SAULT COLLEGE

HMI201 Plumbing II – Course Plan

Week	Outcomes	Format	Hrs.	Topic/Content	Readings	Assignments	Assessment	Resources
1	1, 2, 3, 4, 5	Lecture	3	***Review Plumbing I*** (**HMI113**)	Handouts, Plumbing Manual I	Handouts	Quiz	**HMI113** notes, instructor's handouts and calculators
2	6, 9	Lecture	1	***Review Ontario Building Code (OBC) Sec. 9*** Identify Type and fitting materials and hangars	OBC section 9		Quiz	Plumbing manuals I and II for all weeks Building code book
		Lab	2	Explain / Demonstrate Floor joists, wall studs, floor and roof trusses, top and bottom plates Where floor joists may be drilled Backing plates / protection plates Electrolysis / corrosion factors Temporary, permanent, waterproof etc. (ICF forms)				
3	4, 6, 9,	Lecture	2	***Drainage terms and definitions***	Handout	Handout	Quiz	
				Identify Code for common drainage terms and definitions Use of OBC that contains drainage terms Common drainage terms / definitions: include backflow preventers, air breaks / gaps, indirect waste, etc.				
		Lab	1	Apply Create a basic drainage plan			Drainage drawings	AutoCAD

4	3, 4, 5, 6	Lecture	1	***Sanitary systems and storm sewers***	Handout	Handout	Drainage drawings	AutoCAD
				<u>Explain</u> Terms used for sanitary and storm sewers Combined and semi-combined drain systems and why combined drainage systems have been prohibited				
				<u>Identify</u> Components of a running hand hold trap Three drain designs, common drains				
		Lab	2	<u>Apply</u> Begin project – simulate drain systems i.e. 'pipe up' a rough in drainage system; test			Project - Lab assignment	
5		Lecture	3	***Review / Test #1***			Test #1	
6	6, 9	Lecture	1	***Ejectors and sumps***	Handout	Handout	Questions handout	Water alarm, various sizes of ejector and storm pipes used
				<u>Identify</u> Sewage ejector and storm sump Installation requirements Requirements of equipment selection				
				<u>Explain</u> Positions of a union, check, shut off valve Where a sump discharge may be connected				
		Lab	2	<u>Apply - Demonstration</u> How an ejector discharge pipe may be connected Requirements of a sewage ejector vent Ejector pit and pump Storm water pit and pump				

7	1, 2, 3, 4, 5,6,	Lecture	1	***Venting systems***	Handout	Handout		
				Explain Branch, wet, vent, circuit, yoke and offset relief vents				
		Lab	2	Apply Simulate branch, wet vents, dual and back vents continuous (i.e. 'pipe up')			Continue lab project (see week 4)	Vent piping, cutters and pipe joints
8	1, 2, 3, 4, 5, 7	Lecture	1	***Water distribution systems and sizing***	Handout	Handout		Piping, connectors, valves
				Describe Different ways a valve controls flow Four principal valve types Purpose of a valve Explain Sizing a system				
		Lab	2	Apply Sizing a system			Observation	
9				***Review / Test #2***			Test #2	
10, 11, 12	1, 2, 3, 4, 5, 7, 8	Lecture	3	***Plumbing fixtures, appliances and equipment and installations (3)*** Identify Water closets, urinals, bidets, bathtubs, showers, lavatories, sinks	Handout	Handout	Assessment of installation, quiz	Water closets, urinals, bidets, bathtubs, showers, lavatories and sinks
				Describe typical problems / deficiencies				
	3, 6, 8	Lab	6	Apply Fixture installations (3 labs) with tests: Water closet, basin, bathtub			Practical assignments (major)	

13	6, 7, 8, 9	Lecture	1	***Codes and testing requirements***	Handout	Handout	Quiz	
				<u>Explain</u> Purpose of testing plumbing systems How a water test may be applied Purpose of an installation of a test fitting				
				<u>Identify</u> Related sections - part 7 of Code book The various types of testing Tools and equipment required to perform a water test				
		Lab	2	<u>Perform</u> A water test in the lab			Water test assessed	Completed projects (Pipe connections)
14	4	Lecture	2	***Trade calculations***	Handout	Handout	Calculations handed in	Calculator Plumbing manual I (section 3)
				<u>Explain</u> Area calculations, units of measure Formulas to calculate square and rectangles, circles and triangles Area of a square, rectangle, circle, trapezoid and triangle both in Imperial and SI units				
				Read and interpret job specifications	Handout	Handout	Hand in	Various drawings
				<u>Explain</u> Purpose of specifications Numbering system used in construction				
				<u>Identify</u> Appropriate sections of specifications Specifications relating to the plumbing system installation				
		Lab	1	<u>Apply</u> Research specifications to read and interpret the job				

15				***Review / Test #3***			Test # 3	
16				***Final Review 3***				