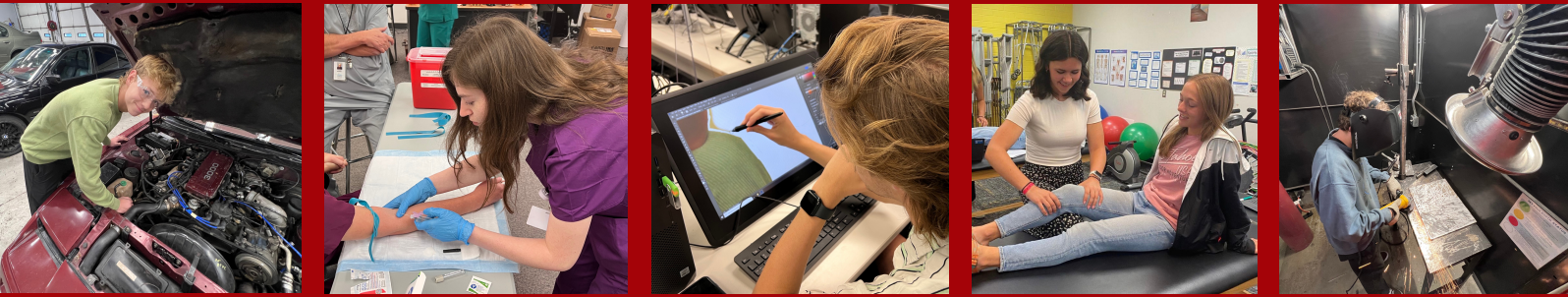




CANYONS TECHNICAL EDUCATION CENTER



2024-2025

Course Catalog

Real-World Experience
Industry Certifications
Concurrent Enrollment



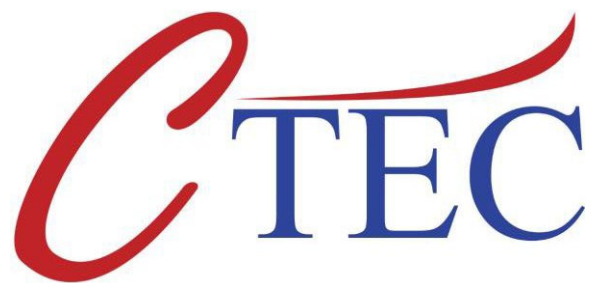
SCAN ME



@CTECnow



CTEC.CANYONSDISTRICT.ORG



Mission Statement

The mission of Canyons Technical Education Center is to provide all students an innovative education through competency-based instruction that produces **P**roductive, **R**esponsible, **E**ngaged, **P**rofessional, **S**uccessful students who possess the tools necessary for post-secondary education or career settings.

Dear Students and Parents,

On behalf of the faculty and staff at Canyons Technical Education Center, I welcome you to investigate the educational opportunities that await you here at CTEC. The programs offered here present a unique and rewarding approach to learning new skills and deepening knowledge through a capstone type experience. Students have indicated the following areas are the strongest at CTEC and encourage others to take this step towards pursuing their career goals.

- **Building a Solid Foundation** – At CTEC, the goal is to build a solid foundation for an individual's career and college plans allowing them to determine their path moving forward. We help build a solid foundation consisting of technical skills, people skills, college and workplace training, and a desire to find success in a program of study.
- **Chosen Career** – Students have the opportunity to learn, work, and/or intern and job shadow in their chosen career field. CNA and Medical Assisting students will intern with hospitals and care facilities. Cosmetology students will cut, curl, and color clients' hair in the CTEC salon. Emergency Medical Technician students will have experiences with local Fire Department personnel. CTEC has a strong focus on connecting students to their chosen industry through career-connected education.
- **College Credit** – Students can earn college credit now as juniors and seniors. The cost is minimal and the return in credit and educational self-confidence is immeasurable. College classes can be applied toward college certificates, associate degrees, or bachelor degrees. CTEC partners with Salt Lake Community College, Utah Valley University, Utah State University, and Weber State to offer concurrent enrollment credit.
- **Industry Certifications** – In addition to college credit, many programs offer industry certifications. Employers hire candidates with proven and tested training on their resumes. Many of the programs offer industry certifications such as Adobe, AWS (Welding), and ASE (Diesel) certificates. Check the catalog or website to see what college credits and industry certifications are specifically offered.
- **Friends and Future Colleagues** – Students enjoy the opportunity to build friendships with others who have similar career and educational goals. Many lasting relationships have been created while working in the classrooms, labs and internship sites with fellow students from other high schools.
- **Varied Learning Opportunities** – Learning happens in many locations including classrooms, shops, labs, work-based learning locations, and during career days. Professional doors are opened to CTEC students allowing them to interact with current industry experts and leaders in various program areas.

I hope you take the time to research our programs, visit us here at CTEC, talk with instructors or visit a CTE Coordinator at your high school and see if we have the right program for your future. You will have the opportunity to learn from industry professionals who have trained to become excellent teachers. At CTEC, students start with a high school course, but move with confidence toward a chosen career or college pathway. We look forward to having you learn at CTEC.

Doug Hallenbeck

Principal
Canyons Technical Education Center



CANYONS SCHOOL DISTRICT

BOARD OF EDUCATION

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CANYONS TECHNICAL EDUCATION CENTER

Doug Hallenbeck, Principal
Emalee Brown, CTE Coordinator

CANYONS DISTRICT CAREER AND TECHNICAL EDUCATION

Janet Goble, CTE Director
Patricia Larkin, CTE Specialist

No District employee or student shall be subjected to discrimination in employment or any District program or activity on the basis of age, color, disability, gender, gender identity, national origin, pregnancy, race, religion, sexual orientation, or veteran status. Canyons School District is committed to providing equal access and equal opportunity in its programs, services and employment including its policies, complaint processes, program accessibility, District facility use, accommodations and other Equal Employment Opportunity matters. The following person has been designated to handle inquiries and complaints regarding unlawful discrimination, harassment, and retaliation, Daniel Harper, General Counsel Officer 801-826-5062

Published December 2023



GENERAL INFORMATION

Canyons Technical Education Center



825 East 9085 South
Sandy, Utah 84094

ctec.canyonsdistrict.org

Phone: 801-826-6600

Fax: 801-826-6609

2024-2025 Registration opens:

January 5, 2024 at 7:00 am

REGISTRATION PROCEDURES

- STEP 1 Read the catalog or check out course information at ctec.canyonsdistrict.org. Select a program. Most courses are available to Junior and Senior students only. Any student enrolled at CTEC must also be registered at a Canyons School District or Wasatch Front Region affiliated high school. Charter school/home school students call Emalee Brown, 801-826-6621, for registration information.
- STEP 2 Evaluate your schedule, graduation status, time restrictions, and career goals with your CTE Coordinator and/or counselor at your school. Review the course requirements and take the steps necessary to meet those requirements.
- STEP 3 **Canyons School District** students, as well as **Jordan, Murray** and other **Wasatch Front South Region District** students will need to begin the registration process by completing the 2024-2025 Application Form at ctec.canyonsdistrict.org (Click on the **Apply to CTEC** tab). After you have filled out the requested information completely, click the **Submit** button.
- STEP 4 Beginning **January 5, 2024**, students will apply online in the program of their choice. All students will receive an email with additional information. This is a first-come, first-serve enrollment process. If a program has filled, you have the option of selecting an alternative time, an alternative program, or being placed on a waiting list. Later, you will complete your boundary school scheduling.

