

## BS Surveying and Mapping

### GENERAL EDUCATION REQUIREMENTS

NO	COURSE DESCRIPTION	CR	GE	Prerequisites
ENGL 1010	Introduction to Writing	3	CC	
ENGL 2010	Intermediate Writing-Academic Writing and Research	3	CC	ENGL 1010
Complete one of the following:		3	QL	
MAT 1030	Quantitative Reasoning (3)			MAT 1000
MAT 1035	Quantitative Reasoning w/Integrated Algebra (6)			MAT 1000
STAT 1040**	Introduction to Statistics (3)			MAT 1000
STAT 1045	Introduction to Statistics wAlgebra (5)			MAT 1000
MATH 1050	College Algebra (4)			MAT 1010
MATH 1055	College Algebra w/Preliminaries (5)			MAT 1010
Complete one of the following:		3	AS	
HIST 1740 or**	US Economic History			
Any approved American Institutions course (HIST 1700,2700 and 2710, POLS 1000, 1100)				
Complete the following:				
PHIL 2050	Ethics and Values	2	FE	
HLTH 1100 or	Personal Health and Wellness			
PES 1097**	Fitness for Life	2		
<b>General Distribution Courses</b>				
Any approved Biology course				
BOT 2050 or**	Field Botany	3	BB	BIOL 1010 or BOT 2400
Any approved Physical Science course				
PHYS 1010 or**	Elementary Physics	3	PP1	
Any approved Physical or Biological Science course				
COMM 1020or**	Public Speaking	3	HH	
Any approved Humanities course				
EGDT 1720 or**	Architectural Rendering	3	FF	MATH 0950
Any approved Fine Arts course				
GEOG 1000 or**	Introduction to Geography	3	SS	
Any approved Social Science course				
<b>General Education Credits 34</b>				
**Suggested GE courses for Surveying and Mapping majors pursuing a CP-3, AAS, AS, or BS				

### Matriculation

All Surveying and Mapping students must complete a Matriculation Application by the appointed deadline during the Spring semester prior to the Fall cohort to which the student desires to gain entry. Subsequently official approval must be obtained from the Program Coordinator prior to taking any further Surveying and Mapping courses. Part-time students may be admitted into the Surveying and Mapping cohort and may be allowed to proceed through the program at their own pace.

### SURVEYING AND MAPPING CORE

NO	COURSE DESCRIPTION	CR	GE	Prerequisites
MATH 1060* or EGDT 1600* and 1610*	Trigonometry OR Technical Math I and II (Trig and Alg)	3		MATH 1050
SURV 1020	Introduction to Surveying and Mapping	1		
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		EGDT1400, MATH1060 or EGDT1600
MKTG 2200	Written Business Communication	3		
SURV 1220*	Photogrammetry and Remote Sensing	3		
SURV 2320*	Public Land Records and Property Descriptions	3		ENGL2010/20, EGDT1400
GIS 3600*	Intro to GIS	4		
GIS 3620	Advanced GIS for Geomatics	3		(GIS 3620)
SURV 3400	Surveying Applications and Field Techniques III	3		SURV 2400
SURV 451R	Surveying and Mapping Lecture Series	2		Dept Apprv) (taken 2 sem@0.5 cr ea

SURV 455G	Global Professional Ethics and Liabilities	3	Sr Standing and Dept apvl
SURV 4930	Surveying and Mapping Capstone	4	Sr Standing and Dept apvl

**Upper Division Credits in Surveying and Mapping Core 19**  
**Surveying and Mapping TOTAL Core Credit Hours: 41**

**PROFESSIONAL FOCUS AREA**

The following are suggested courses based on specific areas of professional focus areas of interest. You may choose all courses from one focus area or a combination of any focus area depending on your personal goals. Total of 33 focus credits.

**Professional Surveying License Focus Area\***

NO	COURSE DESCRIPTION	CR	GE	Prerequisites
SURV 1030	Fundamentals of Geodesy and Control Surveys	3		
SURV 2010	Land History of America	3		Prefer HIST 1740 or any AI course
SURV 2030*	Geodesy	3		EGDT2400, MATH1060 or equivalent
SURV 2310*	Surveying US Public Lands	3		EGDT1400, MATH1060 or equivalent
LEGL 3000	Business Law	3		ENGL1010
SURV 3010	Measurement Analysis and Adjustments	4		EGDT2400, MATH1060 or equivalent
SURV 3030*	Land Development Planning and Platting	3		EGDT1040, EGDT1400
SURV 3210*	Advanced Photogrammetry	3		EGDT1400, MATH1060 or equivalent
SURV 3220*	Control Surveys	3		SURV2030, SURV3010
SURV 3230*	Construction and Route Surveys	3		EGDT 2400, MATH 1060 or EGDT 1610
SURV 3340*	Boundary Law	3		
SURV 4340	Surveying Legal Principles	3		SURV 2320, 3340
SURV 4400	Surveying Applications and Field Techniques III	3		SURV 3400
SURV 4500	Professional Services Practicum	3		Sr Stand

**Civil Design and Mapping/GIS Focus**

NO	COURSE DESCRIPTION	CR	GE	Prerequisites
SURV 1340	Fundamentals of Boundary Law	3		
SURV 2010	Land History of America	3		HIST 1740 or any AI Gen.Ed. Requirement
SURV 2030	Geodesy	3		EGDT2400, MATH1060 or Equivalent
SURV 2100	Mapping from Field to Finish	3		
GIS 2640		3		
GIS 3630	GIS Application Development	3		GIS 3620
LEGL 3000	Business Law	3		ENGL1010
SURV 3210*	Advanced Photogrammetry	3		EGDT1400, MATH1060 or equivalent
SURV 3220	Control Surveys	3		EGDT2400, SURV2030, SURV3010
SURV 3340	Boundary Law	3		
EGDT 1300	Structural Drafting & Design	3		EGDT 1040 ("C-" grade or higher)
EGDT 1060	Microstation Infrastructure Design	3		
EGDT 2040	Piping Drafting & Design	2		EGDT 1040 ("C-" or higher)
EGDT 2500	Civil Design and Modeling (C3D)	3		EGDT 1040
CMGT 3010	Construction Materials Testing	3		CMGT 1020, MAT 1010 or higher or EGDT 1600
SURV 3230	Construction and Route Surveys	3		EGDT 2400, MATH 1060 or EGDT 1610
EGDT 3450	Civil Design Systems	3		EGDT 2500, EGDT 3500
EGDT 3500	Advanced Civil Drafting and Design	3		EGDT 1040
SURV 4400	Surveying Applications and Field Techniques III	3		SURV 2400

**ELECTIVES**

Approved Surveying and Mapping elective courses can be taken with the following prefixes: SURV, GIS, EGDT, ARC, ENGR, CIVE PHYS, GEOG, CMGT, CS, ENST, MATH, and LEGL. Total of 12 credit hours.

**Required Elective Credits 12**

**Upper Division credits required in Focus Areas or approved Electives 21**

**Required Credits from Focus Areas 33**

**BS Degree Total Credits 120**

LEGEND			
Surveying and Mapping Foundation			Professional Mapping Discipline
Surveying and Mapping Core			Civil Design Technician Discipline
Professional Surveying License Discipline			Surveying and Mapping Electives