

We acknowledge and respect that we are gathered on the traditional lands of the Anishnaabe People of Turtle Island and proudly recognize our local host Atikameksheng Anishnawbek. We also recognize the contributions of Wahnapiatae First Nation and the Metis Nation of Ontario.

Course Title	Floor and Wall Framing I				
Course Code:	CON1103	Credit Value:	4	Credit Hours:	56
Programs:	COCR Common Carpentry CRPG Carpentry And Renovation Techniques CRTN Building Construction Technician - Carpentry				
Equivalencies		Prerequisites		Corequisites	

This course may be delivered in a variety of different formats: 100% in-class, 100% online (or a blend of both), videoconferencing, distributed learning or off-campus. Please confirm with your faculty member which format will be used for your section of this course.

General Education Course:	☐	Eligible for PLAR:	☒
Degree Breadth Course:	☐	Experiential Learning:	☐
Research Intensive Course Designation:	☐		

COURSE DESCRIPTION

In this course, students will be introduced to practical framing techniques used to construct the floor and walls structures. Topics include the fundamentals of lumber, fasteners, adhesives, layout, assembly, bracing, and sheathing.

Date: May 28, 2026

Approved by: 

ANGELA GILMORE
 Chair, Skilled Trades, Engineering
 Technology And Environmental Studies

Effective: Fall 2026, Winter 2027, Spring 2027

RELATIONSHIP TO PROGRAM VOCATIONAL LEARNING OUTCOMES

PROGRAM LEVEL	
This course contributes to your program by allowing you to demonstrate the following vocational learning outcomes:	
Program(s)	Vocational Learning Outcomes
Carpentry And Renovation Techniques	Ministry Standards 1. Identify and use strategies to enhance work performance and continued learning to keep pace with industry changes. 2. Identify and adhere to established health and safety practices that apply to specific job sites, in accordance with current legislation and regulations. 3. Perform building construction and renovation tasks in compliance with contracts, the Ontario and/or National Building Codes, applicable laws and industry's ethical practices. 4. Work in accordance with established sustainability practices. 5. Communicate and collaborate with diverse clients, supervisors and tradespersons to complete projects on time and to maintain effective working relationships. 6. Assist with maintaining accurate project documents and use computer technologies to support building construction and renovation projects. 7. Solve on-site trade-related building and renovation problems by applying principles of basic technical mathematics and building science. 8. Select, maintain and safely operate hand tools, and portable and stationary power tools, to efficiently complete building construction and renovation tasks. 9. Assist with the completion of building and renovation stages, from site layout and footings to the application of interior and exterior finishes, according to specifications. 10. Assist in the preparation of material estimations according to building construction and renovation project documents.
Building Construction Technician - Carpentry	College Standards 1. Construct framing, sheathing, and formwork for residential and light commercial projects in compliance with building codes and sustainability practices.

COURSE CURRICULUM**Topics/Concepts Covered in This Course**

- Floor Framing
- Wall Framing

COURSE LEVEL: Learning Outcomes and Objectives	
To earn credit for this course, you must reliably demonstrate your ability to:	
Learning Outcome	Objectives
1. Determine the requirements for the house substructure including columns, beams, and sill plates.	1.1 Identify masonry, steel, and wood columns and state their acceptable locations. 1.2 Identify beam types – steel, L.V.L., Glulams, P.S.L., and built up wood beams. 1.3 Identify construction and fastening requirements for built up wood beams i.e. crowns, staggered joints, and number and size of fasteners. 1.4 Determine anchor bolt locations as per O.B.C. for sill plate installation. 1.5 Develop the necessary skills and knowledge of floor system components. 1.6 Identify joist types.
2. Develop the necessary skills and knowledge of floor system components.	2.1 Identify joist types such as conventional or engineered wood. 2.2 Determine joist size, depth, and spacing as per O.B.C. span tables. 2.3 Identify joist restraint bridging, blocking and strapping. 2.4 Determine cantilevered joist requirements. 2.5 Calculate floor opening size requirements for fireplaces, chimneys and stair wells. 2.6 Identify subfloor types ,thickness and fastening methods. 2.7 Determine requirements for securing joists to sill plates, bearing walls, and to the top and sides of steel beams. 2.8 Layout, cut, and install sills, joists, and bridging.
3. Apply knowledge of the O.B.C.'s requirements that will give the skill set in the layout and construction of framed walls.	3.1 Identify all types of wall framing including platform, balloon, post and beam, and all associated components. 3.2 Calculate rough stud openings for exterior doors and windows as well as layout for interior partition walls and backups.