For questions regarding the CTEC application process, please call Carla Matagi, CTEC Registrar, at 801-826-6610

| Canyons District CTE Coordinators | | |
|-----------------------------------|------------------|------------------------|
| Alta High School | Brooke Smith | 801-826-5641 |
| Brighton High School | Lisa Prudden | 801-826-5841 |
| Corner Canyon High School | Ben Poulsen | 801-826-6441 |
| Hillcrest High School | Kevin Wood | 801-826-6041 |
| Jordan High School | Heather Starley | 801-826-6241 |
| Other CTE Contacts | | |
| Granite School District | Lindsey Martin | 385-646-4629 |
| Murray School District | Chantel Olsen | 801-264-7460 Ext. 5182 |
| JATC North | Melinda Mansouri | 801-256-5907 |
| JATC South | Tami Clevenger | 801-412-1305 |
| Salt Lake School District | Anne Martin | 801-584-2900 |

BUSINESS LEADERSHIP/PROJECT MANAGEMENT CAPS

Semester

Business



Instructor: David G. Smith, MBA

david.smith2@canyonsdistrict.org

801-826-6646

PROGRAM DESCRIPTION: This program focuses on business leadership, and project management. This program integrates project management into its focus. CTEC collaborates with local businesses and community leaders to provide students with a unique, immersive experience resulting in highly skilled, adaptable innovators and leaders. Students will work on understanding business roles and the attributes of a successful business leader. Students will also be coached in project management, taking on actual business issues and helping businesses reach innovative solutions and answers. Students will gain valuable teamwork experience, professional growth, and real-world opportunities.

The CAPS (Center for Advanced Professional Studies) program is an innovative high school program that immerses students in a professional culture while solving real-world problems under the direction of an industry mentor and instruction/guidance from a certified instructor. Students spend the semester in collaborative groups completing actual projects from local businesses. CAPS brings career-connected education experiences into the classroom.



High School Credit: CTE credit or elective credit: Up to 2 credits total.

Concurrent Enrollment: Up to 6 college credits possible. Student is responsible to register and pay for concurrent enrollment classes at SLCC. For more information on these classes, see Appendix.

Skills Certifications: Utah State Skill Certificate Test(s)

COURSE DESCRIPTIONS:

Business & Marketing Capstone: The purpose of this course is to coincide with the CAPS Program, to research and solve real world business needs. This course is designed for business students to further their business knowledge and skills. It encourages students to think analytically, logically, and creatively to integrate experience and knowledge in real-world situations. In this program, this is done in collaboration with local businesses, with real projects and outcomes measured by our business partners.

CTEL 1010 Leadership and Teambuilding / Business Leadership: Students will study a broad range of theories about human interaction including theories from sociology, psychology, professional ethics, and systems (may include family, organization, professional, regulatory systems). Students will learn strategies for leadership, mentoring, goal setting, teamwork, negotiation, understanding personal values, networking, conflict resolution, empathy, group dynamics, self-evaluation, and work vs. personal conflict. Students will gain a greater understanding of their active role in society beyond the workplace, including pluralism, civics, ethics and values, social/political implications of knowledge and actions, emphasizing the worth of an individual, understanding societal/ethical implications of change, appreciation of multi-culturalism, and benefits of diversity in society.

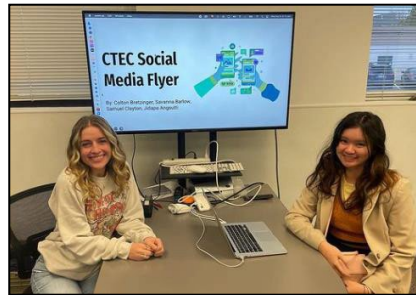
MGT 2020 Entrepreneurship / Entrepreneurship: This is an introductory business course, which will expose students to the diverse world of entrepreneurship. Students will learn through examination of entrepreneurship topics such as disruption, technology, forecasting, marketing, finance, capitalization, and other topics that will prepare a student to enter an ever-changing business marketplace. Students who complete this course will have a general knowledge of business, and entrepreneurship, as well as how business plans are drafted and analyzed. Students will learn how individuals function within a specific field, as well as how various disciplines work together in cross-functional teams.

Costs/Fees for the 2024-2025 school year: Pending school board approval.

Career Possibilities:

Entrepreneur
Business Management
Department Manager
Human Resource Management
Management Analyst
Corporate Manager

Financial Services and/or management
Meetings, Convention and Event Planner
Certified Public Speaker
TV/Radio Broadcasting
Project Management
Marketing and/or Social Media Specialist



"I chose CTEC Business Leadership because I want a future career in business. Being a youth entrepreneur, it has helped me learn and grow at such a young age to prepare me for a successful future!" ~ Boston Coleman

"I chose to take CTEC because I wanted to get experience in work-based learning. I'm happy with this decision because now I am an intern with Sandy City, and I'm working on growing my connections in the workforce!" ~Jidapa Angsutti



CONSTRUCTION MANAGEMENT *Full Year*

Skilled and Technical Sciences



Instructor: Nathan Hampton

nathan.hampton@canyonsdistrict.org

801-826-6668

PROGRAM DESCRIPTION: The Construction Management Program at CTEC is a year-long class where students use concepts of carpentry and construction management to build a house. The course emphasizes carpentry skills, but touches on all aspects of residential construction. This course covers math and other academic skills, but the students are also working in the shop or on the jobsite every day. This is a hands-on, working class.

Students are expected to maintain their own personal tools and equipment, and work every day to complete the project. Along the way, the students will have opportunities to work with professionals in a variety of construction specialties. This class also participates in SkillsUSA, which is a student organization that emphasizes career skills and readiness. Students may also choose to receive concurrent enrollment credit from Salt Lake Community College.



High School Credit: CTE credit or elective credit: Up to 4 credits

Concurrent Enrollment: Up to 8 college credits. Student is responsible to register and pay for concurrent enrollment classes at SLCC. For more information on these classes, see Appendix.

Skills Certification: Utah State Skill Certificate Test(s)

Additional Opportunities: Students may experience youth leadership and service through SkillsUSA.

Requirements: Physical ability to be able to lift at least 30 lbs. Ability to understand and follow safety procedures. Be able to use power and pneumatic tools safely. Drawing and design skills would be helpful.

Recommended: Woodworking

COURSE DESCRIPTIONS:

Construction Trades Foundation: A course that generally prepares individuals in the following areas: basic safety, introduction to blueprint reading, introduction to power tools, introduction to hand tools, and introduction to construction math. It also includes an industry overview, what to expect on the job, and specific career opportunities.

CMGT 1320 Building Construction 1 / Carpentry 1: Students will learn the concepts of footings, foundations and flat work. Green build and traditional techniques will be taught. Students will lay out and construct floors, exterior and interior walls, be introduced to metal stud framing, and hang exterior doors and windows. Students will learn how to install, tape, and mud drywall. Sophisticated methods used to maintain a tight building envelope will be used. Stair and roof construction will be introduced.

