GFD Instrument/Commercial Syllabus — Amendment 2

(Amendment to item 10001785-004 in print, and item 10464411-001 in e-Book)

GFD INSTRUMENT/COMMERCIAL SYLLABUS AMENDMENT 2 DESCRIPTION

Jeppesen is in the process of making significant updates to the GFD *Instrument/Commercial Syllabus*. In addition to many other improvements to enhance usability, these updates will include enhancements to make it easier for flight schools, instructors, and students to more effectively use a full flight simulator (FFS), flight training device (FTD), advanced aviation training device (AATD), and/or basic aviation training device (BATD) to help meet FAR Part 141 flight training time requirements. Prior to publication of the new syllabus versions—10001785-005 in print and 10464411-002 in e-Book—Jeppesen is posting Amendment 2 as an interim solution so operators can incorporate these changes into the current syllabus versions—10001785-004 in print and 10464411-001 in e-Book.

Modifications have been made to the Preface, Introduction, and Courses Overview portions of the syllabus as follows:

Preface

The Preface includes a description of the options to use an FFS, FTD, or ATD and checkboxes to indicate that the operator will be using one or more of these simulators/devices in the Instrument Rating Course and/or the Commercial Pilot Certification Course.

Introduction

The Introduction includes a description of the percentage of flight training time requirements that may be met in an:

- FFS, FTD, AATD, and/or BATD of the Instrument Rating Course according to FAR Part 141 Appendix C.
- FFS and/or FTD of the Commercial Pilot Certification Course according to FAR Part 141 Appendix D.

Courses Overview

The Courses Overview includes the following enhancements:

- Curriculum Overview
    - For the Instrument Rating Course, a table specifies the percentage of flight training time that may be used to meet FAR Part 141 flight training time requirements.
    - For the Commercial Pilot Certification Course, a table specifies the percentage of flight training time that may be used to meet FAR Part 141 flight training time requirements.
- Allocation Tables
    - Flight Training Stages I, II and III tables of the Instrument Rating Course contain additional columns for FFS, FTD or AATD, and BATD time. If using the FFS, FTD and/or ATD options, operators should indicate the flight time for the selected lesson row in the appropriate column.
    - Flight Training Stages IV, V, and VI tables of the Commercial Pilot Certification Course contain additional columns for FFS and FTD time. If using the FFS and/or FTD options, operators should indicate the flight time for the selected lesson row in the appropriate column.

The charts, tables, and graphs used in this publication are for illustration purposes only and cannot be used for navigation or to determine actual aircraft performance.

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Preface

The *Instrument/Commercial Syllabus* has been specifically developed to meet the requirements of Title 14 CFR, Part 141, Appendices C, D, and I, which apply to Instrument Rating, Commercial Pilot Certification, and Aircraft Class Rating Courses, respectively. The syllabus refers to specific 14 CFR parts and regulations as Federal Aviation Regulations (FARs). It is important that instructors refer to the pertinent sections of the regulations during the conduct of the course. This will ensure that all aeronautical knowledge areas, flight proficiency, and experience requirements have been included during training and are documented in appropriate records. The terminology for maneuvers and procedures listed in the syllabus is aligned with the "tasks" that are published in applicable FAA Airman Certification Standards.

The syllabus is arranged with separate ground and flight training segments which are taught concurrently. The Ground Training Syllabus is divided into five stages. Stages I, II, and III are for the instrument rating (airplane), and Stages IV and V are for commercial pilot (airplane single-engine). Stage VI of the Ground Training Syllabus is for the multi-engine rating. The Flight Training Syllabus includes Stages I, II, and III for the instrument rating and Stages IV, V, and VI for commercial pilot (airplane single-engine). Stage VII of the Flight Training Syllabus is for the multi-engine rating.

COURSE SELECTION

Students possessing a private pilot certificate who want to obtain a commercial pilot certificate may enroll in the Instrument/Commercial Courses concurrently. Private pilots wanting to pursue only the instrument rating (airplane) may do so by completing Stages I, II, and III of the syllabus. In addition, students who possess a private pilot certificate with an instrument rating may pursue a commercial pilot certificate by completing Flight Stages IV, V, and VI of the syllabus for the single-engine rating and then continuing on through the multi-engine training in Stage VII to obtain a multi-engine rating. Students may begin the appropriate courses provided the school determines they meet the prerequisite knowledge, experience, and proficiency requirements for that rating or certificate. The stages a student must complete for the various courses are indicated below.

_____ is enrolled in the:

(Name)

❑ INSTRUMENT RATING COURSE

The student must hold a private pilot certificate and complete all of the instrument ground and flight training lessons in Stages I, II, and III of the *Instrument/Commercial Syllabus*.

❑ COMMERCIAL PILOT CERTIFICATION COURSE

The student must hold a private pilot certificate with an instrument rating and complete all of the ground training lessons in Stages IV, and V and all of the flight training lessons in Stages IV, V, and VI of the *Instrument/Commercial Syllabus*.

❑ INSTRUMENT/COMMERCIAL COURSE

The combined Instrument/Commercial Course requires the student to hold a private pilot certificate and be concurrently enrolled in the Instrument Rating Course and the Commercial Pilot Certification Course. The student must complete all of the ground training lessons in Stages I through V and all of the flight training lessons in Stages I through VI in the *Instrument/Commercial Syllabus*.

❑ MULTI-ENGINE RATING

To add a multi-engine rating to the commercial pilot certificate, the student must complete all of the ground training lessons in Stage VI and all of the flight training lessons in Stage VII of the Instrument/Commercial Syllabus.

ADDITIONAL COURSE OPTIONS

This syllabus provides additional training options for the Instrument Rating Course and Commercial Pilot Certification Course. Operators should check the appropriate box for each option they select for their course of training.

INSTRUMENT RATING COURSE — FFS, FTD, AND ATD

The use of an aviation training device (ATD) is recommended for specified ground lessons and for use during flight lessons in the Instrument Rating Course. This syllabus also contains provisions for use of a full flight simulator (FFS) or flight training device (FTD) for instrument flight training. Operators who wish to utilize these options should check the appropriate box(es) when they apply for Training Course Outline (TCO) approval. The student copy of the syllabus also should be marked accordingly.

The Instrument Rating Course uses:

For ground training:

❑ Aviation training device (ATD).

For flight training:

❑ Basic aviation training device (BATD).

❑ Advanced aviation training device (AATD).

❑ Flight training device (FTD).

❑ Full flight simulator (FFS).

COMMERCIAL PILOT CERTIFICATION COURSE — FFS AND FTD

This syllabus contains provisions for use of a full flight simulator (FFS) or flight training device (FTD) for commercial pilot flight training. Operators who wish to utilize these options should check the appropriate box(es) when they apply for Training Course Outline (TCO) approval. The student copy of the syllabus also should be marked accordingly.

The Commercial Pilot Certification Course uses:

For flight training:

❑ Flight training device (FTD).

❑ Full flight simulator (FFS).

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Introduction

The *Instrument/Commercial Syllabus* contains coordinated ground and flight training lessons. The lessons follow a careful, step-by-step progression of subject introduction and practice, incorporating academic assignments, the training airplane, and flight simulation devices where appropriate. The structure of the syllabus is not overly complex, but it does require a thorough understanding on the part of the instructor to achieve maximum benefit. When the principles and general order of the syllabus are followed, they make the difference between an effective program or a succession of lessons that lack order and direction. However, even though the ground and flight lessons are coordinated and arranged in a logical sequence, the syllabus should not be considered a rigid document. Any syllabus should be considered as an abstract or digest of the course of training. As such, it is important that flexibility be provided to adapt to individual student needs and/ or the local training environment.

