

**SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY**

**SAULT STE. MARIE, ONTARIO**



**SAULT  
COLLEGE**

**COURSE OUTLINE**

**COURSE TITLE:** Braking Systems

**CODE NO. :** MSE170 and MSE621      **SEMESTER:** ONE

**PROGRAM:** Motive Power Fundamentals – Small Engine Repair (5084)  
Small Engine Mechanic – Level 1 Apprenticeship (6090)

**AUTHOR:** Gord Strachan

**DATE:** October 2013      **PREVIOUS OUTLINE DATED:** October 2012

**APPROVED:**

*“Corey Meunier”*

**CHAIR**      **DATE**

**TOTAL CREDITS:** ONE

**PREREQUISITE(S):**

**HOURS/WEEK:**

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

**I. COURSE DESCRIPTION:**

Upon successful completion of the reportable subject the student is able to test and recommend repairs for mechanical braking systems in accordance with government safety regulations, manufacturers' recommendations and specifications and approved industry standards.

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

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

**1. *Explain Mechanical Braking System Fundamentals*****Potential Elements of the Performance:**

- Define the essential basic information and fundamental of mechanical braking systems.
- Describe the basic construction features and applications of mechanical braking systems.
- Explain the operating principles of mechanical braking systems.

**2. *Perform Mechanical Braking System Maintenance Procedures*****Potential Elements of the Performance:**

- Perform dismantling procedures for mechanical brake systems and components.
- Perform inspection and testing procedures for mechanical braking systems and components.
- Perform maintenance and assembly procedures for mechanical braking systems and components.

**III. TOPICS:**

1. Mechanical Braking System Fundamentals
2. Mechanical Braking System Applications

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

**Title:** Understanding the Outboard Motor

**Edition:** 3rd

**Author:** Stagner

**Publisher:** Pearson Education

**Title:** Boat-owner's Mechanical and Electrical Manual

**Edition:** 3rd

**Author:** Calder

**Publisher:** McGraw Hill

**Title:** Small Gas Engines

**Edition:** 10<sup>th</sup>

**Author:** Roth

**Publisher:** Goodheart-Willcox

**Title:** Small Gas Engines (workbook)

**Edition:** 10th

**Author:** Roth

**Publisher:** Goodheart-Willcox

**CSA Certified 6 inch Leather Safety Boots  
CSA Certified & Impact Resistant Safety Glasses  
Coveralls (non-flammable material - i.e. cotton)  
Shop Coat (optional)**

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

Theory	25%
Application Experience	45%
Final Assessment	30%

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.

Attendance is mandatory except with a valid excuse. If late you will be marked absent for the whole hour. For every unexcused absence you will be deducted 1% per class period. Previous notification or a call the day of absence is required for excusal.

If you miss a test with an unexcused absence you will not be allowed to write that test.

If a class is missed or going to be missed it is your responsibility to notify your instructor and make arrangements for handouts and notes taken while you were away.

CSA approved safety glasses and safety boots must be worn in the shop at all times. Please have safety boots and safety glasses available because you may not have a lot of warning when going into the shop.

**CELL PHONES OR PAGERS MUST BE TURNED OFF IN ANY CLASS.**

## VII. COURSE OUTLINE ADDENDUM:

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