

# Heavy Equipment Operations & Engineering



Laurel Oaks  
Live Oaks



**MORE INFO**  
[greatoaks.com/  
heavyequipment](http://greatoaks.com/heavyequipment)

Skills recommended to be successful in this career pathway:

## CONSTRUCTION TECHNOLOGIES CAREER CLUSTER

### ESSENTIAL SKILLS

- Oral communication
- Written communication
- Physical strength/mobility
- Safety awareness
- Visual acuity/depth perception
- Perceptual speed/clerical & auditory perception
- Reasoning skills/mechanical aptitude
- Eye/hand/arm coordination/manual dexterity

### ACADEMIC SKILLS



#### APPLIED MATHEMATICS

- Use geometry for calculations
- Measure volume, slope and distance
- Use three-dimensional reasoning



#### WORKPLACE DOCUMENTS

- Read/write safety reports
- Understand estimates and bids
- Follow equipment maintenance schedules



#### GRAPHIC LITERACY

- Interpret blueprint drawings
- Use construction drawings
- Follow maintenance charts

### DID YOU KNOW STUDENTS IN THIS PROGRAM...

- \* Use practical math to solve problems
- \* Have knowledge of types of rocks and soil
- \* Service and maintain various types of equipment
- \* Maintain constant awareness of surroundings
- \* Have a knowledge of building construction materials
- \* Frequently lift items more than 50 pounds
- \* Rely on hand/foot/eye coordination to operate equipment
- \* Maintain a safe and organized work environment
- \* Work in all types of weather



### COURSES



**YEAR  
1**

- Core and Sustainable Construction
- Heavy Equipment Operations



**YEAR  
2**

- Construction Surveying & Site Logistics
- Plan Reading



VIEW Great Oaks  
Course Guide  
[greatoaks.com/  
course-guide](http://greatoaks.com/course-guide)

*\*Courses subject to change.*

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## IS THIS YOU?



Find your work personality type with this free assessment at [truity.com](http://truity.com):



Holland's Model of Occupational Themes – graphic courtesy of the University of Tennessee.

## Realistic | Conventional

Realistic personality types are “doers;” they like doing something, as opposed to talking or thinking about it. They like to solve problems in the real world. They are practical, independent, assertive, competitive, and interested in activities that require motor coordination, skill, and strength. Doers with a secondary personality type of “conventional” like to work in organized, independent, and structured environments.

### Key strengths that lead to success in this career path

- ✓ Dependability
- ✓ Initiative
- ✓ Adaptability/flexibility
- ✓ Attention to detail
- ✓ Cooperation
- ✓ Independence

## WORK-BASED LEARNING OPPORTUNITIES

- ▶ Job shadowing
- ▶ Job placement
- ▶ Guest speakers
- ▶ Field trips
- ▶ Off-site community projects

## COLLEGE & CAREER READY

### Career Credentials

- NCCER Core
- NCCER Level 1 – Heavy Equipment Operations
- NCCER Level 2 – Heavy Equipment Operations
- Rough Terrain Forklift Operations
- Skid Steer
- Forklift Operation
- OSHA 10 – Construction
- CPR/First Aid



For more information, visit [ohiohighered.org](http://ohiohighered.org)

## CAREER PATHWAYS

After earning credentials, get more education and experience to

- ▶ Apprentice
- ▶ Project estimator
- ▶ Site engineer
- ▶ Crane operator
- ▶ Truck driver
- ▶ Forklift operator
- ▶ Equipment salesperson
- ▶ Underground utility installer
- ▶ Landscaper



VIEW Essential Skills Guides  
[greatoaks.com/essential-skills](http://greatoaks.com/essential-skills)

Entry-level pay range in Ohio

**\$18 - 39**  
per hour

