

### Carpentry and Renovation Technician

2021-22 Academic Year

Program	Year	Semester
START-Carpentry and Renovation Technician	1	2
START-Carpentry and Renovation Technician (Coop)	1	2

<b>Course Code:</b> RENO 1101	<b>Course Equiv. Code(s):</b> CCRC 2401
<b>Course Hours:</b> 56	<b>Course GPA Weighting:</b> 4
<b>Prerequisite:</b> n/a	
<b>Corequisite:</b> n/a	
<b>Laptop Course:</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
<b>Delivery Mode(s):</b> In class <input checked="" type="checkbox"/> Online <input checked="" type="checkbox"/> Hybrid <input type="checkbox"/> Correspondence <input type="checkbox"/>	

<b>Pandemic remote teaching delivery mode</b> <input type="checkbox"/> Fully asynchronous <input checked="" type="checkbox"/> Combined asynchronous and synchronous
<b>Remote proctoring required</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
<b>Authorized by (Dean or Director):</b> Rebecca Milburn <b>Date:</b> May 2021

<b>Prepared by</b>		
<b>First Name</b>	<b>Last Name</b>	<b>Email</b>
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## Course Description:

This course covers the fundamentals of wood framing structures and components integral to stick framed structures. Students will learn the basic building skills for new construction and almost every remodelling or addition project.

## Campus Closure Notice

In the event of a campus closure during which time classes cannot be conducted or attended in person, course delivery will be conducted remotely where possible. Should teaching and learning resume on campus, students may be organized into smaller groups for classroom delivery, in accordance with directions from public health authorities. In either situation, the learning plan sequence and/or evaluation methods may be adjusted to address topics requiring hands-on, practical learning activities.

## Subject Eligibility for Prior Learning Assessment & Recognition (PLAR):

Prior Learning Assessment and Recognition (PLAR) is a process a student can use to gain college credit(s) for learning and skills acquired through previous life and work experiences. Candidates who successfully meet the course learning outcomes of a specific course may be granted credit based on the successful assessment of their prior learning. The type of assessment method (s) used will be determined by subject matter experts. Grades received for the PLAR challenge will be included in the calculation of a student's grade point average.

The PLAR application process is outlined in <http://www.durhamcollege.ca/plar>. Full-time and part-time students must adhere to all deadline dates. Please email: [PLAR@durhamcollege.ca](mailto:PLAR@durhamcollege.ca) for details.

### PLAR Eligibility

Yes  No

### PLAR Assessment (if eligible):

- Assignment
- Exam
- Portfolio
- Other

Demonstration of skill and/or a comprehensive written test.

## Course Learning Outcomes

Course Learning Outcomes contribute to the achievement of Program Learning Outcomes for courses that lead to a credential (e.g. diploma). A complete list of Vocational/Program Learning Outcomes and Essential Employability Skill Outcomes are located in each Program Guide.

### Course Specific Learning Outcomes (CLO)

Student receiving a credit for this course will have reliably demonstrated their ability to:

- CLO1 Identify typical floor, wall and ceiling framing system components for a residential wood framed structure.
- CLO2 Differentiate between structural and non structural components in residential wood frame structure.
- CLO3 Assemble residential framing components including roof, wall, and floor systems.
- CLO4 Layout stair framing components for a residential building.
- CLO5 Calculate building materials needed to frame a residential wood structure.
- CLO6 Apply the Occupational Health and Safety Act (OHSA) to work safely and in accordance with Workplace Safety Act requirements.
- CLO7 Use the Ontario building code (OBC) to locate building code for residential wood framed structures.
- CLO8 Identify net zero requirements when framing a residential structure.

### Essential Employability Skill Outcomes (ESSO)

This course will contribute to the achievement of the following Essential Employability Skills:

- EES 1. Communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience.
- EES 2. Respond to written, spoken, or visual messages in a manner that ensures effective communication.
- EES 3. Execute mathematical operations accurately.
- EES 4. Apply a systematic approach to solve problems.
- EES 5. Use a variety of thinking skills to anticipate and solve problems.
- EES 6. Locate, select, organize, and document information using appropriate technology and information systems.
- EES 7. Analyze, evaluate, and apply relevant information from a variety of sources.
- EES 8. Show respect for the diverse opinions, values, belief systems, and contribution of others.
- EES 9. Interact with others in groups or teams in ways that contribute to effective working relationships and the achievement of goals.
- EES 10. Manage the use of time and other resources to complete projects.
- EES 11. Take responsibility for one's own actions, decisions, and consequences.

