

# 2023-2024 TTC Catalog - Civil Engineering Technology (CET)

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## CET 001 - CET 001

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

Indicates credit given for civil engineering technology 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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## CET 110 - International Residential Codes

**Lec:** 4.0 **Lab:** 0 **Credit:** 4.0

### Course Offered

Fall  
Spring  
Summer

This course is the study of the use and interpretation of the international residential codes including building, plumbing, mechanical, and electrical codes.

### Prerequisite

CET 120

**Grade Type:** Letter Grade

**Division:** Engineering and Construction

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## CET 120 - Construction Materials

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

### Course Offered

Fall  
Summer

This course is a study of basic materials used in construction, research of building product specifications and code requirements.

### Prerequisite

MAT 033

or

Appropriate placement.

**Grade Type:** Letter Grade

**Division:** Engineering and Construction

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## **CET 127 - Building Construction and Print Reading**

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

### **Course Offered**

Spring

This course is a study of construction methods and blueprint reading.

**Grade Type:** Letter Grade

**Division:** Engineering and Construction

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## **CET 204 - Fundamentals of Surveying**

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

### **Course Offered**

Summer

This course is the study of surveying theory and practice; care and use of instruments; traversing procedures; and computation of closure. Students are introduced to specific methods and principles of spatial measurements and related techniques used in surveying. The course includes linear measurements, leveling, compass and transit/theodolite, theory of errors, areas, stadia, coordinate geometry, state plane coordinates and standard map projections. Lab work consists of horizontal control including distance and angular measurements, traversing and preparation of a plat, and vertical control including the performance of a level loop.

### **Prerequisite**

MAT 170

and

EGT 151

**Grade Type:** Letter Grade

**Division:** Engineering and Construction

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## **CET 205 - Surveying II**

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

This course includes electro-optical instrumentation techniques and complex computations used in surveying. The course covers land surveying and boundary laws, public land surveys, topographic mapping, horizontal and vertical curves, lot calculations, GPS survey technology and surveying astronomy. Lab work consists of locating objects within a survey boundary, performing a boundary and topographic survey and performing a survey using GPS equipment.

### **Prerequisite**

CET 204

### **Corequisite**

EGT 152

and

EGR 290

**Grade Type:** Letter Grade

**Division:** Engineering and Construction

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## **CET 215 - Soil Mechanics Fundamentals**

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

### **Course Offered**

Fall

This course is a study of soils and their engineering properties, underground investigations, classifications and foundations.

### **Corequisite**

EGR 194

**Grade Type:** Letter Grade

**Division:** Engineering and Construction

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## **CET 218 - Hydraulics**

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

### **Course Offered**

Spring

This course is a study of hydrostatics and fluid flow, control and disposal of water, including flow through open and closed channels, weirs and orifices.

### **Prerequisite**

EGR 290

**Grade Type:** Letter Grade

**Division:** Engineering and Construction

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## **CET 230 - Construction Management**

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

### **Course Offered**

Spring

This course is a study of the management of construction firms dealing with bidding, contracts, costs and labor.

**Grade Type:** Letter Grade

**Division:** Engineering and Construction

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## **CET 245 - Cost Estimating**

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

### **Course Offered**

Spring

This course covers preparing material lists, project costs and scheduling for a construction project using proven estimating methods.

### **Prerequisite**

CET 127

and

MAT 033

**Grade Type:** Letter Grade

**Division:** Engineering and Construction

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## **CET 246 - Environmental Systems Technology**

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

This course covers the design and drafting of sewer systems for subdivisions, including the sources, collection, treatment and distribution of water and sewer.

### **Prerequisite**

CET 218

**Grade Type:** Letter Grade

**Division:** Engineering and Construction

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