

# Engineering Technician

## About my job:

I install and maintain control systems and equipment, and I change prototypes, parts and assemblies to resolve problems. To test systems, I also set up test equipment and evaluate the performance of developmental parts, assemblies or systems. Then, I use this information to fix design-related issues.



## What I do every day:

- Using hand tools or measuring instruments, assemble systems or prototypes
- Develop, calibrate, maintain and repair instruments and testing equipment
- Coordinate with engineers and other colleagues to identify and resolve developmental problems
- Set up test equipment to evaluate performance of parts and systems under simulated conditions
- Stay current with existing engineering criteria and update material with necessary revisions, deletions or amendments
- Coordinate ongoing modifications to specified plans

## What makes my job great?

### Job growth:

In 2014, Lake County, Ohio labor statistics demonstrated that there were 447 engineering technician jobs in the county and 21 percent had not been filled. What's more, approximately 25 percent of the positions were occupied with workers over the age of 55. These statistics underscore the local need for engineering technicians now and in the future.

### Short-term training:

Engineering technicians usually require an associate degree. The degree can be achieved through vocational/technical schools that emphasize training needed by local employers. Community colleges also offer programs similar to those in technical institutes but include additional theory-based and liberal arts coursework.

### Good pay:

The average median salary is \$58,800/year. (That means that 50 percent earn less than this number, and the other 50 percent earn more.)

### Benefits:

Most technicians work full time with benefits that may include:

- **Tuition reimbursement**
- **Paid vacation**
- **Healthcare**
- **Option to work part or full time**

# How can you become an engineering technician?



## Academic/training credentials:

To secure employment, an associate degree is the standard degree required. In addition, students can pursue additional certificates that demonstrate expertise in specific areas or equipment.

## Work experience/internships:

Experience is not required for entry-level positions but is very helpful in demonstrating problem-solving abilities, communication skills and work ethic. Many companies are looking for interns/apprentices. To find out more about local opportunities, contact Lakeland Career Services at 440.525.7222.

## Skills and requirements:

- Problem-solving skills
- Ability to work as a team player
- Strong verbal and written communication skills
- Math and measurement skills
- Computer knowledge
- Flexibility

## Where you can find jobs:

- Online job boards
- Social media
- Company websites
- Career fairs
- Department of Career Services at colleges
- Networking

## Potential job titles:

- Electrical engineering technician
- Electrical technician
- Engineering assistant
- Engineering technician
- Generation technician
- Instrument and controls technician (I & C Technician)
- Mechanical engineering technician
- Nondestructive Test Technician
- Quality technician
- Results technician
- Test specialist
- Test technician

## Potential local employers:

- Avery Dennison
- Component Repair Technologies
- Jergens Inc.
- Lincoln Electric
- Lubrizol Corporation
- Steris
- U.S. Endoscopy



# Local educational opportunities

## Two-year institutions:

- Lakeland Community College: Associate of Applied Science in Engineering Technologies
    - CNC operator mini certificate
    - CNC setup and programming technology
    - Computer integrated manufacturing technology
    - Industrial computer hardware technician
    - Production shift leader/manufacturing management
    - Tool and die technology
    - Tool room/maintenance machinist apprentice
- Contact Lakeland Integrated Manufacturing Co-Department Chair at 440.525.7293.
- Cuyahoga Community College: Associate of Applied Science in Electrical/Electronic Engineering
    - CNC machining and composite manufacturing certificate
  - University of Akron: Associate of Applied Science in Electronic Engineering Technology



**Ohio College Tech Prep**  
Building Quality Career Pathways

## High School Tech Prep:

- A-TECH: design drafting or precision machining program
- Auburn Career Center: advanced manufacturing program
- Lake Shore Compact: CAD/engineering or CNC manufacturing program
- Excel TECC: CADD engineering technology program
- Contact your high school guidance office

## Four-year institutions:

- Cleveland State University: Bachelor of Science in Electrical Engineering Technology
- Kent State University: Bachelor of Science in Engineering Technology
- University of Akron: Bachelor of Science in Electric Engineering Technology



