

COURSE INFORMATION

COURSE PREFIX/NO: **EGT 105**

COURSE TITLE: **Basic Civil Drafting**

LEC HRS/WK: **2.0**

LAB HRS/WK: **4.0**

CREDIT HRS/SEMESTER: **2.0**

DL ATTENDANCE/VA STATEMENT
TEXTBOOK INFORMATION

COURSE DESCRIPTION:

This course covers the applications of drawing techniques, to structures, map topography, and other civil applications.

COURSE COMPETENCIES:

Upon successful completion of this course, the student should be competent to perform the following tasks:

Module 1 – Introduction to Surveying Fundamentals

- Define terms related to maps and civil drafting
- Identify types of maps
- Describe land measurement techniques used in surveying
- Calculate leveling field notes to determine unknown elevations
- Describe global positioning system (GPS)

Module 2 - Location and Direction

- Determine the azimuths of given lines
- Establish the bearing, distance, cos, sin, latitude, and departure from a given traverse
- Draw a traverse from given information
- Determine the length and bearing of property lines from given northing and easting information and then draw the traverse.

Module 3 – Legal Descriptions and Plot Plans

- Use civil engineer scale to measure given lines
- Draw plot plans from sketches and given information
- Define specific mapping symbols
- Use mapping symbols to draw a map from given information

Module 5 - Topographic Maps

- Describe topographical features using contour lines
- Identify different types of contour lines
- Create contour map field notes and use the interpolation method
- Construct profile drawings using contour maps
- Construct profile drawings using profile measurement field notes

Module 6 - Highway Layout

- Create a highway layout drawing using the point of curve and point of intersection methods.
- Construct a vertical curve profile drawing
- Calculate tangent distances for a vertical curve

EVALUATION STRATEGIES/GRADING:

ATTENDANCE

The College attendance policy stated in the College handbook will be honored.

ACADEMIC HONESTY:

Students are expected to adhere to the College policy regarding student conduct as stated in the College handbook.

ASSIGNMENTS:

Students are expected to complete all assignments and any supplementary exercises designated by the instructor.

Text Book:

Students are expected to purchase the required textbook for this course.

EVALUATION CRITERIA/GRADING:

The grading scale will be the standard for York Technical College:

Grade Points

A 90 - 100

B 80 - 89

C 70 - 79

D 60 - 69

F 0 - 59

Evaluation Method

Module Test 25%

Class Assignments 50%

Drawings and Projects 25%

ENTRY LEVEL SKILLS:

Knowledge of the fundamental principles of drafting and a current release of AutoCAD is required.

It is strongly recommended that the student have a basic math skills background in arithmetic operations with decimals and fractions and a fundamental knowledge of trigonometry.

PREREQUISITES: EGT 110

CO-REQUISITES: None

TOPIC/CONTENT OUTLINE:

- I. Introduction to Civil Drafting
 - a. Introduction to surveying fundamentals
 - b. Location and Direction
 - c. Legal Descriptions and plot plans
- II. Mapping
 - a. Topographic Maps
 - b. Highway Layout

METHODS OF INSTRUCTION:

This is a lab type course in which the student practices and develops techniques by completing drawings and study assignments. There are no regularly scheduled lecture hours. Adequate lab time will, however, be devoted to lecture to convey the required basic information.