TIFR – Timber Framing

Trades

Effective Term & Year: Fall 2022
Program Outline Review Date: 2027-03-01

Program Area: Trades Non-apprenticeship Training

Description:

This 13-week hands-on Timber Framing program provides students with instruction on how to: choose and cut various timber frame joints, lay out timbers using square rule, mill rule, center line, and other techniques, design, assemble and construct two individual timber frame projects and help to construct and raise a large timber frame structure. The program includes classroom theory, demonstrations, and practical hands-on training in a fully functioning timber frame shop. Safe work habits are emphasized, reinforced and practiced throughout the program.

Credentials Granted:

Timber Framing Certificate

Delivery Methods: On-Campus (Face-to-Face)

Program Duration: 13 weeks

Instructional Activity and Hours:

Activity	Hours
Instructional Hours (hrs/wk)	28 hrs/wk
Directed Studies (hrs/wk)	2 hrs/wk
Total (hrs/wk)	30 hrs/wk
Total Program Hours	390 Hours

Admission Requirements:

- Secondary school graduation or equivalent
- One of the following is recommended

Workplace MATH 10, Workplace MATH 11 or Apprenticeship MATH 12 or equivalent

Flexible Assessment:

Credit can be awarded for this program through Flexible Assessment.

Program Transfer Credit:

For information about block transfer agreements between programs in British Columbia, Alberta, and elsewhere, please visit http://www.cotr.bc.ca/transfer.

To minimize transfer issues, check with an academic advisor at the institution that will receive the transfer credits.

Textbooks and Required Resources:

Textbook selection varies by instructor and may change from year to year. At the Program Outline Effective Date the following textbooks were in use: (most current edition)

Steve Chappell, A Timber Framer’s Workshop Joinery, Design and Construction of Traditional Timber Frames, A Corn Hill Book; Fox Maple Press Inc. / West Brownfield, Maine.

Jack Sobon & Roger Schroeder, Timber Frame Construction, All About Post & Beam Building, Storey Publishing, LLC/North Adams, Maine.

Please see the instructor’s syllabus or check COTR’s online text calculator https://textbook.cotr.bc.ca/ a complete list of the currently required textbooks.

Program Competencies and Technical Training Content:

Upon the successful completion of this program, student will be able to

- apply shop, site, and personal safety practices;
- use construction drawings and specifications;
- use ladders, scaffolds, and access equipment;
- use rigging and hoisting equipment;
- use hand tools, portable power tools and stationary power tools;
- design and construct a basic timber frame project;
- plan and organize work;
- perform estimating and pricing skills and timber conversions;
- solve frame dimensioning math problems;
- describe history of timber framing;
- identify wood species and properties;
- describe timber framing grading theory;
- describe and apply techniques for handling timbers;
- recognize and describe tension, compression, bending and shear loads as they apply to timber frame structures;
- describe and apply techniques of timber frame construction;
- select framing materials;
- select and sort timbers for framing;
- lay out and cut common timber frame joints using several layout methods;
- conduct basic checks on layout before cutting;
- assemble a frame; and
- timber frame finishing.

Evaluation and Assessment:

Students must pass the following Workplace Health and Safety courses for program completion:

- Workplace Hazardous Material Information System *(WHMIS: PVHE-700)*
- Fall protection *(PVHE-517)*
- Occupational First Aid – Level 1 (*OFA-1: PVHE-100)* *

*Students must complete Occupational First Aid Level 1 within the program or have a current Occupational First Aid Level 1 certificate valid to the end of the program.

Assignments	**% Of Total Grade**
Safety quizzes	10%
Math quizzes and pricing projects	15%
Timber Frame theory- assignments and quizzes	25%
Timber frame project 1 -Assembly and construction;	15%
Timber frame project 2- Design, assembly and construction	20%

Timber Frame Class Project- participation, construction and raising	15%
Total	**100%**

Pass Requirements:

- complete all assigned projects
- achieve a minimum combined overall grade of 70%

Students must provide their own:

- Steel-toed leather work boots
- Outdoor work clothes suitable for all weather conditions
- Safety glasses
- 3 inch 3-ringed binder
- Ear protection
- Carpenters pencils
- Carpenter’s apron or belt • Lumber crayons
- Gloves
- Good carpenter mechanical pencil with extra leads
- Long sleeve shirt
- Scientific or construction calculator
- Long leg pants
- Loose-leaf lined and graph paper
- Outdoor work clothes suitable for all weather conditions
- 3 inch 3-ringed binder
- Carpenters pencils
- Lumber crayons
- Good carpenter mechanical pencil with extra leads
- Scientific or construction calculator

Workplace Health and Safety Courses:

Workplace Hazardous Material Information System (WHMIS: PVHE-700)

Fall Protection (PVHE-517)

Basic First Aid – (PVHE-100)

Workplace Health and Safety Courses Grade Scheme:

COM	NCG
Completed to the minimum defined standard	No credit granted – less than minimum defined standard

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Academic Policies:

College of the Rockies policies related to courses can be found at https://cotr.bc.ca/about-us/college-policies/ and include the following:

- Policy 2.4.3 Students with Documented Disabilities
- Policy 2.4.4 Student Conduct (plagiarism, other cheating, behavioral misconduct)
- Policy 2.4.8 Academic Performance
- Policy 2.5.3 Grade Appeal
- Policy 2.4.9 Student Concerns Re Faculty

Program Grade

COM	NCG
Completed to the defined standard – 70% or greater	No Credit Granted – less than 70%

Program Changes:

Information contained in program outlines is correct at the time of publication. Content of the program is revised on an ongoing basis to ensure relevance to changing educational, employment, and marketing needs. The instructor endeavours to provide notice of changes to students as soon as possible. The instructor reserves the right to add material to programs.

Safety Catalog:

WorkSafeBC regulations apply to all trades programs. Students are expected to follow all safe work practices and have high regard for the safety of others as well as of themselves. Students are responsible to wear personal protective equipment (PPE) as directed. At a minimum, students must provide and wear approved safety footwear and eyewear at all times in the shop. Additional PPE may be required for specific tasks. Students are expected to wear clothing suitable for working safely in the shop.