CMGT 1330 Interiors Finishes / Carpentry 2: This course covers materials and selection that support the responsible use of natural resources. Subjects include hanging doors, installing base, casing, stair treads, skirts, and closet organizers. Installation of hardwood floors, handrails and stair caps will be taught. Students will also be introduced to the basics of installing tile floors and shower walls. Students will be taught how to install doorknobs and residential hardware.

Carpentry 2: An advanced carpentry program with a sequence of courses that prepares individuals to layout, fabricate, erect, install, and repair wooden structures and fixtures using hand and power tools. Includes advanced instruction in common systems of framing, construction materials, estimating, blueprint reading, concrete placing, siding, and mechanical systems. These courses are based on the current National Center for Construction Education and Research (NCCER) task list.

Costs/Fees for the 2024-2025 school year: Pending school board approval.

Career Possibilities:

Construction
Rough Carpenter
Finish Carpenter
Roofer
Drywall Installer and Finisher
Civil Engineer
Structural Engineer
Soil Engineer

General Contractor
Remodeling Contractor
Siding Installer
Cement Finisher
Construction Management
Superintendent Project Manager
Architect
Draftsman



"This class is amazing! I've learned so much about construction and feel this is a great entrance into actual jobs."
Maddox G

"This class exceeded my expectations! I gained valuable skills in power tool usage and had the opportunity to be part of a hands-on house-building project. Hampton's teaching style is truly inspiring, and I found myself striving for his approval, which motivated me to do my best".
Andrew P

"I really appreciate the lessons I've learned in this class for future jobs in my life. If a career in construction is something you are interested in, I would highly recommend the course."
Joey R

"This class is absolutely amazing! I got to learn how to use lots of machines. You get to meet new people from other schools and have lots of fun building with them. You aren't judged for making a mistake it's a very self-aware class. Hampton makes it a lot of fun, you'll never have a boring day!"
Lydia S

"The class is super fun. We get to use all sorts of tools and learn different, effective ways of using them. I love how we do hands-on projects instead of laptop work. It really gives you experience or knowledge on what to do."
Marie W

"This class is hands on! You get to get up and do something."
Parker C

"This class is a great learning experience for everyone who wants to get into the construction industry but also for whoever wants to learn about valuable building skills you will need sometime in your life."
Austin L



COSMETOLOGY/BARBERING *Full Year*

Skilled and Technical Sciences



| | | |
|----------------------------|-------------------------------------|--------------|
| Instructor: Shelli Ivie | shelli.ivie@canyonsdistrict.org | 801-826-6661 |
| Assistant: Lorrie Engstrom | lorrie.engstrom@canyonsdistrict.org | 801-826-6662 |
| Instructor: Matt Shaw | matt.shaw@canyonsdistrict.org | 801-826-6665 |
| Instructor: Eliza Seeley | eliza.seeley@canyonsdistrict.org | 801-826-6664 |

CTEC Cosmetology/Barber is the only high school cosmetology program in Utah where a student can earn a professional cosmetology/barber license at the time of their high school graduation. *

- *The student who attends the program for **2 years** including summer sessions has the ability to complete the state licensing requirements to be a licensed cosmetologist/barber.
- The student who attends the program for **1 year** is able to transfer their clock hours and services to a Cosmetology/Barber program of their choice after high school graduation.
- By successfully completing the **2 year** course sequence, students will have the opportunity to earn up to 44 elective college credits.
- Those seeking a Cosmetology Degree may attend the USU-Eastern campus to fulfill the USU-Eastern cosmetology/barber course curriculum.
- Upon the student's completion of the state license requirements, the student will be able to apply for a cosmetology/barber license.

PROGRAM DESCRIPTION: Cosmetology is the art and science of beautifying and improving the hair, skin and nails. The students earn required hours and prepare to pass both the Utah Written and Practical Examinations required to obtain a Utah Department of Professional Licensing Cosmetology/Barber License. Students receive this preparation while practicing in an actual salon experience through the program's public salon facilities and its clientele. Students are also prepared in theory classes. Students have the opportunity to study and practice hair styling, cutting, coloring, perming, chemical relaxing, nail care, skin care, chemistry, anatomy, and physiology - all with an emphasis on safety, sanitation and professionalism. Students will be expected to take on the role of a cosmetologist and client during this program.

PROGRAM DESCRIPTION: See Concurrent Enrollment Appendix.



Additional Classes Available: To provide the student with the opportunity to earn additional clock hours, the student has the option after their first semester to attend 2 evening sessions a week in addition to the school day session. A summer session is also available to the students to earn additional clock hours and CTE credit.

High School Credit: CTE credit or elective credit: up to 4.5 credits total each year

Concurrent Credit: 44 elective college credits available. Student is required to register and pay for concurrent enrollment classes with USU.

For more information on these classes, see Appendix.

Additional Opportunities: Students may experience youth leadership and service through SkillsUSA.

Industry Certification: Students will work toward the State of Utah DOPL: Utah Cosmetology/Barbering Licensing Exams.

Recommended: Good eye-hand coordination, artistic color and design principles, basic geometric design, logical reasoning, basic math, and customer service skills.

Requirements: A parent is required to attend the orientation meeting.
A 2.0 GPA is required by USU.

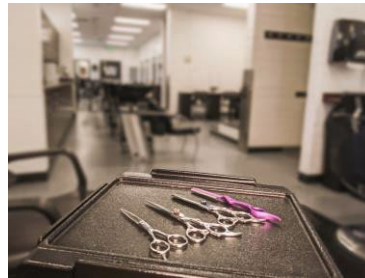
Costs/Fees for the 2024-2025 school year: Pending school board approval.

Career Possibilities:

Licensed Cosmetologist/Barber
Hair Stylist
Nail Technician

Basic Esthetician (skin care)
Make-up Artist
Salon Manager

Salon owner
Platform Artist
Professional Educator



"I've been passionate about becoming a Cosmetologist since age 3. With careful planning, 2 summers, 2 school years, and night classes, I graduated high school as a Licensed Cosmetologist and Barber. I saved time and money by taking advantage of the concurrent classes offered at CTEC during high school. CTEC provided me with amazing instructors that helped me hone my talents, leadership, and business skills. At the same time, they supported my goal of giving community service to better the lives of others. CTEC wants everyone in the program to thrive, not just survive. At age 18, I'm a Cosmetologist, enjoying my career, and will graduate from USU-E this Dec with my Applied Associate of Science Cosmetology Degree. After that I will advance towards a Business Degree". Stephanie Jencks



CRIMINAL JUSTICE *Semester*

Skilled and Technical Sciences



Instructor: Edwin Lehauli

edwin.lehauli@canyonsdistrict.org

801-826-6648

PROGRAM DESCRIPTION: The Criminal Justice program is designed to prepare students for an exciting career in the field of law or law enforcement. Students will learn about many diverse job opportunities that are available such as patrol officer, SWAT team member, detective, K9 officer, FBI, Secret Service and ATF (Bureau of Alcohol, Tobacco, Firearms and Explosives). Students will have the opportunity to meet professionals in the field and participate in simulated scenarios, demonstrations and tour pertinent law enforcement sites.



