

Course discipline/number/title: CR 1625: Footings and Foundations

A. CATALOG DESCRIPTION

1. Credits: 2
2. Hours/Week: 4 hours/lab
3. Prerequisites (Course discipline/number): None
4. MnTC Goals (if any): NA

This course is a study and practice of building wood and concrete foundations. Students utilize survey equipment to locate property lines, set building corners, and establish grades and elevations. Students will build concrete footing and foundation wall forms.

B. DATE LAST REVISED (Month, year): November, 2017

C. OUTLINE OF MAJOR CONTENT AREAS:

1. Safety concerning trenches and excavations
2. Concrete tools and equipment
3. Survey equipment, including strings, steaks and instruments
4. Plot plans, site plans, grades and elevations
5. Building corners and shop drawings
6. Properties of concrete and steel
7. Build footing forms, place and finish concrete
8. Calculate material quantities

D. LEARNING OUTCOMES (GENERAL): The student will be able to:

1. Safely work within trenches and excavations
2. Describe concrete and steel reinforcement
3. Set up builder's level, set elevations and establish alignment
4. Use a laser level
5. Interpret construction drawings and documents
6. Build forms, place and finish concrete
7. Estimate concrete quantities
8. Perform carpentry skills and apply codes

E. LEARNING OUTCOMES (MNTC): NA

F. METHODS FOR EVALUATION OF STUDENT LEARNING:

Methods may include but are not limited to:

1. Research assignments
2. Quizzes
3. Exams
4. Class Participation

G. RCTC CORE OUTCOME(S) ADDRESSED:

Critical Thinking. Students will think systematically and explore information thoroughly before accepting or formulating a position or conclusion.

H. SPECIAL INFORMATION (if any): None