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 Fall 2013

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MOHAWK VALLEY COMMUNITY COLLEGE

UTICA-ROME, NY

ENGINEERING TECHNOLOGIES AND THE TRADES DEPARTMENT

# CT 253 SURVEYING 3 COURSE OUTLINE

1. CATALOG DESCRIPTION:

CT253 SURVEYING 3 C-0, P-8, Cr.-4

This course is an introduction to engineering field surveys, equipment, and methods. Topics include azimuth determination, control and level nets, surveying with data recording total stations and position determination with Global Positioning Systems (GPS), including computer exposure for data reductions.

Prerequisite: CT151 Surveying 1

Or permission of instructor

1. MATERIALS:

Text: Elementary Surveying, An Introduction to Geomatics,

by Wolf and Ghilani, Prentice-Hall, latest edition

Sewn, bound, hardcover field book.

Recommended: Programmable reverse polish notation

calculator. The Hewlett Packard HP-49 or 33

is recommended, although students have

 successfully used various TI and Casio

 models in the past.

1. MAJOR TOPICS:

The purpose of this course is to familiarize Surveying and Geospatial Technology students with the systems used in high order control surveys.

Student Learning Objectives:

The student will learn the methods systems by which high order control survey networks are established. Quantification of student progress will be achieved by an extensive series of written examinations along with weekly practical laboratories.

Measurable Student Learning Objectives:

1. Students will design and construct spreadsheets for the analysis of solar observations to solve for meridian determination.

2. Students will apply instruction in advanced surveying field procedures in the solution and analysis of technical problems.

 Additionally, student will:

1. Learn to function effectively as team members in laboratory situations.
2. Enhance their ability to apply current knowledge and adapt to merging applications of mathematics, science, engineering and technology.
3. Enhance their ability to conduct, analyze and interpret measurements and error.
4. Enhance their ability to identity, analyze and solve technical problems.

5. Enhance their appreciation of their professional

 responsibilities in the Surveying and Geospatial

 fields.