## Evaluation Criteria:

The Course Learning Outcomes and Essential Employability Skills Outcomes are evaluated by the following evaluation criterion.

Evaluation Description	Course Learning Outcomes	EESOs	Weighting
Lab Activity: Project 1- Floor framing layout and assembly	CLO1, CLO3, CLO5	EES1, EES4, EES10	10
Presentation: presentation - lecture	CLO1, CLO2, CLO7	EES1, EES10	0
Quiz: Quiz 1- Floor framing.	CLO1, CLO2, CLO6	EES3, EES4, EES5, EES6, EES10	10
Lab Activity: Project 2- Wall framing.	CLO1, CLO2, CLO3, CLO4, CLO5, CLO8	EES3, EES4, EES11	10
Lab Activity: Project 3- Bridging, blocking and bracing	CLO1, CLO3, CLO4, CLO5	EES1, EES3, EES6, EES10	5
Lab Activity: Project 4- Basic stair building.	CLO1, CLO2, CLO3, CLO4, CLO5, CLO7	EES1, EES3, EES5, EES6, EES10, EES11	10
Test: Midterm Test	CLO1, CLO2, CLO3, CLO4, CLO5	EES1, EES4, EES5, EES10, EES11	15
Lab Activity: Project 5- Common rafter layout.	CLO3, CLO4, CLO5	EES3, EES6, EES10	10
Lab Activity: Project #6- Roofing project.	CLO4, CLO5, CLO8	EES9, EES10, EES11	15
Test: Final Test	CLO1, CLO2, CLO3, CLO4, CLO5	EES1, EES3, EES4, EES5, EES6, EES10	15
<b>Total</b>			<b>100%</b>

### Notes:

1. Students must arrive on time to tests with the appropriate materials e.g. pens, pencils, calculator. No extra time will be added to the scheduled class time. Cell phones and all devices must be off of the desks. No music or ear buds allowed.( unless discussed with Professor)
2. The opportunity to write a missed test may be granted based on meeting the following criteria. Notifying the professor prior to the scheduled test time and or submitting appropriate doctors note to validate the absence. Opportunity to write a test later than the scheduled date is at the discretion of the professor.
3. For all tests, examinations and assignments, a deduction of 1/2 mark per error to a maximum of 10% will be made for incorrect use of terminology.
4. A detailed handout outlining expectations and evaluation criteria will be distributed for all assignments. Some assignments involve partner and/or group work. If a student cannot work collaboratively within a group the student will receive a grade of 0 for this assignment.
5. Attendance is mandatory in both shop and classroom evaluations. Workshop and lab projects cannot be completed outside the scheduled times or off site. Should the occasion arise when you cannot attend class you are responsible to contact your professor and make arrangements for missed work or assignments.

## Required Text(s) and Supplies:

1. Carpentry 4th Canadian Edition, Floyd Vogt, Michael Nauth, ISBN-10: 0176884920

## **Recommended Resources (purchase is optional):**

1. Canadian Wood Frame House Construction, CMHC
2. Renovator's Technical Guide, ISBN 0-660-17439, CMHC

# Policies and Expectations for the Learning Environment:

## General Policies and Expectations:

General College policies related to	General policies related to
<ul style="list-style-type: none"> <li>+ Acceptable Use of Information Technology</li> <li>+ Academic Policies</li> <li>+ Academic Honesty</li> <li>+ Student Code of Conduct</li> <li>+ Students' Rights and Responsibilities can be found on-line at <a href="http://www.durhamcollege.ca/academicpolicies">http://www.durhamcollege.ca/academicpolicies</a></li> </ul>	<ul style="list-style-type: none"> <li>+ attendance</li> <li>+ absence related to tests or assignment due dates</li> <li>+ excused absences</li> <li>+ writing tests and assignments</li> <li>+ classroom management can be found in the Program Guide (full time programs only) in MyCampus <a href="http://www.durhamcollege.ca/mycampus/">http://www.durhamcollege.ca/mycampus/</a></li> </ul>

