** HMI 210 Residential Construction III – Course Plan**

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| Week | Outcomes | Format | Hours | Topic/Content | Readings | Assignments | Assessment | Resources |
| 1,2 | 1,2 | Lecture  Lab | 2  6 | ***Interior wall and ceiling finishing***  Describe  Wallboard cutting, nailing and adhesive techniques  Characteristics of gypsum plaster, plastering methods  Methods for levelling and installing suspended ceilings  Apply  Wall and ceiling covering materials  Procedure for installing wood panelling  Apply plastering methods  Gypsum and metal lathe  Layout ceiling tile and furring strips | Chap. 16,  pp. 531-567 | Workbook chap. 16, pp. 99-105 | p. 569 quiz ques. #1-20  Practical activities | Handouts, calculators, green tag safety boots, safety glasses. Text book ***Modern Carpentry,*** along with accompanying work book.  ***Construction materials as arranged by instructor***: drywall, mud, cement board |
| 3,4 | 1,2 | Lecture  Lab | 2  6 | ***Finish flooring***  Describe  Strip, plank and unit block wood flooring  Procedure for hardboard, particle and wafer board, plywood underlayment  Apply  Layout and install strip flooring | Chap. 17,  pp. 571-594 | Workbook chap. 17,  pp. 107-111 | p. 595 quiz ques. #1-15  Practical activities | As above and various flooring samples, underlays and adhesives |
| 5 | 1,3 | Lecture  Lab | 1  3 | ***Doors and interior trim***  Explain  The difference between panel and flush-type doors  Steps for hanging the door  Identify  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  Apply  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***  Describe  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  Apply  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***  Identify  Safety rules applying to painting and finishing  Proper tools for painting and finish decorating  Perform  Proper procedures for painting, finishing and wallpaper hanging  Prepare surfaces for painting  Apply  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***  Explain  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  Identify  Parts of a typical masonry fireplace  Considerations for installing factory-built fireplace units  Apply  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***  Describe  Advantages and disadvantages of post-and-beam construction  Specifications for supporting posts  How roof and floor planks should be selected and installed  Explain  Traverse and longitudinal beams  Perform  Sketch basic construction details of stressed skin panels and box beams  Identify  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***  Describe  Technology of systems-built housing  Identify  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  Apply  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***  Describe  The difference between passive and active solar construction  A solar retrofit on an older home  Define  Conduction, convection, radiation and thermal siphoning  Apply  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***  Identify  Different types of residential construction by visual inspection  Bearing walls  Accepted methods in replacing all types of doors  Describe  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  Apply  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***  Identify  Different types of decks and porches  Advantages and disadvantages of different structural and decking materials  Differences between deck and porch construction  Apply  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 |  |  |  |  |