

SURVEYING AND MAPPING, BS

Bachelor of Science in Surveying and Mapping (298103BS)

More on the Surveying and Mapping major (<https://www.uakron.edu/est/survey-map-engineering-tech/>)

Program Contact

Mr. Gary Schuller
Program Director
Schrank Hall South 117J
330-972-7122
gas1@uakron.edu

Program Information and Program Description

The Bachelor of Science in Surveying and Mapping program is an upper level degree program designed to provide the student with additional education beyond the A.A.S. degree in Land Surveying. This degree is also designed to meet the formal education requirements for registration as a Professional Surveyor in the state of Ohio.

This upper level degree program is defined as follows:

- The first two years are completed as an AAS degree in Land Surveying (<https://bulletin.uakron.edu/undergraduate/colleges-programs/engineering-polymer-science/engineering-science-technology/land-surveying-aas/>) or similarly based program.
- Two of the remaining three years are for the completion of prescribed course work.
- The remaining year of the three years is devoted to a cooperative work experience in the surveying and mapping field. The student normally enters the co-op segment between the junior and senior years.

The BS in Surveying and Mapping degree program includes classroom, laboratory, and industry experiences which stress the application of established surveying and mapping knowledge.

Accredited by the Applied and Natural Science Accreditation Commission of ABET, <http://www.abet.org>

Requirements for Admission

Applicants for the Surveying and Mapping program must hold an associate degree in Land Surveying from an accredited program or provide an equivalent academic background. The applicant must have a minimum cumulative grade point average of out of a possible 4.0. Applicants with an associate degree in a discipline other than Land Surveying will be required to complete a specific formal set of courses as specified at the time of admission. Final approval for admission is based upon recommendations from the Director of the Surveying and Mapping Program.

Cooperative Work Study Requirement

The required Cooperative Work Study experience of the Surveying and Mapping program consists of 52 weeks of surveying work experience

which may begin after the student has completed 34 hours of course work in the Surveying and Mapping program. This program may be satisfied by any one of the following options:

1. One calendar year.
2. Three semesters (Summer I and II counts as one semester for the co-op).
3. Department review of prior or concurrent work experience.

Students having prior or concurrent work experience should submit to the Surveying and Mapping Co-op Review Committee appropriate documentation before signing their program contract. The Surveying and Mapping Co-op Review Committee will determine whether this work experience satisfies the co-op requirement. All students must be cleared through the University Co-Op Office (<http://www.uakron.edu/career/>).

Requirements for Graduation

- Compliance with the requirements of the general studies program as outlined in the Bulletin.
- Completion of the requirements for the associate degree in Land Surveying at The University of Akron or an approved associate degree program. Students transferring from another institution must have their transcripts evaluated to ensure that they have the required number of credits in surveying courses. Those found deficient must complete lower level surveying course work before upper level surveying and mapping courses can be taken.
- Successful completion of a minimum of 124 credits in the B.S. in Surveying and Mapping program including the associate degree program, the general education courses, a one-year co-op, and the following course requirement:

Career Information

For additional information regarding career opportunities in the Surveying and Mapping field, please visit the Bureau of Labor Statistics at www.bls.gov (<http://www.bls.gov>) or the Career Center at the Student Union, room 211, (330-972-7747) <http://www.uakron.edu/career> (<http://www.uakron.edu/career/>)

The following information has official approval of **The Department of Engineering and Science Technology** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

3rd Year		Hours
Fall Semester		
2020:222	Technical Report Writing	3
2030:345	Technical Data Analysis	2
2980:310	Survey Computations & Adjustments	2
2985:201	Intermediate Geographic and Land Information Systems	3
3600:120	Introduction to Ethics	3

2980:xxx	Surveying Elective ¹	2
	Hours	15
Spring Semester		
2030:255	Technical Calculus I	3
2030:480	Advanced Topics in Technical Mathematics ²	2
2980:315	Boundary Control & Legal Principles ²	3
2980:330	Applied Photogrammetry	3
2980:427	Ohio Lands	2
3400:210	Humanities in the Western Tradition from Ancient Times to 1500	3
	Hours	16
4th Year		
Fall Semester		
Cooperative Work Study		
	Hours	0
Spring Semester		
Cooperative Work Study		
	Hours	0
Summer Semester		
Cooperative Work Study		
	Hours	0
5th Year		
Fall Semester		
2980:415	Legal Aspects of Surveying ³	3
2980:422	Global Positioning System Surveying	3
2980:431	Senior Seminar	2
3350:443	Urban Applications in GIS	3
	Surveying Electives ¹	2
Select one of the following:		3
3370:421	Coastal Geology	
	Complex Systems Tag Requirement	
	Hours	16
Spring Semester		
2420:103	Essentials of Management Technology	3
2980:421	Subdivision Design ²	3
2980:430	Surveying Project	3
2980:xxx	Surveying Elective ¹	2
5550:211	First Aid & Cardiopulmonary Resuscitation	2
Select one of the following:		3
7100:210	Visual Arts Awareness	
7500:201	Exploring Music: Bach to Rock	
7900:200	Viewing Dance	
	Arts Requirement	
	Hours	16
	Total Hours	63

¹ Surveying Electives - see below.² Traditionally Spring only (See Program Contact).³ Traditionally Fall only (See Program Contact).

Policy Alert: By the end of your first 48 credit hours attempted, you must have completed your required General Education English, Mathematics, and Communications (Speech) requirements.

Surveying Electives

Code	Title	Hours
2880:151	Industrial Safety & Environmental Protection	2
2980:325	OSHA Safety Requirements for Surveyors	1
2980:335	The Business of Surveying	2
2980:420	Route Surveying	3
2980:425	Land Navigation	3
2980:426	History of Surveying To 1785	2
2980:428	History of Surveying Since 1785	2
2980:445	Applications in GIS using GPS	3
2980:450	Topics in Professional Practice	2
2980:489	Special Topics in Surveying	1-3
2980:490	Workshop in Surveying	1-3
2980:495	Internship: Surveying and Mapping	3
2980:xxx	Independent Study	1-3
2985:xxx		
2980:340	Cadastral Surveying	2
2980:497	Surveying Honors Project	3
2990:xxx		