

Wood Framed Construction

2023-24 Academic Year

Program Title	Ministry Title	Major	Year	Semester
STA-Carpentry and Renovation Technician	--	RENO	1	2
STA-Carpentry and Renovation Technician (Co-op)	--	RENC	1	2

Course Code: RENO 1101	Course Equiv. Code(s): CCRC 2401
Course Hours: 56	Course GPA Weighting: 4
Prerequisite: n/a	
Corequisite: n/a	
Laptop Course: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Delivery Mode(s): In class <input checked="" type="checkbox"/> Online <input type="checkbox"/> Hybrid <input type="checkbox"/> Flexible <input type="checkbox"/> HyFlex <input type="checkbox"/>	
Remote proctoring required Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Authorized by (Dean or Director): Rebecca Milburn	Date: August 2023

Prepared by		
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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 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 structures.
- 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 codes 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
Total			100%

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 earbuds 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 an appropriate doctor's 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
2. Safety glasses and green patch safety footwear.

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:

<p>General College policies related to</p> <ul style="list-style-type: none"> + Acceptable Use of Information Technology + Academic Policies + Academic Integrity + Standards for Student Conduct for all Learning Environments can be found at https://durhamcollege.ca/wp-content/uploads/Standards-of-Student-Conduct-for-all-Learning-Environments.pdf + Information about academic policies and procedures can be found on-line at https://durhamcollege.ca/about/governance/policies 	<p>General policies related to</p> <ul style="list-style-type: none"> + attendance + absence related to tests or assignment due dates + excused absences + writing tests and assignments + classroom management can be found in the Program Guide (full time programs only) in MyDC https://durhamcollege.ca/mydc/
<p>All students at Durham College have the responsibility to familiarize themselves with and abide by the college's Academic Integrity Policy. Students are expected to complete and submit their own work in an honest manner, in accordance with the policy. Durham College has zero tolerance for breaches of academic integrity. All suspected breaches of academic integrity will be investigated and documented following procedures outlined in the policy, and should a breach be confirmed, appropriate penalties will be levied. Breaches of academic integrity refer to a variety of practices including, but not limited to:</p> <ul style="list-style-type: none"> • copying another person's work; • using unauthorized materials or resources during an evaluation; • obtaining unauthorized copies of evaluations in advance; • collaborating without permission; • colluding or providing unauthorized assistance; • falsifying academic documents or records; • misrepresenting academic credentials; • buying, selling, stealing, soliciting, exchanging or transacting materials or information for the purpose of academic gain; • bribing or attempting to bribe personnel; • impersonation; • submitting the same work in more than one course without authorization; • improper use of computer technology and the internet; • depriving others of academic resources; • misrepresenting reasons for special consideration of academic work; • plagiarizing or failing to acknowledge ideas, data, graphics or other content without proper and full acknowledgement; • any unauthorized use of generative or other artificial intelligence. <p>If you have questions or concerns about what constitutes appropriate academic conduct or research and citation methods, and what your responsibilities are towards academic integrity, please visit the Academic Integrity website on MyDC, reach out to Student Academic Learning Services (SALS), or speak with your professor or Student Advisor.</p>	

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, jewelry, 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 earbuds that are 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.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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