

2018-2019 TTC Catalog - Civil Engineering Technology (CET)

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

CET 120 - Construction Materials

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

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

Prerequisite

MAT 032

Grade Type: Letter Grade

Division: Engineering and Construction

CET 127 - Building Construction and Print Reading

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

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

Grade Type: Letter Grade

Division: Engineering and Construction

CET 135 - Construction Contracts

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

This course covers basic engineering law, and owner, engineer and contractor relationships and responsibilities. It also includes performance requirements, bidding procedures, and format and specification interpretation.

Grade Type: Letter Grade

Division: Engineering and Construction

CET 204 - Fundamentals of Surveying

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

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

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

CET 215 - Soil Mechanics Fundamentals

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

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

CET 218 - Hydraulics

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

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

CET 230 - Construction Management

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

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

CET 238 - Construction Planning and Scheduling

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

This course covers the organization, planning and scheduling of labor, materials and equipment for a construction project through the use of contemporary scheduling methods.

Prerequisite

CET 127

Grade Type: Letter Grade

Division: Engineering and Construction

CET 245 - Cost Estimating

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

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

Prerequisite

CET 127

and

MAT 032

Grade Type: Letter Grade

Division: Engineering and Construction

CET 246 - Environmental Systems Technology

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

CET 251 - Highway Design

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

This course is a study of the design and construction of highways.

Prerequisite

CET 218

and

EGT 257

Grade Type: Letter Grade

Division: Engineering and Construction
