## SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

# **SAULT STE. MARIE, ONTARIO**



### **COURSE OUTLINE**

COURSE TITLE: Roofing Inspection

CODE NO.: HIC108/OEL736 SEMESTER: W11

PROGRAM: Home Inspection Certificate

**AUTHOR:** Laurie Poirier

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

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

CHAIR DATE

TOTAL CREDITS: 3

PREREQUISITE(S): HIC101 or OEL577 - Heating Inspection I

**HOURS/WEEK:** 45 Hour Course

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#### I. COURSE DESCRIPTION:

The emphasis in this subject is on typical defects of the various types of roof coverings, drainage systems, flashings, skylights, chimneys, and other roof penetrations. Students apply their knowledge of roofing to inspections that focus on system performance, safety concerns, and compliance with existing codes and standards.

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

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

1. Indentify all roofing surfaces and problems with styles

Recognize Composite Asphalt shingles
Wood Shingles and problems related to installation
Wood Shakes and identification
Architectural styles and new designs
Metal panel and identification with styles
Cement tile and safety issues
Clay tile and inspection of areas
Asbestos identification and proper reporting
Plastic composite and problems associated with installation.
Rubber, PVC EPDM and recognizing installation

## 2. Safety in ladder use and approach

Types of ladders
Proper carrying procedures
Proper set up
Danger areas to avoid
Fall protection
Placement
Responsibility of Home Inspector
Care of ladders and inspection

#### 3. Identify all roof materials and basic installation

Different styles
Material in installation
Product lines
Proper control of moisture
Ridge vents
Soffit venting

Turbines
Gable end vents
Membrane

## 4. Name all components of roofing and terms

Fascia

Gutters

Downspouts

Sheathing

Dental detail

Eaves

Ridge

Head lap

Making babies

Starter strip

Offset installation

Standing seam

**Purlins** 

## 5. Understand the importance of proper flashing and moisture control

Installation of flashing

Chimney inspection for proper flashing

Electrical mast flashing

Plumbing vent stack flashing

Valley flashing

Drip edge flashing

Proper underlay for moisture control

Proper ice shield for protection

Importance of proper slope of roof

Importance of flow of water off the roof surface

Importance of inspection on flat or low roofs

New inspection techniques

## 6. Due mock inspection of roofing using current standards of practice

Understand what to inspect

Understand what not to inspect

Understand responsibility

Clearly right up the report

Indentify what minimum requirements needed on the report

Report format according to standards of practice

#### III. TOPICS:

### 1. Standards of practice and associations involved

Proper spelling and care

Forms and computer programs

Format layout

Details needed in the report

Most up to date knowledge in Home Inspection industry

## 2. Roofing materials and guidelines

Proper identification

Proper installation requirements

Guidelines fallowed by roofing associations

Shingle life expectancy

### 3. Flashing details

Style of flashing

Materials involved in flashing

Proper inspection requirements

Indentifying defects in installation

Locations required for flashing

Areas of possible leakage

Proper placement of fasteners

# 4. <u>Drainage and proper installation</u>

Styles of gutters

Identification of materials

Importance of installation

Proper fastening to roofing

Current materials for protection from clogs

#### 5. Safety

Ladders

Falls

Electrical shock avoidance

Identification of a soft roof

Damaged sheathing

Improper support

Vermin and insect danger

## 6. Mock inspection

Different styles of reports

What to report

What not to report on

## Proper procedures

## IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

Roofing Inspection – Carson Dunlop and Associates

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

- Quizzes are worth 20% of your final mark
  - o 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:

Grade	<u>Definition</u>	Grade Point Equivalent
A+ A	90 – 100% 80 – 89%	4.00
В	70 - 79%	3.00
С	60 - 69%	2.00
D	50 – 59%	1.00
F (Fail)	49% and below	0.00
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.	
Χ	A temporary grade limited to situations	
	with extenuating circumstances giving a	
	student additional time to complete the	
NR	requirements for a course.  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.