

4	1, 3	Lecture	2	<p><i>Building materials, with a focus on engineered lumber and its applications</i></p> <p><u>Explain</u> Various building materials, engineered lumber and its applications, wood 'I' beams, laminated veneer lumber, glue laminated beams, open web tresses.</p>	Chap. 1	Workbook chapter 1, pp. 5 -10 Questions as assigned	p. 55 Test, selected questions	As above and building material samples, including engineered lumber, hangars and nails.
		Lab	3	<p><u>Perform</u> Matching hangars with proper nailing patterns and proper nailing patterns for lamination</p> <p><u>Identify</u> Difference between laminated beams and strand beams.</p>			Practical activities	
5,6	1,2,5	Lecture	4	<p><i>Site preparations and building layout</i></p> <p><u>Explain</u> The operation of the builder's level and level-transit The basic operation of a laser level system</p>	Chap. 6 pp. 149-166	Workbook Chapter 6 pp. 29-32	p. 167 Test, ques. #1-11	As above and builder's level, transit, plumb bob, 100' tape, laser level and receiver.
		Lab	6	<p><u>Perform</u> Measure and layout angles using levelling equipment Read the vernier scale and use a plumb line</p> <p><u>Apply</u> Use a builder's level to make a square corner Use a tape measure to square off a building Use a transit and plumb bob for a starting point and locate building lines Find grade levels and elevations Proper use of laser levels and receiver</p>				

7,8,9	1, 5	Lecture	6	<p><i>Footings and foundations</i> <u>Explain</u> Layout lines of the building Describe excavation procedures Footing requirements and how to build footing forms The terms concrete cement and aggregate The building, erecting and use of forms Types of foundation systems</p>	Chap. 7 pp. 169-219	Workbook chapter 7 pp. 33-39	pp.220- 221 Test, week 7 Ques. #1-20, week 8 Ques. #21-35	As above and provided forming materials, ICF samples
		Lab	9	<p><u>Apply</u> Footing design Forms for footings concrete Erecting wall forms Placing concrete</p> <p><u>Identify</u> Concrete blocks Insulating foundation walls ICF foundation wall systems Pouring basement floors Sidewalks and drives</p> <p><u>Perform</u> Estimating materials</p>			Practical activities	

10, 11,12	1,2,6	Lecture	6	<p>Floor framing</p> <p><u>Describe</u></p> <p>Type of floor framing Platform framing Girders and beams Sill plates and headers Floor joist and platform finishing Overhangs and projections Materials for sub-flooring</p> <p><u>Identify</u></p> <p>Material sizes including engineered materials, girder and beam size, posts and columns Procedures for sill and header construction</p> <p><u>Apply</u></p> <p>Estimating material and material size</p> <p><u>Perform</u></p> <p>Floor framing and sheathing</p>	Chap. 8 pp. 223-250	Workbook Chap. 8 pp. 41-47	Test ques. 1-10	As above and samples of engineered lumber, standard lumber and platform materials
		Lab	9	<p><u>Identify</u></p> <p>Material sizes including engineered materials, girder and beam size, posts and columns Procedures for sill and header construction</p> <p><u>Apply</u></p> <p>Estimating material and material size</p> <p><u>Perform</u></p> <p>Floor framing and sheathing</p>			Practical activities	
13,14	1,2,6	Lecture	4	<p>Entrance platforms and stair construction</p> <p><u>Describe</u></p> <p>Construction of entrance platforms and stairs</p> <p><u>Identify</u></p> <p>Various types of stairs Stair parts and terms</p> <p><u>Perform</u></p> <p>Calculate the rise-run ratio, number and size of risers and stairwell length</p> <p><u>Apply</u></p> <p>Prepare sketches of types of stringers Layout stringers for a given stair rise and run Splitting angles for mitre cuts Using stock stair parts</p>	Chap. 7 pp.211-212 and Chap.18, pp.597-615	Prepare for final test	Practical activities	As above and staircase materials
		Lab	6	<p><u>Identify</u></p> <p>Various types of stairs Stair parts and terms</p> <p><u>Perform</u></p> <p>Calculate the rise-run ratio, number and size of risers and stairwell length</p> <p><u>Apply</u></p> <p>Prepare sketches of types of stringers Layout stringers for a given stair rise and run Splitting angles for mitre cuts Using stock stair parts</p>				
15	1,2,3,4, 5,6	Lecture, lab	5	<p>Building project completion</p> <p>Complete term project work and all practical activities</p>			Practical activities Final test	

16	1,2,3,4, 5,6,	Lecture / lab	5	Review; take up and discuss final test / assignments / practical activities / sharing and feedback				
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