COURSE ELEMENTS

The *Instrument/Commercial Syllabus* utilizes separate ground and flight segments. It may be conducted as a combined ground and flight training program, or be divided into separate components. The course includes the latest FAA pilot certification requirements and a maximum of student-oriented instruction. The syllabus and support materials not only provide necessary information, but also guide the student through the course in a logical manner.

The basic syllabus is designed for the instrument rating (airplane) and the commercial certificate (airplane single-engine). However, additional ground training (Stage VI) and flight training (Stage VII) is included to add a multi-engine rating to your commercial certificate. Applicants may complete only the single-engine stages, or they may continue through the multi-engine training. In either case, at completion, the applicant will have complied with the training requirements of Part 141, Appendix C, Appendix D, and Appendix I.

GROUND TRAINING

In accordance with Part 141, ground school training is an integral part of pilot certification courses. The ground training syllabus has been designed to meet this requirement, and it may be coordinated with the flight training syllabus or used as a separate ground training course.

If the ground school is coordinated with the flight syllabus, each ground lesson is conducted at the point indicated in the Allocation Tables. This is the most effective method for course utilization, because the academic knowledge is obtained immediately prior to its application during flight training. However, to provide a degree of flexibility for adapting to individual student needs and the training environment, the syllabus lesson and stages may be altered with approval of the chief flight instructor. Any deviation should not disturb the course continuity or objective.

When the course is presented as a formal classroom program, lessons should be followed as outlined. Each lesson may be presented in one classroom session, or it may be divided into two or more sessions, as necessary.

USING THE GROUND LESSONS

Ground lessons are based on Jeppesen Guided Flight Discovery (GFD) pilot courseware. Although each component of the GFD Instrument and Commercial courseware may be used separately, the effectiveness of the materials is maximized by using all of the individual elements together in an organized systems approach as described in this syllabus. The syllabus contains cross-references which direct the user to the appropriate GFD study materials for each lesson.

The student should complete the references in each ground lesson—the textbook and online learning center—prior to the classroom session or instructor briefing. The ground lessons include objectives, content, and completion standards. Instructors can use these components as a checklist to ensure that they cover the required material in each lesson. Instructors should introduce each lesson by outlining the subject material to be covered, the objectives, and the performance standards necessary for successful lesson completion. Each ground lesson also includes study assignments for the next lesson. The main components of the GFD Instrument and Commercial courseware are described below.

TEXTBOOKS

Prior to each ground lesson, the student should read and study the assigned textbook/eBook section or chapter, if appropriate. The Instrument/Commercial textbook/eBook is the main source of information for the first five stages of ground training. It is comprehensive and well-illustrated. The Multi-Engine textbook covers information necessary to complete the multi-engine stage of training. In addition, the FAR/AIM contains information essential for course completion.

THE JEPPESEN LEARNING CENTER ONLINE

Jeppesen's online instrument and commercial pilot ground schools provide academic and maneuvers training. They are powerful resources on their own or in combination with classroom training. The Jeppesen Learning Center complements the textbooks with lessons that explore the material with engaging multimedia presentations, practice opportunities, and exams.

QUESTIONS AND EXAMS

The final step is for the student to complete the appropriate textbook questions or online exams and discuss any incorrect responses with the instructor. This ensures student understanding prior to beginning the next ground lesson. When the lesson is complete, the instructor assigns the next textbook chapter and section(s) or online lesson(s) for out-of-class study. At the end of each stage, the student is required to successfully complete the stage exam outlined in the syllabus before the next ground training stage.

END-OF-COURSE EXAMS

When all the appropriate ground lesson assignments are complete, the student should take the end-of-course exam. The ground lesson assignments for the Instrument Rating End-of-Course Exam are completed in Stage III, and those for the Commercial Pilot (Airplane Single-Engine) End-of-Course Exam are completed in Stage V.

The ground training end-of-course exam for the combined Instrument/Commercial Course (Airplane Single-Engine) is administered following Stage V. The Commercial Pilot End-of-Course Exam serves as this final test. An additional end-of-course exam is also included for students completing the multi-engine rating. Following these tests, the instructor should assign each student appropriate subject areas for review.

PILOT BRIEFINGS

Pilot briefings are contained in the Appendix of this syllabus. Each briefing consists of a series of questions that provide comprehensive coverage of selected areas of instruction. The student should be provided with the appropriate briefing in advance. This allows the student to prepare properly by researching the answers and, therefore, gain optimum benefit from the briefing.

The briefings should be conducted as private tutoring sessions to test each student's comprehension. Every question should be discussed thoroughly to ensure the student understands the relevant information. The briefings are to be completed during the preflight orientation for the appropriate flight. Correct placement of the briefing sessions is indicated in the syllabus.

Altogether there are seven pilot briefings in the Instrument/Commercial Course (Airplane Single-Engine). The third one is the briefing for the FAA Instrument Rating Practical Test. It should be completed prior to the End-of-Course Flight Check in Stage III. The seventh briefing is for the FAA Commercial Pilot Practical Test (Airplane Single-Engine) and it should be completed before the single-engine End-of-Course Flight Check in Stage VI. Additional pilot briefings are included in the airplane multi-engine stage. During all of the pilot briefings, each subject area should be reviewed with the student to ensure complete understanding.

FLIGHT TRAINING

The syllabus is divided into three stages for the instrument rating portion of the course and an additional three stages to complete the commercial portion. A seventh stage is provided for commercial students seeking a multi-engine airplane rating. Each stage builds on previous learning and, therefore, it is recommended they be completed in sequence.

Because the Instrument/Commercial Syllabus is to be used as a practical training guide, it is designed to allow a degree of flexibility in order to meet the needs of individual students. With the approval of the chief flight instructor, some lessons may be rearranged to suit training needs. However, it is the responsibility of the instructor to ensure the continuity of the learning blocks remains unaffected by the change. The following discussion presents a description of the primary areas of study in each stage.

STAGE I

Stage I of the syllabus is designed to provide the student with a strong foundation in attitude instrument flying and instrument navigation. At the completion of this stage, the student is thoroughly prepared for the introduction of holding patterns and instrument approach procedures.

STAGE II

During this stage, the student learns to perform holding patterns and instrument approaches. This training prepares the student for the introduction of IFR cross-country procedures in Stage III.

STAGE III

This stage of training teaches the student IFR cross-country procedures and provides a review of all previously learned maneuvers. Through the use of three instrument cross-country flights and review, the student is able to attain the proficiency level of an instrument-rated pilot.

The ground and flight training portions of the instrument course are completed in Stage III. The student should also successfully pass the FAA Instrument Rating Airman Knowledge Test and take the FAA Instrument Rating Practical Test at the completion of this stage.

STAGE IV

Stage IV builds upon previously learned ground and flight training. The student reviews and practices day and night VFR cross-country procedures to prepare for commercial pilot operations.

STAGE V

Stage V provides a thorough introduction and pilot-in-command checkout in the complex airplane. The remainder of the stage is devoted to the introduction and review of precision flight maneuvers.

STAGE VI

Although no new maneuvers or procedures are introduced in Stage VI, practice of commercial maneuvers in the complex airplane is included. This is an important stage of training. It provides a review of the skills learned throughout the syllabus and prepares the student for the FAA practical test. If the student has not previously completed the FAA Instrument Rating Practical Test, both the Instrument and Commercial Practical Test Briefings that coincide with the End-of-Course Flight Check are to be utilized in this stage.

