



### AAS DEGREE - CODE #122

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Careers related to agriculture are diverse and constantly changing. Today's students need the flexibility to tailor a degree to suit their needs. That's why our agricultural automation and robotics curriculum has been designed to prepare students to enter the workforce as an agricultural automation technician or continue their education in one of Alfred State's baccalaureate programs.

### ADVANTAGES

- Opportunities for hands-on experience with automated milking equipment.
- Hands-on experience and class work in both agriculture and engineering.
- The only program of its kind in the US.

### DIRECT ENTRY INTO BACCALAUREATE DEGREE PROGRAMS

Alfred State agricultural automation and robotics graduates may also enter directly into either the agricultural entrepreneurship BTech, interdisciplinary studies BTech, or the technology management BBA degree program.

### RELATED CLUBS AND ACTIVITIES

Students have the opportunity to participate in the Collegiate Agricultural Leaders (CAL) Club, Collegiate FFA, Equestrian Club, Dairy Judging Team, Agricultural Skills Day, Spring Fling Consignment Sale, Community Supported Agriculture projects, local foods projects, showmanship contests, and Robotics Club.

### CONTINUING EDUCATION OPPORTUNITIES

Many schools, including Cornell University, grant full credit to students wishing to transfer to four-year programs. A formal articulation agreement exists between Alfred State and Cornell University for transfer options.

### OCCUPATIONAL OPPORTUNITIES

- Installation and maintenance of agricultural automation equipment
- Agricultural automation equipment operations
- Agricultural automation equipment research and development
- Salespeople and consultants for agricultural equipment distributors

### EMPLOYMENT STATISTICS

No data available yet on this new program

### RELATED PROGRAMS

[Agricultural Technology](#)  
[Agricultural Business](#)  
[Electrical Engineering Technology](#)  
[Mechanical Engineering Technology](#)  
[Mechatronics Technology](#)

### ENTRANCE REQUIREMENTS/RECOMMENDATIONS

Required: Algebra, Geometry, Algebra 2

Recommended: Physics

### 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](mailto: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.

A typical day consists of two, one-hour lectures and a two-hour studio in the freshman and sophomore years. At the junior and senior levels, three-hour studios are required.

### TYPICAL FOUR-SEMESTER PROGRAM

First			
ANSC	1204	Introduction to Animal Science	4
AGRI	1001	Farm Practicum I	1
MATH	1033	College Algebra	3
COMP	1503	Freshman Composition	3
MECH	1003	Intro to Mechanical Eng Tech	3
ELET	1202	Intro to Electrical Eng Tech	2
			16
Second			
AGPS	1104	Soils	4
MATH	2043	College Trigonometry	3
MECH	4523	Control System Fundamentals	3
ELET	1103	Circuit Theory I	3
ELET	1151	Circuit Theory Laboratory	1
GLST	2113	Global Perspectives: Spcl Topic	3
			17
Third			
ELET	1133	Digital Logic	3
ELET	1111	Digital Logic Laboratory	1
AGPS	2113	Field & Forage Crops	3
MECH	1203	Materials Science	3
CISY	4423	Intro to Mobile Robotics & Ani OR	3
CISY	1113	Computer Programming I	3
SPCH	1083	Effective Speaking OR	3
SPCH	xxx3	Effective Speaking Equivalent	3
			16
Fourth			
XXXX	xxx3	Technical Elective	3
XXXX	xxx3	Technical Elective	3
XXXX	xxx3	Gen Education Elective	3
AGRI	4900	Directed Study OR	1
MECH	4900	Directed Study	1
ELET	1142	Electronic Fabrication	2
AGRI	2001	Farm Practicum II	1
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### Suggested Technical or Transfer-related Electives:

- MCET 2423 Circuits Fundamentals
- MCET 2461 Circuits Fundamentals Lab
- MECH 1663 Manufacturing Processes
- MECH 4003 Solid Modeling
- MECH 3334 Statics
- MECH 3223 Mechanical Design Principles

- MECH 4024 Dynamics
- MATH 1063 Tech Calc I
- ELET 2103 Electronics Theory I
- ELET 2151 Electronics Theory I
- ELET 4224 Alternative Energy Generation
- CHEM 1114 General Chemistry
- PHYS 1024 General Physics I
- AGPS 3004 Soil Fertility
- ANSC 3202 Dairy Management Analysis
- ANSC 3003 Feeds and Nutrition
- ANSC 3223 Dairy Calf Management
- ANSC 3103 Livestock Management & Production
- ANSC 3204 Dairy Cattle Production III
- AGPS 5103 Sustainable Vegetable Production Tech
- AGPS 5003 Integrated Pest Management
- AGRI 2013 Organic & Sustainable Ag Tech
- AGRI 6103 Precision Agriculture
- BIOL 2803 Environmental Sciences
- BIOL 2801 Environmental Sciences Lab
- BIOL 4254 General Microbiology
- BIOL 6534 Genetics

#### **Graduation Requirements**

Students must:

- Successfully complete the prescribed sequence of courses.
- Achieve a minimum index of 2.0 in their core courses.
- Achieve a minimum index of 2.0 overall.
- Be recommended by the department faculty.