

# High Wage, High Demand Jobs in Utah

There are five different industries that meet the qualification for “High wage, high demand” in Utah. They are:

- Construction
- Engineering
- Health Care
- Information Technology & Computer Science
- Manufacturing

## Construction

Construction includes jobs four main categories:

Federal/Heavy Construction: building construction for agencies such as the General Services Administration, military construction projects for the Department of Defense, and water resources projects that benefit our nation's navigation and flood control.

Highway Construction: Federal highways, transit infrastructure, airport runways, and state, city, and county roads. Transportation infrastructure plays a critical part in supporting the nation's economy and the construction industry plays a key role in building, maintaining, and improving the systems.

Building Construction: Architecture, engineering, and construction firms work together to build high rise buildings, stadiums, dams, etc. Contractors are committed to promoting "green" construction practices while creating buildings that will withstand earthquakes, and hurricanes.

Utility Construction: Water and wastewater facilities & pipelines, energy generation & transmission, telecommunications infrastructure, underground utility work, excavation, tunneling, boring and site preparation. Working with local government partners to keeping drinking water and wastewater infrastructure safe and affordable. Create pollutant discharge elimination systems.

Here are some websites and files that can help you find more information about employment opportunities in the construction industry:

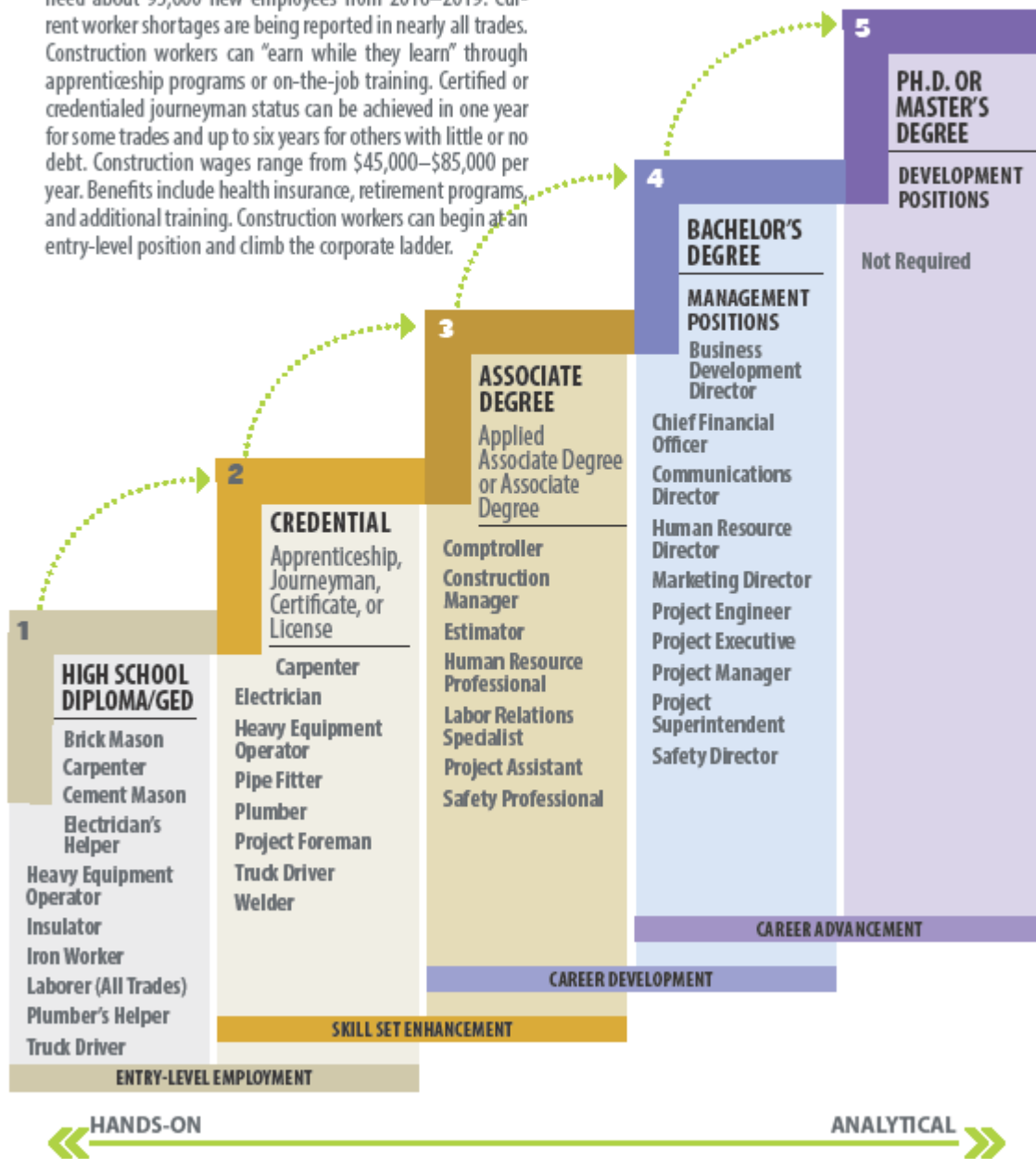
<http://www.byf.org/>

<https://www.agc.org>

[Construction.pdf](#)

# CONSTRUCTION

► **STACKABLE CREDENTIALS:** Utah's construction industry will need about 95,000 new employees from 2016–2019. Current worker shortages are being reported in nearly all trades. Construction workers can “earn while they learn” through apprenticeship programs or on-the-job training. Certified or credentialed journeyman status can be achieved in one year for some trades and up to six years for others with little or no debt. Construction wages range from \$45,000–\$85,000 per year. Benefits include health insurance, retirement programs, and additional training. Construction workers can begin at an entry-level position and climb the corporate ladder.



## Engineering

Utah has five universities that offer a B.S. in engineering: University of Utah, Utah State University, Utah Valley University, Weber State University, and Brigham Young University. The University of Utah, Utah State, and BYU offer advanced engineering degrees.

This [poster](#) was developed by the Utah State Board of Education, CTE Department, to help students know where they can go after high school for training in engineering.

The [Engineer Classification Matrix](#) describes the responsibilities of four levels of engineers. In Utah a level 1 engineer starts about \$60,000 a year and as they move up the career ladder engineers make about \$125,000.

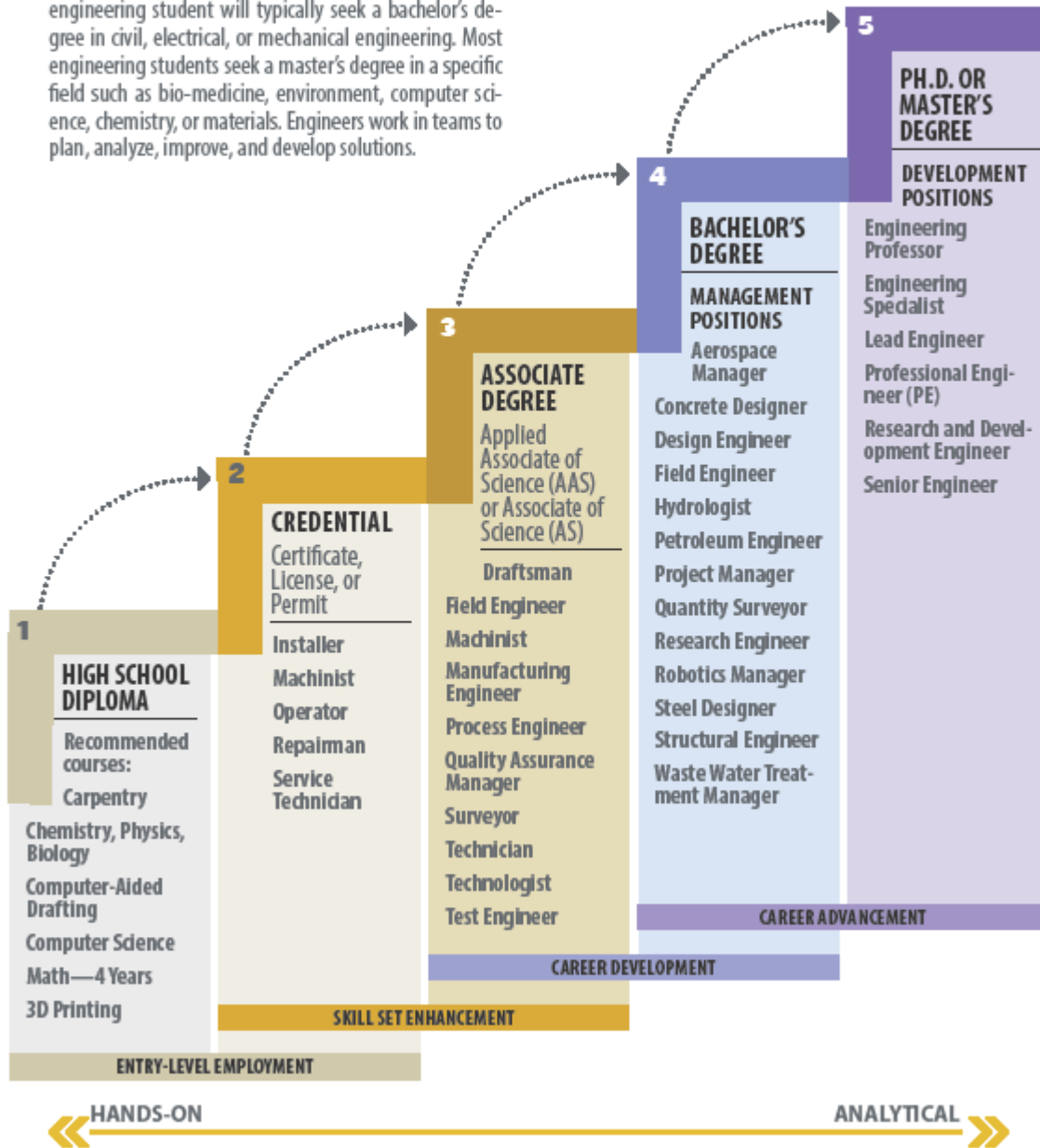
Here are some other websites and files that can help you find more information about employment opportunities in the engineering industry:

<http://www.discovere.org/discover-engineering>

[Engineering.pdf](#)

# ENGINEERING

► **STACKABLE CREDENTIALS:** In a very basic sense, engineers use math and science to solve world problems. An engineering student will typically seek a bachelor's degree in civil, electrical, or mechanical engineering. Most engineering students seek a master's degree in a specific field such as bio-medicine, environment, computer science, chemistry, or materials. Engineers work in teams to plan, analyze, improve, and develop solutions.



## Health Care

Healthcare is a large part of Utah's economy. When we think of healthcare careers, we think of the nurses and physicians that we know. Surprisingly, there are literally hundreds if not thousands of types of jobs within healthcare!

Let's take someone who goes to their doctor and the doctor tells them they must have surgery. There are many medical staff members they will encounter, and many more that work behind the scenes to ensure that their care will go well:

- their doctor (Medical School),
- the medical assistant (1 year certificate) that assists their doctor,
- the front desk person at the doctors office (on-the-job training),
- the business manager of the physicians offices in the clinic (bachelor or masters degree in business)
- the environmental services person cleaning the offices (on-the-job training)
- the people who process the insurance claim from the visit (will go through several people who may have on the job training to a bachelors degree)
- the nurses at the surgical site and on the floor in recovery (some will have associate and some bachelors degrees, at least 4 different specialty areas within nursing would be represented here)
- the surgeon and the anesthesiologist (Medical school)
- the OR tech who is the surgeon's assistant (1 year certificate training)
- the Sterile processing techs who clean and sterilize the surgical instruments between procedures and take care of all surgical supplies (on the job training)
- the radiology technologist who takes x-rays (4 year degree - used to be 2 year program), respiratory therapist who helps after surgery to ensure regular breathing occurs (4 year degree - used to be 2 year program)
- the pharmacy for follow-up medications, the cafeteria staff for family members to eat while waiting, the people making sure the medical record is translated into billing (Coders – 1-2 years school) and the billing staff working with insurance company (on the job training), and there are more!

One of the areas above that most people don't think about is the sterile processing techs, who train on the job and who have several levels available for upward movement just by taking a national exam. This is a critical position because the instruments used in surgery MUST be sterile, and so a very rigorous procedure is followed every time with a large staff each doing their part to take the instruments through the process. A graduate of high school who is 18 can begin here, and while they are going to school be engaged in an area they enjoy, is challenging and offers helpful learning for next steps. Or, stay in this profession their whole career and become the expert, the manager, etc.

