

Surveying and Mapping, A.S.

Surveying and Mapping 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. Surveying and Mapping 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. Surveying and Mapping 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. This degree is intended to "stack" directly into the BS degree in Surveying and Mapping by replacing the first two years of the BS degree.

Matriculation Requirements

Application Submission

Full and part-time students must complete and submit the Matriculation Application to the Surveying and Mapping Program Coordinator in-person for approval before July 1st prior to the Fall semester to which the student wishes to begin taking courses in the AS Surveying Technology degree.

80% Computer Proficiency

Complete My Educator with an exam score of 80% or higher OR complete IM 2010 Business Computer Proficiency (3.0 credit hours) with B- or higher.

Laptop Access

Must have access to their own laptop computer which can be made available during classes and which meets the minimum hardware specifications as defined by current AutoCAD® hardware specifications prior to starting courses.

Receive approval from Surveying and Mapping Program Coordinator

Program Requirements

Code	Title	Credit Hours
Total Credit Hours		62
General Education Requirements		35 Credits
ENGL 1010 or ENGH 1005	Introduction to Academic Writing CC Literacies and Composition Across Contexts CC	3
ENGL 2010	Intermediate Academic Writing CC	3
Complete one of the following: (Recommend STAT 1040)		3
MAT 1030	Quantitative Reasoning QL (3)	
MAT 1035	Quantitative Reasoning with Integrated Algebra QL (6)	
STAT 1040	Introduction to Statistics QL (3)	
STAT 1045	Introduction to Statistics with Algebra QL (5)	
MATH 1050	College Algebra QL (4)	
MATH 1055	College Algebra with Preliminaries QL (5)	
Complete one of the following: (Recommend HIST 1740)		3
HIST 1700	American Civilization AS (3)	
HIST 1740	US Economic History AS (3)	
HIST 2700 & HIST 2710	US History to 1877 AS and US History since 1877 AS (6)	
POLS 1000	American Heritage AS (3)	
POLS 1100	American National Government AS (3)	
Complete the following:		
PHIL 2050	Ethics and Values IH	3
HLTH 1100 or EXSC 1097	Personal Health and Wellness TE Fitness for Life TE	2
Distribution Courses:		
Biology (Recommend BIOL 1010)		3
Physical Science (Recommend ASTR 1040)		3

Additional Biology or Physical Science (Recommend PHYS 1010)	3
Humanities (Recommend COMM 1020)	3
Fine Arts (Recommend EGDT 1720)	3
Social/Behavioral (Recommend GEOG 130G)	3
Course Requirements	27
	Credits
My Educator Exam ¹	
SURV 1020 Introduction to Surveying and Mapping WE	1
SURV 1030 Fundamentals of Geodesy and Control Surveys	3
EGDT 1040 Fundamentals of Technical Engineering Drawing	3
EGDT 1400 Surveying Applications and Field Techniques I	3
MKTG 220G Written Business Communication GI WE	3
Complete one of the following Mathematics courses (recommend EGDT 1600):	3
MATH 1060 Trigonometry QL (3)	
EGDT 1600 Technical Math Algebra	
& EGDT 1610 and Technical Math Geometry Trig (6)	
SURV 1220 Remote Sensing and Photogrammetry	3
SURV 2010 Land History of America WE	3
SURV 2100 Mapping From Field to Finish	3
SURV 2240 Fundamentals of Adjustments and Computations	2

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

Graduation Requirements

1. Completion of a minimum of 62 or more semester credits.
2. All Surveying and Mapping Program courses (Prefixes EGDT, SURV, GIS) and MATH 1060 (if applicable) must earn at least a B grade.
3. Overall grade point average of 2.0 (C) or above (departments and programs may require a higher GPA).
4. Residency hours: minimum of 20 credit hours through course attendance at UVU.
5. Completion of GE and specified departmental requirements.

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 (<http://www.uvu.edu/wolverinetrack/>).

First Year

Semester 1	Credit Hours
Complete one of the following Mathematics courses (Recommend EGDT 1600):	3
EGDT 1600 Technical Math Algebra	
MATH 1050 College Algebra QL	
ENGL 1010 Introduction to Academic Writing CC	3
EXSC 1097 Fitness for Life TE	2
SURV 1020 Introduction to Surveying and Mapping WE	1
EGDT 1040 Fundamentals of Technical Engineering Drawing	3
EGDT 1400 Surveying Applications and Field Techniques I	3
Credit Hours	15
Semester 2	
ENGL 2010 Intermediate Academic Writing CC	3
BIOL 1010 General Biology BB	3
GEOG 130G Survey of World Geography GI SS	3
Complete one of the following Mathematics courses (Recommend EGDT 1610):	3
EGDT 1610 Technical Math Geometry Trig	
MATH 1060 Trigonometry QL	
SURV 1030 Fundamentals of Geodesy and Control Surveys	3
Credit Hours	15

Second Year

Semester 3

ASTR 1040	Elementary Astronomy PP	3
EGDT 1720	Architectural Rendering FF	3
PHIL 2050	Ethics and Values IH	3
MKTG 220G	Written Business Communication GI WE	3
SURV 2010	Land History of America WE	3
SURV 2240	Fundamentals of Adjustments and Computations	2
Credit Hours		17

Semester 4

HIST 1740	US Economic History AS	3
COMM 1020	Public Speaking HH	3
PHYS 1010	Elementary Physics PP	3
SURV 2100	Mapping From Field to Finish	3
SURV 1220	Remote Sensing and Photogrammetry	3
Credit Hours		15
Total Credit Hours		62

Program Learning Outcomes

1. Demonstrated critical thinking ability in performing surveying, mapping, or civil design duties and responsibilities at a professionally competent level and to communicate technical information effectively in a professional team environment.
2. Exercised prudent ethical judgement in professional decisions while protecting the land rights, title, and interest of the public.
3. Advanced professionally by being given more responsibilities; or have successfully completed a graduate level degree.
4. Demonstrated professional development through continuing education or earning certifications or professional licensure.
5. Served in their professional organizations and/or local communities.