High School Credit: CTE credit or elective credit: up to 2 credits total
Concurrent Enrollment: 12 college credits required. Student is responsible to register and pay for concurrent enrollment classes at SLCC. For more information on these classes, see Appendix.
Skills Certification: Utah State Skill Certification Test(s)
Additional Opportunities: SkillsUSA membership

COURSE DESCRIPTIONS:

CJ 1330 Criminal Law: Students will gain an understanding of criminal law and punishments, the constitution, individual rights and general principles of criminal liability. They will also learn about crimes against persons and crimes against property. The students will also participate in various debates involving our current laws and regulations.

CJ 2540 Careers in Law Enforcement: The students will become familiar with the various careers in law enforcement. They will learn the steps involved to become a police officer or a federal officer. They will participate in an oral board interview and the police physical fitness test. They will be given instruction on officer safety issues and will also learn how to build a professional resume.

CJ 1010 Introduction to Criminal Justice: Exposes students to theories, concepts, and methods used to facilitate understanding, predicating and responding to issues of deviance and crime in America. This course also includes development and evolution of components of the American Criminal Justice System, including the history of racial, ethnic and gender discrimination on charging, conviction, incarceration and employment.

CJ 1300 Introduction to Corrections: Introduces the corrections system. Includes origin and evolution, philosophies of corrections, perspectives on sentencing, and alternatives to incarceration. Includes community corrections, probation and parole, offender rights and legal issues; adult, juvenile, and special needs offenders; corrections specialists, staff and administration as a profession and special challenges for the future.

Costs/Fees for the 2024-2025 school year: Pending school board approval.

Career Possibilities:

Police Officer
Probation and Parole Officer
Corrections Officer
Military Police Officer

Private Security
Criminal Investigators and Special Agents
Criminal Justice and Law Enforcement Teachers



"This class expands your knowledge on Law Enforcement and many things you didn't know before. I highly recommend this class to anyone who's looking into law enforcement as a career. It provides a challenge for anyone who's up for it". Nazhelly

"This class has taught me much more about law enforcement. It makes you respect the job and gives you a better feel for law enforcement". Jason

"This is a very interesting and fun class! I've learned a lot and it's been fun". Maddie

"This class has been a truly amazing experience and opportunity and I love every minute of it". Dallas

"I would highly recommend this class to anyone who wants to experience a challenging and fun class!" Ethan

"This class is great"! Carson



DIGITAL MEDIA, 3D, GAME DEVELOPMENT *Full Year*

Information Technology Education



Instructor: Jennifer Tighe

jennifer.tighe@canyonsdistrict.org

801-826-6654

PROGRAM DESCRIPTION: This Digital Media program prepares students for the 21st Century workforce demands through hands-on training with the industry's leading software and equipment. Our innovative students collaborate through project-based learning to gain skills for careers such as graphic design, digital illustration, photography, audio production, 2D and 3D animation, web design, film production, story development, game design, app development, and more! The foundational courses of this program will prepare students to successfully create all the necessary assets required within their later game development courses, as well as build upon their communication, time management, problem solving, and teamwork skills. By the end of year, students will have a comprehensive portfolio tailored to their skills demonstrating a wide variety of both printed and interactive digital media projects.



High School Credit: CTE credit or elective credit: up to 4 credits total

Concurrent Enrollment: 4 College Credits. Student is responsible to register and pay for concurrent enrollment classes at SLCC. For more information on these classes, see Appendix.

Industry Certifications: Adobe Certified Professional for Photoshop, Illustrator, Animate, Premiere Pro, InDesign, After Effects, and Dreamweaver.

Skills Certifications: Utah State Skill Certificate Test(s)

Additional Opportunities: SkillsUSA membership

Recommended: Computer skills, computer graphics, and art classes

COURSE DESCRIPTIONS:

ART 1080 Photoshop and Digital Media 1: The Concurrent Enrollment (CE) course focus will be on using Adobe software as a tool to produce CG imagery for video production, photo illustration, digital publishing and animation. Adobe Photoshop, Illustrator, Animate, Premiere, and Autodesk software will be introduced.

Digital Media 2: Students continue to create and learn digital media applications while focusing on elements of animation, audio, video, and digital imaging for various formats.

3D Graphics: Students will use 3D graphics software to produce 3D models. This course will introduce students to 2D and 3D modeling, the creation and application of textures, mapping, lighting, camera techniques, and rendering of 3D models.

3D Animation: Use 3D graphics software to produce 3D animations. Introduce students to 2D and 3D, animation planning, storyboard development, and the animation process.

Game Development Fundamentals 1: This course is designed to provide students with knowledge and project-based experience of fundamental game development concepts relating to STEM. These concepts include game design, scripting, creation of digital assets, graphic resources, animations, understanding hardware, problem solving, critical thinking, collaboration, and project management.

Game Development Fundamentals 2: Following Game Development Fundamentals 1, this second course will allow for a deeper application of the skills learned as students work together to produce original games.

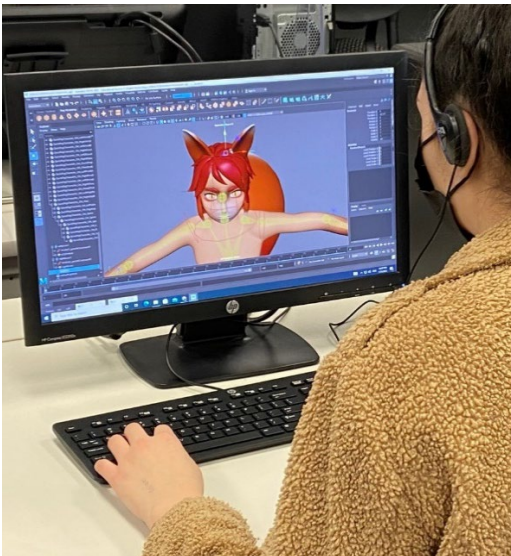
Digital Media Advanced: Advance skills in digital media applications while using elements of text, graphics, animation, sound, video, and digital imaging for various formats. Develop a professional portfolio made up of both individual and team projects showcasing your strengths developed throughout the year. Enter your projects into competitions and engage with industry professionals. Work toward certifications in Adobe software such as Photoshop, Illustrator, Animate, and Premiere Pro.

Costs/Fees for the 2024-2025 school year: Pending school board approval.

Career Possibilities:

Graphic Designer
Digital Illustrator
Audio Engineer
Videographer
Industrial Designer
Concept/Storyboard Artist

3D Modeler
Texture Artist
2D or 3D Animator
Digital Photographer
Game Designer
Art Director



"The course is non-stop with no filler, and an emphasis on project based learning. You learn everything you need to know for each stage of the production pipeline, and achieve proficiency in a plethora of skills along the way. It is almost like a digital art taste test, where you have the perfect sampling of everything, not so much it becomes monotonous, but not so little it seems like you have barely scratched the surface. I found a knack for things I did not expect to enjoy, and developed skills I would not have thought I needed otherwise. Overall, this course is very fun, focused, and fast-paced; the result being a learning experience that has far greater value than the sum of its parts." - Soren Christensen

"All the people who join this program come in with a similar mindset and interests making working together really fun and productive! If you take this program, you will be prepared to start working in the industry with an impressive and diverse portfolio. By the end of the year, it was incredible and so rewarding to see all the things I had created and earned!" - Elena Nielsen

"After taking the class, I couldn't be more grateful that I did. What I've enjoyed about this class has been the extensive amount of opportunities I've been given to experience working with software as I would in the workforce. You also get an absurd amount of opportunities to gather certifications to put under your belt and develop a portfolio to put yourself out there to employers." - Kathryn Hall

"I love how broad the class is as well, it's not just game design or just animation or just 3D modeling - you do just about everything you can think of in the digital media field. This class will help you pinpoint what you like and don't like; what you shine at, and what skills you could improve upon. This class is a great start to help you realize what you want to strive toward in the future. I highly recommend Digital Media at CTEC!" - Ian Call



EMERGENCY MEDICAL TECHNICIAN (EMT) *Semester*

Health Sciences



Instructor: Dana Cox

dana.cox@canyonsdistrict.org

801-826-6657

PROGRAM DESCRIPTION: This EMT course provides students with insights into the theory and application of concepts related to the profession of emergency medical services. Specific topics include EMS preparatory, airway management, patient assessment, management of trauma patients, management of medical patients, treating infants and children, and various EMS operations. The course is based on the NHTSA Emergency Services Education Standards, National Registry of EMT's, and ATTA Guidelines. It is highly recommended that students in this program have at least a 2.0 GPA due to the rigorous academic requirements.



