

# 2021-2022 TTC Catalog - Engineering Graphics Technology (EGT)

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## 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

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## 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

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## EGT 114 - Welding Print Basics

**Lec:** 2.0 **Lab:** 0 **Credit:** 2.0

### Course Offered

Fall

Summer

This course covers the fundamentals of print reading for welding applications.

**Grade Type:** Letter Grade

**Division:** Engineering and Construction

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## **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

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## **EGT 117 - Welding Print Principles**

**Lec:** 2.0 **Lab:** 0 **Credit:** 2.0

### **Course Offered**

Spring

This course covers welding symbols and their application to pipe fabrication.

### **Prerequisite**

EGT 114

**Grade Type:** Letter Grade

**Division:** Engineering and Construction

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## **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

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**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

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**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 or Corequisite**

EGT 252

**Grade Type:** Letter Grade

**Division:** Engineering and Construction

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**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 252

or

departmental approval

**Grade Type:** Letter Grade

**Division:** Engineering and Construction

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**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 252

or

departmental approval

**Grade Type:** Letter Grade

**Division:** Engineering and Construction

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**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

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## **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

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## **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

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## **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 252

or

departmental approval

**Grade Type:** Letter Grade**Division:** Engineering and Construction**EGT 270 - Manufacturing Integration****Lec:** 3.0 **Lab:** 3.0 **Credit:** 4.0**Course Offered**

Spring

This course covers management control techniques of the industry/business world, including inventory and obsolescence control, manufacturing and production systems, engineering design change, and material accountability procedures.

**Prerequisite**

EGT 251

**Grade Type:** Letter Grade**Division:** Engineering and Construction