



Course Syllabus

Course #: MET 2200 Course Name: Hydraulics

Division: Engineering Division

Class Days:

Class Time:

Location: Classroom:

Laboratory:

Credit Hours: 3

Contact Hours: 4

Lab Hours: 2 Lecture Hours: 2

Instructor:

Office Location:

Phone:

Email Address:

Office Hours: TBD

Division Office/Location:

Division Fax:

Full-time Contact Person:

Phone(s):

Course Description:

An introductory course in fluid power fundamentals providing a study of system components including pumps, cylinders, valves, compressor, air conditioning equipment and fluids. Symbols of both hydraulics and pneumatics will be explained and utilized in the various circuit analyses. The students will perform lab work to enhance the theory explanations.

Prerequisite(s): None

Corequisite(s): None

Entry Level Skills and Knowledge:

Required Texts, Supplies and Equipment:

Industrial Hydraulics Manual by Vickers (Eaton Fluid Power) latest edition

Hydraulics 1 Lab Manual – 2006 edition

Grading:

Class Participation: This course is designed so that regular attendance is necessary. Besides the classroom lecture the students will be doing hands on experiments in the lab as well as computer simulated lab work. Most classes the student will have lab work to do and can only be made up with the permission of the instructor.

Exams: There will be 3 exams during the semester and a final exam. All the tests will count equally and will amount to 50% of the final grade. All missed exams must be made up within a week unless extraordinary events prevent it and other arrangements can be made.

Lab Work: The student will spend roughly half of the time in lab, either with hands on experiments or computer simulations. Lab work will account for 50% of your final grade. There will be a lab final that the student must successfully pass to gain credit for the course. Lab work must be submitted by the specified date. Breakdown of lab grading will be explained by the instructor.

- 92-100 = A
- 84- 92 = B
- 75-84 = C
- 66-75 = D
- Below 66 = F

Learning Outcomes:

General Education

1. **Communicate effectively**
2. **Evaluate arguments in a logical fashion**—Competence in analysis and logical argument are explicit learning goals for most general education programs, although these skills go by a variety of names (e.g., critical thinking, analysis, logical thinking, etc.). **Students will be able to demonstrate competence in problem solving in communication, mathematics, and in team settings.**
3. **Employ the methods of inquiry characteristic of natural sciences, social sciences, mathematics, and the arts and humanities;** general education introduces students to methods of inquiry in several fields of study and thereby prepares students to integrate information from different disciplines.

Assessment of Student Learning:

This course may include a project that is one of several that will be used by faculty to assess student academic performance in the program. A panel of faculty will review all the assessment activity then assess and summarize the academic performance of students at this point in the program. The results of this assessment will be shared among the department faculty, used to identify needed changes or improvements, and submitted to the Student Academic Assessment Committee as part of the college’s overall student academic assessment effort.

Assessment Project and Measurement in course (if any):

Plan of Work:

Session	Date	Activities	
Session	Date	Chapter	Lab
Week 1		1,2	
Week 2		1,2	Setup
Week 3		3,5	Parallel
Week 4	TEST	10	Relief
Week 5		10	Sequence – pressure

			reducing
Week 6		11	Flow lab
Week 7		8	Directional control
Week 8		4	Conductors
Week 9		7	Cylinder
Week 10	TEST	6	
Week 11		15	pumps
Week 12		17	Design lab
Week 13		Electrical Controls	
Week 14		Circuit analysis	
Week 15		Review	LAB PROJECT
Week 16		FINAL EXAM	

Computer simulation labs will be included throughout the quarter.

Course Requirements:

Complete all assignments as required

Policies

Course Withdrawing: If for any reason you need to withdraw from this course, be certain that you do so according to College procedure. It is your responsibility to know and follow this procedure. If you simply stop coming to class, without officially withdrawing from the course, your grade is an automatic “F.” Please follow official College procedure for withdrawing from this or any course.

College Academic Policies are located in the College Catalog. A copy of the current catalog may be picked up in any of the division offices or admissions. The list of college policies is also available online at <https://www.terra.edu/register/Collegecat/policies.asp>.

Support Services: The College offers a number of support services to assist in your success in this course and all courses. Among these services are the Writing & Math Center in B105, the Office of Learning Support Services, which coordinates the campus disability services and tutoring programs, the computer labs, and the computers in the atriums.

Any student who feels he/she may need an accommodation based on the documentation of a disability should contact the Office of Learning Support Services privately to discuss his/her specific issues. Please contact the OLSS at (419) 334-8400 X 208 or visit 100 Roy Klay Hall (Building A) to coordinate reasonable accommodations.

If you have a documented disability and are receiving academic accommodations through the Office of Learning Support Services, please schedule a meeting with your instructor in a timely manner so that we may discuss how these services will be arranged.

Tutoring services are available to students beginning the second week of every quarter. Students requesting tutoring services should obtain a tutor request form from the OLSS in 100 Roy Klay Hall (Building A) or online at the Terra website. Please note that instructor verification and acceptance of the Student Learner Agreement is necessary for all tutoring requests. All requests should be submitted to 100 Roy Klay Hall (Building A).