MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE
COURSE OUTLINE

Faculty are 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.  CRPT                         COURSE NUMBER:  1125

NUMBER OF CREDITS:  3  (1 lecture, 2 lab)

COURSE TITLE: Estimating and Blueprint Reading

CATALOG DESCRIPTION: Students will learn how to estimate the cost of a house and gain in-depth knowledge of carpentry math. They will learn the basic principles of interpreting blueprint reading and transferring the knowledge into a complete project.

AUDIENCE: Carpentry I students

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: Desire to learn through a combination of lecture and hand-on activities. Career interest in the building construction trade.

LENGTH OF COURSE : One semester

THIS COURSE IS USUALLY OFFERED:
Every other year ☐   fall ☐   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. Improve writing skills with the completion of required written assignments.
   b. Improve mathematical skills calculating linear measurements, dimensions, area, and volume measurements.
   c. Improve reading skills with the completion of required reading assignments.

2) THINKING SKILLS: This course will help students improve the effectiveness of their thinking skills through:
   a. Interpretation of blueprints and building product specifications as they apply to construction methods and techniques.
b. Demonstration by individuals to calculate statistics into current building situations.
c. Decision making processes that involve recalling facts and specifics about given situations or problems encountered in building construction, evaluating the situation, and reaching a conclusion.

3) COMMUNICATIONS SKILLS: This course will help students improve their oral and written communication skills through:
   a. Group problem solving, collaborative projects and individual demonstrations.
   b. Individual classroom assignments and interactive lectures.

4) HUMAN DIVERSITY: This course will help students recognize, understand, and appreciate human diversity through:
   a. Working in a team with persons of different race, gender, and cultural background.

TOPICS TO BE COVERED:
1. Types of plans and symbols.
2. Reading and interpreting plot plans, basement plans, floor plans, and elevations.
3. Reading and interpreting section plans and detail plans.
4. Window, door, and finish schedules.

LIST OF EXPECTED COURSE OUTCOMES:
1. read plot plans
2. read basement plans
3. read floor plans
4. read elevation views
5. read roof framing plans
6. read cabinet detail plans
7. read section plans
8. explain general and specific notes
9. identify symbols on construction plans
10. explain finish schedules
11. explain window and door schedules
12. explain product catalogs
13. identify sections
14. estimate re-rod
15. estimate concrete floors
16. estimate sills
17. estimate floor framing components
18. estimate foundation materials
19. estimate wall framing components
20. estimate roof framing components
21. estimate header materials
22. estimate exterior wall coverings
23. estimate exterior roof coverings
24. estimate insulation and vapor barriers
25. estimate drywall
26. estimate doors and windows
27. estimate all interior trim
28. estimate finish floor coverings

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
- Lab
- Oral Presentations
- Individual Projects
- Textbook Problems
- Collaborative Projects
- Group Problems
- Papers
- Other (describe below)
- Term Paper

EXPECTED STUDENT LEARNING OUTCOMES:

1. Recognize common symbols used on architectural plans.
2. Accurately read and interpret dimensions on architectural plans.
3. Demonstrate an understanding of product detail catalogs.
4. Demonstrate accurate interpretation of information on plot plans, foundation plans, floor plans, elevation views, and section plans.
5. Accurately list all building materials required for a residential house based on a given plan.

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.