

APPLIED ENGINEERING & TECHNOLOGIES

GEOMATICS TECHNOLOGY

Geomatics Technology Degree - A40420

The Geomatics Technology curriculum provides training for technicians in the many areas of surveying. Surveyors are involved in land surveying, route surveying, construction surveying, photogrammetry, mapping, global positioning systems, geographical information systems, and other areas of property description and measurements.

Course work includes the communication and computational skills required for boundary, construction, route, and control surveying, photogrammetry, topography, drainage, surveying law, and subdivision design, with emphasis upon applications of electronic data collection and related software including CAD.

Graduates should qualify for jobs as survey party chief, instrument person, surveying technician, highway surveyor, mapper, GPS technician, and CAD operator. Graduates will be prepared to pursue the requirements necessary to become a Registered Land Surveyor in North Carolina.

Geomatics Technology: CAD Certificate – C40420A

Geomatics Technology: Field Technician Certificate – C40420B

Geomatics Technology: Design Certificate – C40420C

Program Sequence

First Semester

ACA 115	Success & Study Skills.....	1
CEG 115	Intro to Tech and Sustainability.....	3
CEG 115A	Intro to Tech and Sustainability Lab.....	1
SRV 110	Surveying I.....	4
MAT 121	Algebra and Trigonometry.....	3
PSY 118	Interpersonal Psychology.....	3

Second Semester

CEG 111	Introduction to GIS/GNSS.....	4
CEG 151	CAD for Engineering Tech.....	3
COM 120	Intro to Interpersonal Communication.....	3
ENG 111	Writing and Inquiry.....	3
SRV 111	Surveying II.....	4

Third Semester

CIV 125	Civil/Surveying CAD.....	3
SRV 260	Field and Office Practices.....	2

Fourth Semester

CEG 211	Hydrology and Erosion Control.....	3
COM 120	Intro to Interpersonal Communication.....	3
HUM 110	Technology and Society.....	3
GIS 121	Georeferencing and Mapping.....	3
SRV 210	Surveying III.....	4
SRV 250	Advanced Surveying.....	4

Complete CAD Certificate (C40420A): CEG 111, CEG 115, CEG 151, CIV 125, GIS 121

Complete Field Technician Certificate (C40420B): SRV 110, SRV 111, SRV 210, SRV 260

Fifth Semester

CEG 230	Subdivision Planning and Design.....	3
GIS 121	Principles of Property Mapping.....	3
SRV 220	Surveying Law.....	3
SRV 240	Topo/Site Surveying.....	4
Elective List I	3

Complete Design Certificate (C40420C): CEG 211, CEG 230, SRV 240, SRV 250

Sixth Semester

Elective List II	2
------------------	-------	---

Elective List I (Select 3 hours from the following courses):

CEG 210	Construction Materials & Methods.....	3
CEG 235	Project Management and Estimating.....	3
EGR 251	Statics.....	3
GIS 231	Geo Positioning System Methods.....	3

Elective List II (Select 2 hours from the following courses):

CSC 121	Python Programming.....	3
CSC 134	C++ Programming.....	3
CSC 139	Visual BASIC Programming.....	3
CST 131	OSHA/Safety/Certification.....	3
WBL 112	Work-Based Learning I.....	2

Graduation Requirements 68 Credit Hours