



CAT[®] Equipment Technician

Spring, 2000

COURSE INFORMATION

Gary Wenter

TITLE

MAG 9 - Hydraulics

CATALOG DESCRIPTION

Introduction to the principles of hydraulics applied to farm and light industrial equipment. Includes a study of the technical language of fluid power, including graphical symbols, industrial standards, components, and maintenance of hydraulic units.

UNITS & HOURS

3 Units

2 hours lecture and 3 hours lab per week

Friday

12:20 - 4:50 p.m.

12:20 - 2:00

Lecture

AGR 2

2:00 - 2:20

Break

2:20 - 4:50

Lab

AGM 3

TEXTBOOK

FOS Hydraulics

REQUIRED MATERIALS

- Approved eye protection/safety glasses (Z87.1 A.N.S.I.)
- Approved footwear
- Two work shirts (approx. \$35)

Reedley College Caterpillar Equipment Technician shirt @

A.V. Uniform, 2930 N. Blackstone, Fresno 93703 Phone: 224-1199

ASSIGNMENTS & GRADES

The class is designed to develop equipment technician skills to diagnose and repair machine hydraulic system problems and failures. Laboratory skills (systems service, evaluation, and repair) will constitute 50% of the student's grade. The remaining 50% of the grade will be determined by lecture tests (quizzes, midterm, final) and assignments (homework, notebook, and worksheets).

Point Distribution: 90% = A, 80% = B, 70% = C, 60% = D, Less = F

<u>Lecture</u>	Homework	150		
	4 tests @ 50/each	200		
	Notebook	50		
	Final Exam	<u>100</u>	Lec. Total	500
<u>Lab</u>	Participation 18 @ 15/each	270		
	(Timeliness, clean-up, work ethic)			
	Assignments	<u>230</u>	Lab Total	<u>500</u>
			Total	<u>1000</u>

FINAL EXAM

Friday, May 19, 2000 at 10:30 a.m.

GRADE POLICY

On separate sheet

OFFICE HOURS

Monday, Tuesday, Wednesday, Thursday
Ag Shop Office (AGM 5)

10:00 - 11:00 a.m.
Telephone: 638-3641, Ext. 3714
From off-campus: 638-0317

COURSE OUTLINE

The Caterpillar Service Department

1. What is Caterpillar?
2. Caterpillar Nomenclature - Engines and Machines
3. What is an Equipment Technician?
4. Career Opportunities with CAT Dealers

Shop Safety Practices

1. Listing and Blocking
2. Shop Chemicals and Safety
3. Shop Cleanliness

Technical Reference Materials

1. Serial Numbers/Arrangement Numbers
2. Operator's Manuals
3. Service Manuals
4. Parts Order Materials, Procedures, and Forms
5. Special Instructions
6. Reusability Guidelines
7. Machinery Updates

Mechanical Skills

1. Tools and Their Use
2. Precision Measurement
3. Torquing Tools
4. Fasteners
5. Fittings, Hose, Tubing

Service Work Orders

1. Preparing a Service Work Order
2. Estimates and Parts Itemizing
3. Recording Labor Costs - Time Cards, et. al.
4. Communicating with Customers - Written and Verbal
5. Warranty and Policy

Time Management

1. Productivity
2. Revenue vs. Expense Hours
3. Flat Rates
4. Hourly Rates