYLL. LESSON _____

TOTAL _____

PROCESSED ON _____

HOBBS: IN _____

REMARKS: _____

OUT _____

TOTAL _____

STUDENT SIGNATURE _____

INSTRUCTOR SIGNATURE _____

GROUND LESSON 3 – 3.0 HOURS
UNIVERSITY OF OKLAHOMA

Text Reference: Airplane Flying Handbook, FAA-H-8083-3, Chapter 14 "Transition to a Multiengine Airplane," Multi-Engine Manual, Jeppesen Sanderson, Chapter 3, "Discovering Aerodynamics"

Lesson Objective: The student will review basic and advanced aerodynamics as they apply to multi-engine aircraft and will develop instructional knowledge of these areas.

Content:

- Thrust Vectors/Induced Airflow
- Turning Tendencies
- Critical Engine
- Minimum Control Speed (VMC)
- Stability
- Effects of Weight
- Inflight Forces (Single-engine)
- Control Application

Completion Standards:

The student will demonstrate through oral discussion, practical demonstration, or quizzing the knowledge and understanding required to effectively teach the aerodynamics of multi-engine flight.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # GROUND STAGE # MEI LESSON # 203

SAT ____% UNSAT ____% INCOMPLETE ____% CANCELLATION _____

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)

Note:

1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

REMARKS: _____

FOR I OR U: SUBJECTS THAT ARE NOT COMPLETE/INSTRUCTOR COMMENTS

FOR XC FLIGHTS, LIST DESTINATIONS: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	CA	PP	GI
											?

DATE: _____

ENTERED BY _____

TIME: IN _____

INVOICE _____ FLIGHT REC _____

OUT _____

SYLL. LESSON _____

TOTAL _____

PROCESSED ON _____

HOBBS: IN _____

REMARKS: _____

OUT _____

TOTAL _____

STUDENT SIGNATURE _____

INSTRUCTOR SIGNATURE _____

GROUND LESSON 4 – 2.0 HOURS

Intermediate Exam

Completion Standards:

The student will complete the Intermediate Exam with a minimum passing score of 70%, and the instructor will review each incorrect response to ensure complete understanding of the material.

UNIVERSITY OF OKLAHOMA

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

AIRCRAFT # GROUND STAGE # MEI LESSON # 204

SAT ____% UNSAT ____% INCOMPLETE ____% CANCELLATION _____

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)

Note:

1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

REMARKS: _____

FOR I OR U: SUBJECTS THAT ARE NOT COMPLETE/INSTRUCTOR COMMENTS

FOR XC FLIGHTS, LIST DESTINATIONS: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	CA	PP	GI
											?

DATE: _____

ENTERED BY _____

TIME: IN _____

INVOICE _____ FLIGHT REC _____

OUT _____

SYLL. LESSON _____

TOTAL _____

PROCESSED ON _____

HOBBS: IN _____

REMARKS: _____

OUT _____

TOTAL _____

STUDENT SIGNATURE _____

INSTRUCTOR SIGNATURE _____

GROUND LESSON 5 – 2.0 HOURS
UNIVERSITY OF OKLAHOMA

Text Reference: 14 CFR, Section 61, Subpart H “Flight Instructors”
Commercial Pilot Practical Test Standards, “For Airplane Single- and Multi-Engine Land and Sea”
Private Pilot Practical Test Standards “For Airplane Multi-Engine Land and Sea”
Flight Instructor Practical Test Standards “For Airplane Multi-Engine Land and Sea”

Lesson Objective: The student will understand the regulatory requirements for providing multi-engine flight instruction, determining Areas of Operation (AO’s) that must be evaluated when a multi-engine rating is added to an existing pilot certificate, safety considerations for actual and simulated engine failures and single engine maneuvers and requirements for satisfactory performance for each AO.