High School Credit: CTE credit or elective credit: 2 credits total

Concurrent Enrollment: 10 college credits through SLCC are required for this program. Student is responsible to register and pay for concurrent enrollment classes at SLCC. For more information on these classes, see Appendix.

Industry Certification: Students will prepare to take the NREMT Psychomotor and Cognitive Exams, NREMT Certification and Utah license

Additional Opportunities: HOSA membership

Requirements: Must be a senior to attend this class. It is strongly recommended that students have current immunizations including the Hepatitis A and B series and current TB. Students must provide their own transportation to all clinical sessions. Students must be able to drag 125 pounds and lift 50 pounds.

HIGHLY Recommended: Biology, Medical Anatomy and Physiology, Medical Terminology

COURSE DESCRIPTIONS:

HSEM 2300/Emergency Medical Technician 1 and 2: Our exciting, yet demanding course will be taught through didactic lecture, hands on demonstration and practical application settings. Reading assignments and bookwork will be part of this program. The EMT candidate must maintain 80% on every assignment and test or better in order to take all required exams. Candidates who successfully complete the written exam and prove competency will then be recommended to take the NREMT psychomotor skills testing. Candidates who successfully complete the National Registry practical (psychomotor) skills stations and have successfully completed both testing phases will be required to schedule for the National Registry of EMT's (NREMT) written exam through Pearson Vue testing center. Candidates will need to be competent in their skills and knowledge and will be evaluated throughout the program. As we spend time in discussions, class lectures and implementing those tools through practice, the students will become knowledgeable, confident, and competent. These techniques will help the student prepare for the National Registry of Emergency Medical Technician (NREMT) exams. Upon recommendation and successful completion of all requirements, students become eligible to be licensed as an Emergency Medical Technician through the State of Utah and NREMT. The NREMT Certification is renewed every 2 years and the Utah Bureau of EMS Licensure is renewed every 2 years.

Costs/Fees for the 2024-2025 school year: Pending school board approval.

Career Possibilities:

Firefighter
Ski Patrol
Pre-Med
Pre-Nursing
EMT
Advanced EMT

Paramedic
Emergency Room Technician
Critical Care Technician
Military
Foreign Aid Medical
Humanitarian Expeditions

EMT Instructor
Phlebotomist
Flight Paramedic
Physician Assistant
Police Detective



"I had a great experience taking the EMT-basic course through CTEC. I was able to earn my EMT-Basic certificate in high school which got me ahead of the game and saved me a lot of money. I enjoyed being able to leave my regular high school every day and meet in a classroom where I could learn and practice skills that I knew could apply to my future. The skills I learned and exposure I received from CTEC helped start me on my career path. I am currently working in emergency services as a Paramedic and it all began with CTEC! I competed and won the CPR competition for SkillsUSA a few years ago and worked for Sandy City Fire Department as a member of Sandy Fire's Medic Corp program. I am currently working as a Gold Cross paramedic in St George". Laura Berbert

"The EMT program at CTEC is a great program to attend. The instructors know what they are talking about and are willing to help with any questions I had or skills I was struggling with. The program has prepared me for the jobs I currently hold as a part time firefighter/EMT for South Salt Lake Fire and Unified Fire Authority. I wouldn't be where I am at today without the CTEC EMT program". Austin Rekoutis



CYBERSECURITY / NETWORKING *Full Year*

Information Technology Education



Instructor: TBA

801-826-6653

PROGRAM DESCRIPTION: One of the fastest growing job sectors in the U.S. is cybersecurity. According to multiple media outlets, a projected 3.5 million vacancies are expected by 2023, which is a 350% growth since 2013. Opportunities within the field of cybersecurity are endless. To meet their ever-evolving demands, companies are hiring students to fill these vacancies as more cybersecurity threats are recognized every day. Providing cybersecurity pathways at an earlier age is imperative for the industry, as it will enable you to achieve success in your personal and professional life. This multi-faceted course will bring students to the forefront of cyber technologies through daily Cyber Briefings, team activities, "Capture the Flag" competitions, and hands-on labs using a fully functional Cyber Range.



High School Credit: CTE credit or elective credit: up to 4 credits

Industry Certifications: TestOut Pro Certifications

Skills Certification: Utah State Skill Certificate Test(s)

Additional Opportunities: National Cyber League, CompTIA's Academic Partner Program, CyberStart America, PicoCTF

Recommended: Keyboarding and Foundations of Technology

COURSE DESCRIPTIONS:

Computer Systems 1: Students will learn necessary competencies for an entry-level IT professional including installing, building, upgrading, repairing, configuring, troubleshooting, optimizing, diagnosing, and performing preventive maintenance of basic personal computer hardware.

Computer Systems 2: Students will expand on the skill gained in Computer Systems 1. They discover and install common operating systems and their purposes. This course will introduce the importance of computer security including physical and cybersecurity measures. This course also focuses on software troubleshooting and operational procedures.

Principles of Cyber Defense and Ethics: In this course students will discover the importance of cybersecurity in information technology. The objective is to understand cyber-attacks and the techniques used to take control of an unsecure system. Students will learn how to use features of modern operating systems to enhance an organization's security, understand inherent weaknesses in wireless and wired networks, and be better equipped to protect your employer's and your own information.

Network Fundamentals Students will gain knowledge and skills required to implement a defined network architecture with basic network security. Furthermore, they will be able to configure, maintain, and troubleshoot network devices using appropriate network tools and understand the features and purpose of network technologies.

Cyber Forensics: This course will cover the fundamentals of computer forensics and investigations. Students will understand topics including historical and current computer forensic and investigative security issues, a systematic approach to computer investigations and cyber forensics tools. They will learn email, image, and file analysis including guidelines for investigation reporting. Various forensic tools will be used during the hands-on labs.

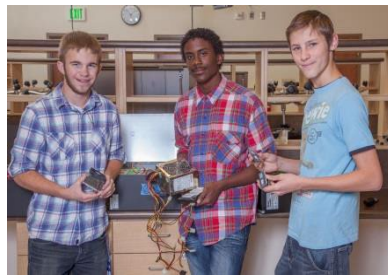
Costs/Fees for the 2024-2025 school year: Pending school board approval.

