

COURSE INFORMATION

COURSE PREFIX/NO: **EGT 110**

COURSE TITLE: **Engineering Graphics I**

LEC HRS/WK: 2.0

LAB HRS/WK: 6.0

CREDIT HRS/SEMESTER: 4.0

[DL ATTENDANCE/VA STATEMENT](#)
[TEXTBOOK INFORMATION](#)

COURSE DESCRIPTION:

This is an introductory course in engineering graphics science which includes beginning drawing techniques and development of skills to produce basic technical drawings.

COURSE COMPETENCIES: *(This course is structured in modular format)*

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

Module 1 – Fundamentals

- Demonstrate AutoCAD start-up procedures
- Demonstrate ability to read mechanical engineering scales
- Demonstrate correct use of triangles and compass
- Use AutoCAD display controls

Module 2 - Introduction to AutoCAD Features

- Draw and erase lines
- Create and use AutoCAD text styles
- Edit text
- Demonstrate AutoCAD editing techniques

Module 3 - Geometric Construction

- Demonstrate use of OBJECT SNAP
- Demonstrate principles of layers, line types and colors
- Use drafting instruments to locate tangencies and construct regular polygons
- Use AutoCAD to apply graphic geometry principles to drawings

Module 4 - Shape Description and Orthographic Projection

- Sketch and/or draw the three principle orthographic views of an object using drafting instruments
- Use AutoCAD to produce and edit three orthographic views of an object
- Sketch and draw an isometric view of an object

Module 5 – Dimensioning

- Create and use AutoCAD dimension styles
- Apply ANSI dimensioning standards to drawings

EVALUATION STRATEGIES/GRADING:

Given instructions on basic drawing procedures and AutoCAD commands the student will produce a minimum of ten drawings using traditional drafting equipment and/or AutoCAD software. The average of these grades shall be no less than 70%.

Given instruction on basic drawing procedures and AutoCAD commands the student will demonstrate an understanding of these various procedures by completing a minimum of three written tests. The average of these grades shall be no less than 70%.

In the final week of the semester the student will demonstrate an understanding of all concepts presented in this course by completing a cumulative final examination with a minimum accuracy of 70%

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 Tests	25%
Class Assignments	50%
Final Exam	25%

ENTRY LEVEL SKILLS:

It is recommended that the student entering this course have a basic math skills background in arithmetic operations with decimals and fractions. Some background in geometry and trigonometry is very helpful but not required.

PREREQUISITES:

RDG 100 or equivalent.

CO-REQUISITES:

None

TOPIC/CONTENT OUTLINE:

I. Introduction to Engineering Drawing Principles

- Fundamentals
- Introduction to AutoCAD Features

II. Applying Engineering Drawing Principles

- Geometric Construction
- Shape Description and Orthographic Projection
- Dimensioning

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.