GE Aviation Professional Flight I Theory

Private Ground School

Time: Wednesdays 6:00pm – 9:00pm
Location: Lowell Conference Room
Dates: August 31st – December 14th
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COURSE DESCRIPTION
Professional Flight I Theory is a ground school course in the Western Michigan University professional pilot program that begins to teach professional pilot operations required for private pilot certification in single-engine, land based aircraft. This course includes human factors, Federal Aviation Regulations, navigation, weather theory and performance calculations. Western Michigan University is providing this course to help GE Aviation employees enhance their aviation knowledge or to help employees gain the ground knowledge necessary to become a private pilot.

Note: This is a non-credit course.

COURSE PREREQUISITES
Approval by GE Aviation is required to participate in this course. Prior knowledge is not required for this ground school. Students are expected to have familiarity with basic algebra, basic trigonometry, reading and writing skills, and computer/Internet skills.

COURSE OBJECTIVES
This course will introduce the student to private pilot concepts and prepare the student to pass the FAA Private Pilot Knowledge Exam.

LEARNING AND TEACHING METHODS
Each lesson will involve preparation via weekly reading and other assignments as well as material available online. Students will learn through lectures, reviewing of assigned work and practical application of problems presented in class.

REQUIRED RESOURCES
The following resources are provided by GE Aviation for this course:
- FAA Pilot's Handbook of Aeronautical Knowledge
- Dyer's Ground School Workbook for Private Pilots
- ASA 2016 Test Prep - Private Pilot
- E6b Flight Computer
- Navigation Plotter
- East Central region A/FD
- Chicago Sectional
- Federal Aviation Regulations
- Aeronautical Information Manual (Aviation Handbook section)
- Airplane Flying Handbook (Aircraft Handbook section)

Course Website: http://homepages.wmich.edu/~nicolai/Private/index
Canvas LMS for assignment submission: https://canvas.instructure.com/
LEARNING OUTCOMES
Upon completion of this course, the successful student will be able to utilize knowledge to solve problem situations, and apply principles to new situations with outside references or assistance as necessary.

The course objectives are as follows:

- Identify aircraft categories and understand how power plant and aircraft systems work.
- Explain how airplanes fly.
- Learn what causes weather, how to recognize critical weather, and how to interpret online/printed weather products.
- Apply FAA regulations to various phases of flight and understand the recommended procedures from the Aeronautical Information Manual.
- Use the manual flight computer for various calculations.
- Understand how to interact in airport and airspace environments, including how to interact with air traffic control.
- Learn how to plan a VFR navigation route using pilotage and dead reckoning and gain a basic understanding of radio/electronic navigation systems.
- Predict airplane performance based on the ambient weather conditions and the airplane’s weight and balance calculation.
- Understand how human factors, crew resource management and aviation physiology interact in the cockpit.

ASSESSMENT STRATEGIES AND INSTRUMENTS
Assessment of learning outcomes will be through periodic exams. Additional quizzes are available online.

All exams and some quizzes will be given in class with the following rules applying:

1. Ink pens shall be used for all answers.
2. Only the supplemental materials specified by the instructor shall be allowed for use.
3. You may not share or borrow supplemental materials.
4. Electronic devices are not allowed for use during in-class assessments.

ATTENDANCE
GE Aviation is providing this benefit and requires weekly participation. Missing a single week means that valuable information will have been missed and may affect your ability to successfully complete the FAA Private Pilot Knowledge Exam. If it is necessary to miss a class session, please pre-arrange it with the course instructor. Makeup information will be provided and you will be responsible for obtaining the class notes from one of your peers in the course.

ASSIGNMENTS
Located on the course website, under each lesson, are specific assignments. Some assignments require printing for completion and some have form fields to complete. Printed assignments need to be scanned. All assignments need to be uploaded to the Canvas LMS site. Each assignment is due each Tuesday by noon.

EXAMS
Completion of all three exams is required by GE. If your work assignment includes traveling during an exam session, then a makeup exam will be provided.
GRADING

ASSESSMENT
Although a course grade will not be issued, your performance level in each objective will be used to assess how well you performed in this course, according to the following scale:

- A  94 – 100%
- BA  88 – 93%
- B  82 – 87%
- CB  76 – 81%
- C  70 – 75%
- DC  65 – 70%
- D  60 – 64%
- E  0 – 59%

5 WEEK GRADE ASSESSMENT
The 5 week grade assessment encompasses the ‘A group’ quizzes and assignments and Exam A. Students will be issued an individual assessment report of their performance.

10 WEEK GRADE ASSESSMENT
The 10 week grade assessment encompasses the ‘A & B group’ quizzes and assignments, Exams A and B. Students will be issued an individual assessment report of their performance.

COURSE COMPLETION ASSESSMENT
Students will be issued an individual assessment report of their performance. Students who have achieved at least an 85% or better performance level in the course are eligible for an endorsement to take the FAA knowledge exam. Students who have achieved at least a 70% performance level in the course may take a practice exam in order to receive an endorsement to take the FAA knowledge exam; an 85% or greater score on the practice exam is required for the endorsement.

Note: The cost of the FAA Private Pilot Knowledge Exam is approximately $160 and is not included as part of this course.
ACADEMIC INTEGRITY STATEMENT
GE employees are responsible for making themselves aware of and understanding the policies and procedures of GE Aviation that pertain to honesty and ethics. The policies of Western Michigan University shall be followed as well and include the following:

- **Cheating** - intentionally using or attempting to use unauthorized materials, information, notes, study aids or other devices or materials in any academic exercise.
- **Fabrication** - the intentional invention of any information or citation in an academic exercise.
- **Falsification** – altering information for use in any academic exercise or University record.
- **Forgery** - the act to imitate or counterfeit documents, signatures, and the like.
- **Multiple submission** - the submission of substantial portions of the same work (including oral reports) for credit more than once without authorization from instructors of all classes for which the student submits the work.
- **Plagiarism** - intentionally, knowingly, or carelessly presenting the work of another as one's own (i.e., without proper acknowledgment of the source). The sole exception to the requirement of acknowledging sources is when the ideas, information, etc., are common knowledge.
- **Complicity** - intentionally or knowingly helping or attempting to help another to commit an act of academic dishonesty.
- **Computer misuse** - the use of software to perform work which the instructor has told the student to do without the assistance of software.

These policies can be found at [www.wmich.edu/catalog](http://www.wmich.edu/catalog) under Academic Policies, Student Rights and Responsibilities.

UNIVERSITY SEXUAL ASSAULT AND MISCONDUCT POLICY
Western Michigan University encourages all members of our community to participate in the process of creating a safe, welcoming and respectful environment on campus. With the Sexual and Gender-Based Harassment and Violence, Intimate Partner Violence, and Stalking Policy and Procedures, we affirm the commitment of the university and our community to the values of transparency and timely communication, and accountable and responsible behavior within an ethical, compassionate, diverse and respectful environment.

These policies can be found at [www.wmich.edu/sexualmisconduct](http://www.wmich.edu/sexualmisconduct)