STAGE VII

Stage VII, which is for the multi-engine rating, provides a foundation for all relevant multi-engine maneuvers and procedures, including normal and engine-out operations. The final portion of Stage VII concentrates on multi-engine procedures in the IFR environment with both normal instrument approaches and engine-out instrument approach procedures.

PREFLIGHT DISCUSSION

Prior to each dual and solo flight, the instructor should provide the student with an overview of the subject matter to be covered during the lesson. The instructor should brief the student and explain the lesson objectives and completion standards. It is important that the instructor define unfamiliar terms and explain the maneuvers and procedures of each lesson. The Preflight Discussion should be tailored to the specific flight, the local environment, and the individual student.

AIRPLANE PRACTICE

The syllabus has been designed to enable practice of given procedures and maneuvers after the student has been introduced to the maneuver by the instructor. If a flight simulation device is used, the instructor is not relieved of teaching during flight lessons. However, the student is expected to grasp new techniques more easily having already been introduced to them in the simulation device. If simulation devices are not utilized, both introduction and practice are to be accomplished in the airplane.

FFS, FTD, OR ATD

Some flight training time required for the Instrument Rating Course under Part 141 Appendix C and of the Commercial Pilot Course under Part 141 Appendix D may be conducted in an aviation training device (ATD) and/or a flight simulation training device (FSTD), which is defined as a full flight simulator (FFS) or flight training device (FTD).

An FFS is distinguished from an FTD by the simulator's motion cueing system. An FTD is distinguished from most ATDs by the FTD's full-size replica of the instruments, equipment, panels, and controls of an aircraft, or set of aircraft, in an open flight deck area or in an enclosed flight deck. Advanced aviation training devices (AATDs) have similar capabilities as FTDs. Basic ATDs (BATDs) can lack the physical controls contained in a simulator or FTD, or the device does not sufficiently replicate an aircraft flight deck to be an FTD. However, BATDs

provide benefits such as versatility in lesson presentation, repositioning features, and freeze functions.

When applying for Training Course Outline (TCO) approval, operators who wish to utilize an FFS, FTD, or ATD should:

- Check the appropriate box(es) in the Preface.
- Select the flight lessons in which they intend to use the flight simulator and/or training device and list the flight time in the appropriate row and column on the Allocation Tables.

NOTE: *The student copy of the syllabus also should be marked accordingly.*

INSTRUMENT FLIGHT TRAINING TIME

Part 141 Appendix C, 4. Flight Training (b) covers the use of of full flight simulators, flight training devices, or aviation training devices. According to this regulation:

- An FFS that meets the requirements of FAR 141.41(a) may be used for up to 50 percent of the required instrument flight training time.
- An FTD that meets the requirements of FAR 141.41(a) or an AATD that meets the requirements of FAR 141.41(b) may be used for up to 40 percent of the required instrument flight training time.
- A BATD that meets the requirements of FAR 141.41(b) may be used for up to 25 percent of the required instrument flight training time.
- A combination of FFSs, FTDs, and AATDs may be used for up to 50% of the of the required instrument flight training time. However, the total time in FTDs or AATDs may not exceed 40 percent of the flight time and total time in BATDs may not exceed 25 percent.

COMMERCIAL FLIGHT TRAINING TIME

Part 141 Appendix D, 4. Flight Training (c) covers the use of use of full flight simulators and flight training devices. According to this regulation:

- An FFS that meets the requirements of FAR 141.41(a) may be used for up to 30 percent of the required commercial flight training time.
- An FTD that meets the requirements of FAR 141.41(a) may be used for up to 20 percent of the required commercial flight training time.
- A combination of FFSs and FTDs may be used for up to 30% of the required commercial flight training time. However, the total time in FTDs may not exceed 20 percent of the flight time.

POSTFLIGHT DEBRIEFING

The Postflight Debriefing is as important as the Preflight Discussion. The student should perform a self-critique of maneuvers/procedures and single-pilot resource management (SRM) performance. This learner-centered grading is especially helpful in developing decision-making skills. If the student is having trouble mastering a certain skill, both the student and instructor should plan for improving the performance of that skill. An effective Postflight Debriefing increases retention and helps the student prepare for the next lesson.

STUDENT STAGE CHECKS

The stage checks in the *Instrument/Commercial Syllabus* are designed to identify deficiencies and to check the student's overall progress in accordance with Part 141. Each stage check is the responsibility of the chief flight instructor. However, the chief flight instructor may delegate the authority to conduct these tests to the assistant chief instructor or designated check instructor. This procedure provides close supervision of training and a second opinion on the student's progress. The stage check also gives the chief instructor an opportunity to check the effectiveness of the instructors and their teaching methods.

An examination of the building-block theory of learning will show that it is extremely important that the student's progress and proficiency are satisfactory before entering a new stage of training. Therefore, the next stage should not begin until the student successfully completes the stage check. Failure to follow this progression may defeat the purpose of the stage check and lead to overall course breakdown.

IMPLEMENTING THE COURSES

While the *Instrument/Commercial Syllabus* is intended to fulfill the requirements of a combined Instrument/Commercial Course, it may also be utilized for separate Instrument Rating or Commercial Pilot Certification Courses. This discussion explains the implementation of the combined Instrument/Commercial, as well as the separate Instrument Rating, and separate Commercial Pilot Certification Courses.

CREDIT FOR PREVIOUS TRAINING

According to FAR 141.77(c), when a student transfers from one FAA-approved school to another approved school, course credits obtained in the previous course of training may be credited for 50 percent of the curriculum requirements by the receiving school. However, the receiving school must determine the amount of credits to be allowed based upon a proficiency test, knowledge test, or both, conducted by the receiving school. A student who enrolls in a course of training may receive credit for 25 percent of the curriculum requirements for knowledge and experience gained in a Part 61 flight school, and the credit must be based upon a proficiency test, knowledge test, or both, conducted by the receiving school. The amount of credit for previous training allowed, whether received from an FAA-approved school or other source, is determined by the receiving school. In addition, the previous provider of the training must certify the kind and amount of training given, and the result of each stage check and end-of-course test, if applicable.

INSTRUMENT/COMMERCIAL COURSE

The Instrument/Commercial Course is designed for students who currently hold a private pilot certificate. The course includes a total of at least 65 hours of ground training and 155 hours of flight training. This total consists of 30 hours of ground training and 35 hours of flight training in Stages I, II, and III of the syllabus for the instrument rating segment. In addition, the commercial certification segment consists of 35 hours of ground training and 120 hours of flight training found in Stages IV, V, and VI.

Students adding a multi-engine rating to their commercial pilot certificate must complete Ground Stage VI, which includes 15 hours of ground training. They also must complete 15 hours of multi-engine flight training in Flight Stage VII.

The *Instrument/Commercial Syllabus* is presented in both an overview and a lesson-by-lesson format. The lesson sequence and content have been designed to provide the student with maximum academic and flight training prior to the introduction of new maneuvers or procedures. Therefore, the sequence of ground and fight training shown in the syllabus outline should not be altered significantly if the coordinated program is utilized.

If absolutely necessary, the placement of ground lesson assignments may be changed to allow the student to progress more rapidly in the academic study than outlined in the course. If this method is used, the student should not be allowed to progress into the ground lesson assignments of the next stage until the flight lessons in the current stage of training are completed. This is important, because the student's recall of academic knowledge decreases with an increase in time between subject introduction during ground training and its application in flight training.

