Civil Engineering Technology

Surveying and Geomatics Engineering Technology

OWENS CAMPUS Fall 2020

This program option prepares graduates with the technical skills necessary to enter careers in boundary and/or land surveying, geographic and/or land information systems, engineering project surveying, mapping and geodesy, or other related areas. This curriculum option emphasizes practical applications in the areas of field mapping, interpretation of basic land records and the preparation of maps and plats. Students learn on modern surveying equipment, including total stations, static and kinematic GPS. The use of computers for CAD, data acquisition, and analysis is integrated throughout the program preparing graduates for immediate productivity in the profession.

The State of Delaware recognizes the Civil Engineering Technology, Surveying and Geomatics Option as part of the pathway to licensure as a professional land surveyor.

PROGRAM SPECIFIC ADVISEMENT STATEMENT

Courses - Semester 1	Credits	Lecture	Lab
SSC 100 - First Year Seminar	1	1	0
CET 125 - Civil & Envl Drafting & Design	3	2	4
EDD 171 - Intro to CAD Using AutoCAD	3	2	2
ENG 101 - Crit Thinking & Acad Writing	3	3	0
(MAT 180 - College Algebra	4	4	1
OR MAT 281 - Calculus I)	4	4	1
CET 135 - Engineering Materials	3	2	2

Courses - Semester 2	Credits	Lecture	Lab
CET 144 - Surveying Principles	4	3	3
ENG 102 - Composition and Research	3	3	0
(MAT 190 - Precalculus	4	4	1
OR MAT 282 - Calculus II)	4	4	1
(PHY 205 - General Physics I	4	3	3
OR PHY 281 - Physics I with Calculus)	4	3	3

Courses - Semester 3	Credits	Lecture	Lab
CMT 234 - Cost Estimating/Planning	3	2	2
CET 225 - Civil CAD Applications	3	2	3
CET 240 - Hydraulics and Hydrology	4	3	3
CET 247 - Route Surveying and Design	3	2	3
GIS 101 - Introduction to GIS	3	2	2

Courses - Semester 4	Credits	Lecture	Lab
CET 236 - Soils	3	2	2
CET 244 - Principles of Site Development	4	3	3
CET 245 - Advanced Surveying Co-op	3	2	0
CET 248 - Boundary Surveying and Law	3	3	0

Approved Electives

Select two (2) social science electives from the listing below to take in the second and fourth semesters.

Group	Courses	Credits	Lecture	Lab
A	CLT 110 - Cross-Cultural Immersion	3	3	0
A	(HIS 111 - U. S. History: Pre-Civil War	3	3	0
A	OR HIS 112 - U. S. History: Post-Civil War)	3	3	0
A	(ECO 111 - Macroeconomics	3	3	0
A	OR ECO 122 - Microeconomics)	3	3	0
A	POL 111 - Political Science	3	3	0
A	PSY 121 - General Psychology	3	3	0
A	SOC 111 - Sociology	3	3	0
A	SOC 103 - Sustainability and Society	3	3	
A	SOC 104 - Human Geography	3	3	0

*To complete program requirements, you must pass the above courses and earn at least **67 credits**. The number of courses and credits required for graduation may be more depending on your need for developmental education courses and the elective choices you make (if electives are a part of the program). Some programs also have college-level courses that you must take if you do not score at a certain level on the College Placement Test. If this applies to your program, the courses are listed at the top of the sequence sheet before the first semester of the course list.*