Career Possibilities:

Computer Forensics Analyst
Security Administrator
Cybercrime Investigator
Security Incident Responder

Cryptanalysts
Malware Analyst
Security Architect
Network Administrator

Service Desk Analyst
Security Auditor
Data Protection Officer
Wireless Network Engineer



"I have personally enjoyed learning and doing the ethical hacking labs in this program. I feel the labs give the most hands-on experience and I am more of a hands-on type of person. The TestOut certification modules are enjoyable and informative. I have earned several industry certifications already. Having the resources to do my own personal computer projects in class is nice and lets me learn more in class than what is in the syllabus." James Farnsworth, 2021

"My favorite lab in this program was building a computer. Even though I had a PC at home, I was not the one who put it together. My knowledge on computers only went as far as knowing the RAM existed. The program is fun and easy going while being very useful. The teacher has helped me study for the CompTIA Network+ exam, even though it is not in the program curriculum. So far, I have earned six certifications with my favorite ones being the TestOut exams because it emulates a real workplace." Miriya Rossiter, 2021

"I was able to participate in the cybersecurity program at CTEC and I enjoyed myself immensely. Mr. Crenshaw is a fantastic teacher who applies what we learn in class to real world events. Every morning we talk about an event or technology that recently happened or that was released, so everything we learn is always relevant. We have done lots of labs and hands on experiments and whenever we want to try something Mr. Crenshaw just asks us what we need him to do in order to accomplish the task. I would recommend this class to any and all students who want to learn more about cybersecurity." Coleman Hone, 2021

"I have liked learning about security breaches from our daily Cybersecurity Briefings. My favorite labs have been using Metasploit, a pen-testing framework, to execute basic attacks—it is a tool I wouldn't otherwise have learned how to use. I had the most fun learning about networking hands-on with Cisco routers and switches. I would recommend this class as a great way to get hands-on experience and general knowledge about computers, networking, and cybersecurity! As part of the class, I also earned several IT certifications to get me started in the industry." Kyle Holland, 2021



HEAVY DUTY MECHANICS/DIESEL *Full Year*

Skilled and Technical Sciences

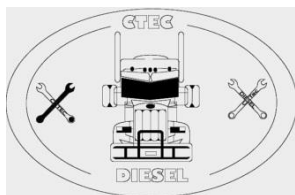


Instructor: Blaine Johansen

blaine.johansen@canyonsdistrict.org

801-826-6637

PROGRAM DESCRIPTION: Topics include learning tools for measuring internal and external diesel engine components, complete engine rebuild, 12/24 volt electrical systems, Ohms law in incorporating math into the electrical systems, voltage drop, resistance, wiring, trouble shooting and fuel systems. Students will learn to use power tools and hand tools safely. Students will learn about brakes and air brake systems, arc welding and gas torch use, suspensions on trailers, truck and wheel alignments, transmission, clutch repair, truck preventive maintenance, and differential removal/rebuild. Reading and understanding shop manuals will also be covered. Students will have job shadow and career opportunities.



High School Credit: CTE credit or elective credit: Up to 4 credits

Concurrent Enrollment: 8 college credits. Concurrent enrollment credits in this program now apply towards technical credits at the post-secondary level for this specific program. They cannot be transferred as general elective credits to other universities in Utah. Student is responsible to register and pay for concurrent enrollment Classes at SLCC. For information on these classes, see Appendix.

Industry Certifications: ASE Diesel Brakes, ASE Engines, ASE Electrical/Electronic Systems, ASE Suspension/Steering

Additional Opportunities: Students may experience youth leadership and service through SkillsUSA.

Recommended: Automotive classes and mechanical experience

COURSE DESCRIPTIONS:

ASE Diesel IMMR: This course is the first in a group that prepares individuals to apply technical knowledge and skills to the specialized maintenance and repair of trucks, buses, and other commercial and industrial vehicles. Instruction covers training in the following areas of inspection, maintenance, and minor repair: safety, diesel engine mechanics, drive trains, and electrical/electronic systems. Work ethics and productivity are an integral part of the classroom and lab activities of these courses.

ASE Diesel Brakes: This course is a follow-up course to the Diesel IMMR and is in a sequence that prepares individuals to apply technical knowledge and skills to the specialized maintenance and repair of trucks, buses, and other commercial and industrial vehicles. Instruction covers training in the following areas: safety, diesel engine mechanics, drive trains, and electrical/electronic systems. Work ethics and productivity are an integral part of the classroom and lab activities of these courses.

ASE Diesel Electrical Systems: This course is a follow up course to the Diesel IMMR and is in a sequence that prepares individuals to apply technical knowledge and skills to the specialized maintenance and repair of trucks, buses, and other commercial and industrial vehicles. Instruction covers training in the following areas: safety and electrical/electronic systems. Work ethics and productivity are an integral part of the classroom and lab activities of these courses.

ASE Diesel Engine: This course is a follow up course to the Diesel IMMR and is in a sequence that prepares individuals to apply technical knowledge and skills to the specialized maintenance and repair of trucks, buses, and other commercial and industrial vehicles. Instruction covers training in the following areas: diesel engine repair. Work ethics and productivity are an integral part of the classroom and lab activities of these courses.

ASE Diesel Steering and Suspension: This course is a follow up to the Diesel IMMR course in a sequence that prepares individuals to apply technical knowledge and skills to the specialized maintenance and repair of trucks, buses, and other commercial and industrial vehicles. Instruction covers training in the following areas: safety and steering & suspension systems. Work ethics and productivity are an integral part of the classroom and lab activities of these courses.

Costs/Fees for the 2024-2025 school year: Pending school board approval.

Career Possibilities:

Diesel Mechanic
Tool Sales
Truck Driver
Machining

Dealership Management and Sales
Welder
Fleet Maintenance and Management



"I loved learning about all the trucks. We made lots of fun friends and got to try lots of new things."
Carter North, 2021

"I really enjoyed all the projects we had this year and the freedom of starting new projects."
Logan Arnoldus, 2021

"It was so cool having the opportunity to learn about the semi-trucks and the heavy diesel industry. Being in this class has exposed us to all aspects of the diesel truck and has given me a good baseline knowledge to progress my career. Through this program, we have also had opportunities to do job shadows and get hands-on experience in the field. Overall, this class has been an excellent stepping stone to higher education."
Aspyn Stanley, 2021

"This class has been loads of fun and a big learning experience for me. Thanks to the program, I have been able to attend class when my own high school shut down. I have learned all about diesel engines and have even had the opportunity to go on a job shadow to Geneva Rock!."
Devin Peterson, 2021



MEDICAL ASSISTANT *Full Year*

Health Sciences



Instructor: Edward Barney

edward.barney@canyonsdistrict.org

801-826-6640

PROGRAM DESCRIPTION: This is a college-level program that requires intrinsic motivation, professionalism, and self-determination. This program provides students with opportunities for growth as they become proficient in medical terminology, medical office administration, and a wide range of clinical skills. Students learn techniques for effective management of patient care and providing a safe environment that promotes healing and wellness. Students who successfully complete this course and the required testing will earn a Medical Assisting Endorsement from the State of Utah and the option to test for the National Medical Assistant Certification.

