

\_\_\_\_\_ SOUTH SEATTLE COMMUNITY COLLEGE \_\_\_\_\_  
Technical Education Division

COURSE OUTLINE  
Revision: Doug Clapper-2008

DEPARTMENT:	Heavy Duty Diesel Technology
CURRICULUM:	Diesel and Heavy Equipment Technology
COURSE TITLE:	Basic Shop Practices
COURSE NUMBER:	HDM 211
TYPE OF COURSE:	Vocational Preparatory
COURSE LENGTH:	6 weeks
CREDIT HOURS:	10
LECTURE HOURS:	60
LAB HOURS:	90
CLASS SIZE:	20
PREREQUISITES:	Completion of all related units in the Diesel and Heavy Equipment Technician Program

COURSE DESCRIPTION:

Practical application of knowledge and skills to general H.D. shop practices, including routine repair and service work on a variety of H.D. trucks. and equipment.

STUDENT LEARNING OUTCOMES ADDRESSED:

1. Communication - Writing skills to accurately describe on the repair order the cause of the failure and the necessary repairs.
2. Critical Thinking and Problem Solving - Evaluate information from the repair order and isolation of the repair problem.

HDM 211 Basic Shop Practices  
July 16, 2002

STUDENT LEARNING OUTCOMES ADDRESSED: (cont.)

3. Information Literacy - Proper use of service and technical manuals to determine specifications and repair procedures.

GENERAL COURSE OBJECTIVES:

At the end of the course the student will:

1. Demonstrate knowledge of safety and environmental procedures consistent with trade standards while working in a shop.
2. Demonstrate the ability to properly complete and interpret the shop repair order.
3. Perform routine maintenance service work on trucks and heavy equipment.
4. Perform D.O.T. safety inspections
5. Demonstrate the proper use of material handling as well as tools and equipment standard to the industry.

TOPICAL OUTLINE:	APPROX. HOURS
I. Shop safety and operations	20
A. Personal safety	
B. Work are safety	
C. Hazardous Materials and disposal	
II. Preventive maintenance	50
A. Lubricants	
B. Coolants	
C. Scheduling	
III. Inspections	50
A. Maintenance	
B. D.OT.	
IV. Material handling	30
A. Cranes	
B. Chains and slings	
C. Safety	
Total	<u>150</u>

## Program Outcomes

1. Identify function, read diagrams and manufacturer specifications, inspect, diagnose problems, replace/repair, and service all major components of heavy duty equipment and vehicles. (SLO 1.1 & 7.2)
2. Using IVISDS sheets, OSHA and WISHA standards, demonstrate safety procedures relating to equipment, personal safety, and safety of others. (SLO 6.4)
3. Demonstrate proficiency in using hand and electronic testing and repair equipment. (SLO 6.3)
4. Consistently apply standards and guidelines for safe work procedures. (SLO 6.4 & 6.5)
5. Work independently and in groups to service, complete repairs, test, and maintain heavy duty vehicles to meet industry standards. (SLO 3.1)
6. Use industry tools to measure service. (SLO 2.2)
7. Use technology to test and repair equipment. (SLO 5.1)
8. Identify and strategize own career plans within the field. (SLO 6.2)
9. Practice good customer service. (SLO 3.2)
10. Work with accuracy, dependability, proficiency and speed when servicing equipment. (SLO 6.1)
11. Explain the expectations of employers for employees within the diesel industry. (SLO 7.1)
12. Communicate and document service records. (SLO 1.2)
13. Demonstrate basic competency in use of computers to access repair/replacement data and to document service. (SLO 5.1 & 7.1)

## Student Learning Outcomes (SLO)

STUDENT LEARNING OUTCOMES are the knowledge and abilities every student graduating with a certificate or degree from South Seattle Community College will

have. Students will achieve these outcomes as well as the specific curriculum outcomes for their academic or technical area of study.

### **1. Communication**

- 1.1 Read and listen actively to learn and communicate.
- 1.2 Speak and write effectively for personal, academic and career purposes.

### **2. Computation**

- 2.1 Use arithmetic and other basic mathematical operations as required by program of study.
- 2.2 Apply quantitative skills for personal, academic, and career purposes.
- 2.3 Identify, interpret and utilize higher level mathematical and cognitive skills (for those students who choose to move beyond the minimum requirements are stated above).

### **3. Human Relations**

- 3.1 Use social interactive skills to work in groups effectively.
- 3.2 Recognize the diversity of cultural influences and values.

### **4. Critical Thinking and Problem-Solving**

- 4.1 Think critically in evaluating information, solving problems and making decisions.

### **5. Technology**

- 5.1 Select and use appropriate technological tools for personal, academic and career tasks.

### **6. Personal Responsibility**

- 6.1 Be motivated and able to continue learning and adapt to change.
- 6.2 Value one's own skills, abilities, ideas and art.
- 6.3 Manage personal health and safety.
- 6.4 Be aware of civic and environmental issues.

### **7. Information Literacy**

- 7.1 Access and evaluate information from a variety of sources and contexts, including technology.
- 7.2 Use information to achieve personal, academic, and career goals, as well as to participate in a democratic society.

REVISED BY: Doug Clapper

DATE: February 2008