Content:

- Regulatory requirements to provide instruction
- Determining AO’s that must be evaluated for multi add on to an existing pilot certificate
- Requirements for satisfactory performance for each AO
- Safety Considerations (emphasis on altitudes and airspeeds at which the following maneuvers are conducted)
 - Simulated engine failure during takeoff
 - Simulated engine failure after liftoff
 - Maneuvering with one engine inoperative
 - Slow flight and stalls
 - V_{MC} Demonstration
 - Engine failure during flight
 - Instrument and visual approach-one engine inoperative

Completion Standards:

The student will demonstrate through oral discussion, practical demonstration, or quizzing the knowledge and understanding of multi-engine regulatory and practical instruction considerations.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # GROUND STAGE # MEI LESSON # 205

SAT ____% UNSAT ____% INCOMPLETE ____% CANCELLATION _____

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)

Note:

1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

REMARKS: _____

FOR I OR U: SUBJECTS THAT ARE NOT COMPLETE/INSTRUCTOR COMMENTS

FOR XC FLIGHTS, LIST DESTINATIONS: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	CA	PP	GI
											?

DATE: _____

ENTERED BY _____

TIME: IN _____

INVOICE _____ FLIGHT REC _____

OUT _____

SYLL. LESSON _____

TOTAL _____

PROCESSED ON _____

HOBBS: IN _____

REMARKS: _____

OUT _____

TOTAL _____

STUDENT SIGNATURE _____

INSTRUCTOR SIGNATURE _____

GROUND LESSON 6 – 3.0 HOURS

Text Reference: Multi-Engine Manual, Jeppesen Sanderson, Chapter 4, "Performing Maneuvers and Procedures"

Lesson Objective: The student will review normal operations and maneuvers for multi-engine aircraft and will develop instructional knowledge of these areas.

Content:

- Normal Preflight Inspection
- Normal Takeoff and Landing -- Ground Operations
- Maximum Performance Takeoff and Landing
- Go-around
- Steep Power Turns
- Maneuvering During Slow Flight
- Stalls
- Private and Commercial Flight Maneuvers
- Emergency Operations
- Spin Recognition and Recovery

Completion Standards:

The student will demonstrate through oral discussion, practical demonstration, or quizzing the knowledge and understanding required to effectively teach normal operations and maneuvers for multi-engine aircraft.

UNIVERSITY OF OKLAHOMA

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # GROUND STAGE # MEI LESSON # 206

SAT ____% UNSAT ____% INCOMPLETE ____% CANCELLATION _____

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)

Note:

1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

REMARKS: _____

FOR I OR U: SUBJECTS THAT ARE NOT COMPLETE/INSTRUCTOR COMMENTS

FOR XC FLIGHTS, LIST DESTINATIONS: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	CA	PP	GI
											?

DATE: _____

ENTERED BY _____

TIME: IN _____

INVOICE _____ FLIGHT REC _____

OUT _____

SYLL. LESSON _____

TOTAL _____

PROCESSED ON _____

HOBBS: IN _____

REMARKS: _____

OUT _____

TOTAL _____

STUDENT SIGNATURE _____

INSTRUCTOR SIGNATURE _____

GROUND LESSON 7 – 3.0 HOURS
UNIVERSITY OF OKLAHOMA

Text Reference: Airplane Flying Handbook, FAA-H-8083-3 "Transition a Multiengine Airplane," Instrument Flying Handbook FAA-H-8083-15, Multi-Engine Manual, Jeppesen Sanderson, Chapter 5, "Mastering Engine-Out Operations"

Lesson Objective: The student will review general engine failure procedures, engine-out maneuvers, and instrument flight procedures as applied to multi-engine aircraft and will develop instructional knowledge of these subject areas.

Content:

- Engine Failure
- Engine Shutdown/Restart
- Propeller Feathering/Unfeathering
- Takeoff and Landing
- Climb and Enroute
- VMC Demonstration
- Drag Demonstration
- Spin Recognition and Recovery
- Aircraft Control
- Cockpit Management
- IFR Planning
- Instrument Approaches
- Engine Failure En route
- Engine Failure -- Straight and Level/Turns
- Instrument Approach With One Engine Inoperative

Completion Standards:

The student will demonstrate through oral discussion, practical demonstration, or quizzing the knowledge and understanding required to effectively teach general engine failure procedures, engine-out maneuvers, and instrument flight procedures in multi-engine aircraft.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

 AIRCRAFT # GROUND STAGE # MEI LESSON # 207

SAT ____% UNSAT ____% INCOMPLETE ____% CANCELLATION _____

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)

Note:

1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

REMARKS: _____

FOR I OR U: SUBJECTS THAT ARE NOT COMPLETE/INSTRUCTOR COMMENTS

FOR XC FLIGHTS, LIST DESTINATIONS: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	CA	PP	GI
											?

