



AAS DEGREE - CODE #1039

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Governmental agencies, private industries, and individuals all benefit from the surveying and mapping of our natural resources and planning of transportation systems, recreational facilities, new cities, and land subdivisions. Using advanced surveying equipment such as the electronic total stations to measure angles and distances, the modern surveyor has learned to increase his/her productivity and measurement accuracy. Particularly exciting about the future of the surveying profession are the emerging technologies of Global Positioning Systems (GPS), Geographic Information Systems (GIS), and Land Information Systems (LIS).

This program will provide you with a thorough understanding of the basic sciences of mathematics and physics, as well as applied subjects such as graphics and computer-aided drafting and design. The knowledge obtained from these basic courses is applied to a well-rounded study of modern surveying theory and practice.

A tier 2 laptop computer is required for students entering the surveying engineering technology program. Laptop specifications are available at www.alfredstate.edu/required-laptops.

ADVANTAGES

- The student constantly applies theoretical knowledge in meaningful and comprehensive laboratory sessions. Graduates are educated in a two-fold sense, both theoretically and practically.
- Both the surveying engineering technology (AAS) and the surveying and geomatics engineering technology (BS) programs are accredited by the Engineering Technology Accreditation Commission of ABET, <http://www.abet.org>.

PROGRAM EDUCATIONAL OBJECTIVES

Program educational objectives were established with the assistance of the Industrial Advisory Committee and are reviewed periodically. The surveying engineering technology program produces graduates who:

- Write, read, and orally present technical reports, letters, and projects that meet the standards of the profession.
- Have an understanding of and are able to implement basic field and office survey procedures.
- Are capable of performing elementary research.
- Are competent in surveying techniques.
- Recognize the need for engagement and an ability to engage in continued formal education, as well as lifelong learning.

DIRECT ENTRY INTO BACCALAUREATE DEGREE PROGRAMS

Alfred State surveying engineering technology AAS graduates may enter directly into the construction supervision BTEch, the interdisciplinary studies BTEch, the surveying and geomatics engineering technology BS, or the technology management BBA degree program.

OCCUPATIONAL OPPORTUNITIES

- Land surveyor (after successfully meeting state requirements)
- Field technician
- Drafter - computer
- Office assistant

- Instrument person
- Mapping technologist

EMPLOYMENT STATISTICS

Employment and continuing education rate of 100 percent – 100 percent are employed.

ENROLLMENT AND GRADUATION DATA

	Enrollment (based on Fall census)
2019	9
2020	11
2021	8
	Degrees Awarded
2018-2019	3
2019-2020	5
2020-2021	6

RELATED PROGRAMS

- [Building Trades: Building Construction](#)
- [Construction Engineering Technology](#)
- [Construction Management](#)
- [Construction Supervision](#)

CERTIFICATION OR LICENSURE

The surveying engineering technology (AAS) program is accredited by the Engineering Technology Accreditation Commission of ABET, <http://www.abet.org>. Accreditation means that the graduates from the AAS program will receive two years of credit toward the total statutory time requirement for licensure as a land surveyor in New York State.

ENTRANCE REQUIREMENTS/RECOMMENDATIONS

Required: Algebra, Geometry, Algebra 2

Recommended: Physics

Entry level of student into math and composition/literature sequences is a function of student's high school preparation and mathematics and English placement examinations.

Math through technical calculus I must be completed. Freshman composition and introduction to literature must be taken.

REQUIRED COURSE PREREQUISITES

If students do not place into MATH 1033 College Algebra, MATH 1084 Calculus I, MATH 1323 Quantitative Reasoning, 1034 College Algebra of Functions, 1054 Precalculus, or 2124 Statistical Methods & Analysis, then MATH 1014 Algebra Concepts is a required prerequisite for completion of the major.

If students do not place into PHYS 1024 General Physics I or PHYS 1044 College Physics I, then PHYS 1014 Introductory Physics is a required prerequisite for completion of this major.

TECHNICAL STANDARDS

Students in the surveying engineering technology program must meet the following:

- Students must have the ability to complete field work over natural terrain.
- Students must have the ability to use standard software of the profession.

OFFICE OF ACCESSIBILITY SERVICES

Students who believe they need a reasonable accommodation to properly participate in this program may contact Melanie Ryan in the Office of Accessibility Services. This office may be contacted by email at oas@alfredstate.edu or by phone at 607-587-4506. Please keep in mind that some accommodations may take time to implement, so students seeking accommodations are encouraged to contact OAS as early as possible.

SURVEYING ENGINEERING TECHNOLOGY - AAS DEGREE

TYPICAL FOUR-SEMESTER PROGRAM

First			
COMP	1503	Writing Studies	3
CIVL	1021	Civl Eng Tech 1st Yr Exp	1
CIVL	1204	Surveying I	4
CIVL	1182	Civil Tech Graphics	2
MATH	1033	College Algebra	3
XXXX	xxx3	Tech./Sci. Elective	3
			16
Second			
CIVL	2204	Surveying II	4
PHYS	1024	General Physics I	4
MATH	2043	College Trigonometry	3
GLST	2113	Global & Diverse Perspectives	3
			14
Third			
CIVL	3204	Legal Asp & Prac of Land Surv	4
PHYS	2023	General Physics II	3
MATH	1063	Technical Calculus I	3
LITR	xxx3	Literature Elective	3
CIVL	3214	Geodesy	4
			17
Fourth			
CIVL	4204	Subdivision Theory & Appli	4
CIVL	4214	Surveying Practicum	4
CIVL	4243	Surveying Computer Appli	3
CIVL	4273	Photogrammetry & Image Interpr	3
SPCH	1083	Public Speaking OR	3
SPCH	xxx3	Approved GE Equivalent	3
			17

Students receiving credit for math classes shown in the typical four-semester program may require additional LAS electives to complete degree requirements.

Be advised that a prior felony conviction may impede a student's ability to receive licensure.

GRADUATION REQUIREMENTS

2.0 cumulative grade point average and department requirement of 2.0 grade point average in major courses (CIVL).

SUGGESTED TECHNICAL ELECTIVES

- CIVL 1013
- CIVL 2154
- CIVL 6113
- Other technical electives approved by department.