2024-2025 TTC Catalog - Engineering Graphics Technology (EGT)

EGT 001 - EGT 001

Lec: 0 **Lab:** 0 **Credit:** *

Indicates credit given for engineering graphics course work transferred from another college for which there is no equivalent course at TTC. *Hours vary depending on external course.

Division: Engineering and Construction

EGT 106 - Print Reading and Sketching

Lec: 3.0 **Lab:** 0 **Credit:** 3.0

Course Offered

Fall

This course covers the interpretation of basic engineering drawings and sketching techniques for making multiview pictorial representations.

Grade Type: Letter Grade

Division: Engineering and Construction

EGT 115 - Engineering Graphics II

Lec: 2.0 **Lab:** 6.0 **Credit:** 4.0

Course Offered

Spring

This course in engineering graphics science includes additional drawing techniques for industrial applications. Mechanical detail and assembly drawings will be emphasized. Topics include section views, descriptive geometry, developments, threads and fasteners.

Prerequisite

EGR 275

or

EGT 151

with a minimum grade of C

Prerequisite or Corequisite

EGT 152

Grade Type: Letter Grade

Division: Engineering and Construction

EGT 130 - Geometric Dimensioning and Tolerancing Applications

Lec: 3.0 **Lab:** 0 **Credit:** 3.0

Course Offered

Spring

This course covers interpreting, calculating tolerances, inspecting, computing geometrics of rejected parts and analyzing the concepts of geometric control.

Prerequisite

EGT 151

or

EGR 275

or

departmental approval

Grade Type: Letter Grade

Division: Engineering and Construction

EGT 151 - Introduction to CAD

Lec: 2.0 **Lab:** 3.0 **Credit:** 3.0

Course Offered

Fall
Spring
Summer

This course covers the operation of a computer aided drafting system. The course includes interaction with a CAD station to produce technical drawings.

Prerequisite or Corequisite

MAT 101

or

MAT 155

or

MAT 170

or appropriate placement

Grade Type: Letter Grade

Division: Engineering and Construction

EGT 152 - Fundamentals of CAD

Lec: 2.0 **Lab:** 3.0 **Credit:** 3.0

Course Offered

Fall
Spring
Summer

This course includes a related series of problems and exercises utilizing the computer graphics station as a drafting tool.

Prerequisite

EGR 275

or

EGT 151

Grade Type: Letter Grade

Division: Engineering and Construction

EGT 172 - Electronic Drafting

Lec: 1.0 **Lab:** 3.0 **Credit:** 2.0

Course Offered

Summer

This course provides a familiarization with a system to create electronic schematics and wiring diagrams.

Prerequisite

EGT 152

Grade Type: Letter Grade

Division: Engineering and Construction

EGT 220 - Structural and Piping Application

Lec: 3.0 **Lab:** 3.0 **Credit:** 4.0

Course Offered

Summer

This advanced drawing course covers structural steel and process piping applications.

Prerequisite

EGT 152

Grade Type: Letter Grade

Division: Engineering and Construction

EGT 245 - Principles of Parametric CAD

Lec: 2.0 **Lab:** 3.0 **Credit:** 3.0

Course Offered

Summer

This course is the study of 3-D product and machine design utilizing state-of-the-art parametric design software.

Prerequisite

EGT 151

or

departmental approval

Grade Type: Letter Grade

Division: Engineering and Construction

EGT 251 - Principles of CAD

Lec: 2.0 **Lab:** 3.0 **Credit:** 3.0

Course Offered

Fall

This course includes the additional use of CAD software for production of technical drawings and related documentation.

Prerequisite

EGT 151

or

departmental approval

Grade Type: Letter Grade

Division: Engineering and Construction

EGT 252 - Advanced CAD

Lec: 2.0 **Lab:** 3.0 **Credit:** 3.0

Course Offered

Fall
Spring
Summer

This course covers advanced concepts of CAD software and applications. The primary focus is on generating 3-D wireframe, surfaced and solid models.

Prerequisite

EGT 152

Grade Type: Letter Grade

Division: Engineering and Construction

EGT 257 - Advanced Civil CAD

Lec: 2.0 **Lab:** 3.0 **Credit:** 3.0

Course Offered

Fall

This course is a study of the advanced use of CAD in the field of civil engineering. Students will complete drawing projects using concepts related to planning, data capture and project design.

Prerequisite

EGT 152

or

departmental approval

Grade Type: Letter Grade

Division: Engineering and Construction

EGT 258 - Applications of CAD

Lec: 2.0 **Lab:** 3.0 **Credit:** 3.0

Course Offered

Spring

This course is the study of the use of CAD within the different drafting and design fields. Students will complete CAD projects for various fields which may include architectural, civil, mechanical, HVAC, and electrical. Application of parametric modeling skills learned from this and prerequisite courses are to be demonstrated in assigned projects.

Prerequisite

EGT 251

Grade Type: Letter Grade

Division: Engineering and Construction

EGT 261 - Model Design and Simulation

Lec: 3.0 **Lab:** 3.0 **Credit:** 4.0

Course Offered

Spring

This course includes the application of fundamental methods for designing 3D parametric models that can be easily modified to fit changing requirements. Students also learn techniques to test the movement of parts within an assembly and simulation procedures to test model strength and integrity.

Prerequisite

EGT 258

Grade Type: Letter Grade

Division: Engineering and Construction

EGT 265 - CAD/CAM Applications

Lec: 2.0 **Lab:** 3.0 **Credit:** 3.0

Course Offered

Fall

This course uses all available CAD skills to produce advanced drawings. The use of solids modeling, CAM and desktop publishing application packages are studied.

Prerequisite

EGT 151

or

departmental approval

Grade Type: Letter Grade

Division: Engineering and Construction
