

Surveying and Mapping, A.S.

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Requirements

Geomatics is the study of geospatial measurement and representation including such disciplines as land surveying, photogrammetry, remote sensing (satellite imaging and laser scanning), geographic information systems (GIS), cartography, global positioning systems (GPS), and some parts of geography and civil engineering.

Geomatics is a discipline which integrates acquisition, modeling, analysis, and management of geo-spatial reference data. Based on the scientific framework of geodesy, it uses terrestrial, marine, airborne, satellite-based sensors, and measurement systems and technologies to acquire spatial and other data. The Land Surveying component of Geomatics includes investigation, analysis, and application of boundary/property laws and legal principles pertaining to specific public and private properties and is a regulated profession wherein a license to practice land surveying is issued by each state in an effort to protect the public and private interests in property boundaries.

Students in the Geomatics program may earn an Associate in Science in Geomatics which will help them be immediately employable as entry level surveyor GIS technician. Students may also earn a Bachelor of Science in Geomatics which will prepare them to successfully pass the national Fundamentals of Surveying (FS) exam which is a significant step towards surveying licensure. The bachelor degree program has been developed around four core disciplines which build on an in-depth foundation of knowledge needed for the professional practice of surveying and GIS. Geomatics program goals are to secure ABET/ASAC accreditation by Fall Semester 2017 and to continue to encourage student interest in obtaining graduate degrees in the field of Geomatics from other nationally ranked institutions. The program is operating under an annual cohort system starting in the fall semester of each year, so matriculation is required to ensure that each perspective student completes all required course prerequisites prior to entrance into a cohort.

Total Program Credits: 60

General Education Requirements:			35 Credits
	ENGL 1010	Introduction to Academic Writing	3
or	ENGL 1005	Literacies and Composition Across Contexts (5.0)	
	ENGL 2010	Intermediate Writing/Academic Writing and Research	3
Complete one of the following:			3
	MAT 1030	Quantitative Reasoning (3.0)	
	MAT 1035	Quantitative Reasoning with Integrated Algebra (6.0)	
	STAT 1040	Introduction to Statistics (3.0)	
	STAT 1045	Introduction to Statistics with Algebra (5.0)	
	MATH 1050	College Algebra (4.0)	
	MATH 1055	College Algebra with Preliminaries (5.0)	
Complete one of the following:			3
	HIST 1700	American Civilization (3.0)	
	HIST 1740	US Economic History (3.0)	
	HIST 2700	US History to 1877 (3.0)	

and	HIST 2710	US History since 1877 (3.0)	
	POLS 1000	American Heritage (3.0)	
	POLS 1100	American National Government (3.0)	
Complete the following:			
	PHIL 2050	Ethics and Values	3
	HLTH 1100	Personal Health and Wellness (2.0)	
or	PES 1097	Fitness for Life	2
Distribution Courses:			
	Biology		3
	Physical Science		3
	Additional Biology or Physical Science		3
	Humanities		3
	Fine Arts		3
	Social/Behavioral		3
Discipline Core Requirements:			19 Credits
My Educator Exam *			
	SURV 1020	Introduction to Surveying and Mapping WE	1
	MATH 1060	Trigonometry	3
or	EGDT 1600	Technical Math--Algebra (3.0)	
and	EGDT 1610	Technical Math--Geometry/Trig (3.0)	
	EGDT 1040	Fundamentals of Technical Engineering Drawing	3
	EGDT 1400	Surveying Applications and Field Techniques I	3
	EGDT 2400	Surveying Applications and Field Techniques II	3
	GIS 2640	Fundamentals of Geographic Information Systems	3
	MKTG 220G	Written Business Communication WE	3
Elective Requirements:			6 Credits
Choose 6 credits from the following or any other courses approved by department			6
	SURV 1030	Fundamentals of Geodesy and Control Surveys (3.0)	
	SURV 1220	Remote Sensing and Photogrammetry (3.0)	
	SURV 1340	Fundamentals of Boundary Law (3.0)	
	SURV 2010	Land History of America (3.0)	
	SURV 2030	Geodesy (3.0)	
	SURV 2310	Surveying US Public Lands (3.0)	
	SURV 2320	Property Descriptions and Public Land Records (3.0)	
	EGDT 2500	3 Dimensional Modeling--Civil 3D (3.0)	

Graduation Requirements:

1. Completion of a minimum of 60 or more semester credits.
2. Overall grade point average of 2.0 (C) or above (departments may require a higher GPA).
3. Residency hours: minimum of 20 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.

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Footnote

* Students will be required to complete the My Educator exam with a score of 80 percent or higher or complete the IM 2010 course with a score of 80 percent or higher.

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Graduation Plan**

This graduation plan is a sample plan and is intended to be a guide. Your specific plan may differ based on your Math and English placement and/or transfer credits applied. You are encouraged to meet with an advisor and set up an individualized graduation plan in [Wolverine Track](#).

Milestone courses (pre-requisites for a course in one of the subsequent semesters) are marked in red and italicized.

Semester 1	Course Title	Credit Hours
	Students Choice	3
<i>ENGL 1010</i>	Introduction to Writing	3
PES 1097	Personal Fitness or	2
or HLTH 1100	Personal Health and Wellness	
SURV 1020	Introduction to Surveying and Mapping WE	1
EGDT 1040	Fundamentals of Technical Engineering Drawing	3
<i>EGDT 1400</i>	Surveying Applications and Field Techniques I	3
	Semester total:	15
Semester 2	Course Title	Credit Hours
ENGL 2010	Intermediate Writing/Academic Writing and Research	3
<i>BIOL 1010</i>	General Biology	3
Social Behavioral Science	Students Choice	3
GIS 2640	Fundamentals of Geographic Information Systems	3
<i>MATH 1060* or (EGDT 1600 and EGDT 1610)</i>	Trigonometry or (Technical Math--Algebra and Technical Math--Geometry/Trig)	3
	Semester total:	15
Note: *Pre-requisites are required to be taken.		
Semester 3	Course Title	Credit Hours
Additional Biology or Physical Science	Students Choice	3
Fine Arts	Students Choice	3
PHIL 2050	Ethics and Values	3
MKTG 220G	Written Business Communication WE	3
EGDT 2400	Surveying Applications and Field Techniques II	3
	Semester total:	15
Note: Student's must pass the My Educator Exam with a score of 80% or higher or take IM 2010 and pass with a B- or better.		
*Pre-requisites are required to be taken. Please see the advisor.		

Semester 4	Course Title	Credit Hours
America Institutions	Students Choice	3
Humanities	Students Choice	3
Physical Science	Students Choice	3
Geomatics Approved Elective	Students Choice	3
Geomatics Approved Elective	Students Choice	3
	Semester total:	15
	Degree total:	60