** HMI 200 Residential Construction II – Course Plan**

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| Week | Outcomes | Format | Hours | Topic/Content | Readings | Assignments | Assessment | Resources |
| 1,2 | 1,2 | Lecture  Lab | 6  9 | ***Wall and ceiling framing***  Identify  The main parts of wall frame  Rough openings doors and windows  Explain  Methods of forming the outside corners and partitions  Estimating materials required  Describe construction and erection of wall sections and partitions  Plate and stud layout  Apply  Trade related math  Concepts of plate layout  Construct and erect wall sections  Double plate and wall sheeting  Special framing and house wraps  Ceiling framing and blocking | Chap. 9 pp. 253-280 | Workbook Chap. 9, pp. 49-54 | p. 281 Test ques. #1-15  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. |
| 3,4 | 1,2 | Lecture  Lab | 6  9 | ***Roof framing***  Explain Various types of roofs  Parts of a common rafter  The terms slope and pitch  Design and erection of trusses  Identify  Trade related math  Roof supports  Layout terms and principles and Rafter sizes and using a rafter table  Framing plans  Perform  Use framing and speed squares  Apply  Layout a common rafter  Erecting a gable roof and gable end frame  Hip and valley rafters including jack rafters  Applying math estimating | Chap. 10 pp. 283-325 | Workbook Chap. 10, pp. 55-63 | p. 326 Test ques. #1-20  Practical activities | As above and roof framing materials as provided, framing square, skill saw |
| 5,6 | 1,2,3 | Lecture  Lab | 4  6 | ***Roofing materials and methods***  Identify  List various roofing materials commonly used  Define roofing terms  Describe  Prepare a roof deck  Procedures for both asphalt and wood shingles  Application procedures for a built-up roof  Apply  Demonstrate correct nailing patterns  Demonstrate the proper positioning of gutters  Estimate materials required for a specific roofing job | Chap. 12  pp. 343-392 | Workbook Chap. 12, pp. 67-74 | pp. 393-394 ques. #1-25  Practical activities | As above and roofing materials (asphalt and wood shingles, nails) |
| 7,8 | 1,2,4 | Lecture  Lab | 4  6 | ***Windows and exterior doors***  Describe  Window and door fabrication  Window frame adjustments for wall thickness  Procedures for installing a replacement window  Identify  Various types of windows  Window schedule  Procedures for installing standard windows  Construction of garage door frames  Apply  Calculate required rough openings  Prepare a rough opening for installation of a door frame  Select appropriate garage door hardware | Chap. 13  pp. 395-432 | Workbook Chap. 13,  pp. 75-80 | p. 433 Test ques. # 1-20  Practical activities | As above and window and door samples, installation materials |
| 9,10 | 1,5 | Lecture  Lab | 4  6 | ***Exterior wall finishes***  Describe  Parts of a cornice and rake  Cornice and rake construction  How wood siding and shingles are applied  Proper application of bevelled siding  Exterior insulation and finish systems  Identify  Various brick and stone, masonry materials and tools  Installation of insulation board and stucco  Apply  Estimate the amount of siding on a structure  Installation techniques for various siding materials | Chap. 14  pp. 435-480 | Workbook Chap. 14,  pp. 81-87 | pp. 481-482 Test, ques. #1-25  Practical activities | As above and samples of various exterior material |
| 11,12 | 1,6 | Lecture  Lab | 4  6 | ***Thermal and sound insulation***  Describe  Principles of conduction, convection and radiation  Types of insulation  Methods of controlling moisture problems  Construction that raise STC ratings in desired areas  Identify  Technical terms relating to thermal and acoustical properties  Interpret thermal ratings charts  Principle of condensation  Apply  Select appropriate areas for insulation in a given structure  Procedures for installing batt and blanket, fill, rigid insulation  Formula for R rating | Chap. 15  pp. 485-527 | Workbook Chap. 15,  pp. 89-97 | p. 528 Test ques. # 1-20  Practical activities | As above and various types of insulation and vapour barriers |
| 13,14 | 1, 7 | Lecture  Lab | 4  6 | ***Interior stair construction***  Discuss  Interior stair design  Review  Various types of stairs  Stair parts and terms  Perform  Calculate the rise-run ratio, number and size of risers and stairwell length  Apply (continued from HMI 114)  Prepare sketches of types of stringers for interior stairs  Layout stringers for a given stair rise and run  Splitting angles for mitre cuts  Using stock interior stair parts  Identifying the angles on preformed hand railing stock  Prepare staircase hand rails  Layout of winder stairs | Chap. 18  pp. 597-615 | Workbook Chap. 18, pp. 113, prepare for final test | p. 616 Test ques. # 1-10  Practical activities | As above and staircase materials and hand railings |
| 15 | 1,2,3,4,5,6,7 | Lecture, lab | 5 | ***Building project completion***  Complete term project work and all practical activities |  |  | Practical activities ***Final test*** |  |
| 16 | 1,2,3,4,5,6,7 |  | 5 | Review; take up and discuss final test / assignments / practical activities / sharing and feedback |  |  |  |  |