

# **Minnesota State University Moorhead**

## **CM 200L: Construction Surveying Lab**

### **A. COURSE DESCRIPTION**

Credits: 1

Lecture Hours/Week: 0

Lab Hours/Week: 0

OJT Hours/Week: \*.\*

Prerequisites: None

Corequisites: None

MnTC Goals: None

Hands-on experiences with transit, level, and total station. Measuring distances and angles, direct differential leveling, and construction site layout. Concurrent registration required in CM 200.

**B. COURSE EFFECTIVE DATES:** 03/03/2014 - Present

### **C. OUTLINE OF MAJOR CONTENT AREAS**

1. Students will practice surveying techniques during lab sessions. Student teams will apply surveying skills by completing a building layout lab.

### **D. LEARNING OUTCOMES (General)**

1. Determine the elevation of points relative to a defined benchmark.
2. Lay out construction locations relative to a defined boundary and benchmark.
3. Measure distances with tape and total station.
4. Measure horizontal and vertical angles with digital transit and total station.

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

None

### **F. LEARNER OUTCOMES ASSESSMENT**

As noted on course syllabus

### **G. SPECIAL INFORMATION**

None noted