DATE: _____

ENTERED BY _____

TIME: IN _____

INVOICE _____ FLIGHT REC _____

OUT _____

SYLL. LESSON _____

TOTAL _____

PROCESSED ON _____

HOBBS: IN _____

REMARKS: _____

OUT _____

TOTAL _____

STUDENT SIGNATURE _____

INSTRUCTOR SIGNATURE _____

GROUND LESSON 8 – 2.0 HOURS

Final Exam

Completion Standards:

The student will complete the Final Exam with a minimum passing score of 70%, and the instructor will review each incorrect response to ensure complete understanding of the material.

STUDENT NAME _____ ID# _____

INSTRUCTOR NAME _____ CERT# _____

AIRCRAFT # GROUND STAGE # MEI LESSON # 208

SAT ____% UNSAT ____% INCOMPLETE ____% CANCELLATION _____

HOMEWORK COMPLETE: Y / N (% grade is normally part of the lesson grade.)

Note:

1. Circle appropriate status/grade and put number (%) grade on line.
2. If cancellation state reason.

REMARKS: _____

FOR I OR U: SUBJECTS THAT ARE NOT COMPLETE/INSTRUCTOR COMMENTS

FOR XC FLIGHTS, LIST DESTINATIONS: _____

DI	So	Dnt	Snt	Dxc	Sxc	Idl	Nldg	AATD	CA	PP	GI
											?

DATE: _____

ENTERED BY _____

TIME: IN _____

INVOICE _____ FLIGHT REC _____

OUT _____

SYLL. LESSON _____

TOTAL _____

PROCESSED ON _____

HOBBS: IN _____

REMARKS: _____

OUT _____

TOTAL _____

STUDENT SIGNATURE _____

INSTRUCTOR SIGNATURE _____

APPENDIX B
UNIVERSITY OF OKLAHOMA
COURSE POLICIES

1. At the discretion of the instructor, students who progress rapidly within a specific stage, may within reasonable variances, continue to the next lesson with less time than is specified in the specific lesson curriculum, provided all content and completion standards are satisfactorily completed. The time stated in the lesson is the approximate minimum time that a student would need to meet the lesson objectives and completion standards; not absolute required times. The lesson time could be slightly more or slightly less. These reduced hours must be included in other lessons to complete the total ground or flight time specified by category in the training course outline in order to satisfactorily complete the course.
2. At no time will a student be allowed to continue to the next stage without having successfully completed all of the lessons and the required tests or stage checks related to the completion of the previous stage.
3. Flight training for this course will be done in accordance with the F.A.A approved syllabus. Deviations from the syllabus due to student training requirements, weather related factors, or other items as necessary will be allowed as long as the following requirements are met:
 - a. A notation will be made in the student training record as to the lesson covered and the reason for the deviation.
 - b. The student will complete all syllabus requirements before a graduation certificate is issued.
4. To satisfactorily complete the course of training, the student must meet all course objectives and completion standards. The student must complete the ground school courses.

APPENDIX C UNIVERSITY OF OKLAHOMA PRACTICE AREAS

The University of Oklahoma Department of Aviation has three (3) practice areas used for normal flight training operations on a daily basis. They are designated practice area 'A', 'B', and 'C'.

Practice area 'A' is described as an area southwest of Max Westheimer Airport bounded on the north by State Highway 9, on the south by the 35° line of latitude, on the west by the line extending north and south along a similar direction road extending south from the town of Blanchard, and on the east by the line formed by the railroad tracks running southeast from Norman, OK along and near Interstate Highway 35.

Practice area 'B' is described as an area southeast of Max Westheimer Airport bounded on the north by State Highway 9, on the south by State Highway 33, on the west by the railroad tracks extending southeast from Norman, OK, and on the east by an imaginary line extending south from the east side of Lake Thunderbird and ending at State Highway 33.

Practice area 'C' is described as an area west of Max Westheimer Airport bounded on the north by an imaginary line extending west from State Highway 9 southwest of Norman, Ok. to the town of Pocosset, OK., on the south by the 35° line of latitude, on the west by the line extending north and south along a similar direction road extending north from the town of Chickasha, OK. and on the east by the line extending north and south along a similar direction road extending south from the town of Blanchard, OK.

