



## COURSE OUTLINE

<b>AVI 270</b> <b>Course Number</b>	<b>Flight IV</b> <b>Course Title</b>	<b>4</b> <b>Credits</b>
<b>Hours: 2 / 125.3</b> <b>Lecture / Field</b> <b>Hours</b>	<b>Pre-requisite: AVI 231, AVI 240</b> <b>Co-requisite: None</b>	<b>Implementation</b> <b>Fall 2025</b>

**Catalog description:** Students develop advanced proficiency in single-engine commercial maneuvers, instrument flying, and multi-engine operations, earning an FAA Instrument Rating, Commercial Certificate, and Multi-Engine Rating. Training includes 65.6 flight hours, 30.4 preflight planning hours, and 29.3 ground instruction hours. Additional fees apply (see Mercer County Community College's Aviation website).

<b>General Education Category:</b> Not GenEd Choose an item.	<b>Course coordinator:</b> Alix Melchionna (609) 570-3436 melchionnaa@mccc.edu
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### **Pre-requisites:**

1. FAA-approved medical
2. US Citizenship or TSA approval

### **Required texts & Other materials:**

1. Owner's or Operator's Manual of Aircraft used in training
2. Airplane Flying Handbook (ISBN 1619545128)
3. Instrument Flying Handbook (ISBN 979-8776640544)
4. Instrument Rating Airman Certification Standards (ISBN 1619549115)
5. Commercial Pilot Airman Certification Standards (ISBN 1619549077)
6. The Instrument Flight Manual by William K. Kershner (ISBN 1619548666)
7. The Advanced Pilot's Flight Manual by William K. Kershner (ISBN 1644250101)
8. Guided Flight Discovery Instrument/Commercial by Jeppesen Sanderson (ISBN 0884872785)

### **Flight Training Content:**

FAA-approved Commercial course and Instrument course are being conducted concurrently. The course consists of Blocks 8 through 10 of the Commercial Pilot Certification Course as well as Blocks 3 through 6 of the Instrument Rating Course. Following that, the course conducts the FAA-approved Additional Class Rating Course. Details can be found in the latest version of the FAA-approved Training Course Outlines (TCO).

### **Flight Training Course Objectives:**

The flight training course will provide students with the aeronautical skills and experiences necessary to meet the requirements for a commercial instrument pilot certificate with an airplane category rating, single engine land class rating, the addition of a commercial airplane multi engine land rating and airplane instrument multi engine rating.

**Flight Training Course Completion Standards:**

The course completion standards are based upon the Commercial and Instrument Airman Certification Standards as outlined by the Federal Aviation Administration. To meet the flight training course completion standards, the student must demonstrate, through flight tests and school records, that they meet the requirements for a commercial instrument pilot certificate with airplane category and single engine land class rating and commercial instrument pilot certificate with airplane category and multi engine land class rating. Periodic progress check may include material covered in any previous lesson.

**\*ADDITIONAL TIME MAY BE NEEDED TO MEET COMPLETION STANDARDS AND PROFICIENCY.**

**Course Student Learning Outcomes (SLO):**

***Upon successful completion of this course the student will be able to:***

1. **Commercial Airman Certification Standards: (ILG 1,2,3,4,5,10,11) (PLO 1,2,3,4)**
  - a. o I - Pre-Flight Preparation - Items F, G
  - b. o II - Pre-Flight Procedures - Items A, C, F
  - c. o III - Airport Operations - None
  - d. o IV - Take Offs, Landings and Go-Arounds - Items A, B, E, F
  - e. o V - Performance Maneuvers - Item A
  - f. o VI - Navigation – None
  - g. o VII - Slow Flight and Stalls - All
  - h. o VIII - High Altitude Operations - None
  - i. o IX- Emergency Operations - Items A, C, E, F, G
  - j. o X - Multi Engine Procedures - All
  - k. o XI - Post-Flight Procedures – None
2. **Instrument Airman Certification Standards: (ILG 1,2,3,4,5,10,11) (PLO 1,2,3,4)**
  - a. o I - Pre-Flight Preparation – None
  - b. o II - Pre-Flight Procedures - Items A, C
  - c. o III - ATC Clearances – None
  - d. o IV - Instrument Flight – All
  - e. o V - Navigation Systems – None
  - f. o VI - Instrument Approach Procedures - All
  - g. o VII - Emergency Operations - Items B, C
  - h. o VIII - Post-Flight Procedures - All

**Course-specific Institutional Learning Goals (ILG):**

**Institutional Learning Goal 1. Written and Oral Communication in English.** Students will communicate effectively in both speech and writing.

**Institutional Learning Goal 2. Mathematics.** Students will use appropriate mathematical and statistical concepts and operations to interpret data and to solve problems.

**Institutional Learning Goal 3. Science.** Students will use the scientific method of inquiry, through the acquisition of scientific knowledge.

**Institutional Learning Goal 4. Technology.** Students will use computer systems or other appropriate forms of technology to achieve educational and personal goals.

**Institutional Learning Goal 5. Social Science.** Students will use social science theories and concepts to analyze human behavior and social and political institutions and to act as responsible citizens.

**Institutional Learning Goal 10. Information Literacy:** Students will recognize when information is needed and have the knowledge and skills to locate, evaluate, and effectively use information for college level work.

**Institutional Learning Goal 11. Critical Thinking:** Students will use critical thinking skills understand, analyze, or apply information or solve problems.

**Program Learning Outcomes for Aviation Technology (PLO)**



In this course, the overall grade will be determined by performance on interim progress checks and final checks, with an emphasis on both proficiency and consistency.

#### 1. Interim Progress Checks (25% of the Total Grade)

These checks are scheduled at key points throughout the course to assess your readiness for the final checks. The score for each interim progress check will be based on the number of attempts required to pass:

- **First Attempt:** 100%
- **Second Attempt:** 85%
- **Third Attempt:** 70%
- **Fourth Attempt:** 60%

The average score from all interim progress checks will contribute a maximum of 250 points to your final grade.

#### 2. Final Checks (75% of the Total Grade)

Three final checks will assess your mastery in the areas of Commercial Pilot, Instrument Rating, and AMEL (Airplane Multi-Engine Land). Each of these checks is equally weighted and together will account for 75% of your total grade. The score for each final check, in each of the three areas, will be based on the number of attempts required to pass:

- **First Attempt:** 100%
- **Second Attempt:** 85%
- **Third Attempt:** 70%

NOTE: Any student that receives two "Unsatisfactory" ratings for an end-of-course, certificate issuing progress check, may be afforded the opportunity to take the progress check a third time. All maneuvers will need to be demonstrated during the third and final attempt at the progress check. No credit will be given for previously demonstrated maneuvers in the third attempt. Any student that receives a third "Unsatisfactory" rating for an end-of-course, certificate issuing progress check, will be dismissed from the Aviation program.

Assignments	Points	Percentage
Interim Progress Checks (average)	250	25%
Commercial Progress Check	250	25%
Instrument Progress Check	250	25%
AMEL Progress Check	250	25%