INSTRUMENT RATING COURSE

The Instrument Rating Course is presented first in the *Instrument/Commercial Syllabus*. It consists of a minimum of 30 hours of ground training and 35 hours of instrument flight training in Stages I, II, and III of the syllabus. During Stage III the student should pass the FAA Instrument Rating Airman Knowledge Test. At the completion of Stage III, the FAA Instrument Rating Practical Test should be taken.

The *Instrument Rating Syllabus* is presented in both an overview and a lesson-by-lesson format. The combined flight and ground training course includes the entire outline from Stage I through the completion of Stage III. The lesson sequence and content have been designed to provide the student with maximum academic and flight training prior to the introduction of new maneuvers and procedures. However, the sequence shown in the syllabus outline may be altered to meet special circumstances of the student or training environment.

COMMERCIAL PILOT CERTIFICATION COURSE

The Commercial Pilot Certification Course is presented in the next segment of the *Instrument/Commercial Syllabus*. It consists of a minimum of 35 hours of ground training and 120 hours of flight training in Stages IV, V, and VI. During Stage V, the student should pass the FAA Commercial Pilot Airman Knowledge Test. At the completion of Stage VI, the FAA Commercial Pilot Practical Test should be taken.

Students adding a multi-engine rating to their commercial pilot certificate must complete Ground Stage VI, which includes 15 hours of ground training. They also must complete 15 hours of multi-engine flight training in Flight Stage VII.

The *Commercial Pilot Syllabus* is presented in both an overview and a lesson-by-lesson format. The lesson sequence and content have been designed to provide the student with maximum academic and flight training prior to the introduction of new maneuvers and procedures. While the syllabus provides a general training outline, the lesson sequence shown may be tailored to meet the individual needs of the student. Lessons 36, 37, 38, 39, 40 and 41 are designed to be solo cross-country flight lessons. However, these lessons may also be utilized for additional dual instruction to meet the proficiency requirements for the End-of-Course Flight Check and FAA practical test.

COMMERCIAL COURSE MULTI-ENGINE OPTIONS

The Allocation Tables for Flight Stages V, VI, and VII provide two options for completing a commercial certification course with a single-engine rating and a multi-engine rating. By shortening some of the single-engine flight lessons in Stage V and VI, the course is designed so that the student may earn the multi-engine rating without increasing the total flight time. The shortened times are listed in parenthesis in the Time Allocation tables. For Flight Stages V and VI, the student must select one of two flight times listed in many of the Allocation Table rows:

- To take the Commercial Pilot–Airplane Single-Engine Land Practical Test at the end of Stage VI, the student must complete the first flight time listed. After passing the practical test at the end of Stage VI, the student may continue training to add a multi-engine rating to the commercial certificate by completing Flight Stage VII. After completing the multi-engine rating course, the student takes the Commercial Pilot Airplane–Multi-Engine Land Practical Test.
- If the student chooses to complete the second flight time listed (shown in parentheses) for Flight Stages V and VI, the student must also complete the flight time in Stage VII to meet the total time required for commercial pilot certification. In this case, the student completes Stage VII before taking the Commercial Pilot–Airplane Single-Engine Land Practical Test and the Commercial Pilot Airplane–Multi-Engine Land Practical Test.

PART 61 TRAINING

The *Instrument/Commercial Syllabus* is designed to meet all of the requirements of Part 141, Appendices, C, D, and I. It may also be adapted to meet the requirements of Part 61. Part 61 incorporates greater aeronautical experience requirements than are found in Part 141. For example, as indicated in FAR 61.65 for an instrument rating, you must have at least 50 hours of cross-country time as pilot in command and 40 hours of actual or simulated instrument time in the areas of operation specified in the FARs. This includes at least 15 hours of instrument flight training from an authorized instructor in the aircraft category for which the instrument rating is sought. If your training is accomplished under Part 141, you must have 35 hours of instrument training from an authorized instructor in the areas specified in Part 141, Appendix C and need not comply with the 50-hour PIC cross-country requirement.

Under Part 61, a commercial pilot applicant for an airplane category and single-engine class rating must log at least 250 hours of flight time as a pilot. This includes 100 hours in powered aircraft, of which 50 hours must be in airplanes. In addition, it must include 100 hours of pilot-in-command time, which includes at least 50 hours in cross-country flight of which at least 10 hours must be in airplanes. Further, 20 hours of flight training and 10 hours of solo flight also are required. Refer to FAR 61.125, 61.127, and 61.129.

Under Part 61, an applicant for a multi-engine class rating to be added to a pilot certificate must meet the requirements of FAR 61.63 (c). Essentially, there are no established minimum amounts of ground training or flight training time necessary in order to add an additional aircraft class rating to a pilot certificate. As a result, class ratings are often referred to as competency-based. Part 61 requires instruction be received appropriate to the desired rating, and that a flight instructor recommendation be obtained. Of course the appropriate practical test also must be successfully completed.

The ground training requirements under Part 61 specify that an applicant for a knowledge test is required to have a logbook endorsement from an authorized instructor who conducted the training or reviewed the person's home study course. The endorsement must indicate satisfactory completion of the ground instruction or home study course required for the certificate or rating sought. A home study course for the purposes of Part 61 is a course of study in those aeronautical knowledge areas specified in FAR 61.125, and organized by a pilot school, publisher, flight or ground instructor, or by the student. The Instrument/Commercial Course easily meets this requirement. As a practical consideration, students seeking pilot certification under Part 61 should receive some formal ground training, either in the classroom or from an authorized flight or ground instructor.

An applicant who applies for an additional class rating to be added on a pilot certificate need not take an additional knowledge test, provided the applicant holds an airplane, rotorcraft, powered-lift, or airship rating at that pilot certificate level.

Courses Overview

INTRODUCTION

The *Instrument/Commercial Syllabus* is designed to coordinate the academic study assignments and flight training required by pilots operating in an increasingly complex aviation environment. New subject matter is introduced during the ground lessons, which include the following:

1. In-depth textbook/eBook assignments
2. Ground lessons in the Jeppesen Learning Center online
3. Thorough instructor/student discussions
4. Textbook/eBook questions and online exams
5. Stage and end-of-course exams for evaluation and reinforcement

After completing the ground lesson, the student will apply these new principles in a simulation device or in the airplane during the flight lesson. The Allocation Tables indicate placement of the ground lessons when the coordinated sequence is used.

Optimum effectiveness is realized when ground lessons are completed just prior to the respective flight lessons, as outlined in the syllabus. However, it is also acceptable to present lessons in a formal ground school before the student is introduced to the airplane. If a considerable length of time has elapsed between the ground lesson and the associated flight, the instructor may wish to conduct a short review of essential material. Flight lessons should not be conducted until related ground lessons have been completed.

INSTRUMENT RATING COURSE

COURSE OBJECTIVE — The student will obtain the knowledge, skill, and aeronautical experience necessary to meet the requirements for an instrument rating (airplane).

COURSE COMPLETION STANDARD — The student must demonstrate through knowledge tests, flight tests, and appropriate records that he/she meets the knowledge, skill, and experience requirements necessary to obtain an instrument rating (airplane).

FLIGHT TRAINING COURSE OBJECTIVE — The student will obtain the aeronautical skill and experience necessary to meet the requirements for an instrument rating (airplane).

COMPLETION STANDARD — The student must demonstrate through flight tests and school records that the necessary aeronautical skill and experience requirements to obtain an instrument rating (airplane) have been met.

