

LAND SURVEYING, AAS

Associate of Applied Science in Land Surveying (298109AAS)

More on the Land Surveying and Surveying and Mapping programs (<https://www.uakron.edu/engineering/ce/undergraduate/surveying-mapping/>)

Program Description

This program prepares graduates to work as surveying technicians under the direction of a professional registered surveyor. It is designed to provide a foundation in mathematics, natural science, and communication skills as well as the surveying skills necessary to become a Certified Surveying Technician (CST) under the National Society of Professional Surveyors' (NSPS) testing program. Students earning the AAS in Land Surveying can also continue on to earn the BS in Surveying and Mapping with an additional two years of full-time study.

The AAS in Land Surveying program is accredited by the Applied and Natural Science Accreditation Commission of ABET, <https://www.abet.org>, under the General Criteria and Program Criteria for *Surveying, Geomatics and Similarly Named Programs*.

Bachelor Degree Program

Upon completion of the Associate of Applied Science in Land Surveying, a student may proceed to the Bachelor of Science in Surveying and Mapping (<https://bulletin.uakron.edu/undergraduate/colleges-programs/engineering-polymer-science/civil-engineering/surveying-mapping-bs/>) (298103BS).

The following information has official approval of **The Department of Civil Engineering** 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 (Stellic) 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.

Requirements

Summary

| Code | Title | Hours |
|------|-------------------------------------|-----------|
| | General Education | 21 |
| | Additional Math and Natural Science | 6 |
| | Geographic Information Systems | 3 |
| | Surveying Core | 28 |
| | Technical Electives | 2 |
| | Total Hours | 60 |

General Education

| Code | Title | Hours |
|--|---|-----------|
| Discipline-Specific General Education | | |
| MATH 153 | Technical Mathematics III (for Mathematics, Statistics, and Logic Requirement) | 2 |
| MATH 154 | Technical Algebra and Trigonometry 2 (for Mathematics, Statistics, and Logic Requirement) | 3 |
| GEOG 100 | Introduction to Geography (for Social Science requirement) | 3 |
| GEOL 101 | Introductory Physical Geology (for Natural Science) | 4 |
| Other General Education | | |
| | Writing First Course | 3 |
| | Speaking | 3 |
| | Social Science ¹ | 3 |
| | Total Hours | 21 |

¹ This class, required for the AAS in Land Surveying, will be used to help meet the BS General Education Social Science Requirement for students continuing on for the BS in Surveying and Mapping. Students are advised to choose a course that also meets one of the BS General Education Diversity Requirements.

Additional Math and Natural Science

| Code | Title | Hours |
|----------|------------------------------|----------|
| MATH 260 | Advanced Trigonometry | 2 |
| PHYS 160 | Technical Physics: Mechanics | 4 |
| | Total Hours | 6 |

Geographic Information Systems

| Code | Title | Hours |
|----------|---|----------|
| SURV 105 | Introduction to Geographic & Land Information Systems | 3 |
| | Total Hours | 3 |

Surveying Core

| Code | Title | Hours |
|----------|------------------------------------|-----------|
| SURV 100 | Introduction to Geomatics | 2 |
| SURV 101 | Basic Surveying | 3 |
| SURV 102 | Topographic Surveying | 2 |
| SURV 123 | Surveying Field Practice | 2 |
| SURV 155 | Computer Applications in Surveying | 3 |
| SURV 170 | Surveying Drafting | 3 |
| SURV 222 | Construction Surveying | 3 |
| SURV 225 | Advanced Surveying | 3 |
| SURV 228 | Boundary Surveying | 3 |
| SURV 251 | CST Seminar | 1 |
| SURV 350 | Mapping with Drones | 3 |
| | Total Hours | 28 |

Technical Electives (AAS)

| Code | Title | Hours |
|---|---------------------------------|----------|
| Select a minimum of two credits from the following: ^{1,2} | | 2 |
| SURV 325 | Safety for Surveyors | |
| SURV 335 | The Business of Surveying | |
| SURV 445 | Applications in GIS using GPS | |
| SURV 450 | Topics in Professional Practice | |
| SURV 426 | History of Surveying To 1785 | |
| SURV 428 | History of Surveying Since 1785 | |
| SURV 489 | Special Topics in Surveying | |
| SURV 498 | Independent Study | |
| SURV 490 | Workshop in Surveying | |

¹ With approval of the program, other Surveying classes may be used to meet the Technical Elective requirement.

² Students continuing for the BS in Surveying and Mapping will need additional technical elective credits for that program if they choose to fulfill the AAS Technical Elective requirement by taking a class that is required for the BS.

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1st Year

| Fall Semester | | Hours |
|---------------|--|-------|
| | Writing First Course | 3 |
| MATH 153 | Technical Mathematics III | 2 |
| SURV 100 | Introduction to Geomatics | 2 |
| SURV 101 | Basic Surveying (Sch. lab) | 3 |
| SURV 170 | Surveying Drafting (Sch. lab) ¹ | 3 |

Hours **13**

Spring Semester

| | | |
|----------|---|---|
| MATH 154 | Technical Algebra and Trigonometry 2 | 3 |
| MATH 260 | Advanced Trigonometry ² | 2 |
| SURV 102 | Topographic Surveying (Sch. lab) | 2 |
| SURV 155 | Computer Applications in Surveying (Sch. lab) | 3 |
| PHYS 261 | College Physics I | 4 |

Hours **14**

Summer Semester

| | | |
|----------|--------------------------|---|
| SURV 123 | Surveying Field Practice | 2 |
|----------|--------------------------|---|

Hours **2**

2nd Year

Fall Semester

| | | |
|----------|--|---|
| SURV 222 | Construction Surveying (Sch. lab) ¹ | 3 |
| SURV 228 | Boundary Surveying (Sch. lab) | 3 |

| | | |
|----------|--|---|
| SURV 350 | Mapping with Drones | 3 |
| | Surveying Elective ³ | 2 |
| | Social Sciences Requirement ⁵ | 3 |

Hours **14**

Spring Semester

| | | |
|----------|--|---|
| | Speaking Requirement | 3 |
| SURV 225 | Advanced Surveying (Sch. lab) ² | 3 |
| SURV 251 | CST Seminar ⁴ | 1 |
| SURV 105 | Introduction to Geographic & Land Information Systems (Sch. lab) | 3 |
| GEOG 100 | Introduction to Geography | 3 |
| GEOL 101 | Introductory Physical Geology | 4 |

Hours **17**

Total Hours **60**

¹ Traditionally Fall only (See Program Contact).

² Traditionally Spring only (See Program Contact).

³ Surveying Electives - see list below.

⁴ Students must take the National Society of Professional Surveyors (NSPS) Certified Surveying Technician (CST) Exam Level 1. Visit <https://www.nspss.com/default.aspx> for information about the CST program.

⁵ This class, required for the AAS in Land Surveying, will be used to help meet the BS General Education Social Science Requirement for students continuing on for the BS in Surveying and Mapping. Students are advised to choose a course that also meets one of the BS General Education Diversity Requirements.

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.