



### **AOS DEGREE – CODE #1908**

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This program will provide you with the hands-on skills and expert training required by heavy equipment operators for the light construction and heavy highway industries. Instruction is provided in heavy equipment operations theory, as well as grades, soils, blueprint reading, safety, and supervision.

You will spend approximately 25 percent of your lab time operating real, industry-standard equipment; the balance of the lab time is spent on equipment inspection, maintenance, grades, lot layout, operation support, and estimating.

### **ADVANTAGES**

Programs leading to an AOS degree are hands-on and do not include liberal arts and sciences courses. Offered at the School of Applied Technology campus in Wellsville, heavy equipment operations is geared toward a person who would like to enter the heavy equipment operation industry following graduation.

### **DIRECT ENTRY INTO BACCALAUREATE DEGREE PROGRAM**

Alfred State heavy equipment operations graduates may enter directly into the construction supervision BTech or technology management BBA degree program. Graduates who have credit for freshman composition, statistics, literature, history, and speech may complete the baccalaureate program in two additional years; others may complete the program in two-and-one-half years.

### **OCCUPATIONAL OPPORTUNITIES**

- Town, village, or county department of public works
- NYS Department of Transportation
- Highway and heavy construction companies
- Mining companies
- Logging companies
- Energy industry
- Self-employment
- Equipment operator
- Construction foreman
- Construction superintendent

### **EMPLOYMENT STATISTICS**

Employment and continuing education rate of 100 percent – 97 percent are employed; 3 percent continued their education.

### **RELATED PROGRAMS**

[Heavy Equipment, Truck & Diesel Technician](#)

### **REQUIRED TOOLS/EQUIPMENT**

A list of required tools, equipment, PPE, etc. for the program mentioned above can be found at <http://www.alfredstate.edu/tool-lists>.

A tier 1 laptop computer is required for students entering this degree program. Laptop specifications are available at [www.alfredstate.edu/required-laptops](http://www.alfredstate.edu/required-laptops).

### **ENTRANCE REQUIREMENTS/RECOMMENDATIONS**

Required: Letters of recommendation, essay, and resume indicating related work experience and/or knowledge of field

Recommended: Algebra and Geometry

Students will be accepted for the heavy equipment operations program based on the strength of their application. Criteria for consideration will include high school average, regents exam scores (if a New York State student), grades in related course work, results of standardized tests (if available), and additional information provided through letters of recommendation, a personal essay indicating career goals, and a resume.

### **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.

### **TECHNICAL STANDARDS**

Applicants in the heavy equipment operations program must meet the following physical requirements:

- Must be able to lift 50 pounds to shoulder height.
- Must be able to perform safely in the laboratory.
- Must be able to effectively communicate with a person 20 feet away.
- Must be able to climb a ladder and/or able to climb, unaided, onto and off equipment using three points of contact.
- Must be able to safely respond to a backup warning alarm.

**HEAVY EQUIPMENT OPERATIONS - AOS DEGREE**

TYPICAL FOUR-SEMESTER PROGRAM

<b>First</b>			
BLCT	1002	Intro to Construction Safety	2
BLCT	1302	Blueprint Reading & Grades I	2
BLCT	1312	Introduction to Earth Moving	2
BLCT	1322	Preventive Maintenance Checks	2
BLCT	1222	Construction Math	2
BLCT	1332	Operations Part I	2
BLCT	1306	Heavy Equipment Lab I	6
			18
<b>Second</b>			
BLCT	2302	Work Zone Safety	2
BLCT	2312	Blueprint Reading & Grades II	2
BLCT	2322	Equipment Preventative Maintenance	2
BLCT	2332	Operations - Part II	2
BLCT	2342	Soils	2
BLCT	2352	Compaction & Stabilization	2
BLCT	2306	Heavy Equipment Lab II	6
			18
<b>Third</b>			
BLCT	3302	Blueprint Reading & Grades III	2
BLCT	3312	Introduction to Grading	2
BLCT	3322	Advanced Operations	2
BLCT	3332	Highway Surfaces	2
BLCT	3342	Construction Project Supervision	2
BLCT	3352	Tracked Finishing & Grading	2
BLCT	3306	Heavy Equipment Lab III	6
			18
<b>Fourth</b>			
BLCT	4002	Below Grade Construction	2
BLCT	4402	Wheeled Finishing & Grading	2
BLCT	4412	Finish Processes	2
BLCT	4422	Project Management & Support	2
BLCT	4432	Advanced Safety	2
BLCT	4442	Machine Control Technology	2
BLCT	4406	Heavy Equipment Lab IV	6
			18

**GRADUATION REQUIREMENTS**

A student must successfully complete all courses in the prescribed four-semester program and earn a minimum cumulative index of 2.0, which is equivalent to a "C" average.