



**MERCER**  
COUNTY COMMUNITY COLLEGE

# COURSE OUTLINE

**AVI 217**  
**Course Number**

**Flight VI**  
**Course Title**

**1**  
**Credit**

**Hours: 1 / 40.2**  
**Lecture / Field Hours**

**Pre-requisite: See Below**

**Implementation**  
**Fall 2023**

**Catalog description:** Students develop the proficiency, knowledge, and skills to complete the required practical examination to add a multi-engine class rating to their single-engine commercial certificate and instrument rating. This training and assessment consist of 16.8 hours in a multi-engine aircraft, 13.4 preflight planning hours, and 10.0 hours of ground/pre/post instruction. Fee required.

**General Education Category:**  
**Not GenEd**

**Course coordinator:**  
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**Pre-requisites:**

1. Airplane Single Engine Land Commercial and Airplane Instrument Rating
2. FAA-approved Medical
3. 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)

**Flight Training Content:**

This course consists of the Additional Class Rating Course. Details can be found in the latest version of the FAA-approved Training Course Outline (TCO) and Flight Syllabus.

**Flight Training Course Objectives:**

The flight training course will provide the student with the aeronautical skills and experience necessary to meet the requirements for the addition of a commercial airplane multi engine land rating to an existing commercial airplane single 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 multi engine land class rating. Progress checks may include material covered in any previous lesson.

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

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

*At the completion of the course, the student will be able to meet the following requirements:*

**1. Commercial Airman Certification Standards: (ILG 1,2,3,4,5,11) (PLO 1,4)**

- o I - Pre-Flight Preparation - Items F, G
- o II - Pre-Flight Procedures - Items A, C, F
- o III - Airport Operations - None
- o IV - Take Offs, Landings and Go-Arounds - Items A, B, E, F
- o V - Performance Maneuvers - Item A
- o VI - Navigation - None
- o VII - Slow Flight and Stalls - All
- o VIII - High Altitude Operations - None
- o IX- Emergency Operations - Items A, C, E, F, G
- o X - Multi Engine Procedures - All
- o XI - Post-Flight Procedures - None

**2. Instrument Airman Certification Standards: (ILG 1,2,3,4,5,11) (PLO 1,4)**

- o I - Pre-Flight Preparation - None
- o II - Pre-Flight Procedures - Items A, C
- o III - ATC Clearances – None
- o IV - Instrument Flight – All
- o V - Navigation Systems – None
- o VI - Instrument Approach Procedures - All
- o VII - Emergency Operations - Items B, C
- 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 11. Critical Thinking:** Students will use critical thinking skills understand, analyze, or apply information or solve problems.

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

Students will be able to:

1. Demonstrate the knowledge and skills required to obtain the private and commercial certificates and instrument rating, including aeronautical technical skills and decision making, while demonstrating safety as their primary focus.
4. Demonstrate effective and correct written and verbal communication.
5. Research and present information pertinent to their aviation discipline individually and in groups.
6. Demonstrate an awareness of the ethical and professional issues associated with the aviation industry, including the importance of becoming a life-long learner in the aviation world.

## **Units of study in detail – Unit Student Learning Outcomes:**

**Unit I**      **Block 1** [Supports Course SLOs 1 and 2]

### **Learning Objectives**

***The student will be able to:***

- Meet the requirements for the addition of a commercial airplane multi-engine land rating to an existing commercial airplane single engine land rating and airplane instrument multi-engine rating.

**Evaluation of student learning:**

The grade in AVI 217 will be determined by an Oral and Practical Examination as outlined in both the Commercial and Instrument Airman Certification Standards.

The final evaluations consist of questions applicable on Commercial and Instrument flight operations, planning and knowledge. The flights will consist of commercial maneuvers and instrument procedures. The procedures for these evaluations will be found in the latest issue of the Airman Certifications Standards.

Specific Grading:

A	<i>Commercial:</i>	Meets 3 Areas of Operation and Exceeds 8 Areas of Operation
	<i>Instrument:</i>	Meets 2 Areas of Operation and Exceeds 6 Areas of Operation
B	<i>Commercial:</i>	Meets 5 Areas of Operation and Exceeds 6 Areas of Operation
	<i>Instrument:</i>	Meets 4 Areas of Operation and Exceeds 4 Areas of Operation
C	<i>Commercial:</i>	Meets 7 Areas of Operation and Exceeds 4 Areas of Operation
	<i>Instrument:</i>	Meets 6 Areas of Operation and Exceeds 2 Areas of Operation
D	<i>Commercial:</i>	Meets 11 Areas of Operation
	<i>Instrument:</i>	Meets 8 Areas of Operation
F	<i>Commercial:</i>	Does Not Meet any Areas of Operation
	<i>Instrument:</i>	Does Not Meet any Areas of Operation