

**SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY**

**SAULT STE. MARIE, ONTARIO**



**SAULT  
COLLEGE**

**COURSE OUTLINE**

**COURSE TITLE:** Truck /Coach Vehicle Systems Maintenance

**CODE NO. :** MPF130 **SEMESTER:** 2

**PROGRAM:**

- Motive Power Technician - Advanced Repair (4044)
- Motive Power Fundamentals – Heavy Equipment and Truck Repair (5085)

**AUTHOR:** John Avery  
**INSTRUCTOR:** Josh Boucher

**DATE:** March 2014 **PREVIOUS OUTLINE DATED:** March 2013

**APPROVED:**

*“Corey Meunier”*  
**CHAIR** **DATE**

**TOTAL CREDITS:** 4

**PREREQUISITE(S):** Successful completion of Semester One Subjects

**HOURS/WEEK:** 2 Hours

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*For additional information, please contact Corey Meunier, Chair*  
*School of Technology & Skilled Trades*  
*(705) 759-2554, Ext. 2610*

**I. COURSE DESCRIPTION:**

Upon successful completion of this course, Heavy Duty Truck/Coach Vehicle Systems, the student will be able to identify and describe the various types of On-Road Equipment Truck, Tractors, and Trailer types and styles. Students will learn the procedures for servicing Truck and Coach Vehicle Systems for the purpose of routine maintenance, how to record and monitor service intervals of such vehicles and equipment by means of manual and electronic systems for a routine maintenance schedule. Students will perform engine oil changes, lubrication to chassis steering and suspension components and also perform fluid level checks for all driveline gear boxes and differential assemblies. Students will perform visual inspections of brake and brake adjustment systems and lighting systems. Students will also perform tasks such as cooling system testing, accessory drive belt tension tests, battery and battery cable connection service.

Students will be required to outline the proper safety procedures for performing the above tasks according to the both Sault College Motive Power Department as well as any vehicle Manufacturers safety regulations and specifications

**II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:**

Upon successful completion of this course, the student will demonstrate the ability to:

1. Properly raise and support as well as lower vehicles and equipment such as trucks, tractors and trailers for the purpose of performing lubrication and service of such equipment
2. Perform the applicable engine lube service and chassis lubrication service procedures to a variety of on road vehicles and equipment
3. Perform a proper visual inspection of the lighting systems of on road vehicles and equipment.
4. Perform a proper circle check and inspection of tires and visual inspection brake chamber stroke on a combination vehicle as well as a truck or tractor type vehicle according to Trucking Industry Standards.
5. Perform Cooling System testing and Service using the proper methods and coolant handling equipment according to Mfg Specifications and Safety Policies.

6. Visually inspect batteries for loose and corroded cables and connections and clean with proper battery cleaning compounds and tools designed to safely do the job.
7. Perform battery load test with the either a carbon pile load tester or a electronic battery tester to confirm that the batteries are within the proper specifications for service.

### **III. TOPICS:**

1. Safe Jacking and Lifting Procedures for Heavy Truck Vehicles and Equipment.
2. Medium and Heavy Truck lubrication and Cooling Systems.
3. Hydraulic and Air Brake System Operation Overview
4. Trucks, Tractors and Combination Vehicle Descriptions
5. Highway Vehicle Circle Check Requirements.
6. Maintenance Schedule Intervals and Record Keeping Methods
7. Heavy truck batteries and service procedures.

### **IV. REQUIRED RESOURCES/TEXTS/MATERIALS:**

Automotive Technology – Text & Workbook

Pens, pencils, calculator, 3-ring binder

\*shop coat or coveralls

\*CSA approved steel toe boots (high top)

\*CSA approved safety glasses

\*these items mandatory for shop

**V. EVALUATION PROCESS/GRADING SYSTEM:**

The final grade for this course will be based on the results of classroom, assignments and shop evaluations weighed as indicated:

Classroom – 60% of the final grade is comprised of term tests and performance of practical shop tasks

Assignments – 10% of the final grade is comprised of a number of technical reports

Shop – 30% of the final grade is comprised of attendance, punctuality, preparedness, student ability, work organization and general attitude

**(Student will be given notice of test and assignment dates in advance)**

The following semester grades will be assigned to students:

<b>Grade</b>	<b><u>Definition</u></b>	<i>Grade Point Equivalent</i>
A+	90 – 100%	4.00
A	80 – 89%	3.00
B	70 - 79%	2.00
C	60 - 69%	1.00
D	50 – 59%	0.00
F (Fail)	49% and below	
CR (Credit)	Credit for diploma requirements has been awarded.	
S	Satisfactory achievement in field /clinical placement or non-graded subject area.	
U	Unsatisfactory achievement in field/clinical placement or non-graded subject area.	
X	A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course.	
NR	Grade not reported to Registrar's office.	
W	Student has withdrawn from the course without academic penalty.	

**VI. SPECIAL NOTES:**Attendance:

Sault College is committed to student success. There is a direct correlation between academic performance and class attendance; therefore, for the benefit of all its constituents, all students are encouraged to attend all of their scheduled learning and evaluation sessions. This implies arriving on time and remaining for the duration of the scheduled session.

**VII. COURSE OUTLINE ADDENDUM:**

The provisions contained in the addendum located on the portal form part of this course outline.