MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE  
COURSE OUTLINE

Faculty is required to have the outline submitted to the Academic Affairs Office. The course outline is the form used for approval of new courses by the Academic Affairs and Standards Council.

DEPT. _______ Agri _______ COURSE NUMBER: _______ 2220 _______

NUMBER OF CREDITS: 3

COURSE TITLE: Building Construction Technology

CATALOG DESCRIPTION:
Introduces instructional and laboratory exercises in light frame building construction. The course provides competence in skill areas including site layout, foundations, plumbing, insulating, sheathing, roofing and electrical wiring. The units are arranged in a logical sequence as to the order in which the various phases of construction are performed. Special emphasis is placed on safety and the use of modern tools, materials, and prefabricated components.

AUDIENCE:
Students pursuing a 4 year degree in Agricultural Education along with those interested in gaining an understanding of basic shop techniques.

FULFILLS MN TRANSFER CURRICULUM AREA(S) (Leave blank if not applicable)
Area: by meeting the following competencies:
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PREREQUISITES OR NECESSARY ENTRY SKILLS/KNOWLEDGE:
None

LENGTH OF COURSE:
One Semester

THIS COURSE IS USUALLY OFFERED:
Every other year □ fall □ x spring □ summer □ undetermined □

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

1) ACADEMIC CONTENT: The academic objectives of this course are:
   a. To draw a building to scale
   b. To plumb, wire and drywall a 8’ x 8’ building
   c. Safe working practices
2) THINKING SKILLS: This course will help students improve the effectiveness of their thinking skills through:
   a. Identification of proper use of laboratory tools and equipment.
   b. Development of mechanical and technical aptitudes and skills.
   c. Development of the ability to make appropriate judgment decisions in the laboratory.

3) COMMUNICATIONS SKILLS: This course will help students improve their oral and written communication skills through:
   a. Interactive lectures and laboratories
   b. Demonstration of proper use of tools to classmates

4) HUMAN DIVERSITY: This course will help students recognize, understand, and appreciate human diversity through:
   a. Working with others in small groups or partners in the laboratory setting

TOPICS TO BE COVERED:
1. Safe work environments
2. Hand and power tool safety
3. Leveling instruments and design
4. Footings and foundations
5. Building materials and tools
6. Electrical wiring
7. Wall construction and insulation
8. Plumbing
9. Roofing

COURSE LEARNING OUTCOMES (GENERAL):
To gain an overall knowledge and appreciation for mechanical and technical competencies in the laboratory setting relating to leveling instruments and design, footings and foundations, building materials and tools, electrical and wiring, wall construction and insulation, plumbing, and roofing.

STUDENT LEARNING OUTCOMES (SPECIFIC):
1. Develop a safe attitude and ability to learn in a laboratory setting
2. Identify and properly use hand tools and power tools
3. Develop an understanding of the building materials and hardware used in construction today
4. Demonstrate how to use a transit to check elevations and lay out building lines.
5. Demonstrate how to lay concrete slabs and build concrete walls
6. Demonstrate how to draw and construct wall framing
7. Identify and properly use plumbing tools and materials
8. Explain the different types of thermal and sound insulation and how they are used
9. Demonstrate how to apply drywall to framed walls and ceilings
10. Explain the different roof styles and parts of a roof frames
11. Demonstrate how to lay out and construct common rafters
12. Demonstrate how to properly apply shingles
LEARNING/TEACHING TECHNIQUES used in the course are:
- Collaborative Learning
- Problem Solving
- Student Presentations
- Interactive Lectures
- Creative Projects
- Individual Coaching
- Lecture
- Films/Videos/Slides
- Demonstrations
- Other (describe below)
- Lab

ASSIGNMENTS AND ASSESSMENTS FOR THIS CLASS INCLUDE:
- Reading
- Tests
- Individual Projects
- Oral Presentations
- Textbook Problems
- Collaborative Projects
- Group Problems
- Term Paper
- Term Paper
- Other (describe below)

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.

The information in this course outline is subject to revision

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 via your preferred Telecommunications Relay Service.

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Revised 10/1/16