HMI 210 Residential Construction III – Course Plan

Week	Outcomes	Format	Hours	Topic/Content	Readings	Assignments	Assessment	Resources
1,2	1,2	Lecture	2	***Interior wall and ceiling finishing*** <u>Describe</u> Wallboard cutting, nailing and adhesive techniques Characteristics of gypsum plaster, plastering methods Methods for levelling and installing suspended ceilings	Chap. 16, pp. 531-567	Workbook chap. 16, pp. 99-105	p. 569 quiz ques. #1-20	Handouts, calculators, green tag safety boots, safety glasses. Text book ***Modern Carpentry,*** along with accompanying work book.
		Lab	6	<u>Apply</u> Wall and ceiling covering materials Procedure for installing wood panelling Apply plastering methods Gypsum and metal lathe Layout ceiling tile and furring strips			Practical activities	***Construction materials as arranged by instructor***: drywall, mud, cement board
3,4	1,2	Lecture	2	***Finish flooring*** <u>Describe</u> Strip, plank and unit block wood flooring Procedure for hardboard, particle and wafer board, plywood underlayment	Chap. 17, pp. 571-594	Workbook chap. 17, pp. 107-111	p. 595 quiz ques. #1-15	As above and various flooring samples, underlays and adhesives
		Lab	6	<u>Apply</u> Layout and install strip flooring			Practical activities	

5	1,3	Lecture Lab	1 3	***Doors and interior trim*** <u>Explain</u> The difference between panel and flush-type doors Steps for hanging the door <u>Identify</u> How door frames and casings are installed Name lock parts and describe typical installation procedures Pocket and bypass types of sliding doors The order in which window members should be applied <u>Apply</u> Cut, fit and nail baseboard trim, window trim and interior door jambs	Chap. 19, pp. 619-644	Workbook chap. 19, pp. 119-125	p. 645 quiz, ques. # 1-20 Practical activities	As above and mouldings, door frames, casings, hinges and door knobs
6,7	1,4	Lecture Lab	2 6	***Cabinetry*** <u>Describe</u> Types of cabinetry Selecting prefab cabinetry Common alternative procedures for building cabinets on the job Three types of drawer guides Material choices for cabinet shelves and doors How to install a plastic laminate surface <u>Apply</u> Install prefabricated base and wall cabinets Layout and frame a cabinet from drawings Install plastic laminate to a surface Build and install a cabinet drawer, face frame and sliding doors	Chap. 20, pp. 647-674	Workbook chap. 20, pp. 127-133	p. 674 quiz, ques. # 1-15 Practical activities	As above and various types of wood, laminated plywood

8	1,2	Lecture Lab	1 3	***Painting, finishing and decorating*** <u>Identify</u> Safety rules applying to painting and finishing Proper tools for painting and finish decorating <u>Perform</u> Proper procedures for painting, finishing and wallpaper hanging Prepare surfaces for painting <u>Apply</u> Trade related math to estimate paint coverage Proper cleaning and storing of equipment Primer coat and finish coat	Chap. 21, pp. 677-702	Workbook chap. 21, pp. 135-137	p. 702 Test ques. # 1-20 Practical activities	As above and patching material, sanding tools, paint, brushes and caulking
9	1,4	Lecture Lab	1 3	***Chimneys and fireplaces*** <u>Explain</u> How masonry chimneys are constructed around a flue lining Procedures for construction of a chimney, hearth, walls and throat Common types of factory built fireplaces <u>Identify</u> Parts of a typical masonry fireplace Considerations for installing factory-built fireplace units <u>Apply</u> Calculate the flue area of a given fireplace Install a prefabricated flue	Chap. 22, pp. 705-719	Workbook chap. 22, pp. 139-143	p. 720 quiz, ques. # 1-10 Practical activities	As above and masonry tools, mortar, flue pipe. Certified fireplace and wood stove inspector

10	1,6	Lecture Lab	1 3	***Post-and- beam construction*** <u>Describe</u> Advantages and disadvantages of post-and-beam construction Specifications for supporting posts How roof and floor planks should be selected and installed <u>Explain</u> Traverse and longitudinal beams <u>Perform</u> Sketch basic construction details of stressed skin panels and box beams <u>Identify</u> Nailing and bolting patterns	Chap. 23, pp. 721-738	Workbook chap. 23, pp. 145-149	p. 738 Test, ques. # 1-10 Practical activities	As above and engineered and laminated materials
11	1,7	Lecture Lab	1 3	***Systems-built housing*** <u>Describe</u> Technology of systems-built housing <u>Identify</u> Variety of factory built components that are utilized in a systems-built home Differentiate between the basic types and systems-built structures Terms used in the systems-built housing industry Method of moving systems-built housing <u>Apply</u> Systems-built plans Explain erection sequence of a panelized home	Chap. 24, pp. 741-755	Workbook chap. 24, pp. 151-153	p. 756 Test, ques. # 1-10 Practical activities	As above and various types of systems, hangers, bolts and nailing

12	1,8	Lecture Lab	1 3	***Passive solar construction*** <u>Describe</u> The difference between passive and active solar construction A solar retrofit on an older home <u>Define</u> Conduction, convection, radiation and thermal siphoning <u>Apply</u> Calculate the amount of glazing and storage needed for a passive solar system Locate a dwelling for maximum solar gain Design and install various passive solar systems	Chap. 25 pp. 757-774 and chap.26 pp. 797-798	Workbook chap. 25, pp. 155-158	p. 775 Test, ques. # 1-10 Practical activities	As above and a selection of passive solar drawings
13	1,9	Lecture Lab	1 3	***Remodelling, renovating and repairing*** <u>Identify</u> Different types of residential construction by visual inspection Bearing walls Accepted methods in replacing all types of doors <u>Describe</u> Proper sequence of renovations or repair Repair and replace deteriorated components and systems How to remove parts of a structure without damaging the total structure Determine loads and calculate the correct header size for a span <u>Apply</u> Install and support headers, concealed headers and saddle beams Make repairs to wood and asphalt shingles	Chap. 26 pp. 777-801	Workbook chap. 26, pp. 159-162	p. 801 Test, ques. # 1-15 Practical activities	As above and various demolition tools both hand and light power tools

14	1,10	Lecture Lab	1 3	***Building decks and porches*** <u>Identify</u> Different types of decks and porches Advantages and disadvantages of different structural and decking materials Differences between deck and porch construction <u>Apply</u> Select and install the appropriate types of fasteners for deck construction Prepare a site, layout and construct a deck	Chap. 27 pp. 803-819	Workbook chap. 27, pp. 163-164	p. 819 Test, ques. # 1-10 Practical activities	As above and various decking materials and fasteners used for decks and porches including composites
15	1,2,3,4, 5,6,7,8, 9,10	Lecture / lab	4	***Building project completion*** Complete term project work and all practical activities			Practical activities ***Final test***	
16	1,2,3,4, 5,6,7,8, 9,10	Lecture	4	***Review***; take up and discuss final test / assignments / practical activities / sharing and feedback				