Canyons Technical
Education Center



MEDICAL ASSISTING

High School Credit: CTE credit or elective credit: up to 4 credits
Concurrent Enrollment: 3 college credits for Medical Terminology. Student is responsible to register and pay for concurrent enrollment classes at SLCC. For information on these classes, see Appendix.
Industry Certifications: NCCT National Medical Assistant Certification.
Skills Certification: Utah State Medical Assistant Endorsement, Utah State Skill Certificate Test(s)
Additional Opportunities: HOSA membership
Requirements: In order for students to complete externships, they MUST be a senior while attending the class. Students MUST have completed all required immunizations, background check and pass a urine drug screening.
Recommended: This course is a full year course where students attend every day. GPA of 3.0 is recommended for this course. Science classes such as anatomy, physiology, biology, chemistry, and physics.

COURSE DESCRIPTIONS:

Medical Assistant: Become proficient in medical front office skills such as scheduling appointments and setting up patient records. Learn clinical skills such as measuring vital signs, medical record documentation, and administering EKG.

MA1100 Medical Terminology: Course format is lecture supplemented with videos and discussion covering more than 350 medical word roots, suffixes, and prefixes. Emphasis is placed on pronunciation, spelling, and proper usage of medical terms. Medical abbreviations are also introduced.

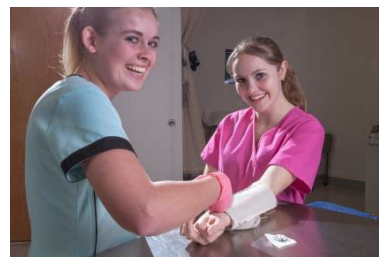
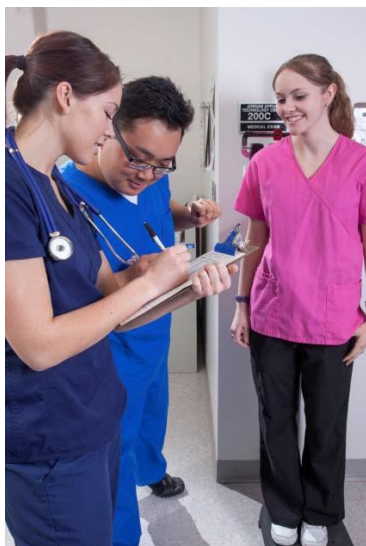
Medical Anatomy and Physiology: Learn the structure and function of the systems of the body and how diseases and disorders affect these systems.

Health Science Capstone: This course is designed to help prepare students for a career in healthcare. The course will help students gain professional skills needed, understand the healthcare system, and attain knowledge required to excel in the healthcare field.

Costs/Fees for the 2024-2025 school year: Pending school board approval.

Career Possibilities:

Medical Assistant in a physician's office, clinic or outpatient surgical setting
Nurse
Physician Assistant
Nurse Practitioner
Physician



"I have loved the Medical Assisting program! It has been so much fun. I have learned a lot in this program. The program has opened so many opportunities in the medical field that I want to go into. WE got hands-on experience with injections, vitals, blood draws, and bedside manner. The program allows students to continue regular schooling without creating added stress. I highly recommend this program to students looking to go into the medical field. It is such an amazing opportunity for students." Olivia Applegarth, 2021

"I loved my Medical Assisting experience. I have always wanted to work in the medical field and this program helped me start my journey into the field. It has helped me progress towards my career goals. I was able to take college classes to get my knowledge started. I really enjoyed the hands-on activities and being able to practice with my classmates. I would recommend this program to anyone who wants to take it because I have learned so much." Skyley Brey, 2021

"I am so grateful that I took the Medical Assisting program this year! I signed up for this program because I wanted to learn more about medicine, gain clinical skills, and experience a clinical setting. This program gave me all of that and more, all before I graduated from high school! Throughout this year, I have loved learning about medical terminology, anatomy and physiology, various clinical skills and other administrative skills. The things that you learn while in the program are real, applicable things that will help you if you choose to continue down a path in medicine." Ella Fetzer, 2021



MEDICAL FORENSICS *Semester*

Health Sciences



Instructor: Julie Tingey

Julia.Tingey@canyonsdistrict.org

801-826-6641

PROGRAM DESCRIPTION: This program is designed to introduce a field of science that incorporates both science and criminal justice, and applies those methods to crime scene investigative techniques. Students will learn to identify, collect and analyze evidence using the scientific method and deductive reasoning. In forensics, we get to explore learning and practicing with lots of evidence, such as blood spatter, fingerprints, ballistics, DNA, death investigations, forensics psychology, some microscopic and chemical analysis, and so much more! Medical forensics involves many aspects of health science instruction as well, including anatomy, physiology, microscopy, lab safety, and some math techniques. Forensics and Health Science career exploration will include hands-on labs, and practice with evidence identification and collection techniques.



High School Credit: CTE credit or elective credit: up to 2 credits.

Concurrent Enrollment: 3 college credits through SLCC. Student is responsible to register and pay for concurrent enrollment classes at SLCC. For more information on these classes, see Appendix.

Skills Certification: Utah State Skill Certificate Test(s)

Additional Opportunities: HOSA membership

Recommended: Introduction to Criminal Justice

COURSE DESCRIPTIONS:

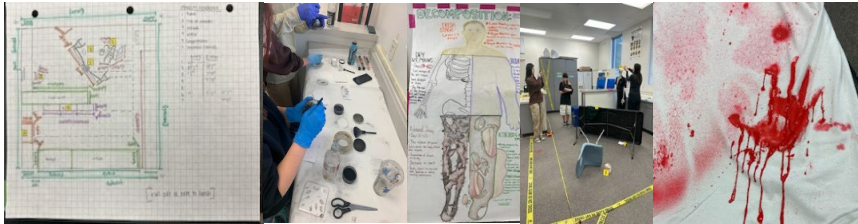
CJ 1350/Medical Forensics- Intro to Forensic Science: This semester course is designed to introduce the field of forensic science. The focus is on introductory skills necessary to prepare students for careers such as crime scene technician, criminalist or forensic scientist.

Health Science Capstone: This is a semester course designed to prepare students for a health science career. Students will participate in many research techniques and hands on experiences designed to introduce different health science careers.

Costs/Fees for the 2024-2025 school year: Pending school board approval.

Career Possibilities:

| | |
|-----------------------------|--------------------------------|
| Crime Scene Investigator | Forensic Pathologist |
| Forensic Psychologist | Medical Examiner |
| Criminalist | Forensic Nurse Examiner |
| Forensic DNA Analyst | Blood Spatter Analyst |
| Fingerprint Analyst | Firearms Examiner |
| Drug Chemist | Forensic Serologist |
| Toxicologist | Shoe Print Analyst |
| Mortuary Science Technician | Clinical Laboratory Technician |



"This class is one of the best I've taken. Miss Julie encourages us to ask questions and think deeper about the topics we're on, and I've learned so much about forensics as a career. It's made me excited to pursue crime scene investigation! It's a super fun class full of awesome hands on activities and interesting lessons. There's never been a boring day in forensics." -Madelyn King

"If you love weird stuff and having fun this class is for you. its probably the best class i have had in all my years of high school. The teacher is super cool and very fun in the class." -Carter Long

"I think that this class is very interesting and hands on. There are a lot of things that you learn about forensics through science and the law. You get to experience what it's like when you go out into this field through MOCK crime scenes and field trips. Also, Miss Julie is an incredible teacher, I like the way that she teaches because it is easy to understand all of the topics that we cover, the stories she tells based on her experience with the field is very entertaining." -Juliet Munson

PHARMACY TECHNICIAN *Full Year* *New*

Health Sciences



Instructor: TBA

PROGRAM DESCRIPTION: This program prepares students to work in retail, closed-door, compounding, and institutional pharmacies under the direction of a pharmacist. Students are trained to provide counter assistance, to keep patient and related health record information, and to bill insurance companies. Students learn how to fill prescriptions, which includes creating the label for the bottle, filling the prescription, making capsules using non-sterile compounding procedures, and making IV's using aseptic techniques. At the conclusion of the course, students are qualified to take the National Pharmacy Technician Exam through the Pharmacy Technician Certification Board (PTCB) or National Healthcareer Association (ExCPT). Students can also become licensed through the Utah Division of Occupational and Professional Licensing (must be 18 years of age). Program includes an externship at a local retail, hospital, or compounding pharmacy.