## Course Specific Policies and Expectations:

1. No food or drink is allowed in the shop area at any time.
2. Breaks are to be taken as a whole class and will be announced by your professor. No student is to continue work in the shop while the class is on break.
3. All safety issues must be addressed before entering the shop area. These will include the use of safety shoes, glasses, and any other item your professor deems necessary for a safe environment.
4. Shorts and sandals are not appropriate clothing to be worn in the shop for safety reasons. Students must remove all loose fitting clothing, necklaces, jewellery, etc. that could be a danger if operating machinery in the shop
5. No student will enter the shop/class with a cell phone, or any other electronic device. No ear buds connected to a music player with the exception of approved hearing protection.
6. To help avoid accidental damage to cell phones in the shop the use of a calculator is recommended.
7. Out of Class Expectations: In order to give yourself the best chance for success, it will be important to be prepared for classroom and Laboratory activities. This will include reading appropriate objectives, textbook assignments prior to class, and completing any homework assignments.
8. Students are expected to utilize DC Connect regularly for homework assignments, course announcements, and to other relevant information.
9. In the event of a campus closure during which time classes cannot be conducted or attended in person, course delivery will be conducted online where possible. Should teaching and learning resume on campus, students may be organized into smaller groups for classroom delivery, in accordance with directions from public health authorities. In either situation, the learning plan sequence and/or evaluation methods may be adjusted to address topics requiring hands-on, practical learning activities.

## General Course Outline Notes:

1. Students should use the course outline as a learning tool to guide their achievement of the learning outcomes for this course. Specific questions should be directed to their individual professor.
2. The college considers the electronic communication methods (i.e. DC Mail or DC Connect) as the primary channel of communication. Students should check the sources regularly for current course information.
3. Professors are responsible for following this outline and facilitating the learning as detailed in this outline.
4. Course outlines should be retained for future needs (i.e. university credits, transfer of credits etc.)
5. A full description of the Academic Appeals Process can be found at <https://durhamcollege.ca/about/governance/policies/academic-policies> .
6. Faculty are committed to ensuring accessible learning for all students. Students who would like assistance with academic access and accommodations in accordance with the Ontario Human Rights Code should register with the Access and Support Centre (ASC). ASC is located in room SW116, Oshawa Campus and in room 180 at the Whitby Campus. Contact ASC at 905-721-3123 for more information.
7. Durham College is committed to the fundamental values of preserving academic integrity. Durham College and faculty members reserve the right to use electronic means to detect and help prevent plagiarism. Students agree that by taking this course all assignments could be subject to submission either by themselves or by the faculty member for a review of textual similarity to Turnitin.com. Further information about Turnitin can be found on the Turnitin.com Web site.

# Learning Plan

The Learning Plan is a planning guideline. Actual delivery of content may vary with circumstances.

Students will be notified in writing of changes that involve the addition or deletion of learning outcomes or evaluations, prior to changes being implemented, as specified in the Course Outline Policy and Procedure at Durham College.

Wk.	Hours:	1	Delivery:	In Class
1	<b>Course Learning Outcomes</b>			
	CLO2			
	<b>Essential Employability Skills</b>			
	<b>Taught:</b>	EES9, EES10, EES11	<b>Practiced:</b>	
	<b>Intended Learning Objectives</b>			
	Review and explain course outline -Overview of wood frame components -Explain course expectations and assignments -Explain grading protocol and rubrics - DC Connect orientation			
	<b>Intended Learning Activities</b>			
	Powerpoint Lecture DC Connect link			
	<b>Resources and References</b>			
	N/A			
	<b>Evaluation</b>			
	Presentation: presentation - lecture			



