



Engineering

Career Explorations: Engineering Technician

April 8, 2020



9-12/ Engineering
Engineering Technician: [April 8, 2020]

Objective/Learning Target:

Students will explore Engineering Technology as a career.

Engineering Technology Career Info

Engineering Technicians help mechanical engineers design, develop, test, and manufacture mechanical devices, including tools, engines, and machines. They may make sketches and rough layouts, record and analyze data, make calculations and estimates, and report their findings.

Engineering Technician Career Info

Engineering technicians typically do the following:

- X Evaluate design drawings for new or changed tools by measuring dimensions on the drawings and comparing them with the original specifications
- X Prepare layouts and drawings of parts to be made and of the process for putting the parts together, often using three-dimensional design software
- X Discuss changes with coworkers—for example, in the design of a part and in the way it will be made and assembled
- X Review instructions and blueprints for projects in order to ensure that test specifications and procedures are followed and objectives are met

Engineering Technician Career Info

Engineering technicians typically do the following:

- X Plan, produce, and assemble new or changed mechanical parts for products, such as industrial machinery or equipment
- X Set up and conduct tests of complete units and their components, and record results
- X Compare test results with design specifications and with test objectives and make recommendations for changes in products or in test methods
- X Estimate labor costs, equipment life, and plant space

Engineering Technician Career Info

The median annual wage for mechanical engineering technicians was \$56,250 in May 2018. The median wage is the wage at which half the workers in an occupation earned more than that amount and half earned less. The lowest 10 percent earned less than \$34,900, and the highest 10 percent earned more than \$85,430.

Watch The Video:

How to Become an
Engineering Technician

What does it take to become an Engineering Technician

Mechanical engineering technicians typically need an associate's degree or a certificate from a community college or vocational–technical school. Community colleges offer programs similar to those in technical institutes but include more theory-based and liberal arts coursework and programs. Community colleges typically award an associate's degree. Vocational–technical schools include postsecondary public institutions that emphasize training needed by local employers. Students who complete these programs typically receive a diploma or certificate.

What does it take to become an Engineering Technician

Communication skills. Mechanical engineering technicians must be able to clearly understand and follow instructions or ask their supervisors for clarification if they do not understand. They must be able to clearly explain, both orally and in writing, the need for changes in designs or test procedures.

Creativity. Mechanical engineering technicians help mechanical engineers bring their plans and designs to life. This often requires helping the engineer to overcome problems that might not have been anticipated.

Detail oriented. Mechanical engineering technicians must make precise measurements and keep accurate records for mechanical engineers.

Math skills. Mechanical engineering technicians use mathematics for analysis, design, and troubleshooting in their work.

Mechanical skills. Mechanical engineering technicians must apply theory and instructions from engineers by making new components for industrial machinery or equipment. They may need to be able to operate machinery such as drill presses, grinders, and engine lathes.

How Can I become a Engineering Technician

Step 1: Meet Engineering Technology Education Requirements

High school students interested in becoming mechanical engineering technicians should take classes in math, science, and computer skills. Courses that help students develop skills working with their hands also are valuable because these technicians build what mechanical engineers design. Additionally, students can begin to learn the soft skills required for the role, including communication and problem-solving skills.

Step 2: Attend Community College or Trade School

Engineering technicians typically need an associate's degree or a certificate from a community college or vocational–technical school. Community colleges offer programs similar to those in technical institutes but include more theory-based and liberal arts coursework and programs. Community colleges typically award an associate's degree. Vocational–technical schools include postsecondary public institutions that emphasize training needed by local employers. Students who complete these programs typically receive a diploma or certificate.

Step 5: Get Licensed and Certified

The National Institute for Certification in Engineering Technologies (NICET) offers four levels of certification through its technician certification programs. Mechanical engineering technicians can obtain certification in industrial instrumentation by passing an examination. In addition, an engineering technician's supervisor must verify the competency of the candidate for certification.

**Engineering
Technology fun
facts**

1. Engineering Technicians work a standard 8 to 5 job like everyone else.

- True
- False

Answer: True and False

Engineering Technicians generally work normal hours, but they can be on call depending on their position and responsibilities.

2. The average salary for an engineering technician according to the Bureau of Labor and Statistics is ?

- \$20,000 - \$30,000 annually

- \$30,000 - \$40,000 annually

- \$40,000 - \$50,000 annually

- \$50,000 - \$60,000 annually

**Answer: \$50,000
- \$60,000**

According to the Bureau of Labor and
Statistics the median income for a
Engineering Technician in 2018 was
\$56,250

3. An engineering technician will spend _____ years in school or training.

- 1 to 2

- 2 to 3

- 2 to 4

- 4 to 5

Answer: 2 to 4

An engineering technologist will spend between 2 and 4 years to earn certifications. Engineering technologists can earn their license in as little as 2 years.

Some Trade schools offer the same education in a shorter amount of time.

4. Engineering Technicians work indoors only and do not have to worry about working in the elements?

- True
- False

Answer: False

An engineering technician could be working in doors one day and outdoors the next.

5. An engineering technician should possess which of the following skills.

- Math Skills
- Customer service
- Decision-making skills ability to tools of the trade
- Physical strength
- All of the Above
- None of the Above

Answer: All of the above

Key skills of a engineering technologists include: Communication Skills, Creativity, detail orientation, Math skills, and Mechanical skills; ability to troubleshoot problems and use skills to apply solutions.

7. You must attend a 4 -year college in order to become a engineering technician ?

-True

-False

Answer: False

Engineering Technicians need a technical degree from a trade school or community college. Some engineering technicians may choose to continue their education or employers may pay an employee to get more education in the field.

8. How can I become a Engineering Technician?

- Meet engineering technician Education Requirements
- Attend Trade School or community college
- Get Licensed
- Get Certified
- All of the above

**Answer: All of
the above**