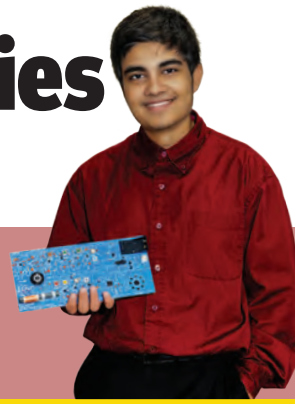


# Engineering Technologies & Robotics



Scarlet Oaks



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

Skills recommended to be successful in this career pathway:

## ENGINEERING & SCIENCE TECHNOLOGY CAREER CLUSTER

### ESSENTIAL SKILLS

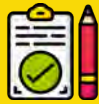
- Oral communication
- Written communication
- Physical strength/mobility
- Safety awareness
- Visual acuity/depth perception
- Perceptual speed/clerical & auditory perception
- Reasoning skills/mechanical aptitude
- Eye/hand/arm coordination/manual dexterity

### ACADEMIC SKILLS



#### APPLIED MATHEMATICS

- Use engineering-type formulas
- Read/understand mathematical symbols
- Use algebraic formulas (Ohm's Law)



#### WORKPLACE DOCUMENTS

- Use/understand technical manuals
- Read/use engineering terminology
- Work with troubleshooting guides



#### GRAPHIC LITERACY

- Read/use blueprints and schematics
- Follow wiring diagrams
- Use ladder logic to solve problems

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

- \* Regularly use troubleshooting and problem-solving skills
- \* Work with others to dissect problems
- \* Have a working knowledge of mathematical principles
- \* Use various types of computer programs and design software
- \* Have excellent listening skills
- \* Understand logic and flows of work
- \* Work with different types of programming software
- \* Know engineering symbols used in design solutions
- \* Follow a systematic process to solve problems
- \* Have a broad set of skills used for troubleshooting



### COURSES



**YEAR  
1**

- Engineering Design
- DC Electronic Circuits



**YEAR  
2**

- Mechanisms and Drives
- Industrial Robotics



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

*\*Courses subject to change.*

# Engineering Technologies & Robotics

## IS THIS YOU?



### Realistic | Investigative

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 “investigative” have the particular desire to solve problems based on research.

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.

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

- ✓ Attention to detail
- ✓ Analytical thinking
- ✓ Dependability
- ✓ Integrity
- ✓ Adaptability/flexibility
- ✓ Independence

## WORK-BASED LEARNING OPPORTUNITIES

- ▶ Job shadowing
- ▶ Job placement
- ▶ Field trips
- ▶ School-based work projects

## COLLEGE & CAREER READY

### Career Credentials

- FANUC - Handling, Tool Operation, & Programming
- Certified Solid Works Associate
- Certified Solid Works Professional
- Motoman DX100 Basic Programming with Material Handling
- Pre-Apprenticeship Engineering/ Manufacturing
- OSHA 10 – General Industry
- CPR/First Aid



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

## CAREER PATHWAYS

After earning credentials, get more education and experience to

- ▶▶ CNC programmer
- ▶▶ Automation specialist
- ▶▶ Robotic technician
- ▶▶ Programmer
- ▶▶ Electrical engineer
- ▶▶ Mechanical engineer
- ▶▶ Project manager



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

Entry-level pay range in Ohio

**\$18 - 37**  
per hour



Great Oaks alum  
Jayden Matzek