

# Minnesota State University Moorhead

## CM 200L: Construction Surveying Lab

### A. COURSE DESCRIPTION

Credits: 1

Lecture Hours/Week: \*.\*

Lab Hours/Week: \*.\*

OJT Hours/Week: \*.\*

Prerequisites: None

Corequisites: CM 200

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