Did you know that many Utah hospitals and medical clinics offer the benefit of tuition reimbursement for employees that have worked with their business for one year or more and want further education to move up the career ladder?

For more information on healthcare careers go to Youtube and search ihealthcare careers. You will find videos from a variety of sources. The videos range in length from 90 seconds to one hour.

Here is a list of files you can look at to find more information about employment opportunities in the health care industry:

[20 Careers in Health Care with income of \\$70,000 +.pdf](#)

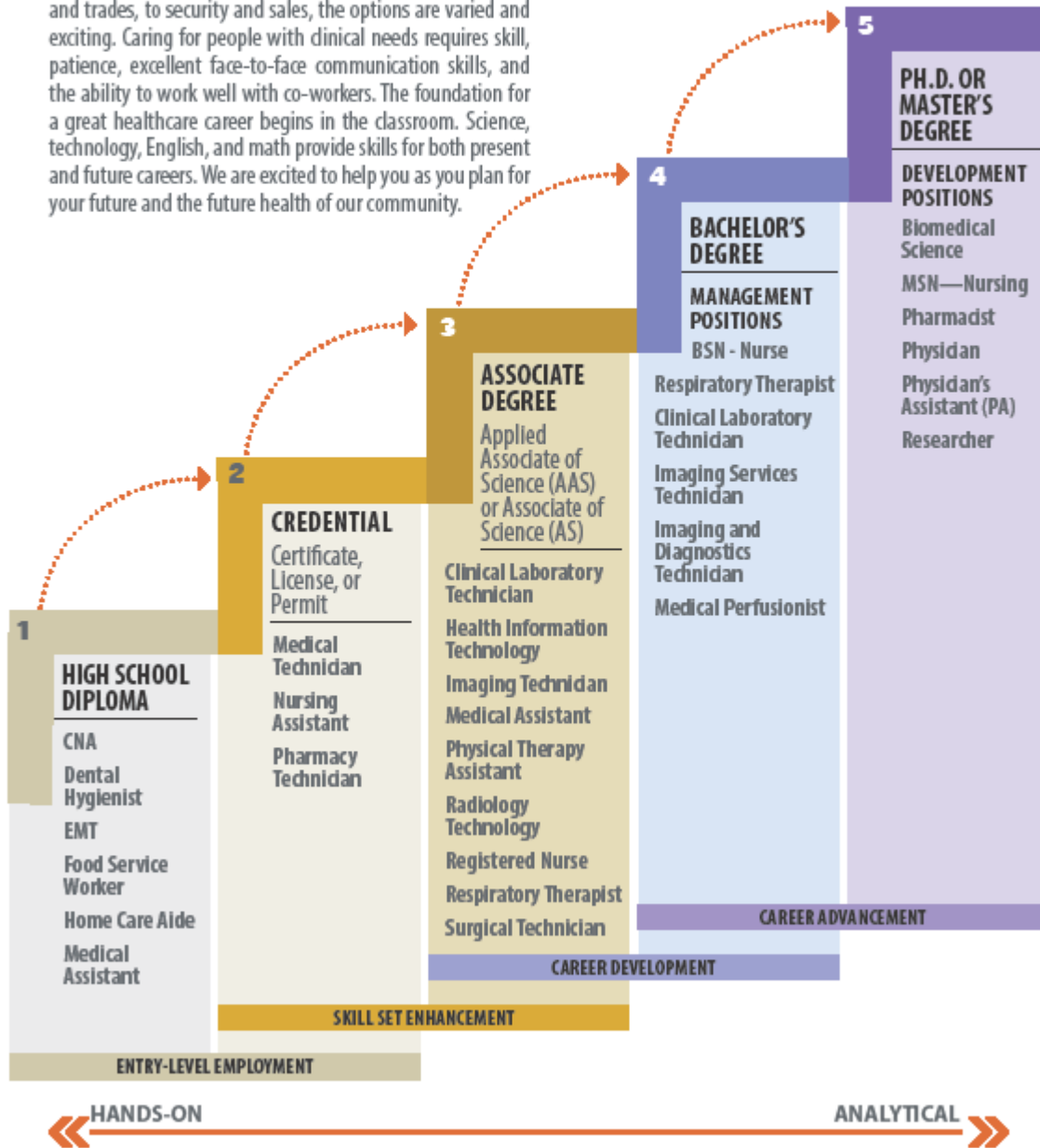
[Job Families-Intermountain Healthcare.pdf](#)

