

North Hennepin Community College

CMSV 2100: Soils and Concrete Technology

A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: *.*

Lab Hours/Week: *.*

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

MnTC Goals: None

This course familiarizes students with the history and fundamentals of concrete, admixtures, soils and aggregates. The student will understand the interactions of concrete, weather, and soil conditions; the proper placement of concrete; bearing capacity of soils; and the basic principles of concrete and soil inspection.

B. COURSE EFFECTIVE DATES: 05/12/2012 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Soil classification 10%
2. Upper mid-west geology 5%
3. Soil exploration and testing 10%
4. Bearing capacity of soils 5%
5. Fundamentals and history of concrete 5%
6. Strength, durability, and properties of concrete 15%
7. Admixtures 15%
8. Construct forms and place steel reinforcement 10%
9. Batching and handling concrete 5%
10. Finishing concrete 5%
11. Testing and controlling concrete 15%

D. LEARNING OUTCOMES (General)

1. Classify soils types and their bearing capacities. (NHCC ELO 1)
2. Explain the proper installation of concrete forms and steel reinforcement (NHCC ELO 4)
3. Distinguish between different types of concrete and admixtures (NHCC ELO 1)
4. Identify the properties and characteristics of concrete (NHCC ELO 1)
5. Recommend cost effective techniques for the placement and handling of materials (NHCC ELOs 2, 4)
6. Interpret plans, specifications and technical drawings (NHCC ELOs 2, 4)
7. Prepare technical documentsIdentify equipment, structures, and materials. (NHCC ELOs 2, 4)

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted