

CTED DIRECTIONS

Career and Technical Education News and Information Student Edition

November 2011

Message

Have you considered a STEM career? STEM refers to occupations in Science, Technology, Engineering and Mathematics. There is no question that STEM occupations are critical to the United States economic competitiveness. Although the number of STEM related occupations represents a small percentage of the total job market, those jobs tend to be occupations that are closely tied to innovation, economic growth and productivity, which are essential elements for any economy to be successful.

The "Technology" category includes any occupation that requires technical skill, and makes up nearly 50 percent of all STEM occupations. Here are some of the areas that fit into the Technology sector: Accountants, Automotive Technicians, Biotechnology Technicians, Chemical Technicians, Drafting Technicians, Dietetic Technicians, Electronic Technicians, Farm and Ranch Managers, CNC Technicians, Composite Technicians, Mechatronic Technicians, Graphic Designers, Computer and Software Technicians, and the areas of Information Technology. Opportunities in the Technology sectors will continue to increase over the next few years.

Students who are interested in pursuing careers in "Technology" need to get started in high school by taking science and math courses. Sometimes the thought of taking these courses make students think twice about going down this path. However, even those who struggle in these subjects can still be successful in STEM careers. There are many ways to build skills in math and science. Look for programs that offer mentoring or tutoring in these subjects. Student organizations can also help, so think about joining a Career and Technical Student Organization (CTSOs), DECA, FBLA, FCCLA, FFA, HOSA, SkillsUSA, and TSA. Also, there are courses that can be taken in the evening or the summers that will help build the basic skills that are necessary to be "College and Career" ready.

During the next five years, the demand for students who have the background to move into Science, TECHNOLOGY, Engineering, and Mathematics careers will increase. Wages paid for these occupations will continue to lead wages in all occupations. Take advantage of these opportunities. Think about choosing a CTE Pathway that will lead to an exciting STechnologyEM career.



Career Highlight – Certificates Can Qualify You for Well-Paid Careers

CTE certificate programs – sometimes in conjunction with licensing exams – prepare workers for a diverse range of occupations. Here are just a few of those **occupations that are in demand**, along with both **national and state median annual earnings**. (NOTE: "median" is the middle value of a given set of numbers, listed as a distribution from low to high.)

Occupation	Utah	Nat'l
Aircraft Mechanics & Service Technicians	\$54,974	\$51,390
Architectural & Civil Drafters	\$40,747	\$44,490
Audio & Video Equip. Technicians	\$36,733	\$38,050
Heating, Air Conditioning, & Refrigeration Mechanics/Reps	\$41,184	\$39,680
Insurance Sales Agents	\$53,518	\$45,430

Occupation	Utah	Nat'l
Library Technicians	\$26,642	\$28,820
Licensed Practical Nurses	\$39,000	\$39,030
Real Estate Sales Agents	\$41,330	\$40,150
Sound Engineering Technicians	\$41,142	\$47,490
Surgical Technicians	\$35,547	\$38,740

Wanted: Skilled Workers!



Did you see the story about [Career and Technical Education](#) on the CBS Evening News? Reporter Elaine Quijano visited with John McGlade, president and CEO of [Air Products](#) and last year's [SkillsUSA CEO Champion of the Year](#), about the role of career and technical education in preparing students to enter the world of work. McGlade says 4,000 of his 7,500 U. S. employees are skilled workers. His global company designs and builds high-tech hydrogen equipment and devices and hires about 550 U.S. workers a year. McGlade is worried he won't be able to find skilled workers in the future. Of the 550 U.S. workers he hires each year 360 are technically skilled positions that require two years of college or advanced certification. The U.S. Department of Labor forecasts that by the year 2012 there will be a shortfall of nearly 3 million skilled workers in America. Watch the full CBS Evening News story [here](#).

Supercomputing Competition

On March 28, 2012 the first annual [Supercomputing Competition](#) will be held at the University of Utah as part of the Salt Lake Valley Science and Engineering Fair. This event will provide high school participants with a chance to become familiar with supercomputing. High school students across the state are encouraged to apply for the opportunity to participate in this competition. Eight teams will be selected to compete in the Supercomputing Competition. Six to ten students and one mentor will comprise each team. Each team will execute [three challenges](#). Applications are due December 15, 2011. Visit [uhssc.org](#) to [apply](#).



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Uintah Basin Region – Health Science Career Day

On Wednesday, October 6, one-hundred and thirty high school students in the Uintah Basin Region attended a Health Science Career Day event on the campus of [Uintah Basin Applied Technology College](#) (UBATC). The event was sponsored by the Utah Center for Rural Health and the Uintah Basin Region CTE Career Pathways department. Students rotated through five interactive workshops—respiratory therapy, laboratory services, radiology, nursing, casting and suturing—and learned about healthcare occupations. Each student had the opportunity to practice proper hand-washing techniques, type their own blood, view an ultrasound, take blood pressure, give shots using oranges, mold casts, and suture using chicken wings. Ashley Regional Medical Center, UBATC Nursing Department, Weber State University Respiratory Therapy Department, and Southern Utah University pre-med students were at the event to talk with students about postsecondary opportunities. *“This was such a great event, the kids really were in engaged and enjoyed it,”* said JoJo Gale, Uintah Basin CTE Pathways Coordinator.



CTE Month – February 2011

Each year CTE students, teachers, and administrators celebrate CTE during the month of February. This year's theme is ***Career and Technical Education: Preparing Students for College and Career!*** Schools can pick a day, a week, or the entire month to spotlight CTE programs. Join the 14.4 million CTE students across the nation in celebrating CTE.

Consider making the following activities part of your celebration:

- Decorate your school with banners and posters.
- Post electronic announcements to your school website, marquee, and bulletin boards.
- Have an open house for parents.
- Make a video profiling successful alumni and where they work.
- If your school has a Facebook page make a post about the CTE Month events at your school.
- If your school has a Twitter page tweet about the CTE Month events at your school.

Details about CTE Month activities will be announced on Facebook and Twitter. Visit [UtahCTE.org](#) to join our communities, today! Tell us what you plan to do in your school or classroom during CTE Month. Email us at UtahCTE@schools.utah.gov.

Did You Know?

- Students using the [National Research Center Math-in-CTE model](#), which uses highly integrated CTE and academic teaching methods and courses, scored significantly higher on two national math assessments than students using traditional teaching methods.
- A ratio of one CTE class for every two academic classes minimizes the risk of students dropping out of high school.
- More than half of jobs created by the year 2018 are projected to require some form of postsecondary education. **College Means 1, 2, 4, or More!** Today's definition of “college” includes **1-year** (certification, etc.), **2-year** (associate degrees), **4-year** (bachelor's degrees) **or more** (professional degrees).

Governor Gary Herbert

On Wednesday, October 12, Governor Gary Herbert spoke to high school students across the state about the value and importance of education beyond high school. You can watch his talk again [here](#).



“By the year 2020, two-thirds of the jobs in Utah will require a postsecondary degree or certification. Continuing your education past high school is not only a necessity, it's an investment.”

Governor Gary R. Herbert

Calendar

November 6-12: National HOSA Week

November 10-11: Utah State Turkey Show – Logan, UT

Career and Technical Education: *Giving Students the Edge*
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