SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY SAULT STE. MARIE, ONTARIO



COURSE OUTLINE

COURSE TITLE: Home Inspection III

CODE NO.: HMI 211 SEMESTER: FOUR

PROGRAM: Home Inspection

AUTHOR: Jack Davidson

DATE: January PREVIOUS OUTLINE January

2015 **DATED**: 2014 **APPROVED**:

"Corey Meunier"

TOTAL CREDITS: THREE

PREREQUISITE(S): HMI112 and HMI205 (Home Inspection I and II)

HOURS/WEEK: THREE

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I. COURSE DESCRIPTION:

Students will build on the defect recognition skills developed in Home Inspection II and use these skills to complete comprehensive practical exercises. Case studies will be used to enhance learning.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

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

1. Apply knowledge of residential home construction, related trades and building codes to recognizing deficiencies within readily accessible components of the following systems:

1.1 Electrical System

Potential Elements of the Performance:

• Inspect:

- 1. service drop
- 2. service entrance conductors, cables, and raceways
- 3. service equipment and main disconnects
- 4. service grounding
- 5. interior components of service panels and sub panels
- 6. conductors
- 7. over current protection devices
- 8. a *representative number* of *installed* lighting fixtures, switches, and receptacles
- 9. ground fault circuit interrupters (if appropriate)

• Describe:

- 1. amperage and voltage rating of the service
- 2. location of main disconnect(s) and sub panels
- 3. wiring methods

• Report:

- 1. on the absence of smoke detectors
- 2. on the absence of carbon monoxide detectors (if applicable)
- 3. on the presence of arc fault circuit interrupters

1.2 Heating System

Potential Elements of the Performance:

• Inspect:

- 1. visually accessible components of installed heating equipment
- 2. vent systems, flues, and chimneys
- 3. fuel storage and fuel distribution systems

• Describe:

- 1. energy source(s)
- 2. heating method(s) by distinguishing characteristics
- 3. chimney(s) and/or venting material(s)
- Report combustion air sources/make up air and exhaust venting methods.

1.3 Air Conditioning System

Potential Elements of the Performance:

- *Inspect* the permanently *installed* central air conditioning equipment.
- Describe:
 - 1. the energy source
 - 2. the cooling method by its distinguishing characteristics

1.4 Interior

Potential Elements of the Performance:

- Inspect:
 - 1. walls, ceilings, and floors
 - 2. steps, stairways, and railings
 - 3. countertops and *installed* cabinets
 - 4. a representative number of doors and windows
 - 5. walls, doors and ceilings separating the habitable spaces and the garage

1.5 Mechanical and natural ventilation

Potential Elements of the Performance:

- Inspect:
 - 1. ventilation of attics and foundation areas
 - 2. mechanical ventilation systems
 - 3. ventilation systems in rooms where moisture is generated such as kitchen, bathrooms, laundry rooms
- Describe:
 - 1. ventilation of attics and foundation areas
 - 2. mechanical ventilation systems
 - 3. ventilation systems in rooms where moisture is generated such as kitchen, bathrooms, laundry rooms
- 2. Review and examine a variety of case studies to refine defect recognition knowledge and skills, and reporting techniques.

Potential Elements of the Performance:

- A review of instructor selected case studies
- 3. Complete a home inspection portfolio (ongoing)

III. TOPICS:

- 1. Electrical system inspection.
- 2. Heating system inspection.
- 3. Air conditioning system inspection.
- 4. Interior inspection.
- 5. Mechanical and natural ventilation inspection.
- 6. Case studies
- 7. Portfolio

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

- The Complete Book of Home Inspection, 4th Edition, Norman Becker, McGraw-Hill 2011
- Inspecting a House, Rex Cauldwell, Taunton Press 2001
 (all the above to be available through the college bookstore in late fall)
- Laptop computer and storage device / CD / DVD, HMI205 portfolio, camera
- Process of inspection and list of deficiencies to be distributed by instructor.

V. EVALUATION PROCESS/GRADING SYSTEM:

Quizzes and tests - 30 %
Labs / practical assignments - 40 %
Portfolio / DVD - 20 %
Attendance - 10 %

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.	

NR

W

X A temporary grade limited to situations with extenuating circumstances giving a

student additional time to complete the requirements for a course.

Grade not reported to Registrar's office.

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.

HMI211 Home Inspection III – Course Plan

Week	Outcomes	Format	Hrs	Topic / Content	Readings	Assignments	Assessment	Resources
1	Review	Lecture	3	Topic: Introduction	Standards of		Weekly progress	CAHPI / OAHI / ASHI
				History of home inspection /	Practice and		and review of	Standards of Practice
				Standards of practice	text pages as		questions /quiz	
				Description: Review and	assigned by		/ assignments	OAHI DVD of defect
				discussion of standards / report	instructor			recognition
				writing process / review of				
				safety		Assignment	Submitted work	Complete Book of Home
				Application: CAHPI (OAHI)	DVD/ defect	preparation	review	Inspection – N. Becker
				Standards of Practice	recognition /	for quiz next		
					case studies	week /		Inspecting a House - R.
						readings		Cauldwell
2-3-4	1.6, 2, 3	Review	1.5	Review assignment / quiz at	Standards of		Weekly progress	As above and camera
				beginning of each following	Practice and		and review of	
				class / review / discussion of	text pages as		questions /quiz	
				answers	assigned by		/ assignments	
		Lecture	5.5	Topic: Electrical Systems	instructor	Field		
				<u>Description</u> : inspection		assignment		
				methodology / identify /		for next class –	Submitted work	
				describe / report deficiencies/		photos of	review	
				report writing process	2012115	electrical		
				Application: case studies /	DVD/ defect	system / write		
				report writing exercises photos	recognition /	up report		
				/ group discussion / review/	case studies			
				field trips to shop				
		Lab	2	i.e. review material / products			Camanlatian	
				in shop		Assignment	Completion of	
				i.e. speaker – ESA inspector		preparation	electrical	
				/related building materials /		for quiz next	system report	
				discuss / performance		week /		

