COURSE OUTLINE

AVI 240	Flight III	2
Course Number	**Course Title**	**Credits**

Hours: 1 / 75	**Pre-requisite: AVI 114 AVI 231**	**Implementation**
Lecture / Field Hours	**Co-requisite: AVI 231**	**Fall 2023**

Catalog description: Continuation of flight training to obtain the commercial flight certificate and beginning of instrument flight training. Students complete solo cross-country requirements. Consists of 52.0 hours of flight time and 17.5 hours of ground/pre/post instruction. Fee required (see Mercer County Community College's Aviation Policies and Procedures Manual).

General Education Category:
Not GenEd

Course coordinator:
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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 be 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:
Commercial course and Instrument course are being conducted concurrently.

This course consists of Blocks 3 through 7 of the Commercial Pilot Certification Course as well as Block 2 of the Instrument Rating Course. Details can be found in the latest version of the FAA-approved Training Course Outlines (TCO) and Flight Syllabi

Flight Training Course Objectives:
The student obtains the aeronautical skills and experience necessary to meet some of the requirements of an instrument pilot certificate with an airplane category rating and a single-engine land class rating.

Flight Training Course Completion Standards:
The course completion standards are based upon the Instrument Pilot Airmen Certification Standards as outlined by the Federal Aviation Administration. The student demonstrates through flight test and school records that he/she has some of the aeronautical skills and experience necessary to obtain an instrument pilot certificate with an airplane rating and a single-engine land class rating.

* 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 standards:

Commercial Airman Certification Standards: **(ILG 1,2,3,4,5,10,11) (PLO 1,4,5)**
    CP1 Pre-flight Preparation   Tasks C, D, F **(ILG 1,10,11) (PLO 1,4)**
    CP2 Pre-flight Procedures   Tasks A, B, C, D, F **(ILG 1,11) (PLO 1,4)**
    CP3 Airport Operations   Tasks A, B, C **(ILG1,4,5) (PLO 1,4)**
    CP4 Navigation   Tasks A, B **(ILG 2,3,4,10,11) (PLO 1,4,5)**
    CP5 Post-flight Procedures   Task A **(ILG 1,4) (PLO 1,4)**

Instrument Airmen Certification Standards: **(ILG 1,3,4,5,6) (PLO 1,4,5,6)**
    IP1 Pre-flight Preparation   Section I: Tasks A, B, C **(ILG 1,10,11) (PLO 1,4)**
    IP2 Pre-flight Procedures   Section II: Tasks A, B, C **(ILG 1,11) (PLO 1,4)**
    IP3 ATC Clearances and Procedures   Section III: Tasks A, B **(ILG1,4,5) (PLO 1,4)**
    IP4 Flight by Reference to Instruments Section IV: Tasks A, B **(ILG 3,4,10,11) (PLO 1,4)**
    IP5 Navigation Systems   Section V: Task A **(ILG 2,3,4,10,11) (PLO 1,4)**
    IP6 Instrument Approach Procedures   Section VI: Tasks A, B, C, D, E **(ILG 3,4,10,11) (PLO 1,4,5,6)**
    IP7 Emergency Procedures   Section VII: Tasks A, D **(ILG 1,3,4,11)(PLO 1,4)**
    IP8 Post-flight Procedures   Section VIII: Task 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.
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   **Commercial Block 3** [Supports Course SLOs CP1, CP2, CP3, CP4, and CP5]
Learning Objectives
The student will be able to:
- Increase night proficiencies, fly a night solo flight and a daytime cross-country, and demonstrate throughout safety awareness and knowledge of emergency procedures.

Unit II   **Commercial Block 4** [Supports Course SLOs CP1, CP2, CP3, CP4, and CP5

Learning Objectives
The student will be able to:
- Increase night proficiencies, fly two (2) night flights and demonstrate throughout safety awareness and knowledge of emergency procedures.

Unit III   **Commercial Block 5** [Supports Course SLOs CP1, CP2, CP3, CP4, and CP5]

Learning Objectives
The student will be able to:
- Conduct day and night VFR cross-country flights in the AATD in a professional and safe manner.

Unit IV   **Commercial Block 6** [Supports Course SLOs CP1, CP2, CP3, CP4, and CP5]

Learning Objectives
The student will be able to:
- Conduct day and night VFR cross-country flights in a professional and safe manner.

Unit V   **Commercial Block 7** [Supports Course SLOs CP1, CP2, CP3, CP4, and CP5]

Learning Objectives
The student will be able to:
- Use the communication and navigation facilities available to the IFR pilot.
- Obtain a thorough knowledge of the airplane instruments, systems, and attitude instrument flying.
- Practice of attitude instrument flying to prepare the student for the introduction of radio navigation during IFR flight.

Unit VI   **Instrument Block 2** [Supports Course SLOs IP 1, IP2, IP3, IP4, IP5, IP6, IP7, and IP8]

Learning Objectives
The student will be able to:
- Conduct basic attitude instrument flying, holding pattern entries and execution, ILS, VOR and GPS approach procedures in the aircraft.
- Continue to build skills on cockpit resource management and single pilot operations.

Evaluation of student learning:

Specific Grading:

Letter Grade	Nominal%
A	93-100
A-	90-92
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	70-76
D	60-69
F	0-59

- The flight grade is dependent on a practical outcome of the progress check flights, class attendance, and participation policy. Attendance and completion of class assignments are mandatory.

- A Rubric for the Flight Class is as follows:

  The practical assessment is based upon the current Airman Certification Standard (ACS) utilized for grading purposes. The examiner is obligated by the Federal Aviation Administration to make sure the applicant (student) meets these standards in all Areas of Airman Certification Standards. A final grade for this course will be determined as follows:

  A = Completes all progress checks on first attempt with a Satisfactory grade, perfect attendance in flight class, and participates as per MCCC policy.
  B = Completes 3 out of 4 progress checks on first attempt with a satisfactory grade, perfect attendance in flight class, and participates as per MCCC policy.
  C = Completes at least 2 out of 4 progress checks on first attempt with a satisfactory grade, no more   than 2 absences from flight class, and participates as per MCCC policy.
  D = Completes at least 1 out of 4 progress checks on first attempt with a satisfactory grade, no more than 2 absences from flight class, and participates as per MCCC policy.
  F = Does not complete progress checks on first attempt, does not attend class regularly and does not participate in class and/or student does not complete final progress check within time period designated.