GROUND TRAINING COURSE OBJECTIVE — The student will obtain the necessary aeronautical knowledge and meet the prerequisites specified in Part 141 for the FAA Instrument Rating Airman Knowledge Test.

COMPLETION STANDARD — The student must demonstrate through exams and school records that he/she meets the prerequisites specified in Part 141 and has the knowledge necessary to pass the FAA Instrument Rating Airman Knowledge Test.

STUDENT INFORMATION

COURSE ENROLLMENT

To enroll in the flight portion of the Instrument Rating Course, you must hold at least a private pilot certificate with an airplane category rating and a single-engine land class rating.

REQUIREMENTS FOR GRADUATION

To obtain an instrument rating, you must be able to read, speak, write, and understand the English language and hold a private pilot certificate with at least a third-class medical certificate. In addition, you must meet the aeronautical experience requirements specified in Part 141, Appendix C to be eligible for graduation.

LESSON DESCRIPTION AND STAGES OF TRAINING

This syllabus fully describes each lesson, including the objectives, references, topics, and completion standards. The stage objectives and standards are described at the beginning of each stage within the syllabus.

TESTS AND CHECKS

The syllabus incorporates stage and end-of-course flight checks in accordance with Part 141, Appendix C. These checks are given by the chief instructor, an assistant chief instructor, or check instructor designated by the chief instructor. The student will also complete the stage exams and pilot briefings that are described within the syllabus. In addition, the student must satisfactorily complete the end- of-course exam and end-of course flight check after completing all the stages.

Curriculum Overview
Instrument Rating Course

Completion of this course is based solely upon compliance with the minimum requirements of FAR Part 141. The time tables are provided for guidance in achieving regulatory compliance.

	GROUND TRAINING				FLIGHT TRAINING			
	Ground Lessons	ATD	Briefings, Stage, and Final Exams	Ground Training Totals	Instrument Training	Cross-Country Training	FFS, FTD, ATD	Flight Training Totals
STAGE I	8.0	(2.0)	1.0	9.0	13.0		As Req.	13.0
STAGE II	10.0	(3.0)	1.5	11.5	11.0		As Req.	11.0
STAGE III	6.0		3.5	9.5	11.0	(10.0)	As Req.	11.0
TOTALS	24.0	(5.0)	6.0	30.0	35.0	(10.0)	As Req.	35.0

NOTE: **Ground Training:**

1. Ground lessons may include class discussion or online lessons.
2. Operators using the ATD option for ground training may credit ATD time for up to 5 hours toward the 30-hour requirement. Suggested ATD hours for ground training are shown in parentheses.

NOTE: **Flight Training:**

1. Cross-country hours (shown in parentheses) are included in the instrument training time for Stage III and in the total flight training time.
2. All flight training in the Instrument Rating Course is dual.
3. As shown in the following table, operators using the FFS, FTD, and/or ATD options may credit FFS, FTD, or ATD time for instrument flight training time according to Part 141 Appendix C, 4. Flight Training (b) Use of full flight simulators, flight training devices, or aviation training devices.

Type of Device	FAR Equipment Requirements	Instrument Flight Time Allowed by Part 141 Appendix C, 4. (b)	Flight Hours
Full Flight Simulator (FFS)	141(a)	50%	17.5
Flight Training Device (FTD)	141(a)	40%	14
Advanced Aviation Training Device (AATD)	141(b)	40%	14
Basic Aviation Training Device (BATD)	141(b)	25%	8.75
Combination of Devices	141(a) and (b)	50% (Total time in FTDs, AATDs, and BATDs may not exceed percentages specified above.)	17.5 14 (total in FTDs and AATDs) 8.75 (total in BATDs)

COMMERCIAL PILOT CERTIFICATION COURSE

COURSE OBJECTIVE — The student will obtain the knowledge, skill, and aeronautical experience necessary to meet the requirements for a commercial pilot certificate with an airplane category rating and a single-engine land class rating (and a multi-engine land class rating if completing the multi-engine training).

COURSE COMPLETION STANDARD — The student must demonstrate through knowledge tests, flight tests, and appropriate records that he/she meets the knowledge, skill, and experience requirements necessary to obtain a commercial pilot certificate with an airplane category rating and a single-engine land class rating (and a multi-engine land class rating if completing the multi-engine training).

FLIGHT TRAINING COURSE OBJECTIVE — The student will obtain the aeronautical skill and experience necessary to meet the requirements for a commercial pilot certificate with an airplane category rating and a single-engine land class rating (and a multi-engine land class rating if completing the multi-engine training).

COMPLETION STANDARD — The student must demonstrate through flight tests and school records that the necessary aeronautical skill and experience requirements to obtain a commercial pilot certificate with an airplane category rating and a single-engine land class rating (and a multi-engine land class rating if completing the multi-engine training) have been met.

GROUND TRAINING COURSE OBJECTIVE — The student will obtain the necessary aeronautical knowledge and meet the prerequisites specified in Part 141 for the FAA Commercial Pilot Airman Knowledge Test.

COMPLETION STANDARD — The student must demonstrate through knowledge tests and school records that he/she meets the prerequisites specified in Part 141 and has the knowledge necessary to pass the FAA Commercial Pilot Airman Knowledge Test.

STUDENT INFORMATION

COURSE ENROLLMENT

To enroll in the flight portion of the Commercial Pilot Certification Course, you must hold at least a private pilot certificate. In addition, you must hold an instrument rating or be concurrently enrolled in an instrument rating (airplane) course.

REQUIREMENTS FOR GRADUATION

To obtain a commercial pilot certificate, you must be at least 18 years of age and be able to read, speak, write, and understand the English language. In addition, you must have a valid FAA third-class medical certificate. However, to exercise the privileges of a commercial pilot you must possess a valid second-class medical certificate. In addition, you must meet the aeronautical experience requirements specified in Part 141, Appendix D, to be eligible for graduation.

LESSON DESCRIPTION AND STAGES OF TRAINING

This syllabus fully describes each lesson, including the objectives, references, topics, and completion standards. The stage objectives and standards are described at the beginning of each stage within the syllabus.

TESTS AND CHECKS

The syllabus incorporates stage and end-of-course flight checks in accordance with Part 141, Appendix D. These checks are given by the chief instructor, an assistant chief instructor, or check instructor designated by the chief instructor. The student will also complete the stage exams and pilot briefings that are described within the syllabus. In addition, the student must satisfactorily complete the end-of-course exam and end-of course flight check after completing all the stages.

CURRICULUM OVERVIEW
Commercial Pilot Certification Course

Completion of this course is based solely upon compliance with the minimum requirements of FAR Part 141. The time tables are provided for guidance in achieving regulatory compliance.

		GROUND TRAINING			
		Ground Lessons	Stage and End-of-Course Exams	Briefings/ Debriefings	Ground Training Totals
	STAGE IV	9.0	1.0	As Required	10.0
	STAGE V	22.0	3.0	As Required	25.0
COMM'L SINGLE ENGINE →	TOTALS	31.0	4.0	As Required	35.0
MULTI-ENGINE →	STAGE VI	9.0	2.0	4.0	15.0

NOTE: Ground lessons may include class discussion or online lessons.

