DEPT. CRPT COURSE NO. 2240

COURSE TITLE: Framing II

CATALOG DESCRIPTION:
This course is designed for identification and assembly of all components in Western Platform framing construction in accordance with all state and local codes. Students will perform horizontal and vertical layout of interior and exterior wall assemblies. Erect, plumb and brace walls, fasten components together, and install exterior wall sheathing. Also students will get experience in various types of floor systems such as webbing trusses, I joists systems. Students will install roof truss systems, hand frame roof sections of various styles, including ceiling vaults and trays, and install roof sheathing. This course also covers construction of a variety of decks, porches and patios, the materials used in their construction and the methods of handling a variety of materials.

AUDIENCE: Second year carpentry students

PREREQUISITES OR NECESSARY ENTRY SKILLS/KNOWLEDGE:
First year carpentry, persons skilled in carpentry basics

LENGTH OF COURSE: 1 lecture and 3 lab credits

THIS COURSE IS USUALLY OFFERED:
Spring Semester

Four goals are emphasized in course at Minnesota West Community & Technical College:

1) ACADEMIC CONTENT: The student will attain knowledge in various up to date framing methods for energy efficient housing, roof system assemblies and sheathing methods. Also will get experience in various types of floor systems such as webbing trusses, I joists systems, etc. Knowledge of the materials involved, estimating of materials, methods of application, job site safety.

2) THINKING SKILLS: The student will be asked to layout interior and exterior walls for effective stud layout patterns, door and window openings, designing load bearing beams and walls, assemble roof systems with trusses and hand framing methods. Students will learn and layout different types of floor system. Other techniques used will be estimating, layout techniques, finishing techniques, blueprint reading.
3) **COMMUNICATIONS SKILLS:** The student must be able to work with others in the process of constructing the walls and roof systems, ordering materials, and maintaining a schedule. Each student will be Foreman of the entire house project for one week.

4) **HUMAN DIVERSITY:** The student should be aware that the access for handicapped persons on the job site is limited.

**TOPICS TO BE COVERED:** Various sizes of dimension lumber, wall assembly techniques, window and door openings, load bearing points, roof systems, sheathing materials, and estimating. Types of wood deck materials, methods of assembly, finishing techniques, methods of construction of concrete patios and porches, including steps and ramps.

**LIST OF EXPECTED COURSE OUTCOMES:**

01 Identify various wall stud layout patterns
02 Identify wall components
03 Blue print reading
04 Placement of door and window openings
05 Designing support header materials
06 Design load bearing beams
07 Design and install hand frame rafter and joist materials
08 Design and install a truss roof system
09 Discuss various types of roof styles
10 Install truss roof wind shear bracing
11 Install wall shear bracing
12 Install wall and roof sheathing
13 Installation of facia materials
14 Identify various roof styles (gable, hip, dutch hip, gambrel, etc)
15 Frame intersecting roofs, valleys, and hips
16 Apply UBC span tables
17 Assemble truss girders
18 Design wood floor system materials
19 Design stairwell openings
20 Identify various types of treated and natural types of deck materials
21 Estimate materials for a specific job
22 Identify and apply various assembly methods
23 Identify various methods of foundation protection for wood decks
24 Identify and apply building codes to the finished product.
25 Knowledge of various concrete mixes for certain applications
26 Estimate and apply materials for concrete porch and patio applications
27 Concrete finishing techniques for concrete surfaces including treads and risers.
LEARNING/TEACHING TECHNIQUES USED ARE:
Collaborative Learning  Problem Solving
Interactive Lectures  Individual Coaching
Creative Projects  Lecture
Demonstrations  Lab

ASSIGNMENTS AND ASSESSMENTS FOR THIS CLASS INCLUDE:
Tests  Individual Projects
Group Problems  Collaborative Projects
Other: Be a working Foreman

EXPECTED STUDENT LEARNING OUTCOMES: The student should be able to accomplish assembly of interior and exterior walls with supports and bracing according to code and complete assembly of roof and floor components including sheathing so as to be ready for shingling and other exterior finishes. The student should be able to accomplish identification and installation of all types of composite and wood decking, concrete porch and patio materials.

Veteran Services: Minnesota West is dedicated to assisting veterans and eligible family members in achieving their educational goals efficiently. Active duty and reserve/guard military members should advise their instructor of all regularly scheduled military appointments and duties that conflict with scheduled course requirements. Instructors will make every effort to work with the student to identify adjusted timelines. If you are a veteran, please contact the Minnesota West Veterans Service Office.

To receive reasonable accommodations for a documented disability, please contact the campus Student Services Advisor or campus Disability Coordinator as arrangements must be made in advance. In addition, students are encouraged to notify their instructor.

This document is available in alternative formats to individuals with disabilities by contacting the Student Services Advisor or by calling 800-658-2330 or Minnesota Relay Service at 800-627-3529 or by using your preferred relay service.

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The information in this course outline is subject to revision.