<b>Wk.</b>	<b>Hours:</b>	<b>Delivery:</b>
	3	Shop
1	<b>Course Learning Outcomes</b> CLO3, CLO4, CLO5, CLO6	
	<b>Essential Employability Skills</b>	
	<b>Taught:</b>	<b>Practiced:</b> EES4, EES9, EES10, EES11
	<b>Intended Learning Objectives</b> Floor framing basics and the Ontario Building Code. Net zero construction	
	<b>Intended Learning Activities</b> Hands on shop work Instructor demonstration	
	<b>Resources and References</b> N/A	
<b>Evaluation</b> Lab Activity: Project 1- Floor framing layout and assembly		
<b>Wk.</b>	<b>Hours:</b>	<b>Delivery:</b>
	1	In Class
2	<b>Course Learning Outcomes</b> CLO1, CLO2, CLO4, CLO6	
	<b>Essential Employability Skills</b>	
	<b>Taught:</b> EES4, EES6	<b>Practiced:</b>
	<b>Intended Learning Objectives</b> Intro to OBC Part 9 Overview and description of Project 1 Floor bridging and framing	
	<b>Intended Learning Activities</b> Powerpoint Lecture DC Connect link Handouts	
	<b>Resources and References</b> N/A	
<b>Evaluation</b> Presentation: presentation - lecture		

<b>Wk.</b>	<b>Hours:</b>	<b>3</b>	<b>Delivery:</b>	<b>Shop</b>
2	<b>Course Learning Outcomes</b> CLO4, CLO5, CLO6			
	<b>Essential Employability Skills</b>			
	<b>Taught:</b>		<b>Practiced:</b> EES3, EES5, EES6, EES11	
	<b>Intended Learning Objectives</b> Layout floor framing. Introduction to framing layout.			
	<b>Intended Learning Activities</b> Hands on shop work exercise. Visual aids			
	<b>Resources and References</b> N/A			
<b>Evaluation</b> Lab Activity: Project 1- Floor framing layout and assembly				
<b>Wk.</b>	<b>Hours:</b>	<b>1</b>	<b>Delivery:</b>	<b>In Class</b>
3	<b>Course Learning Outcomes</b> CLO1, CLO3, CLO5			
	<b>Essential Employability Skills</b>			
	<b>Taught:</b> EES4, EES6, EES10		<b>Practiced:</b>	
	<b>Intended Learning Objectives</b> Floor framing basics and the OBC			
	<b>Intended Learning Activities</b> Powerpoint Lecture DC Connect link Handouts			
	<b>Resources and References</b> N/A			
<b>Evaluation</b> Presentation: presentation - lecture				

<b>Wk.</b>	<b>Hours:</b>	<b>Delivery:</b>
	3	Shop
3	<b>Course Learning Outcomes</b> CLO1, CLO2, CLO3, CLO4, CLO6	
	<b>Essential Employability Skills</b>	
	<b>Taught:</b>	<b>Practiced:</b> EES3, EES4, EES10
	<b>Intended Learning Objectives</b> Project 1 Floor framing layout and assembly	
	<b>Intended Learning Activities</b> Hands on shop work Instructor demonstration.	
	<b>Resources and References</b> N/A	
<b>Evaluation</b> Lab Activity: Project 1- Floor framing layout and assembly		
<b>Wk.</b>	<b>Hours:</b>	<b>Delivery:</b>
	1	In Class
4	<b>Course Learning Outcomes</b> CLO1, CLO2, CLO3	
	<b>Essential Employability Skills</b>	
	<b>Taught:</b>	<b>Practiced:</b>
	<b>Intended Learning Objectives</b> Quiz #1	
	<b>Intended Learning Activities</b> Powerpoint Lecture DC Connect link Handouts	
	<b>Resources and References</b> N/A	
<b>Evaluation</b> Quiz: Quiz 1- Floor framing.		<b>Weighting</b> 10

<b>Wk.</b>	<b>Hours:</b>	<b>Delivery:</b>
	3	Shop
4	<b>Course Learning Outcomes</b> CLO1, CLO3, CLO5	
	<b>Essential Employability Skills</b>	
	<b>Taught:</b>	EES3, EES4, EES9, EES10, EES11
	<b>Practiced:</b>	
	<b>Intended Learning Objectives</b> Complete Project 1. Floor framing	
	<b>Intended Learning Activities</b> Hands on shop work	
<b>Resources and References</b> N/A		
<b>Evaluation</b> Lab Activity: Project 1- Floor framing layout and assembly		<b>Weighting</b> 10
<b>Wk.</b>	<b>Hours:</b>	<b>Delivery:</b>
	1	In Class
5	<b>Course Learning Outcomes</b> CLO1, CLO2, CLO5, CLO8	
	<b>Essential Employability Skills</b>	
	<b>Taught:</b>	EES3, EES4, EES5, EES6
	<b>Practiced:</b>	
	<b>Intended Learning Objectives</b> Introduction to wall framing. OBC. Green building technologies.	
	<b>Intended Learning Activities</b> Powerpoint Lecture DC Connect link Handouts	
<b>Resources and References</b> N/A		
<b>Evaluation</b> Presentation: presentation - lecture		

