



REEDLEY COLLEGE  
REEDLEY, CALIFORNIA

INDUSTRIAL TECHNOLOGY DEPARTMENT  
MANUFACTURING TECHNOLOGY CERTIFICATE PROGRAM

 Hydraulics

INSTRUCTOR: Mr. 

DESCRIPTION: Basic Hydraulics - 2 units, 5 hours weekly,  
9 weeks

REQUIRED BACKGROUND: None

REQUIRED MATERIALS:

1. text book: FOS - HYDRAULICS TEXT and STUDENT GUIDE  
JOHN DEERE Publishing Co.
2. other materials: Ring binder with paper, calculator,  
#2 pencil and a soft eraser.  
2-Scantrons and 5-Quizstrips.

COURSE OBJECTIVES:

1. Upon completion of this course, the student will be able to:
  - a. understand the basic principles of fluid control and how it is used industry. The basic components required in developing pneumatic and hydraulic systems.
  - b. calculate the force of a cylinder based upon the cross-sectional area and the pressure. understand how pumps, motors and valves operate and also how to properly maintain them.

METHODOLOGY:

Students will be expected to read the material in the chapters, complete and turn assigned problems in to the instructor and be prepared to discuss the assigned chapters. Lectures will serve the purpose of clarifying and expanding the reading material.

ATTENDANCE:

1. You need to attend class regularly and participate in your class. Class participation will be 100 points of your total grade.
2. Dropping from this class is YOUR RESPONSIBILITY. Failure to drop could result in a grade being issued. Remember to turn in a drop slip if you stop attending class. The [REDACTED]
3. Two tardies are equal to one absence. Two absences and you will be dropped from the class.

EXAMINATIONS:

1. There will be two examinations:

|   | <u>Date</u> | <u>Material covered</u> |
|---|-------------|-------------------------|
| 1 | Feb 11      | CHAP. 1-5               |
| 2 | Mar 10      | Chap. 6,7,10,11,&13     |

POINTS:

|                                   |   |             |
|-----------------------------------|---|-------------|
| 1. FINAL EXAMS at 200 points each | = | 400 points  |
| 2. 6 QUIZZES at 20 points each    | = | 120 "       |
| 3. Homework assignments           | = | 690 "       |
| 4. Lab assignments                | = | 140 "       |
| 5. Class participation            | = | 100 "       |
| <hr/>                             |   |             |
| TOTAL POSSIBLE                    | = | 1450 points |

POINTS SCALE:

|             |   |          |
|-------------|---|----------|
| 1305 - 1450 | = | A (90 %) |
| 1160 - 1304 | = | B (80 %) |
| 1015 - 1159 | = | C (70 %) |
| 870 - 1014  | = | D (60 %) |
| below 870   | = | F        |

To determine your level of progress at anytime, divide your accumulated points by the total points possible up to that week. Look at the assignment sheet on pages 3 & 4 to find the homework points listing. If you have trouble in determining your grade level please ask the instructor to help you.

MFGT 31 HYDRAULICS  
Assignment sheet

WEEK 1 - CHAPTER 1 (77 pts)

1. Reading assign. pg. 1-1 thru 1-11
2. Homework - answer questions pg. 1-4 quest. 1-17  
chapt. 1 Test (T-F) pg. 11-12 quest. 1-24  
multi-choice quest. pg. 15-17, quest. 1-9

WEEK 2 - CHAPTER 2 (92 pts)

1. Reading assign. pg. 2-1 thru 2-20
2. Homework - Answer questions pg. 1-6, quest. 1-21  
chapt. 2 Test (T-F) pg. 10-12, quest. 1-40  
multi-choice quest. pg. 14-16, quest. 1-10

WEEK 3 - CHAPTER 3 (93 pts)

1. Reading assign. pg. 3-1 thru 3-23
2. Homework - Answer questions pg. 1-5, quest. 1-18  
" " pg. 8-12, quest. 1-6  
chap. 3 Test (T-F) pg. 14-16, quest. 1-35  
multi-choice quest. pg. 17-19, quest. 1-10

WEEK 4 - CHAPTER 4 & 5 (75 & 68 pts)

1. Reading assign. pg. 4-1 thru 4-8 and 5-1 thru 5-12
2. Homework - Answer questions pg. 1-5, quest. 1-17  
chapt. 4 Test (T-F) pg. 8-9, quest. 1-25  
do Fill-in quest. pg. 10, quest. 1-8
3. Homework pg. 1-4, quest. 1-14  
chapt. 5 Test (T-F) pg. 9-10, quest. 1-30

WEEK 5 - CHAPTER 6 & 7 (56 & 50 pts)

1. Reading assign. pg. 6-1 thru 6-7 and 7-1 thru 7-7
2. Homework pg. 1-4, quest. 1-13  
chapt. Test (T-F) pg 7-8, quest. 1-20  
Define terms 1-5 on page 8
3. Homework pg. 1-4, quest. 1-10  
chapt. Test (T-F) pg 5-6, define 1-5 pg. 6

WEEK 6 - CHAPTERS 10 & 11 ( 54 & 39 pts) - NO CLASS

1. Reading assign. pg. 10-1 thru 10-5 and 11-1 thru 11-9
2. Homework assign. chapt. 10, pg. 1-3, quest. 1-12  
chapt. 10 Test (T-F) pg. 5-6, quest. 1-20  
and define terms 1-5.
3. Homework assign. chapt. 11, pg. 1-4, quest. 1-12  
chapt. 11 Test (T-F) pg. 5, quest. 1-15

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Assignment sheet  
page 2

WEEK 7 - CHAPTER 13 (86 pts)

1. Reading assign. pg. 13-1 thru 13-21
2. Homework - answer questions pg. 1-7, quest. 1-18  
chap. 13 Test (T-F) pg. 12-14, quest. 1-50

W. [REDACTED] chapters 6,7,10,11, & 13