



MERCER
COUNTY COMMUNITY COLLEGE

COURSE OUTLINE

AVI 113
Course Number

Flight I
Course Title

2
Credits

Hours: 1 / 52.1
Lecture / Field Hours

Pre-requisite: See Below

Implementation
Fall 2023

Catalog description: Flight training required to complete the private pilot program by acquiring the aeronautical skills necessary to meet the FAA Airmen Certification Standards for the private pilot certificate. Consists of 30.0 hours of flight training, 10.4 preflight planning hours, and 11.7 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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Pre-requisites:

1. AVI 112 & AVI 131
2. Eligibility for College Math and English
3. FAA-approved Medical
4. 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. Airman Certification Standards (ISBN 1619549034)
4. The Student Pilot's Flight Manual by William K. Kershner (ISBN 9781619545816)
5. Private Pilot Manual by Jeppesen Sanderson (ISBN 0884876608)

Flight Training Content:

This course consists of Blocks 4 through 7 of the Private Pilot Course. Details can be found in the latest version of the FAA-approved Training Course Outline (TCO) and Flight Syllabus.

Flight Training Course Objectives:

This course is the final phase for students to complete the requirements to obtain an FAA Private Pilot Single Engine Land Certificate. The objectives of this flight-training course are to provide the student with the aeronautical skills and experience necessary to meet the requirements for a private pilot certificate with an airplane category rating and single-engine land class rating.

Flight Training Course Completion Standards:

The course completion standards are based upon the 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 he/she meets the requirements for a private pilot certificate with airplane category and single-engine land class rating. Periodic 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:

1. Organize and present weight and balance information, cross-country planning and weather data associated with the flight. **(ILG 1,2,3,4) (PLO 1,4,6)**
2. Properly utilize a pre-flight checklist will verify that the aircraft can be safely flown. **(ILG 1,11) (PLO 1,4)**
3. Demonstrate that he/she can operate an aircraft at a towered and a non-towered airport utilizing appropriate communication procedures, taxi, and in-flight airport operations and procedures. **(ILG 1,4,5) (PLO 1,4)**
4. Demonstrate the variety of short and soft take-off and landings, and go-arounds. **(ILG 2,3,4) (PLO 1,4)**
5. Perform various types of performance and ground reference maneuvers with skill, including steep turns, rectangular course, s-turns, and turns-about-a-point. **(ILG 3)(PLO 1,4)**
6. Perform the various types of navigation utilizing pilotage, dead reckoning, and radio navigation. **(ILG 2,3,4,11) (PLO 1,4,6)**
7. Demonstrate slow flight and a variety of stalls. **(ILG 2,3)(PLO 4)**
8. Perform climbs, turns, straight-and-level flight, descents, unusual attitude recovery, and exhibit knowledge of the elements related to radio communication, navigation systems/facilities and radar services available for use during flight solely by reference to instruments. **(ILG 1,2,3,4,11) (PLO 1,4)**
9. Conduct the safe operation of the aircraft during a simulated emergency approach and landing; analyze and take appropriate action when systems and equipment malfunction occur; identify appropriate equipment that should be aboard the aircraft in the event of an emergency and for survival. **(ILG 1,3,4,11) (PLO 1,4)**
10. Complete the after-landing, securing, and parking of the aircraft. **(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 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 **Block 4** [Supports Course SLOs 2, 3, 4, 5, 7, 8, and 10]

Learning Objectives

The student will be able to:

- Develop the skill and understanding required to control the aircraft precisely under all normally anticipated conditions.
- Use radio aids to navigation, fly at night, and conduct emergency operations.

Unit II **Block 5** [Supports Course SLOs 1, 2, 6, 9, and 10]

Learning Objectives

The student will be able to:

- Learn night flight operations and learn to plan and conduct day and night cross-country flights.

Unit III **Block 6** [Supports Course SLOs 1, 2, 3, 6, 8, 9, and 10]

Learning Objectives

The student will be able to:

- Prepare and practice all of the required flight maneuvers for private pilot certification and complete the solo cross-country requirements.

Unit IV **Block 7** [Supports Course SLOs 1, 2, 4, 5, 6, 7, 8, 9, and 10]

Learning Objectives

The student will be able to:

- Review and practice flight maneuvers to obtain the proficiency level of a private pilot, as outlined in the current Airman Certification Standards.

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 Standards (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 Operation of the 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 as satisfactory, 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.