

Nontraditional Careers

Why Engineering? Ten Great Reasons¹

1. **Love your work, AND live your life too!** Engineering is an exciting profession.
2. **Be creative.** Engineering is a great outlet for the imagination—the perfect field for independent thinkers.
3. **Work with great people.** Engineering takes teamwork and working with all kinds of people inside and outside the field, such as designers, architects, doctors or entrepreneurs.
4. **Solve problems—design things that matter.** Come up with solutions no one else has thought of. Make your mark on the world.
5. **Never be bored.** Creative problem solving will take you into uncharted territory, and the ideas of your colleagues will expose you to different ways of thinking.
6. **Make a big salary.** Engineers not only earn lots of respect, but they are highly paid.
7. **Enjoy job flexibility.** An engineering degree offers you lots of freedom in finding your dream job. It can be a launching pad for jobs in business, design, medicine, law, and government.
8. **Travel.** Field work is a big part of engineering that will take you to many places.
9. **Make a difference.** Everywhere you look you will see examples of engineering having a positive effect on everyday life. Cars are safer, sound systems deliver better acoustics, medical tests are more accurate, and computers and cell phones are a lot more fun!
10. **Change the world.** Imagine what the world would be like without engineers. In very real concrete ways engineers save lives, prevent disease, reduce poverty, and protect our planet.

¹ engineeryourlife.org

“Although engineering really is a male-dominated career, I have had no problems being successful in this kind of program. I’ve become a manager of a team that’s gone to a national competition two years running, and I’m also the state vice president for the Technology Student Association. I’ve come to really enjoy what I learn here.”

Emily Van Allen, Engineering student

Break free of the traditions and barriers that limit your choices.
What’s stopping you? Be different! Try something new!
Is a nontraditional career in your future?

Talk to your school counselor
about a nontraditional career in engineering.

Technology and Engineering

HANDS-ON, MINDS-ON EDUCATION



Break free of the barriers that limit your career choices.

www.UtahCTE.org



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TECHNOLOGY AND ENGINEERING EDUCATION

Nontraditional Careers

Did you know a nontraditional career is any occupation in which women or men comprise 25 percent or less of its total employment?

Nontraditional jobs are attractive because they generally offer higher entry-level wages.

Choosing a nontraditional career path can mean:

- > Greater job satisfaction.
- > Higher wages and better benefits.
- > Great advancement opportunities.
- > Economic self-sufficiency.
- > Broader job opportunities.
- > Freedom to pursue a career related to your interests and abilities.

BREAK with tradition and explore a nontraditional career!

A Career in Technology and Engineering

Engineers apply the theories and principles of science and mathematics to research and develop solutions, solve problems, and design things that matter, impacting our world and making it better. Engineers work in variety of areas — from aerospace to bioengineering, to computer science to environmental, to electrical, manufacturing, industrial, mechanical, chemical, and civil engineering.

Below are the two CTE Pathways in Technology and Engineering Education:

- Pre-Engineering (Utah Pre-Engineering Program)
- Project Lead the Way (National Pre-Engineering Program)

Courses within these two Pathways will provide hands-on, project-based applications teaching problem-solving, use of creativity, and teamwork. These courses also create a foundation that will lead to career opportunities in Agriculture, Health Science, Information Technology, and Skilled and Technical Sciences.

Career and Technical Education Pathways

High school is a great time to try out a wide range of Career Pathways by enrolling in Career and Technical Education (CTE) courses. As an added bonus, you will be developing work-related skills that can be put to immediate and profitable use.

CTE provides courses and Pathways consistent with industry training and certification, thus providing depth and meaning for both visual and hands-on learning and education that can be applied in today's job market.

Through participation in CTE, Technology and Engineering Education can guide you as you take courses in your Pathway.

By taking Technology and Engineering Education courses, you will learn how to understand, design, produce, use, and manage the human-made world in order to contribute to and function in a technological society. You will also gain an important foundation of knowledge and skills necessary for continuing your education in engineering.

Employment and Outlook

The field of engineering continues to reinvent itself. The variety of engineering specialties not only has engineers designing bridges and automobiles, but creating video games; developing complex computer programs and software, artificial organs, and nuclear power sources; and designing children's toys, pet products, household products, sports equipment, and sustainable and efficient urban infrastructure.

Due to the expansion of jobs in the technical fields and the increasing number of engineers who are retiring, the number of job openings in technology and engineering continues to increase.

Nationally, engineering is the second largest of all professions. In Utah, it is one of the fastest-growing industries, having a projected growth rate of 3.3 percent through the year 2016, creating approximately 17,000 jobs.¹

Training and education beyond high school are important for success in a career in engineering. Whether you choose a one-year certificate, a two-year associate or technical degree, a four-year bachelor's degree, or an advanced degree will depend on your career path. **The choice is yours!**

10 percent of the engineering workforce is women.²

UtahFutures

Log on to UtahFutures.org to learn more about a career in Technology and Engineering. From the home page, click on the "occupations" option to find an occupation that interests you and link to the description for that occupation. Check out employment opportunities, working conditions, outlook, skills and abilities, and wages for your selected occupation.

Is a nontraditional career in your future?

Women engineers are in high demand. Read the following stories of women engineers to learn about what they are doing and the impact they are making on society and the world.

[Society of Women Engineers](http://www.societyofwomenengineers.org)
www.societyofwomenengineers.org

[Engineer Girl](http://www.engineergirl.org)
www.engineergirl.org

[Engineer Your Life](http://www.engineeryourlife.org)
www.engineeryourlife.org

[Discover Engineering](http://www.discoverengineering.org)
www.discoverengineering.org

¹ Utah Department of Workforce Services
² National Engineers Week Foundation

