



MERCER
COUNTY COMMUNITY COLLEGE

COURSE OUTLINE

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| AVI 216 | Flight V | 4 |
| Course Number | Course Title | Credits |
| Hours: 223.0 | Prerequisite: See Below | Implementation |
| Field Hours | | Fall 2023 |

Catalog description: Students obtain (if not already possessing) a Private (ASEL) Certificate and acquire the aeronautical skills necessary to meet the requirements for the Commercial (ASEL) Certificate with an Instrument Airplane Rating. Consists of 82.0 hours of flight training, 111.5 preflight planning hours, and 29.5 hours of ground/pre/post instruction. Fee required.

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| <u>General Education Category:</u> <u>Not GenEd</u> | <u>Course coordinator:</u> Deanna Lawson (609) 570-3487 lawsond@mccc.edu |
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Pre-requisites:

1. A current FAA Helicopter Commercial Certificate with an 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)
6. The Advanced Pilot's Flight Manual by William K. Kershner (ISBN 1644250101)
7. Guided Flight Discovery Instrument/Commercial by Jeppesen Sanderson (ISBN 0884872785)
8. Cessna Pilot Kit (Private Pilot, Instrument Airplane, Commercial Airplane)
9. Oral Exam Guide (Instrument and Commercial)
10. FAR/AIM

Flight Training Content:

This course consists of the Private Phase, the Instrument Phase, and the Commercial Maneuvers and Multi-Engine portions of the Commercial Phase of the Additional Aircraft Category and Class Ratings 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 aeronautical skills and experience necessary to meet the requirements for a Private Pilot Airplane Single-Engine Land, Commercial Pilot Airplane Single-Engine Land, and an Instrument Airplane Ratings.

Flight Training Course Completion Standards:

The student must demonstrate, through flight testing (Progress Checks) and school records, they meet the standards for completion of this program.

The course completion standards are based upon the current version of the Federal Aviation Administration Airman Certificate Standards (FAA-S-ACS) for the following:

- **Private Pilot Airplane Single Engine Land:** If a student enters the program without an Airplane Private Pilot Certificate, Flight Lesson 12 (Progress Check 12) is an opportunity for the student to achieve an Airplane Private Pilot Certificate and continue the program.
- **Instrument Rating Airplane:** Flight Lesson 25 (Progress Check 25)
- **Commercial Pilot Airplane Single Engine Land:** Flight Lesson 55 (Progress Check 55)

*** 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. Private Pilot Airplane Airman Certification Standards:

- a. I - Pre-Flight Preparation - F, G (**ILG 1,10,11**) (**PLO 1,4**)
- b. II - Pre-Flight Procedures - A, B, C, D, F (**ILG 1,10,11**) (**PLO 1,4**)
- c. III - Airport Operations – B (**ILG1,2,3,4,5**) (**PLO 1,4**)
- d. IV - Take Offs, Landings and Go-Arounds - A, B, C, D, E, F, M, N (**ILG1,2,3,4,5**) (**PLO 1,4**)
- e. V - Performance and Ground Reference Maneuvers - A, B (**ILG 2,3**) (**PLO 1,4,6**)
- f. VII - Slow Flight and Stalls – All (**ILG 2,3**) (**PLO 4**)
- g. VIII - Basic Instrument Maneuvers - A, B, C, D, E, F (**PLO 1**)
- h. IX - Emergency Operations - A, B, C, D (**ILG 1,3,4,11**) (**PLO 1,4**)
- i. XII - Postflight Procedures – A (**ILG 1,4**) (**PLO 1,4**)

2. Instrument Airman Certification Standards:

- a. II - Pre-Flight Procedures - Items A, C (**ILG 1,10,11**) (**PLO 1,4**)
- b. IV - Instrument Flight -All (**PLO 1**)
- c. VI - Instrument Approach Procedures – All (**ILG1,2,3,4,5**) (**PLO 1,4**)
- d. VII - Emergency Operations - Items A, D (**ILG 1,3,4,11**) (**PLO 1,4**)
- e. VIII - Post-Flight Procedures -All (**ILG 1,4**) (**PLO 1,4**)

3. Commercial Airman Certification Standards:

- a. I - Pre-Flight Preparation - Items F, G (**ILG 1,10,11**) (**PLO 1,4**)
- b. II - Pre-Flight Procedures - Items A, B, C, D, F (**ILG 1,10,11**) (**PLO 1,4**)
- c. III - Airport Operations - Item B (**ILG1,2,3,4,5**) (**PLO 1,4**)
- d. IV - Take Offs, Landings and Go-Arounds - Items A, B, C, D, E, F, M, N (**ILG1,2,3,4,5**) (**PLO 1,4**)
- e. V - Performance Maneuvers -A or B, C or D, E (**ILG 2,3**) (**PLO 1,4,6**)
- f. VII - Slow Flight and Stalls – All (**ILG 2,3**) (**PLO 4**)
- g. VIII - High Altitude Operations – All (**ILG 1,3,4,11**) (**PLO 1,4**)
- h. IX - Emergency Operations - A, B, C (**ILG 1,3,4,11**) (**PLO 1,4**)
- i. XI - Post-Flight Procedures - Item A (**ILG 1,4**) (**PLO 1,4**)

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)

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.
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 Private Pilot Phase [Supports Course SLO 1]

Learning Objectives

The student will be able to:

- Meet the requirements for a Private Pilot Certificate with Airplane Single Engine Land rating.

Unit II Instrument Rating Phase [Supports Course SLO 2]

Learning Objectives

The student will be able to:

- Meet the requirements for an Instrument Airplane rating.

Unit III Commercial Pilot Phase [Supports Course SLO 3]

Learning Objectives

The student will be able to:

- Meet the requirements for a Commercial Pilot Certificate with Airplane Single Engine Land rating.

Evaluation of student learning:

The grade in AVI 216 will be determined by an Oral and Practical Examination as outlined in both the Commercial Airplane and Instrument Airplane FAA Airman Certification Standards.

The final evaluations consist of questions applicable on Airplane 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:

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|---|--------------------|---|
| 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 |