## Coursework per educational entity:

**Secondary pathway:**  
Engineering and Design

**Postsecondary program:**  
General Manufacturing

An Example of Course with Secondary and Postsecondary Credits

Secondary	7	English I	Algebra I	Physical Science	Social Studies	Fine Arts	World Languages		
	8								
	9	English II	Algebra II	Biology	World History	Health (.5) PE (.5)	World Languages		
	10								
Postsecondary	11	English III	Geometry	Chemistry	U.S. History	AutoCAD	Measuring Tools	CNC Machining	
	12	English IV	Trigonometry/ Calculus	Physics	U.S. Government	Engineering Technologies	Solid Works	Product Design Processes	
	Year 1 1st Semester	Introduction to AutoCAD	Fundamentals to Public Speaking or Interpersonal Communications	Machining Processes	English Composition	Introduction to Engineering Technology	First Year Experience	Introduction to Technical Mathematics	
	Year 1 2nd Semester	Materials Processing	Technical Mathematics I	Technical Communications	Geometric Dimensioning and Tolerancing	Applied Physics I			
Postsecondary	Year 2 1st Semester	Introduction to SolidWorks	Manufacturing Methods and Costs	Jig and Fixture Design I	Applied Physics II	Computer Numerical Control Part Programming	Introduction to Computer Assisted Part Programming		
	Year 2 2nd Semester	Programming CNC Lathes	Programming CNC Machining Centers	Design and Manufacturing Capstone	Quality Concepts and Techniques	Arts and Humanities Elective	Social and Behavioral Science Elective	Technical Elective	
High School Career-Technical Education Program Courses									
High School Courses for Postsecondary Credit (including Apprenticeship Hours) and the Corresponding Postsecondary Courses									
Required Courses									
Recommended Electives									
Ohio		Department of Education		Ohio MEANS Jobs		Ohio		Board of Regents University System of Ohio	

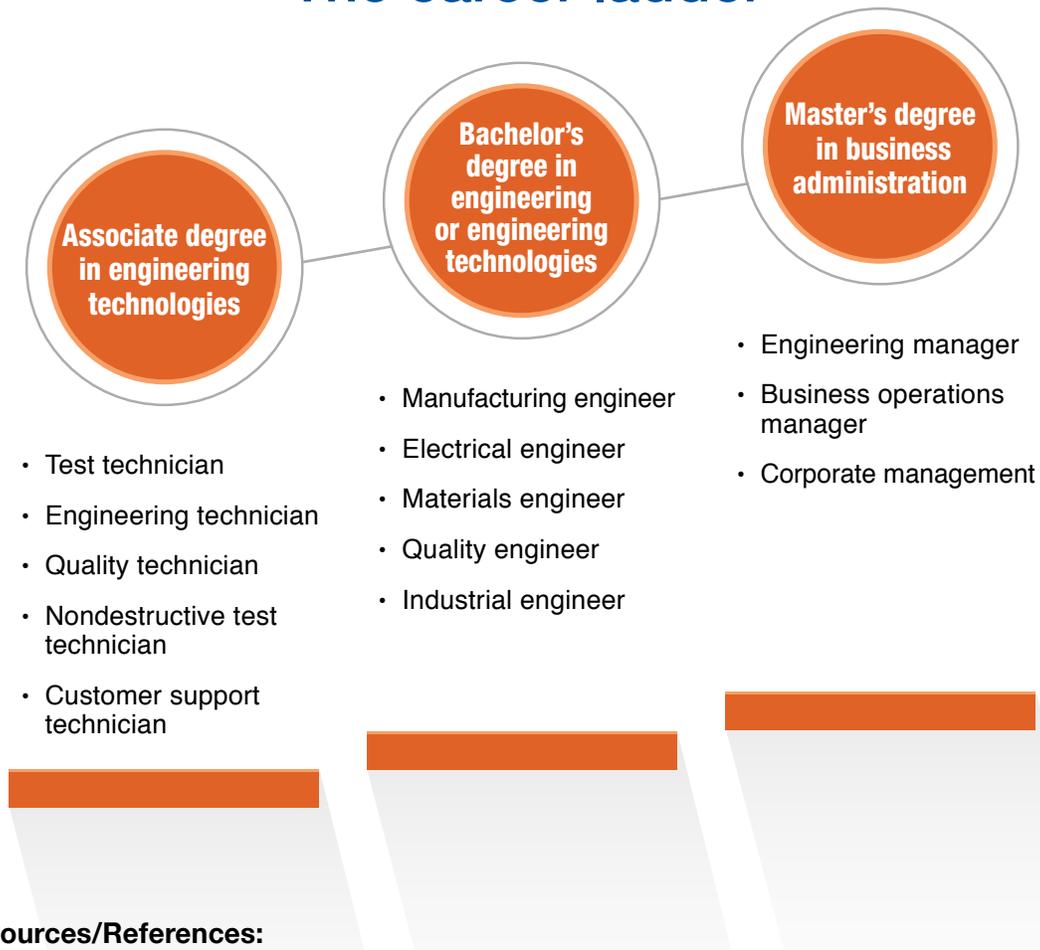
# How can I grow my career?



## Where could I focus or specialize in my career?

- Production worker
- Welder
- Technician
- Engineers
- Management

## The career ladder



### Sources/References:

Ohio Means Jobs, Bureau of Labor Statistics – Occupational Outlook Handbook

O\*Net Online-Summary Report, Ohio Labor Market Information

Lake County Workforce Statistics compiled by The Lake County Ohio Port and Economic Development Authority