						readings		
	T	1	1		T	T	l	<u> </u>
5-6	1.7, 2, 3	Review	1	Review assignment / quiz	Standards of		Weekly progress	As above and camera
				at beginning of each following	Practice and		and review of	
				class / review / discussion of	text pages as		questions /quiz	
				answers	assigned by		/ assignments	
		Lecture	4	Topic: Heating Systems	instructor			
				<u>Description</u> : inspection		Field	Submitted work	
				methodology / identify /		assignment	review	
				describe / report deficiencies/		for next class –		
				report writing process	DVD/ defect	photos of		
				Application: case studies /	recognition /	heating		
				report writing exercises photos	case studies	system / write		
				/ group discussion / review/		up report		
				field trips to shop				
		Lab	1	i.e. review material / products		Assignment		
				in shop		preparation	Completion of	
				i.e. speaker – HVAC contractor		for quiz next	heating system	
				/ equipment / discuss /		week	report	
				performance				
7 - 8	1.8, 2, 3	Review	1	Review assignment / quiz at	Standards of		Weekly progress	As above and camera
				beginning of each following	Practice and		and review of	
				class / review / discussion of	text pages as		questions /quiz	
				answers	assigned by		/ assignments	
		Lecture	4	Topic: Air Conditioning /	instructor	Field		
				Cooling / Heat pump Systems		assignment	Submitted work	
				<u>Description</u> : inspection		for next class –	review	
				methodology / identify /		photos of AC		
				describe / report deficiencies/		system / write		
				report writing process		up report		
				Application: case studies /	DVD/ defect			
				report writing exercises photos	recognition /			
				/ group discussion / review/	case studies			

				field trips to shop				
				i.e. review material / products		Assignment	Completion of	
		Lab	1	in shop		preparation	AC system	
				i.e. speaker – HVAC contractor		for quiz next	report	
				/ equipment / discuss /		week /	•	
				performance		readings		
9-10	1.10, 2, 3	Review	1	Review assignment / quiz at	Standards of		Weekly progress	As above and camera
				beginning of each following	Practice and		and review of	
				class / review / discussion of	text pages as		questions /quiz	
				answers	assigned by		/ assignments	
		Lecture	4	Topic: Mechanical and Natural	instructor	Field		
				Ventilation Systems		assignment	Submitted work	
				<u>Description</u> : inspection		for next class –	review	
				methodology / identify /		photos of		
				describe / report deficiencies/		ventilation		
				report writing process		system / write		
				Application: case studies /	DVD/ defect	up report		
				report writing exercises photos	recognition /			
				/ group discussion / review/	case studies			
				field trips to shop				
				i.e. view material / products in		Assignment	Completion of	
		Lab	1	shop		preparation	ventilation	
				i.e. speaker – HVAC contractor		for quiz next	system report	
				/ equipment / discuss /		week /		
				performance		readings		
11-12	1.9, 2, 3	Review	1	Review assignment/quiz at	Standards of		Weekly progress	As above and camera
				beginning of each following	Practice and		and review of	
				class / review / discussion of	text pages as		questions /quiz	
				answers	assigned by		/ assignments	
		Lecture	4	Topic: Interior Systems	instructor	Field		
				<u>Description</u> : inspection		assignment	Submitted work	
				methodology / identify /		for next class –	review	
				describe / report deficiencies/		photos of		

				report writing process <u>Application</u> : case studies /	DVD/ defect	interior system / write		
				report writing exercises photos	recognition /	up report		
				/ group discussion / review/ field trips to shop	case studies			
		Lab	1	i.e. view material / products in				
		Lab		shop		Preparation	Completion of	
				i.e. speaker – related building		for next	interior system	
				materials / discuss /		week's field	report	
				performance		trip(s) - 2		
				test and review				
13	1, 2, 3	Lab		Topic: Field inspection of	Standards of	Field	Weekly progress	As above and camera
		Group	2	house	Practice and	assignment	and review of	
		#1		<u>Description</u> : inspection	text pages as	for next class –	final project /	
				methodology / identify /	assigned by	complete and	assignments	
		Lab	2	describe / report deficiencies/	instructor	compile		
		Group		report writing process		photos of all		
		# 2		Application: practical		systems /	Submitted work	
				application / photos / group	DVD/ defect	write up final	review	
				discussion	recognition /	report		
					case studies			
14-15	1, 2, 3	Lecture	3	Topic: Practical application of	Standards of	Test Week 15	Weekly progress	As above and camera
				field home inspection	Practice and		review of	
				<u>Description</u> : inspection	text pages as		questions /quiz	
				methodology / identify /	assigned by		/ assignments	
				describe / report deficiencies/ report writing process	instructor			
		Lab	3	Application: practical	DVD/ defect	Final	Submitted work	
		Lau	3	application / photos / group	recognition /	assignment to	review	
				preparation and submission of	case studies	be submitted	ICVIEW	
				final home inspection report	case studies	Se submitted		
				Final assignment to be				
				submitted				

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16	1, 2, 3	Lecture	3	Review / take up final test	Review and	
				Presentation , sharing and	presentations	
				discussion of final projects		