
COURSE PREFIX/NO:	EGT 110
COURSE TITLE:	Engineering Graphics I
LEC HRS/WK:	3.0
LAB HRS/WK:	3.0
CREDIT HRS/SEMESTER:	4.0

[Distance Learning 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

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

Module 1 – Drafting Fundamentals

- Demonstrate correct use of drafting triangles
- Demonstrate correct use of drafting compass
- Demonstrate ability to read mechanical engineering scales
- Use manual drafting instruments to locate tangencies and construct regular polygons

Module 2 – Introduction to AutoCAD Features

- Demonstrate AutoCAD start-up procedures
- Demonstrate closing, opening and saving files
- Manage multiple documents
- Access drawing properties
- Use AutoCAD standard templates
- Create custom templates
- Use AutoCAD display controls
- Use absolute, relative and polar coordinates to draw lines
- Select objects using a rectangular windows, fence, and polygonal windows
- Use layers, line types and colors in drawings

Module 3 – Geometric Construction

- Use AutoCAD to apply graphic geometry principles to draw circles, polygons, rectangles, ellipses and arcs
- Use AutoCAD to create tangent arcs and circles
- Demonstrate use of OBJECT SNAP
- Use grips for editing features
- Use the following commands to create drawings: MOVE, COPY, ROTATE, OFFSET, TRIM, EXTEND, BREAK, CHAMFER, FILLET, MIRROR, ARRAY

Module 4 – Shape Description and Orthographic Projection

- Sketch and/or draw the three principle orthographic views of an object using drafting instruments
- Demonstrate correct use of object, hidden and center lines in orthographic drawings
- Use AutoCAD to produce and edit orthographic views of objects with normal surfaces
- Use AutoCAD to produce and edit orthographic views of objects with inclined surfaces
- Use AutoCAD to produce and edit orthographic views of objects with oblique surfaces
- Use AutoCAD to produce and edit orthographic views of objects with cylindrical surfaces
- Use AutoCAD to create drawings with fillets, rounds, run-outs and counter bored holes

Module 5 – Dimensioning

- Create and use AutoCAD dimension styles in drawings
- Apply ANSI dimensioning standards to drawings with normal, inclined, oblique and cylindrical surfaces

Module 6 – Ethics

- Discuss ethics, global awareness and diversity as it relates to the workplace.

MINIMAL STANDARDS / PERFORMANCE OBJECTIVES

Successful completion of the course requires the completion of each module with an average of 70 points. Grades will be calculated from all tests/projects and homework assignments.

COURSE REQUIREMENTS

Students are responsible for attaining the course competencies through completion of the following requirements:

Attendance

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

Participation in Class Discussion

Assignments

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

Academic Honesty

York Technical College adheres to the SCTCS Student Code, approved by the State Board for Technical and Comprehensive Education on September 13, 2007. Copies of this code are available in the Library and from Student Services. ... Any student caught cheating or involved in any other academic dishonesty will be given a grade of zero and will be subject to further disciplinary action.

EVALUATION CRITERIA / GRADING

The grading scale follows:

A	90-100
B	80-89
C	70-79
D	60-69
F	0-59

Evaluation Method

Module Tests	25%
Participation/Discussions	10%
Class Assignments	50%
Final Exam	15%
Total	100%

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, MAT 032 or equivalent test scores

CO-REQUISITES: None

Disability Statement: Any student who feels s/he may need an accommodation based on the impact of a disability should contact the Special Resources Office (SRO) at 803-327-8007 in the 300 area of Student Services. The SRO coordinates reasonable accommodations for students with documented disabilities.