

# GEOMATICS - UNDERGRADUATE MINOR

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Geomatics involves the application of knowledge to the analysis, design and execution of mapping, geomatics, geospatial information systems, and surveying. When performing this work, professionals must have an understanding of: the science of geomatic measurement and analysis; the legal principles of boundary location; the laws related to boundaries and land use; and applicable mathematical and computational theories and principles. Geomatics is made up of positional accuracy, land planning and development concepts pertinent to subdivision science. Geomatics professionals work for private surveying or engineering firms, for City, County, State or Federal Highway Departments, for State Lands Commissions, for the US Forest Service and for the US Bureau of Land Management, among others.

The mission of the Department of ETSE is to provide men and women with the rigorous, fundamental education needed to enter and succeed in the Geomatics and related professions. To accomplish this mission, the department will introduce students to the theory and application of recognized geomatics principles.

**Required 12 credits from:** 12

Note: SUR 222 or DRFT 222 is required prerequisite for several of these courses

SUR 292	Public Land Survey System Boundaries
SUR 312	Legal Principles and Boundary Law I
SUR 322 or SUR 285	Laser Scanning Mapping Technologies Precise Digital Mapping
SUR 361	Introduction to Geodesy/Geodetic Control Surveying

**Select 6 credits from:** 6

SUR 328	Construction Surveying & Automation Technologies
SUR 351	Introductory Spatial Data Adjustment I
E T 355	Site/Land Development and Layout
SUR 461	GNSS Positioning
GEOG 373 or GEOG 381	Introduction to Remote Sensing Cartography and Geographic Information Systems
GEOG 481	Fundamentals of Geographic Information Science and Technology (GIS & T)

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Total Credits 18