

**CAT<sup>®</sup> Equipment Technician**

Brensel

drop date

**TITLE**                    **MAG 5 - Service Fundamentals****CATALOG  
DESCRIPTION**

This course is an introduction to the Caterpillar customer service department. The course will explore the role of the equipment technician in the agricultural and construction equipment industry. Emphasis will be placed on computer and literature applications common to service departments. Topics to include reporting, parts order procedures, technical reference materials, tools and measurement, time management and warranty.

**UNITS & HOURS**3 Units  
Tuesday3 hours lecture per week  
6:00 to 8:50 p.m.**MATERIALS**

CAT three-ring binder and materials (RC Bookstore). Instructor prepared materials.

**ASSIGNMENT  
& GRADING**

This class is designed as an introduction to the Caterpillar customer service department. Classroom performance will constitute 60% of the student's grade. Homework assignments, tests and quizzes will determine the balance of the grade.

Point distribution: 90% = A, 8% = B, 70% = C, 60% = D, < = F

Class Participation	18 @ 10 points each	180
Log Book	36 @ 5 points each	180
Midterm		100
Final Exam		100
Class Assignment		240
Homework		<u>200</u>
	<b>Total =</b>	<b>1,000</b>

**UNIFORMS**

Uniforms are required at all class meetings after the third week.

**FINAL EXAM**

Tuesday, December 5, 1998; 6:00 p.m.

**GRADE POLICY**

See separate sheet.

## **COURSE OUTLINE**

- A. **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
  
- B. **Shop Safety Practices**
  - 1. Lifting and Blocking
  - 2. Shop Chemicals and Safety
  - 3. Shop Cleanliness
  
- C. **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
  
- D. **Mechanical Skills**
  - 1. Tools and Their Use
  - 2. Precision Measurement
  - 3. Torquing Tools
  - 4. Fasteners
  - 5. Fittings, Hose, Tubing
  
- E. **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
  
- F. **Time Management**
  - 1. Productivity
  - 2. Revenue vs. Expense Hours
  - 3. Flat Rates
  - 4. Hourly Rates