Learning Outcome	Objectives
	3.3 Determine lintel sizes from O.B.C. tables and identify methods of assembly and installation. 3.4 Determine framing and nailing requirements for interior partitions including R.S.O.s for slab, bifold, sliding bypass, and pocket doors. 3.5 Identify backing and diagonal bracing requirements for stud walls including different types of structural wall sheathing, wood let-in braces, metal "T" braces, diagonal stud bracing, and structural siding. 3.6 Layout and construct standard and rake walls (interior and exterior), complete with door and window openings, exterior corners and interior junctions, diagonal bracing, lapped double top plates, and insertion of poly air barrier.

Essential Employability Skills

Communication

- not applicable

Numeracy

- execute mathematical operations accurately.

Critical Thinking and Problem Solving

- apply a systematic approach to solve problems.

Information Management

- locate, select, organize, and document information using appropriate technology and info systems.

Interpersonal

- show respect for the diverse opinions, values, belief systems, and contributions of others.

Personal

- manage the use of time and other resources to complete projects.

Delivery Method

- Classroom: Course is delivered through scheduled synchronous teaching that may be face-to-face and/or virtual.

Learning Activities

- Lectures
- Class Discussions
- Labs
- eLearning Components

Resources Required

Books

Floyd Vogt, Michael Nauth, Luc Lapierre, *Carpentry*, 4th, Cengage Learning Canada Inc.

ISBN: 9780176884925

Price: \$ 257.00

Second Hand Permissible: ☐

Additional Supplies

10" pull saw irwin
 Packout 15" tool bag
 Safety boots (8 inch high)
 Carpenter Pencil (11 pc)
 2-Pk Milwaukee 7" Rafter Square
 nail set 1/32 2/32 3/32
 10 pcs geometry set
 Safety glasses
 100' CHALK LINE
 Hammer Milled 17oz
 Achitectural Scale Ruler, 12" aluminum
 M18" Compact Brushless 2-Tool Combo Kit
 empire combination square
 16"x24" Aluminum Framing Square Milwaukee
 Irwin Marples Blue Chip Woodworking Chesels 4 pcs
 18 pcs driver bit set
 Empire Bevel
 25" tape with fractions

Evaluation Plan

Grading Scheme

A	80% - 100%
A	80% - 100%
B	70% - 79%
B	70% - 79%
C	60% - 69%
C	60% - 69%
D	50% - 59%
F	0% - 49%
F	0% - 59%

Evaluation Method	Value (%)
Assignments	15%
2 Assignments (valued equally)	
Applied Activities (G)	45%
3 applied projects (valued equally)	
Quizzes	30%
1 quiz	

Evaluation Method	Value (%)
Professional Conduct	10%
Professional conduct is central to the objective of developing a respectful and professional atmosphere in and around the classroom/Lab. This mark is based on preparedness for classes, interaction with peers/faculty, adherence to safety requirements/policies and overall professionalism in class	

ADDITIONAL INFORMATION

A course outline is the College's commitment to the students. It supports educators, students, employers, and external partners in determining the depth of knowledge and level of performance that a student will be able to demonstrate upon successful completion of a course. Both instructor and student are obligated to follow the content of the course outline. It is your responsibility to meet these outcomes as assigned.

Note: You should maintain a copy of this course outline for your records. You may require this course outline if you seek transfer credits or further studies at other institutions.

Cambrian Email Addresses

All email correspondence with currently registered students must be via the students' College-issued email, as per the College's [IT Acceptable Use Policy](#). Students must familiarize themselves with the IT Acceptable Use Policy, as it outlines the acceptable use of College information systems and technology, and mitigates risks to the College's IT infrastructure.

Bring Your Own Device (BYOD) and Apps Anywhere

Cambrian College is a BYOD institution, which means that students bring the device of their choice that meets program-specific minimum technology requirements. Program-specific minimum technology requirements can be viewed on program pages on the Cambrian College website. AppsAnywhere is an easy-to-use app store-like platform providing students with a way to access their College apps and software on demand, anywhere, anytime both on and off campus. These both enrich the student learning experience in and out of the classroom, while providing maximum flexibility.

