

**SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY**

**SAULT STE. MARIE, ONTARIO**



**SAULT  
COLLEGE**

**COURSE OUTLINE**

**COURSE TITLE:** Heating Inspection I

**CODE NO. :** HIC101/OEL577                      **SEMESTER:** W11

**PROGRAM:** Home Inspection Certificate

**AUTHOR:** Laurie Poirier

**DATE:** Fall 2010              **PREVIOUS OUTLINE DATED:** N/A

**APPROVED:** "Laurie Poirier"                      Fall 2010

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	<b>CHAIR</b>	<b>DATE</b>
<b>TOTAL CREDITS:</b> 3		
<b>PREREQUISITE(S):</b> n/a		
<b>HOURS/WEEK:</b> 45 hour course		

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*For additional information, please contact Laurie Poirier, Chair*  
*School of Continuing Education*  
*(705) 759-2554, Ext. 2665*

**I. COURSE DESCRIPTION:**

This subject covers installed heating systems (gas and oil furnaces and hot water boilers). Emphasis is on the inspector's ability to identify the energy source, type, material, condition, and safety concerns, as well as inspecting the heating equipment.

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

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

1. Knowledge of foundations of heating.  
Students will learn the different ways to heat and the inspection standards of practice needed on a report.
2. Knowledge of gas meters.  
Students will be introduced to gas meters, piping, combustion air and the importance of Carbon Monoxide poisoning.
3. Knowledge of gas burners.  
The introduction of gas burners, heat shields, heat exchangers and what to look for in defect recognition.
4. Using proper settings.  
Proper settings for fan control, thermostats and required air volume calculations
5. Knowledge of safety precautions.  
Safety precautions for inspection of vent connectors, clearance requirements, proper installation, proper height of chimneys and requirements for safety according to standards.
6. Knowledge of humidifier problems, filter problems, health issues of improper care.  
The installation issues with hot water boilers, hot water tanks, hydronic systems and problems associated with design flaws, installation problems and proper standards of practice for Inspection reporting. The introduction to oil tanks and Installation.

**III. TOPICS:**

1. Introduction to heating and the different kinds available along with the standards for inspection.
2. Introduction to Gas meters, piping and detection of carbon monoxide and how it relates to safety issues of proper burning.
3. Gas burners and the ways to check for proper operation when ignition occurs.
4. Safety issues involved in proper clearance for vent connection, chimneys and side wall venting.

5. Oil heating and inspection of the components, tanks and proper care.
6. Hot water systems and detection of problems in installation. Hydronic design problems and associated new techniques applied to prevent damage.

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

Heating Inspection – Carson Dunlop and Associates

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

- Quizzes are worth 20% of your final mark
  - Each individual Quiz is worth 5%.
  - There are four quizzes.
  - We will delete the lowest scoring of the four quizzes from your grade.
- The midterm test is worth 25% of your final mark
- Field exercise/assignments are worth 15% of your mark
- The final test is worth 40% of the final mark

The following semester grades will be assigned to students:

<b>Grade</b>	<b><u>Definition</u></b>	<b><i>Grade Point Equivalent</i></b>
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.