

Hydraulic and Pneumatic Systems Laboratory (ETM 2315L)

Instructor: Alessandro Anzalone, Ph.D.
Class Location: BSSB 218
Class Time: Wednesdays 2:00-4:30 pm
Office Hours: Tuesdays 2:00-4:00 pm, other times by appointment.
Office: BSSB 213e
Phone: (813) 253-7852
Fax: (813) 253-7868
Email: aanzalone2@hccfl.edu

Course Description:

Provides hands-on experiences to reinforce the basic principles of hydraulic and pneumatic systems and the operation of pumps and flow monitoring devices for simple but fundamental systems. Completion of PHY-1025 is strongly recommended. Taking ETM-2315L concurrently is strongly recommended.

Course Outcomes:

1. Understand fluid power and hydraulic principles.
2. Understand fluid power components such as valves, actuators and pumps and their use in fluid power circuits
3. Demonstrate the ability to interpret and use fluid power circuits
4. Understand fluid power control and distribution
5. Understand power pneumatics principles and components

Textbook and Materials:

James R. Daines, Fluid Power: Hydraulics and Pneumatics, Goodheart-Willcox Co; 1st edition, 2009, ISBN: 978-1605250816

James R. Daines, Fluid Power: Hydraulics and Pneumatics, Goodheart-Willcox Co; 1st edition, 2009, ISBN: 978-1605250823 (Laboratory Manual)

Amatrol Fluid Power Laboratory Manual

Safety glasses: The lab can supply safety goggles but for comfort wearing over a two and a half hour lab the student is encouraged to purchase comfortable safety glasses available at the HCC bookstore. Cost is about \$7.50 each.

Academic Dishonesty Policy: All parties identified as cheating or plagiarizing on an exam, project or assignment will be assigned a grade zero on that item and subject to academic discipline in accordance with HCC policy.

Attendance Policy: It is important that you attend every class period and be on time. Missing class means that you miss some important material. Since this course is a cumulative experience, you will put yourself at an extreme disadvantage.

1. It is your responsibility to sign the attendance sheet provide at every class meeting.
2. If you are absent, it is your responsibility to get announcements, materials, and assignments before the next class period.
3. More than 3 absences per semester are considered excessive and will result in points taken off your final grade for the unexcused absences after the third absence. Please note that excused absences must be documented and may be death or illness of family members, personal illness, military duty, car trouble, etc.

Instructional Methods (including Examination Policies):

Self-paced training using the Amatrol training stations.

Students will be evaluated with regular homework assignments, in-class assignments, class participation, midterm, course project, and final exam.

1. Unexcused absences on test day will receive a zero for that test.
2. Tests will be closed book closed notes. Reference materials will be provided if required.
3. Tests will be short answer, T/F, multiple choices, and some problems.
4. Please contact me by email or phone if at all possible before the time of the test (leave a voice message) in the event you have to miss a test.
5. No retests will be given for any exams that have been taken.
6. Every student will be required to take the final exam.
7. Make up tests from excused illnesses must be made up within 2 weeks of the absence and the test may be of a different format than the class test.
8. If you are auditing this class, it must be declared at registration.
9. Some work will be competency-based and assessed accordingly.

Grading System: The final grades will be determined on the following basis:

90 - 100 A
80- 89 B
70 - 79 C
60 - 69 D
0 - 59 F

Request for Accommodations: If, to participate in this course, you require an accommodation due to a physical or learning impairment, you must contact the Office of Services to Students with Disabilities. The office is located in the BSSB 109. You may also reach the office by telephone at (813) 253-7914.

Class Schedule

Date	Chapter	Assignment
01/13	Introduction	
01/20	LAP 1, Segment 1:	
01/27	LAP 1, Segment 2	
02/03	LAP 1, Segment 3	
02/10	LAP 1, Segment 4	
02/17	LAP 2, Segment 1	
03/03	LAP 2, Segment 2	
03/10	LAP 2, Segment 3	
03/17	LAP 2, Segment 4	
03/24	Midterm	
04/07	LAP 6, Segment 1	
04/14	LAP 6, Segment 2	
04/21	LAP 6, Segment 3	
04/28	LAP 6, Segment 4	
05/05	Final Exam	

This Class schedule is subject to change.