Policies

It is the student's responsibility to be aware of the College's policies. Policies, procedures and forms can be found on the [College website](#).

Academic and Student Services

Cambrian has a variety of student and academic services to support students during their academic journey at the College.

- [Academic Integrity Office](#)
- [Academic Success Centre](#)
- [Bookstore and Campus Store](#)
- [International Student Support Services](#)
- [KPMG Pride Centre](#)
- [Career Centre](#)
- [Registrar's Office \(Enrolment Centre\)](#)
- [First Step Centre](#)
- [Accessibility Services](#)
- [Library](#)
- [Pathways](#)
- [Available Scholarships and Bursaries](#)

- [Cambrian Student Council \(CSC\)](#)
- [Cambrian Indigenous Student Circle \(CISC\)](#)
- [Cambrian Athletic Association \(CAA\)](#)
- [Student Life Centre](#)
- [Test Centre](#)
- [The Learning Centre \[Tutoring Services\]](#)
- [Wabnode Centre for Indigenous Services](#)
- [Women's Resource Centre](#)

Copyright

Copyright is the exclusive legal right given to a creator to reproduce, publish, sell, or distribute his/her work. All members of the Cambrian community are required to comply with Canadian copyright law, which governs the reproduction, use and distribution of copyrighted materials. This means that the copying, use and distribution of copyright-protected materials, regardless of format, are subject to certain limits and restrictions. For example, activities such as photocopying or scanning an entire textbook or uploading class materials to a course sharing site are prohibited.

See the [Cambrian Library website](#) for additional information regarding copyright and for details on allowable limits.

Audio/Visual Capture

Sounds and images from this class, and contributions made by a participant, virtually or in-person, are recorded under the authority of the *Ontario Colleges of Applied Arts and Technology Act, 2002*. The main purpose of these recordings is to allow students enrolled in the course to review content and engage in activities, whether they attend any given class in person, virtually, or at all. Class recordings are for personal use only and shall not be shared or transferred. Faculty may also review these recordings to prepare for future classes, evaluate students, collaborate in program reviews, or provide feedback to faculty and/or students. Any questions about the use of multimedia recordings may be addressed to your respective Dean.

Equity, Diversity, and Inclusivity

Cambrian is committed to building and preserving an equitable, diverse, and inclusive learning community where students, faculty, and staff may achieve their full potential in an environment characterized by equality of respect and opportunity. All students and employees have the right to live and work in an environment that is free from discrimination and harassment. Therefore, Cambrian College will not tolerate any form of discrimination or harassment in its employment, education, accommodation, or business dealings. For more information, please visit: [Equity, Human Rights, and Accessibility](#).

Prior Learning Assessment and Recognition (PLAR)

Students wishing to have work or life experience that meets course learning outcomes considered for credit through Prior Learning Assessment and Recognition should email the Enrolment Centre at records@cambriancollege.ca.

Transfer Credit

Students wishing to have courses from other programs or institutions assessed for equivalency and/or transfer credit should visit the [Transfer Credits page](#) on the Cambrian website. The student should maintain a copy of this course outline for their records. Students may require this course outline if seeking transfer credits or further studies at other institutions.

Test Proctoring at Cambrian

Many courses include major tests and/or final exams. The practice at Cambrian requires that these types of test situations involve proctoring to ensure academic integrity. Online tests/exams may employ a proctoring services to enable you to take your exam from a location of your choosing

within a period specified by your instructor. When you are taking an online test/exam, the proctoring service may capture your video, screen, audio, and web surfing data to protect academic integrity. Cambrian College collects, uses, discloses, and retains personal information in compliance with the *Freedom of Information and Protection of Privacy Act (FIPPA)*. Your personal information is being collected under the authority of the *Ontario Colleges of Applied Arts and Technology Act S.O. 2002, c.8, Sched. F*. This information will be used for the purpose of administering a test/exam through an online proctoring service acting as an authorized agent of the College. Please refer to Cambrian's [Official Student Records Policy](#) for more details. If you have any questions regarding the collection of your personal information, please contact Vice President Academic, Cambrian College, 1400 Barry Downe Rd., Sudbury ON P3A 3V8, 1-705-566-8101 ext. 6245.