<b>Wk.</b>	<b>Hours:</b> 3	<b>Delivery:</b> Shop
5	<b>Course Learning Outcomes</b> CLO1, CLO2, CLO3, CLO4	
	<b>Essential Employability Skills</b>	
	<b>Taught:</b> EES4, EES5, EES6	<b>Practiced:</b>
	<b>Intended Learning Objectives</b> Project 2-Wall framing	
	<b>Intended Learning Activities</b> Hands on shop work Visual aids	
	<b>Resources and References</b> N/A	
<b>Evaluation</b> Lab Activity: Project 2- Wall framing.		
<b>Wk.</b>	<b>Hours:</b> 1	<b>Delivery:</b> In Class
6	<b>Course Learning Outcomes</b> CLO1, CLO2, CLO6, CLO8, CLO9	
	<b>Essential Employability Skills</b>	
	<b>Taught:</b> EES1, EES3, EES4, EES6, EES10	<b>Practiced:</b>
	<b>Intended Learning Objectives</b> Review for midterm test	
	<b>Intended Learning Activities</b> Review of weeks 1-6	
	<b>Resources and References</b> N/A	
<b>Evaluation</b> Presentation: presentation - lecture		

<b>Wk.</b>	<b>Hours:</b> 3	<b>Delivery:</b> Shop
6	<b>Course Learning Outcomes</b> CLO1, CLO3, CLO6, CLO8	
	<b>Essential Employability Skills</b>	
	<b>Taught:</b>	<b>Practiced:</b> EES3, EES6, EES10, EES11
	<b>Intended Learning Objectives</b> Complete Project #2	
	<b>Intended Learning Activities</b> Hands on shop work Grade project #2	
	<b>Resources and References</b> N/A	
<b>Evaluation</b> Lab Activity: Project 2- Wall framing.		<b>Weighting</b> 10
<b>Wk.</b>	<b>Hours:</b> 1	<b>Delivery:</b> In Class
7	<b>Course Learning Outcomes</b> CLO1, CLO2, CLO4, CLO8	
	<b>Essential Employability Skills</b>	
	<b>Taught:</b> EES3, EES4, EES6	<b>Practiced:</b>
	<b>Intended Learning Objectives</b> Mid term Test	
	<b>Intended Learning Activities</b> Testing on weeks 1-6	
	<b>Resources and References</b> N/A	
<b>Evaluation</b> Test: Midterm Test		<b>Weighting</b> 15

<b>Wk.</b>	<b>Hours:</b>	<b>3</b>	<b>Delivery:</b>	<b>Shop</b>
7	<b>Course Learning Outcomes</b> CLO1, CLO2, CLO5, CLO8			
	<b>Essential Employability Skills</b>			
	<b>Taught:</b>		<b>Practiced:</b> EES1, EES3, EES9, EES10, EES11	
	<b>Intended Learning Objectives</b> Project 3- Introduce Bridging, blocking and bracing			
	<b>Intended Learning Activities</b> Hands on shop work Instructor demonstration.			
	<b>Resources and References</b> N/A			
<b>Evaluation</b> Lab Activity: Project 3-Bridging, blocking and bracing				
<b>Wk.</b>	<b>Hours:</b>	<b>1</b>	<b>Delivery:</b>	<b>In Class</b>
8	<b>Course Learning Outcomes</b> CLO1, CLO2, CLO5, CLO8, CLO9			
	<b>Essential Employability Skills</b>			
	<b>Taught:</b>		<b>Practiced:</b>	
	<b>Intended Learning Objectives</b> Interior structural walls, columns, post and beams.			
	<b>Intended Learning Activities</b> Powerpoint Lecture DC Connect link Handouts			
	<b>Resources and References</b> N/A			
<b>Evaluation</b> Presentation: presentation - lecture				