[Healthcare.States.pdf](#)

[Health Care.pdf](#)

# HEALTH CARE

▶ **STACKABLE CREDENTIALS:** Nationwide, one in ten people work in a healthcare related field. From clinical, business, and trades, to security and sales, the options are varied and exciting. Caring for people with clinical needs requires skill, patience, excellent face-to-face communication skills, and the ability to work well with co-workers. The foundation for a great healthcare career begins in the classroom. Science, technology, English, and math provide skills for both present and future careers. We are excited to help you as you plan for your future and the future health of our community.



## Information Technology & Computer Science

"With all the computers, tablets, smartphones and other high-tech devices our society is dependent on, we need the skills of professionals in technology jobs to make our obsession with tech possible." U.S. News Staff (Links to an external site.)Links to an external site., January 26, 2016

Information Technology is ever changing and the industry is experiencing a shortage of qualified employees. Did you know that there are sixteen IT courses available to Utah students? What options are available to your students desiring a career in the IT field?

Information Technology is ever changing and the industry is experiencing a shortage of qualified employees. Did you know that there are sixteen IT courses available to Utah students?

[IT Pathways.pdf](#)

Watch these short videos to find out more about the Information Technology and Computer Science industries:

[https://www.youtube.com/watch?v=8KmX\\_iK1gO4](https://www.youtube.com/watch?v=8KmX_iK1gO4)

<https://www.youtube.com/watch?v=nKlu9yen5nc>

[What is I.T. Information Technology.mp4](#)

<https://www.youtube.com/watch?v=QvyTE1wyOY>

<https://www.youtube.com/watch?v=FpMNs7H24X0>

Here are some files and websites you can look at for more information about employment in the Information Technology and Computer Science Industries:

<https://code.org/careers-in-tech>

[Information Technology and Computer Science.pdf](#)

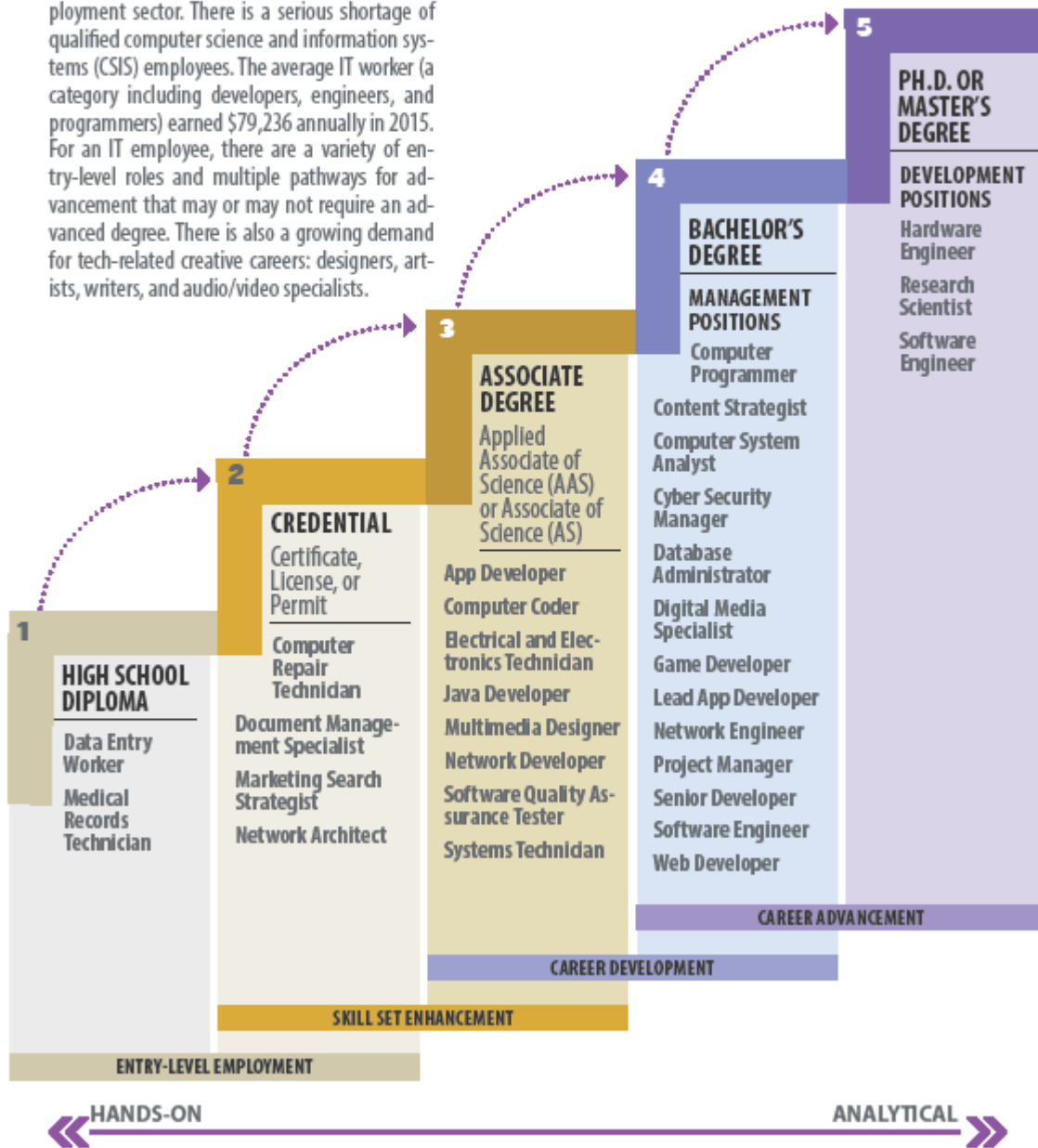
[Best Technology Jobs 2016.pdf](#)

