

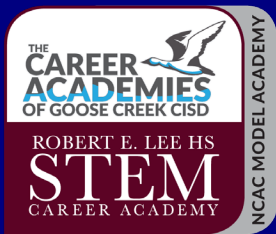
# Manufacturing Career Cluster

The Manufacturing Career Cluster focuses on planning, managing, and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance, and manufacturing/process engineering.



Program of Study Options by Campus	GCM	REL	RSS	SCTHS
Manufacturing and Industrial Maintenance Academy - Welding	--	--	--	AC/DC
Robotics	--	AC	--	--
Welding	X	--	--	--

AC—Courses available to academy students only; application process required in 8th grade; DC—College courses offered on campus; application process required before beginning college classes additional college fees may apply; LC—Upper-level course must be taken at a Lee College campus; application process required before beginning college classes.



# STEM Academy

## Robotics

### 002-BI-Robotics @ REL



The Advanced Manufacturing and Machinery Mechanics program of study focuses on the assembly, operation, maintenance, and repair of electromechanical equipment or devices. CTE learners may work in a variety of mechanical fields, gaining knowledge and experience in robotics, refinery and pipeline systems, deep ocean exploration, or hazardous waste removal. CTE concentrators may work in a variety of fields of engineering.

## Secondary Courses for High School Credit

### Level 1

- **H09878** Introduction to Engineering Design (PLTW)

### Level 2

- **09779** Robotics I

### Level 3

- **19779** Robotics II

### Level 4

- **H09768** Engineering Design and Development (EDP1<sup>A</sup>)

## Postsecondary Opportunities

### Associates Degrees

- Electromechanical Engineering/Technology
- Certified Quality Technician
- Industrial Mechanics and Maintenance Technology

### Bachelor's Degrees

- Electrical Engineering
- Industrial Engineering
- Mechanical Engineering

### Master's, Doctoral, and Professional Degrees

- Electrical Engineering
- Industrial Engineering
- Mechanical Engineering

## Work-Based Learning and Expanded Learning Opportunities

### Exploration Activities

- Participate in Technology Student Association (TSA) and local STEM events

### Work-Based Learning Activities

- Work at a local business or industry apprenticeship
- Join the American Welding Society



## Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Electro-Mechanical Assemblers	\$30,160	951	9%
Electro-Mechanical Technicians	\$56,555	127	9%
Industrial Machinery Mechanics	\$49,816	3,788	27%

Successful completion of the Robotics program of study will fulfill requirements of the Business and Industry or STEM endorsement if the math and science requirements are met.