<b>Wk.</b>	<b>Hours:</b> 3	<b>Delivery:</b> Shop	
8	<b>Course Learning Outcomes</b> CLO1, CLO2, CLO3, CLO6, CLO8		
	<b>Essential Employability Skills</b>		
	<b>Taught:</b>	<b>Practiced:</b> EES1, EES3, EES4, EES5, EES6, EES9, EES10, EES11	
	<b>Intended Learning Objectives</b> Project 3- Bridging, blocking and bracing		
	<b>Intended Learning Activities</b> Hands on shop work Visual aid.		
	<b>Resources and References</b> N/A		
	<b>Evaluation</b> Lab Activity: Project 3-Bridging, blocking and bracing	<b>Weighting</b> 5	
<b>Wk.</b>	<b>Hours:</b> 1	<b>Delivery:</b> In Class	
9	<b>Course Learning Outcomes</b> CLO1, CLO2, CLO3, CLO5, CLO8, CLO9		
	<b>Essential Employability Skills</b>		
	<b>Taught:</b> EES1, EES3, EES4, EES5, EES11	<b>Practiced:</b>	
	<b>Intended Learning Objectives</b> Introduction to Project 4- Basic stair building. Ontario Building Code		
	<b>Intended Learning Activities</b> PowerPoint Guided discussion. DC Connect link Handouts		
	<b>Resources and References</b> N/A		
	<b>Evaluation</b> Presentation: presentation - lecture		



<b>Wk.</b>	<b>Hours:</b>	<b>Delivery:</b>
	3	Shop
9	<b>Course Learning Outcomes</b> CLO1, CLO2, CLO3, CLO4, CLO6, CLO7, CLO8	
	<b>Essential Employability Skills</b>	
	<b>Taught:</b>	<b>Practiced:</b> EES1, EES3, EES5, EES9, EES10, EES11
	<b>Intended Learning Objectives</b> Project #4- Basic stair building.	
	<b>Intended Learning Activities</b> Hands on shop work demonstration visual aids.	
	<b>Resources and References</b> N/A	
<b>Evaluation</b> Lab Activity: Project 4- Basic stair building.		
<b>Wk.</b>	<b>Hours:</b>	<b>Delivery:</b>
	1	In Class
10	<b>Course Learning Outcomes</b> CLO1, CLO2, CLO3, CLO6, CLO8	
	<b>Essential Employability Skills</b>	
	<b>Taught:</b> EES1, EES3, EES4, EES10	<b>Practiced:</b>
	<b>Intended Learning Objectives</b> Roof framing Calculating rafter length. Common rafter.	
	<b>Intended Learning Activities</b> Powerpoint Lecture DC Connect link Handouts	
	<b>Resources and References</b> N/A	
<b>Evaluation</b> Presentation: presentation - lecture		

<b>Wk.</b>	<b>Hours:</b>	<b>Delivery:</b>
	3	Shop
10	<b>Course Learning Outcomes</b> CLO1, CLO2, CLO3, CLO5, CLO8, CLO9	
	<b>Essential Employability Skills</b>	
	<b>Taught:</b>	<b>Practiced:</b> EES1, EES3, EES5, EES10
	<b>Intended Learning Objectives</b> Complete Project #4 Basic stair building.	
	<b>Intended Learning Activities</b> Hands on shop work	
	<b>Resources and References</b> N/A	
<b>Evaluation</b> Lab Activity: Project 4- Basic stair building.		<b>Weighting</b> 10
<b>Wk.</b>	<b>Hours:</b>	<b>Delivery:</b>
	1	In Class
11	<b>Course Learning Outcomes</b> CLO1, CLO2, CLO3, CLO6, CLO8	
	<b>Essential Employability Skills</b>	
	<b>Taught:</b>	<b>Practiced:</b>
	<b>Intended Learning Objectives</b> Roof framing various roof types Common rafter layout calculations.	
	<b>Intended Learning Activities</b> Powerpoint Lecture DC Connect link Handouts	
	<b>Resources and References</b> N/A	
<b>Evaluation</b> Presentation: presentation - lecture		