[Nice People talking SMAC.pdf](#)



# INFORMATION TECHNOLOGY

► **STACKABLE CREDENTIALS:** Information technology (IT) positions are found in every employment sector. There is a serious shortage of qualified computer science and information systems (CSIS) employees. The average IT worker (a category including developers, engineers, and programmers) earned \$79,236 annually in 2015. For an IT employee, there are a variety of entry-level roles and multiple pathways for advancement that may or may not require an advanced degree. There is also a growing demand for tech-related creative careers: designers, artists, writers, and audio/video specialists.



## Manufacturing

The manufacturing industry is very closely connected with product engineering and industrial design. Most manufacturing plants use mass production - including humans and robots. A single person or a team can design the product to be manufactured. It takes creativity, problem solving, decision making to regularly update or make changes in the product. A research team is constantly looking for ways to improve the product and stay ahead of the competition. A business team is also part of manufacturing. A statistician recommends the price for the product after carefully reviewing every expense in producing the product. Marketing and business strategies are also needed to ensure that there will be a constant demand for the product.

Listed below are a few manufacturing companies in Utah. Did you know that there are over 500 manufacturing companies in our state? As you visit the website try to determine if the company is a recent start-up if they have they been in business a long time. Have you ever used or purchased their product?

<http://www.achfoam.com/home.aspx>

[Qmed Qualified Supplies to the Medical Device Industry.pdf](#)

[Food Products Suppliers serving Utah.pdf](#)

[Advanced Composites Profile - Utah.pdf](#)

[Utah Dietary, Food, Health, Herbal & Nutritional Supplements Manufacturers.pdf](#)

<http://www.jaybirdsport.com>

<http://www.barnesbullets.com>

<http://advancedwindowsusa.com/products>

We also have 80+ Outdoor Manufacturing companies in Utah:

[Utah Outdoor Manufacturing Companies \(1\).pdf](#)

# MANUFACTURING

**STACKABLE CREDENTIALS:** In 2015, the average manufacturing worker earned \$79,553 annually, including pay and benefits. Manufacturing accounts for nine percent of the workforce. Manufacturers report a moderate to serious shortage of qualified applicants for skilled and highly skilled production positions. Utah manufacturing includes the following sectors: food manufacturing, natural products, outdoor products, energy-petroleum, coal, natural gas, chemical, composites and advanced materials, aerospace, fabricated metal, computer/electronics, and pharmaceuticals.