		FLIGHT TRAINING												
		Dual							Solo					
		Day Local	Day X-C	Night	FFS or FTD	Dual Stage Totals	Complex	Multi-Engine	Instru-ment	Day Local	Day X-C	Night	Solo Stage Totals	Dual/ Solo Comb. Totals
	STAGE IV		8.0 (8.0)	5.0 (5.0)	As Req.	13.0 (13.0)			As Req.		34.0*	6.0	40.0	53.0 (53.0)
	STAGE V	20.0 (14.0)			As Req.	20.0 (14.0)	10.0 (7.0)		As Req.	9.0			9.0	29.0 (23.0)
	STAGE VI	20.0 (12.0)	2.0 (1.0)		As Req.	22.0 (13.0)	5.0 (3.0)		As Req.	16.0			16.0	38.0 (29.0)
SE →	TOTALS	40.0 (26.0)	10.0 (9.0)	5.0 (5.0)	As Req.	55.0 (40.0)	15.0 (10.0)		As Req.	25.0	34.0*	6.0	65.0	120.0 (105.0)
ME →	STAGE VII	(9.0)	(3.0)	(3.0)		(15.0)		(15.0)	As Req.					(15.0)
SE + ME →	TOTALS	40.0 (35.0)	10.0 (12.0)	5.0 (8.0)	As Req.	55.0 (55.0)	15.0 (10.0)	(15.0)	As Req.	25.0	34.0*	6.0		120.0 (120.0)

NOTE:
1. * Indicates some solo cross-country hours may be used for additional dual instruction to meet the proficiency requirements for the End-of-Course Flight Check and FAA Commercial Pilot Practical Test.
2. Complex and Multi-Engine flight time is included as a portion of Day Local, Day X-C (Cross-Country), or Night hours so is not added to these hours to determine Dual Stage Totals.
3. In blocks where two times are shown, the first time is for students taking the Commercial Pilot–Airplane Single-Engine Land Practical Test at the end of Stage VI. If the student chooses to complete the second flight time listed (shown in parentheses) for Flight Stages V and VI, the student must also complete the multi-engine flight training time in Stage VII of the Multi-Engine Rating Course to meet the total time required for commercial pilot certification. For example, the dual time totals for Stages IV, V, and VI are 55.0 hours for students not completing the multi-engine training and 40 hours for those who will complete the remaining 15 hours in the multi-engine airplane during Flight Stage VII of the Multi-Engine Rating Course. In each case, the student will receive a minimum of 55.0 hours dual.
4. The 15 hours of flight time in Stage VII of the Multi-Engine Rating Course are all dual instruction in the multi-engine airplane.
5. As shown in the following table, operators using the FFS or FTD options may credit FFS or FTD time for commercial flight training time according to Part 141 Appendix D, 4. Flight Training (c) Use of full flight simulators and flight training devices.

Type of Device	FAR Equipment Requirements	Percentage of Commercial Flight Training Time Allowed	Flight Hours
Full Flight Simulator (FFS)	141(a)	30%	16.5
Flight Training Device (FTD)	141(a)	20%	11
Combination of Devices	141(a)	30% (20% in FTDs)	16.5 (11 in FTDs)

Allocation Tables

Lesson Time Allocation

Ground Training						Dual Flight Training							
Ground Lessons	ATD	Pilot Briefings	Stage/Final Exams	Exam Debriefings		Day Local	Day Cross-Country	Night Local	Night Cross-Country	Instrument	FFS	FTD or AATD	BATD
Stage I													
1.0					GL 1 – Training/Opportunities/Human Factors								
1.0					GL 2 – Flight Instrument Systems								
1.0	As Req.				GL 3 – Attitude Instrument Flying								
					FL 1 – Preflight Procedures and Full Panel	1.0				1.0			
					FL 2 – Full Panel and IFR Systems	1.0				1.0			
1.0	As Req.				GL 4 – Instrument Navigation								
					FL 3 – Review Full Panel	1.0				1.0			
					FL 4 – Introduction to Partial Panel	1.0				1.0			
1.0					GL 5 – Instrument FARs								
1.0					GL 6 – Airports, Airspace, and Flight Information								
					FL 5 – Systems and Equipment Malfunctions	1.0				1.0			
					FL 6 – Full and Partial Panel	1.0				1.0			
1.0					GL 7 – ATC System								
					FL 7 – Review	1.0				1.0			
1.0					GL 8 – ATC Clearances								
					FL 8 – VOR Navigation	1.0				1.0			
			1.0	As Req.	GL 9 – Stage I Exam								
					FL 9 – NDB Navigation	1.0				1.0			
					FL 10 – GPS Navigation	1.0				1.0			
					FL 11 – Localizer Tracking	1.0				1.0			
					FL 12 – Partial-Panel Navigation	1.0				1.0			
					FL 13 – Stage I Check	1.0				1.0			
8.0	As Req.		1.0	As Req.	Stage Totals	13.0				13.0			

NOTE: 1. Ground lessons may include class discussion or online lessons.
2. The ATD may be used as required in the ground lessons indicated. Operators utilizing the ATD option in the Instrument/Commercial or Instrument Rating Course may credit up to 5 hours of ATD time toward ground training requirements.
3. The individual times shown on the Allocation Tables are for instructor/student guidance only; they are not mandatory for each ground lesson, flight lesson, or stage of training. At the completion of this course, the student must meet the minimum requirements of Part 141 for ground and flight training in order to graduate. Preflight and postflight briefings are as required.
4. If using the FFS, FTD, and/or ATD options:
   - Indicate the flight time for the selected lesson row in the appropriate column.
   - Ensure that the total flight training time for a specific device does not exceed that indicated in Part 141 Appendix C 4. (b). (Refer to the Curriculum Overview for the Instrument Course in this syllabus.)

Lesson Time Allocation

Ground Training						Dual Flight Training							
Ground Lessons	ATD	Pilot Briefings	Stage/Final Exams	Exam Debriefings		Day Local	Day Cross-Country	Night Local	Night Cross-Country	Instrument	FFS	FTD or AATD	BATD
Stage II													
1.0					GL 10 – Departure Charts and Procedures								
1.5					GL 11 – Enroute Charts and Procedures								
1.0	As Req.				GL 12 – Holding Procedures								
					FL 14 – VOR/NDB/GPS Holding	1.0				1.0			
					FL 15 – Localizer Holding	1.0				1.0			
					FL 16 – DME and Intersection Holding	1.5				1.5			
1.0					GL 13 – Arrival Charts and Procedures								
1.5					GL 14 – Approach Charts								
1.0					GL 15 – Approach Procedures								
1.0	As Req.				GL 16 – VOR and NDB Approaches								
		.5			Briefing – Instrument Approaches								
					FL 17 – VOR Approaches	1.0				1.0			
1.0	As Req.				GL 17 – ILS Approaches								
1.0					GL 18 – RNAV Approaches								
					FL 18 and 19 – RNAV (GPS) and/or NDB Approaches	2.0				2.0			
					FL 20 – ILS Approaches	1.0				1.0			
					FL 21 – Partial-Panel Approaches	1.0				1.0			
					FL 22 – Review Holding and Approaches	1.0				1.0			
			1.0	As Req.	GL 19 – Stage II Exam								
					FL 23 – Stage II Check	1.5				1.5			
10.0	As Req.	.5	1.0	As Req.	Stage Totals	11.0				11.0			

NOTE: 1. Ground lessons may include class discussion or online lessons.
2. The ATD may be used as required in the ground lessons indicated. Operators utilizing the ATD option in the Instrument/Commercial or Instrument Rating Course may credit up to 5 hours of ATD time toward ground training requirements.
3. The individual times shown on the Allocation Tables are for instructor/student guidance only; they are not mandatory for each ground lesson, flight lesson, or stage of training. At the completion of this course, the student must meet the minimum requirements of Part 141 for ground and flight training in order to graduate. Preflight and postflight briefings are as required.
4. If using the FFS, FTD, and/or ATD options:
   - Indicate the flight time for the selected lesson row in the appropriate column.
   - Ensure that the total flight training time for a specific device does not exceed that indicated in Part 141 Appendix C 4. (b). (Refer to the Curriculum Overview for the Instrument Course in this syllabus.)

