

# Surveying and Mapping

## Bachelor of Science Degree (298103BS)

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

Course work from an accredited institution in Surveying and Mapping, or Land Surveying, or a related program is a requirement to pursue the Surveying and Mapping Bachelor of Science Degree. An Associate of Applied Science in Land Surveying or Surveying and Mapping Technology is required prior to completing the baccalaureate. Please refer to the Land Surveying Curriculum Guide for further information.

The following information has official approval of The University of Akron's College of Applied Science and Technology but is intended only as a guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. 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, and prerequisites, among others. The transfer process is completed through an appointment with your Academic Advisor.

*Italicized* courses fulfill General Education requirements. If a course is not specified, refer to the General Education webpage at <http://www.uakron.edu/cast/gened>. The College of Applied Science and Technology recommends that students take the General Education courses listed in this curriculum guide. Transfer students should consult their Advisor to identify courses that are equivalent.

Year 3 Fall	Prerequisite
2020:222 <i>Technical Report Writing</i> (3)	2020:121 or 3300:111 or equivalent
2030:345 Technical Data Analysis (2)	2030:154 or equivalent with C- or better or placement by Advisor
2980:xxx Surveying Elective(s) (2) (Note d)	
2980:310 Surveying Computations and Adjustments (2)	2980:225
2985:201 Intermediate GIS/LIS (3) (Sch. Lab)	2985:101
3600:120 <i>Introduction to Ethics</i> (3)	
<b>Total Credits = 15</b>	

Year 3 Spring	Prerequisite
2030:255 Technical Calculus I (3)	2030:154 or equivalent with a C- or placement by advisor
2030:480 Advanced Topics in Technical Math (2) (Note b)	2030:255 or equivalent with a C- or better, or placement
2980:330 Applied Photogrammetry (3) (Sch. Lab)	
2980:315 Boundary Control and Legal Principles (3) (Note b)	2980:228
2980:427 Ohio Lands (2)	
3400:210 <i>Humanities in the Western Tradition</i> <i>Fulfills Critical Thinking Tag</i>	32 credits and completion of 2020:222 or 3300:112 or 3300:114 or permission
<b>Total Credits = 17</b>	

Year 4 Summer, Fall, and Spring	Prerequisite
Cooperative Work Study	Minimum of 34 credits completed

Year 5 Fall	Prerequisite
3370:421 Coastal Geology (3) <i>Fulfills Complex Systems Tag</i> <i>-OR- Complex Systems Tag Requirement (3) (Note c)</i>	3370:101
Surveying Electives (2) (Note d)	
2980:415 Legal Aspects of Surveying (3) (Note a)	2980:315
2980:422 GPS Surveying (3) (Sch. Lab)	2980:225 & 2985:101
2980:431 Senior Seminar (2)	
3350:443 Urban Applications in GIS (3) <i>Fulfills Domestic Diversity Tag</i>	3350:405 or Permission [or 2985:101]
<b>Total Credits = 16</b>	

Year 5 Spring	Prerequisite
2420:103 Essentials of Management Technology (3)	
2980:421 Subdivision Design (3) (Sch. Lab) (Note b)	2980:222 & 2980:315 & 2980:155
2980:430 Surveying Project (3) (Note b)	Senior standing and permission
2980:xxx Surveying Elective(s) (2) (Note d)	
5550:211 First Aid and CPR (2)	
7100:210 <i>Visual Arts Awareness</i> (3) <i>-OR- 7500:201 Exploring Music, Bach to Rock</i> (3) <i>-OR- 7900:200 Viewing Dance</i> (3) <i>-OR- Arts Requirement</i> (3) (Note f)	3400:210 or 3400:221 3400:210 or 3400:221 3400:210 or 3400:221
<b>Total Credits = 16</b>	

<b>Total Credits for Degree = 64</b>	<b>Total Credits for BS = 124</b>
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**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.**

**You must have a minimum cumulative GPA of a 2.0 to graduate with this degree.**

Notes:

- Traditionally Fall only (See Program Contact)
- Traditionally Spring only (See Program Contact)
- Must be an Arts course in the Ohio Transfer Module.
- Surveying Electives

2880:151 Industrial Safety and 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 Any 2985 Course
2980:340 Cadastral Surveying (2)
2980:497 Surveying Honors Project (3)
2990:xxx Any 2990 Course

### Program Contact

Mr. Gary Schuller, Program Director, Schrank Hall South 117J, 330-972-7122 or [gas1@uakron.edu](mailto: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 A.A.S. degree in Land Surveying 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 B.S. in Surveying and Mapping degree program includes classroom, laboratory, and industry experiences which stress the application of established surveying and mapping knowledge.

### 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 2.0 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:

- a) One calendar year.
- b) Three semesters (Summer I and II counts as one semester for the co-op).
- c) 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>

### Transfer to the College of Applied Science and Technology

To be admitted to the College of Applied Science and Technology, a student must have a GPA of 2.0. A student can complete the transfer process through an appointment with an Academic Advisor in the college in which they reside.