SIUC DEPARTMENT OF AVIATION TECHNOLOGIES

AVT 211 RECIPROCATING POWERPLANTS

FALL SEMESTER 2015

5 Credits

Instructor: Matt Harrison
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Office Hours: MW 11-1150AM, 1-150PM, T 1-250PM, TH 1-150PM and By Appointment

Lecture: MW 9-1050AM Room 145, W 10-1050AM Room 145
Lab: Section 1: T 8-950AM, TH 10-1150AM
      Section 2: T 10-1150AM and 3-450PM

Course Overview
Students will have a knowledge of construction, operation, and timing mechanisms associated with aircraft reciprocating powerplants. They will be able to disassemble, clean, measure, inspect, and reassemble a powerplant to airworthy condition in accordance with appropriate FAA and manufacturers’ regulations and practices. Course fee: $60. Prerequisite: AVT 101, 111, 113: Math 108 or 125.

Grading Policy
A 90-100                B 80-89                C 70-79                D 60-69                F Below 60

Lecture 1/3 of Course Final Grade
Lecture grade is based on objective assessment (performance on approximately 4 written tests), which is 2/3 of the lecture grade and a subjective assessment (class participation), which is 1/3 of the lecture grade.

Lab 1/3 of Course Final Grade
You must have an Aviation Technologies Computer Account Login. Lab projects will be graded subjectively with the exception if the lab projects are not all completed and signed off by the end of the semester they will be given a grade of ‘0’ which will result in an incomplete grade given for the FAA. You will also receive a course grade of no higher than an ‘F’.
Lab project grades will be a subjective assessment made by the instructor based on the following (but not limited to):

- Completeness and accuracy of student’s responses to questions and tasks throughout the lab project.
- All work done will be to airworthy standards.
- Legibility of written answers → PRINT
- Care and attention to detail exhibited in lab project.
- Willingness to contribute to the daily maintenance, cleanliness, and security of the lab and the equipment in it.
- Ability to work well with others in the laboratory.
- Professionalism demonstrated in lab.
- The student’s attitude. (Smiles and hard work are expected)

**Final Exam 1/3 of Course Final Grade**

Final exam grade is based on your performance on a comprehensive written test covering any or all items from the course. The exam will be giving during finals week according to University and Aviation Technology policy. See attached Schedule.

**Attendance Policy**

**Attendance is mandatory.** As an FAA certified Airframe and Powerplant Mechanic Training Program, we must abide by the FAA’s attendance policy. Instructors are required to take roll each class period. It is the student’s responsibility to contact the instructor in advance of absences whenever possible or immediately thereafter to arrange make-up time where appropriate and to obtain hand-outs or other material from classes missed. In order for it to be excused, you MUST furnish information within ONE week of your absence that the instructor deems excusable. Doctor’s notes must reflect the dates you were absent. No self-diagnosis forms will be accepted. The instructor reserves the right to excuse your absence(s) in advance of missing class. It is the student’s responsibility to inform the instructor when the student will be missing class. Remember that employers generally fire workers that have no call-no shows.

To aid in maintaining personal accountability with your attendance, you will be required to sign into an attendance sheet every class period and initial it when you leave. This will be in addition to the instructors role call at each class period. This sheet will also have an area for you and the instructor to denote what type of absence you had, and whether or not it is excused or unexcused.
Students are expected to be in class and lab on time. Three late arrivals will be counted against the student as one unexcused absence. Unexcused absences or habitual tardiness will result in a cumulative reduction of the student's final grade point average: First unexcused absence results in a one-point reduction of the final grade (0-100 scale). Second absence results in a two-point reduction. Third absence results in a four-point reduction. Fourth absence results in an eight-point reduction. Fifth absence results in a sixteen-point reduction. After the fifth unexcused absence the cumulative grade reduction would be 31 points, making it impossible to receive a passing grade for the course.