Lesson Time Allocation

Ground Training						Dual Flight Training							
Ground Lessons	ATD	Pilot Briefings	Stage/Final Exams	Exam Debriefings		Day Local	Day Cross-Country	Night Local	Night Cross-Country	Instrument	FFS	FTD or AATD	BATD
Stage III													
1.0					GL 20 – Weather Factors and Hazards								
1.0					GL 21 – Printed Reports and Forecasts								
		.5			Briefing – IFR Cross-Country								
					FL 24 – IFR Cross-Country Procedures		1.0			1.0			
1.0					GL 22 – Graphic Weather Products								
					FL 25 – IFR Cross-Country		2.0			2.0			
1.0					GL 23 – Sources of Weather Information								
1.0					GL 24 – IFR Emergencies								
1.0					GL 25 – IFR SRM / IFR Flight Planning								
					FL 26 – Long IFR Cross-Country		3.0			3.0			
		1.0			Briefing – Instrument Rating Practical Test								
					FL 27 – IFR Cross-Country Review		2.0			2.0			
			1.0	As Req.	GL 26 – Stage III Exam								
					FL 28 – Stage III Check	1.5				1.5			
			1.0	As Req.	GL 27 – Instrument Rating End-of-Course Exam								
					FL 29 – End-of-Course Flight Check	1.5				1.5			
6.0		1.5	2.0	As Req.	Stage Totals	3.0	8.0			11.0			
24.0	(5.0)	2.0	4.0	As Req.	Instrument Rating Course Totals	27.0	8.0			35.0			

NOTE: 1. Ground lessons may include class discussion or online lessons.
2. The ATD may be used as required in the ground lessons indicated. Operators utilizing the ATD option in the Instrument/Commercial or Instrument Rating Course may credit up to 5 hours of ATD time toward ground training requirements.
3. The individual times shown on the Allocation Tables are for instructor/student guidance only; they are not mandatory for each ground lesson, flight lesson, or stage of training. At the completion of this course, the student must meet the minimum requirements of Part 141 for ground and flight training in order to graduate. Preflight and postflight briefings are as required.
4. If using the FFS, FTD, and/or ATD options:
   - Indicate the flight time for the selected lesson row in the appropriate column.
   - Ensure that the total flight training time for a specific device does not exceed that indicated in Part 141 Appendix C 4. (b). (Refer to the Curriculum Overview for the Instrument Course in this syllabus.)

Lesson Time Allocation

Ground Training					Flight Training									
					Dual							Solo		
Ground Lessons	Pilot Briefings	Stage/Final Exams	Exam Debriefings		Day Local	Day Cross-Country	Night	Complex	Instrument	FFS	FTD	Day Local	Day Cross-Country	Night
Stage IV														
1.5				GL 28 – Airports/Airspace, Meteorology, VFR Charts										
1.5				GL 29 – Pilotage and Dead Reckoning										
	As Req.			Briefing – Cross-Country Procedures (VFR)										
				FL 30 – Day Cross-Country (VFR)		3.0			As Req.					
2.0				GL 30 – Aviation Physiology										
				FL 31 – Night Local			1.0							
2.0				GL 31 – Single-Pilot Resource Management										
				FL 32 – Night Cross-Country			4.0		As Req.					
2.0				GL 32 – Commercial FARs										
				FL 33 – Night Local Solo										1.5
				FL 34 – Night Local Solo										1.5
				FL 35 – Night Cross-Country Solo										3.0
		1.0	As Req.	GL 33 – Stage IV Exam										
				FL 36 – Cross-Country									5.0	
				FL 37 – Cross-Country									5.0	
				FL 38 – Cross-Country									5.0	
				FL 39 – Cross-Country									5.0	
				FL 40 – Cross-Country									5.0	
				FL 41 – Cross-Country									4.0	
				FL 42 – Cross-Country		3.0								
				FL 43 – Long Cross-Country									5.0	
				FL 44 – Stage IV Check		2.0								
9.0	As Req.	1.0	As Req.	Stage Totals		8.0	5.0						34.0	6.0

NOTE: 1. Ground lessons may include class discussion or online lessons.
2. The individual times shown on the Allocation Tables are for instructor/student guidance only; they are not mandatory for each ground lesson, flight lesson, or stage of training. At the completion of this course, the student must meet the minimum requirements of Part 141 for ground and flight training in order to graduate. Preflight and postflight briefings are as required.
3. Flight lessons 36 through 41 are designed for solo or dual flight as necessary to meet the proficiency requirements for the End-of-Course Flight Check and FAA Commercial Pilot Practical Test.
4. If using the FFS and/or FTD options:
   - Indicate the flight time for the selected lesson row in the appropriate column.
   - Ensure that the total flight training time for a specific device does not exceed that indicated in Part 141 Appendix D 4. (c). (Refer to the Curriculum Overview for the Commercial Course in this syllabus.)

Lesson Time Allocation

Ground Training					Flight Training									
					Dual							Solo		
Ground Lessons	Pilot Briefings	Stage/Final Exams	Exam Debriefings		Day Local	Day X-Country	Night	Complex	Instrument	Day Local	FFS	FTD	Day X-Country	Night
Stage V														
				FL 45 – Basic Flight Maneuvers						1.0				
2.0				GL 34 – High Performance Powerplants										
2.0				GL 35 – Environmental and Ice Control Systems										
2.0				GL 36 – Retractable Landing Gear										
	As Req.			Briefing – Complex Aircraft Transition										
				FL 46 – Complex	1.0 (1.0)			1.0 (1.0)						
				FL 47 – Complex	1.5 (1.0)			1.5 (1.0)	As Req.					
2.0				GL 37 – Aerodynamics & Accelerated Stalls										
				FL 48 – Complex	1.5 (1.0)			1.5 (1.0)	As Req.					
2.0				GL 38 – Predicting Performance										
2.0				GL 39 – Controlling Weight and Balance										
2.0				GL 40 – Max Performance Takeoffs and Landings										
				FL 49 – Complex	1.5 (1.0)			1.5 (1.0)						
				FL 50 – Complex	1.5 (1.0)			1.5 (1.0)						
				FL 51 – Stall/Spin Awareness	1.5 (1.0)									
	As Req.			Briefing – Commercial Flight Maneuvers										
2.0				GL 41 – Steep Turns and Chandelles										
				FL 52 – Steep Turns and Chandelles	1.5 (1.0)									
2.0				GL 42 – Lazy & Pylon 8s, Steep Spirals & Accuracy Landings										
				FL 53 – Lazy & Pylon 8s, Steep Spirals & Accuracy Landings	1.5 (1.0)									
				FL 54 – Review Commercial Maneuvers						1.0				
				FL 55 – Review Commercial Maneuvers						1.0				
				FL 56 – Review Commercial Maneuvers						1.0				
				FL 57 – Review Commercial Maneuvers	1.5 (1.0)				As Req.					
2.0				GL 43 – Emergency Procedures										
				FL 58 – Instrument/Commercial Review	1.5 (1.0)				As Req.					
2.0				GL 44 – Commercial Pilot SRM										
				FL 59 – Commercial Maneuvers						1.0				
				FL 60 – Commercial Maneuvers						1.0				
				FL 61 – Commercial Maneuvers						1.0				
				FL 62 – Commercial Maneuvers						1.0				
				FL 63 – Commercial Maneuvers						1.0				
				FL 64 – Commercial Maneuvers	1.5 (1.0)									
				FL 65 – Commercial Maneuvers	1.0 (1.0)									
				FL 66 – Complex	2.0 (1.0)			2.0 (1.0)	As Req.					
		1.0	As Req.	GL 45 – Stage V Exam										
		2.0	As Req.	GL 46 – Commercial Pilot End-of-Course Exam										
				FL 67 – Stage V Check (Complex)	1.0 (1.0)			1.0 (1.0)	As Req.					
22.0	As Req.	3.0	As Req.	Stage Totals	20.0 (14.0)			10.0 (7.0)	As Req.	9.0				