<b>Wk.</b>	<b>Hours:</b> 3	<b>Delivery:</b> Shop
11	<b>Course Learning Outcomes</b> CLO1, CLO2, CLO3, CLO6, CLO7, CLO8	
	<b>Essential Employability Skills</b>	
	<b>Taught:</b>	<b>Practiced:</b> EES3, EES4, EES10, EES11
	<b>Intended Learning Objectives</b> Project #5- common rafter layout.	
	<b>Intended Learning Activities</b> Hands on shop work Instructor demonstration.	
	<b>Resources and References</b> N/A	
	<b>Evaluation</b> Lab Activity: Project 5-Common rafter layout.	<b>Weighting</b> 10
<b>Wk.</b>	<b>Hours:</b> 1	<b>Delivery:</b> In Class
12	<b>Course Learning Outcomes</b> CLO1, CLO2, CLO4, CLO6	
	<b>Essential Employability Skills</b>	
	<b>Taught:</b> EES4, EES5, EES9, EES11	<b>Practiced:</b>
	<b>Intended Learning Objectives</b> Roof framing.Common rafter calculations.	
	<b>Intended Learning Activities</b> Powerpoint Lecture DC Connect link Handouts	
	<b>Resources and References</b> N/A	
	<b>Evaluation</b> Presentation: presentation - lecture	

<b>Wk.</b>	<b>Hours:</b> 3	<b>Delivery:</b> Shop
12	<b>Course Learning Outcomes</b> CLO1, CLO2, CLO3, CLO4, CLO5, CLO6, CLO7, CLO8, CLO9	
	<b>Essential Employability Skills</b>	
	<b>Taught:</b>	<b>Practiced:</b> EES1, EES3, EES4, EES5, EES10, EES11
	<b>Intended Learning Objectives</b> Project #6- Roofing project	
	<b>Intended Learning Activities</b> Hands on shop work Instructor demonstration.	
	<b>Resources and References</b> N/A	
<b>Evaluation</b> Lab Activity: Project #6-Roofing project.		
<b>Wk.</b>	<b>Hours:</b> 1	<b>Delivery:</b> In Class
13	<b>Course Learning Outcomes</b> CLO1, CLO2, CLO3, CLO4, CLO5, CLO6	
	<b>Essential Employability Skills</b>	
	<b>Taught:</b> EES5, EES6, EES9	<b>Practiced:</b>
	<b>Intended Learning Objectives</b> Semester review	
	<b>Intended Learning Activities</b> Powerpoint Lecture DC Connect link Handouts	
	<b>Resources and References</b> N/A	
<b>Evaluation</b> Presentation: presentation - lecture		

<b>Wk.</b>	<b>Hours:</b> 3	<b>Delivery:</b> Shop
13	<b>Course Learning Outcomes</b> CLO3, CLO4, CLO6, CLO7, CLO8	
	<b>Essential Employability Skills</b>	
	<b>Taught:</b>	<b>Practiced:</b> EES3, EES4, EES9, EES10, EES11
	<b>Intended Learning Objectives</b> Project 6 Roofing project.	
	<b>Intended Learning Activities</b> Hands on shop work Group work.	
	<b>Resources and References</b> N/A	
<b>Evaluation</b> Lab Activity: Project #6-Roofing project.		
<b>Wk.</b>	<b>Hours:</b> 1	<b>Delivery:</b> In Class
14	<b>Course Learning Outcomes</b> CLO1, CLO2, CLO3, CLO5, CLO6, CLO7, CLO8, CLO9	
	<b>Essential Employability Skills</b>	
	<b>Taught:</b>	<b>Practiced:</b>
	<b>Intended Learning Objectives</b> Final Test	
	<b>Intended Learning Activities</b> Final Test	
	<b>Resources and References</b> N/A	
<b>Evaluation</b> Test: Final Test		<b>Weighting</b> 15

<b>Wk.</b>	<b>Hours:</b> 3	<b>Delivery:</b> Shop
14	<b>Course Learning Outcomes</b> CLO1, CLO2, CLO3, CLO4, CLO5, CLO6	
	<b>Essential Employability Skills</b>	
	<b>Taught:</b>	<b>Practiced:</b> EES1, EES3, EES4, EES5, EES9, EES10, EES11
	<b>Intended Learning Objectives</b> Project #6 Finish and submit final project for grading	
	<b>Intended Learning Activities</b> Hands on shop work	
	<b>Resources and References</b> N/A	
	<b>Evaluation</b> Lab Activity: Project #6-Roofing project.	<b>Weighting</b> 15