1st Absence = minus 1 point
2nd Absence = minus 3 points
3rd Absence = minus 7 points
4th Absence = minus 15 points
5th Absence = minus 31 points

Make up time may be granted at the discretion of the instructor. Final determination as to whether or not an absence is "excused" rests with the instructor. Performance of make-up time does not reinstate points lost due to unexcused absences. Make up time must be scheduled in advance. There will be no make-up time during Finals week.

IF YOU DO MISS TIME YOU HAVE 2 WEEKS TO SCHEDULE MAKE UP TIME OR YOU WILL LOSE THE ATTENDANCE POINTS.

Text
Aircraft Powerplants, 7th ed., Kroes & Wild. (If you have the Jeppesen Powerplant book you can use this as a supplemental text)


Tools
You must have your own basic hand tools. The Aviation Technologies tool list is located on the departmental website. There are many vendors where you can purchase these items. You will have one week to secure tools for this course. At a bare minimum you will need a complete 3/8 inch drive socket 12 point set with deep and shallow sockets, combination wrenches up to ¾ inch, regular and Phillips screwdrivers, side-cutters, duckbill pliers, rubber/plastic mallet, a toolbox/tool bag to put them into and safety glasses.

I will verify you have these during week 2. If you do not have them you will be counted as absent until you procure them.

LAB RULES

No open toe shoes are allowed in the lab (sands, flip-flops, etc.). Absolutely no horseplay is allowed in the lab!! You are required to purchase, and have in your tool box at all times, a pair of safety glasses. If you, or someone close to you, is doing any drilling, grinding, pounding, or anything else that could be a hazard to your eyes, put on your safety glasses. Remember: you only have one set of eyes!! Allow five or ten minutes before the end of each lab period to clean up your personal lab space.
TESTING AND OTHER GUIDELINES

The following rules of engagement apply to and during all tests, quizzes, labs and final exam.

**Cell Phones**
Cell phone use will not be permitted to be on or near your person during tests. If you need a calculator you will be required to bring one. There will be a box placed at the front of the class at the beginning of the test where you can leave your phone and pick it up once you turn your test in. Place it in silent mode before leaving it. If caught using a phone during a test you will receive a grade of “0”.

**Answers**
All answers must be placed on the test or corresponding lab worksheets. Answers must be legible to be accepted. I suggest using pencil. You will be erasing.

**Scantron**
Answers must still be on the test document. Transfer answers to scantron once the test is completed. If there are fill in the blank answers be sure to leave those blank on the scantron sheet. Use a number 2 pencil or equivalent.

**Calculations**
Show all calculations necessary to derive the answer to mathematical questions. Correct answers without necessary calculations will NOT be accepted. You may use calculators but they may not be exchanged during tests. If you have a calculator capable of performing the equation you must still show your work or your answer will not be accepted.

**Rounding**
Maintain as many digits of precision as possible while working the problem. Round your final answer to the Hundredths decimal place (.00) or to whatever precision is required by the problem.

**Cheating**
No form of academic dishonesty will be tolerated. If caught you will be punished to the fullest extent of university law. (Expulsion from SIU)

**Emergency Procedures:**
Southern Illinois University Carbondale is committed to providing a safe and healthy environment for study and work. Because some health and safety circumstances are beyond our control, we ask that you become familiar with the SIUC Emergency Response Plan and Building Emergency Response Team (BERT) program. Emergency response information is available on posters in buildings on campus, available on the BERT’s website at [www.bert.siu.edu](http://www.bert.siu.edu), Department of Public Safety’s website [www.dps.siu.edu](http://www.dps.siu.edu) (disaster drop down) and in the Emergency Response Guidelines pamphlet. Know how to respond to each type of emergency. Instructors will provide guidance and direction to students in the classroom in the event of an emergency affecting your location. **It is important that you follow these instructions and stay with your instructor during an evacuation or sheltering emergency.** The Building Emergency Response Team will provide assistance to your instructor in evacuating the building or sheltering within the facility.
I have been given the opportunity to clarify any questions I have in regards to the syllabus for
AVT 211 for Fall 2014

Printed Name __________________________________________________

Signature ______________________________________________________

Date _________________________

Printed SIU Email Address _______________________________________

Contact Phone Number ________________________________________