NOTE: 1. Ground lessons may include class discussion or online lessons.
2. The individual times shown on the Allocation Tables are for instructor/student guidance only; they are not mandatory for each ground lesson, flight lesson, or stage of training. At the completion of this course, the student must meet the minimum requirements of Part 141 for ground and flight training in order to graduate. Preflight and postflight briefings are as required.
3. In blocks where two times are shown, the first time is for students taking the Commercial Pilot–Airplane Single-Engine Land Practical Test at the end of Stage VI. If the student chooses to complete the second flight time listed (shown in parentheses) for Flight Stages V and VI, the student must also complete the multi-engine flight training time in Stage VII to meet the total time required for commercial pilot certification.
4. If using the FFS and/or FTD options:
   • Indicate the flight time for the selected lesson row in the appropriate column.
   • Ensure that the total flight training time for a specific device does not exceed that indicated in Part 141 Appendix D 4. (c). (Refer to the Curriculum Overview for the Commercial Course in this syllabus.)

Lesson Time Allocation

Ground Training					Flight Training									
					Dual							Solo		
Ground Lessons	Pilot Briefings	Stage/Final Exams	Exam Debriefings		Day Local	Day Cross-Country	Night	Complex	Instrument	FFS	FTD	Day Local	Day Cross-Country	Night
Flight Stage VI														
				FL 68 – Instrument/Commercial Review	2.0 (1.0)				As Req.					
				FL 69 – Inst/Comm Maneuvers/Procedures	2.0 (1.0)				As Req.					
				FL 70 – Commercial Maneuvers								2.0		
				FL 71 – Commercial Maneuvers								2.0		
				FL 72 – Commercial Maneuvers	2.0 (1.0)									
				FL 73 – Commercial Maneuvers								2.0		
				FL 74 – Commercial Maneuvers								2.0		
				FL 75 – Commercial Maneuvers								2.0		
				FL 76 – Commercial Maneuvers/Procedures	2.0 (1.0)				As Req.					
				FL 77 – Commercial Maneuvers/Procedures	2.0 (1.0)				As Req.					
				FL 78 – Complex Review	2.0 (1.0)			2.0 (1.0)						
				FL 79 – Solo Review								2.0		
				FL 80 – Solo Review								2.0		
				FL 81 – Solo Review								2.0		
				FL 82 – Complex Cross-Country		2.0 (1.0)		2.0 (1.0)	As Req.					
				FL 83 – Complex	1.0 (1.0)			1.0 (1.0)						
	As Req.			Briefing – Commercial Pilot Practical Test										
				FL 84 – Final Stage Review	2.0 (1.0)									
				FL 85 – Final Stage Review	2.0 (1.0)									
				FL 86 – Stage VI Check	1.5 (1.5)									
				FL 87 – End-of-Course Flight Check	1.5 (1.5)									
	As Req.			Stage Totals	20.0 (12.0)	2.0 (1.0)		5.0 (3.0)	As Req.			16.0		
31.0	As Req.	4.0	As Req.	Commercial Pilot Course Totals	40.0 (26.0)	10.0 (9.0)	5.0	15.0 (10.0)	As Req.			25.0	34.0	6.0

NOTE: 1. Stage VI does not contain ground lessons. The total ground training time listed is from Stages IV and V.
2. The individual times shown on the Allocation Tables are for instructor/student guidance only; they are not mandatory for each ground lesson, flight lesson, or stage of training. At the completion of this course, the student must meet the minimum requirements of Part 141 for ground and flight training in order to graduate. Preflight and postflight briefings are as required.
3. In blocks where two times are shown, the first time is for students taking the Commercial Pilot–Airplane Single-Engine Land Practical Test at the end of Stage VI. If the student chooses to complete the second flight time listed (shown in parentheses) for Flight Stages V and VI, the student must also complete the multi-engine flight training time in Stage VII to meet the total time required for commercial pilot certification.
4. If using the FFS and/or FTD options:
   - Indicate the flight time for the selected lesson row in the appropriate column.
   - Ensure that the total flight training time for a specific device does not exceed that indicated in Part 141 Appendix D 4. (c). (Refer to the Curriculum Overview for the Commercial Course in this syllabus.)

Lesson Time Allocation

Ground Training					Flight Training							
					Dual					Solo		
Ground Lessons	Pilot Briefings	Stage/Final Exams	Exam Debriefings		Day Local	Day Cross-Country	Night	Complex	Instrument	Day Local	Day Cross-Country	Night
Ground Stage VI and Flight Stage VII												
2.0				GL 1 – The ME Rating, SRM, and Normal Ops.								
	.5			Briefing – Multi-Engine Operations and Systems								
				FL 1 – Introduction Multi-Engine Airplane and Maneuvers	1.0			1.0	.2			
2.0				GL 2 – Aircraft Systems, Wt. & Balance, & Performance								
	.5			Briefing – ME Performance Considerations								
				FL 2 – Maneuvers – VR/IR	1.0			1.0	.3			
				FL 3 – Short-Field Takeoffs and Landings	1.0			1.0	.2			
1.5				GL 3 – ME/Engine-Out Aerodynamics & Maneuvers								
1.5				GL 4 – Engine-Out Operations								
	.5			Briefing – Engine-Out Operations								
				FL 4 – Engine-Out Operations	1.0			1.0	.2			
				FL 5 – Engine-Out Operations	1.0			1.0	.2			
				FL 6 – Engine-Out Operations Review	1.0			1.0	.2			
2.0				GL 5 – Instrument Flight and Applying SRM								
	.5			Briefing – Multi-Engine Instrument Flight								
				FL 7 – Instrument Procedures	1.0			1.0	.7			
				FL 8 – Multi-Engine Instrument (Day Cross-Country)		3.0		3.0	1.0			
				FL 9 – Multi-Engine Instrument (Night Cross-Country)			3.0	3.0	1.0			
		1.0	1.0	GL 6 – Stage VI Exam								
				Briefing—Multi-Engine Rating Practical Test								
				FL 10 – Stage VII Check	1.0			1.0	.5			
		1.0	1.0	GL 7 – Multi-Engine End-of-Course Exam								
				FL 11 – End-of-Course Flight Check	1.0			1.0	.5			
9.0	2.0	2.0	2.0	Multi-Engine Stage Totals	9.0	3.0	3.0	15.0	5.0			

NOTE: 1. This table covers Ground Stage VI and Flight Stage VII.
2. The individual times shown on the Allocation Tables are for instructor/student guidance only; they are not mandatory for each ground lesson, flight lesson, or stage of training. At the completion of this course, the student must meet the minimum requirements of Part 141 for ground and flight training in order to graduate. Preflight and postflight briefings are as required.
3. The dual instrument flight training time is shown to indicate the recommended portion of the flights that should be devoted to instrument training.