High School Credit: CTE credit or elective credit: up to 4 credits
Concurrent Enrollment: Possible 3 credits with SLCC. Student is responsible to register and pay for concurrent enrollment classes at SLCC.
Industry Certifications: Students will prepare to take the National Pharmacy Technician Exam through the Pharmacy Technician Certification Board (PTCB) or National Healthcareer Association (ExCPT)
Skills Certification: Utah State Skill Certification Test
Additional Opportunities: HOSA membership
Requirements: In order to complete externships, they **MUST** be a senior while attending this class. Students **MUST** have completed all required immunizations, background check, and pass urine drug screening.
Recommended: Chemistry

COURSE DESCRIPTIONS:

MA 1100 Medical Terminology: Course format is lecture supplemented with videos and discussion covering more than 350 medical word roots, suffixes, and prefixes. Emphasis is placed on pronunciation, spelling, and proper usage of medical terms. Medical abbreviations are also introduced.

Pharmacy Technician: This year-long course provides training for students to prepare to take the national certification exam. Students will learn patient data collection and recording, medication processing, medication order preparation, and inventory management. Emphasis will be placed on pharmacy laws and regulations, as well as proper work-place safety and sanitization.

Health Science Capstone: This is a semester course designed to prepare students for a health science career. Students will participate in work-based learning experiences designed to introduce and research different health science careers.

Costs/Fees for the 2024-2025 school year: Pending school board approval.

Career Possibilities:

Pharmacy Technician- retail or clinical

Pharmacist- retail or clinical



PROGRAM DESCRIPTION: This program is designed for students interested in the rehabilitation career field of physical therapy. Students will learn skills required to function as a therapy or rehabilitation technician including therapy treatments, communication skills, patient transfers, patient ambulation, patient range of motion, clinic policies and procedures, and professionalism. Students will learn to assist physical therapists and physical therapist assistants in managing patient care in a rehabilitation setting such as outpatient, hospital, and skilled nursing facilities. Students will demonstrate abilities such as evaluating patient range of motion, therapeutic exercise, interpersonal and professional communication skills, and basic and functional human anatomy. Students will participate in clinical observations.



High School Credit: CTE credit or elective credit: 2 credits

Concurrent Enrollment: 2 college credits available. Student is responsible to register and pay for concurrent enrollment at UVU. For more information on these classes, see Appendix.

Skills Certification: Utah State Skill Certification Test(s)

Additional Opportunities: Physical Therapy clinical hours, Utah Skill Physical Therapy Aide Endorsement, Utah Skills Sports Medicine Endorsement, BLS CPR Certification, Concussion Prevention Certification, Heat Illness Prevention Certification, NSCA Certified Personal Trainer (CPT Certification), Compete in HOSA State/National Championships

Recommended: Anatomy, Physiology and Exercise Science

COURSE DESCRIPTIONS:

Introduction to Physical Therapy: This course introduces students to the field of physical therapy through the history, medical terminology, documentation, therapy treatments, and pertinent legal and ethical considerations of the profession. Healthcare for a diverse population begins its thread in this course. Students will participate in clinical observations.

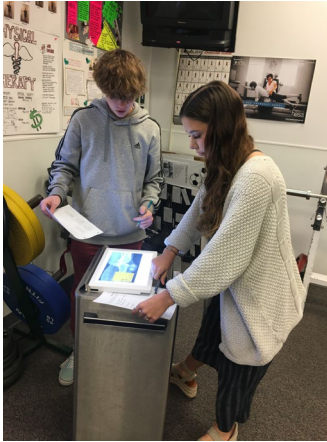
PES 2400/Exercise Science/Sports Medicine: This course is designed to introduce the student to the area of physical therapy and athletic training. Students will also learn components of sports medicine including human anatomy and physiology, injury prevention, first aid practices, injury evaluations, healing processes, therapeutic modalities, sports nutrition, performance skills, and career options.

Costs/Fees for the 2024-2025 school year: Pending school board approval.

Career Possibilities:

Rehabilitation Technician
Physical Therapist Assistant
Physical Therapist
Physical Therapy Aide
Certified Personal Trainer

Physician
Surgeon
Athletic Trainer
Sports Psychologist
Certified Strength and Conditioning Specialist



"This class has been the best course decision I have made in all of my high school career. Unlike other classes, we learn hands-on and can apply what we learn to a physical therapy or exercise science profession". Nichols Berndt

"This class is really applicable to the real world. It not only gives you an in depth view of physical therapy, but also an overview of other health professions relating to rehabilitation which helps you know what you want to do in the future". Riley Wood

"This class gives you fantastic hands-on experience. The teacher, the curriculum and the experience are all a part of what makes this class so unique and educational". Tristynn Faris

"This is a class that you do not want to miss out on. Experiencing physical therapy hands-on, practicing techniques, and how to provide the best care for a potential patient. Every day is something new and fun to participate in". Lexi Walker

"I wish I could be in this class all year. I have learned so much from physical therapy. We always do fun activities and always have fun. There is a positive attitude in the class". Hannah McClure

"I like that we actually get up and do the exercises and things that we are learning about on ourselves. It is so much more interesting than just sitting taking notes and doing bookwork all class period". Rebekah Oakeson



PROGRAMMING/SOFTWARE DEVELOPMENT *Full Year*

Information Technology Education



Instructor: Cody Henrichsen

cody.henrichsen@canyonsdistrict.org

801-826-6651

PROGRAM DESCRIPTION: This program is a college-level exploration of computer science concepts. These concepts include data representation/abstraction, recursion, software engineering, sorting/searching, and object oriented programming. Student's problem-solving skills will be developed through designing, implementing, and executing computer programs. The Java programming language will be used for the majority of the class. Students will work with desktop, mobile and database development. Students will be prepared to take the AP Computer Science Principles and AP Computer Science A exams. They will have opportunities to participate in programming competitions against other schools and gain marketable skills before they graduate high school.

```
public void takeComputerScience()
{
    //Code
    //the
    //future
    //@CTEC
```



High School Credit: CTE credit or elective credit: Up to 4 credits total and a possible math or science credit

Concurrent Enrollment: 12 college credits required. Student is responsible to register and pay for concurrent enrollment classes at SLCC and Weber State University. For more information on these classes, see Appendix.

AP Credit: AP Computer Science tests available

Additional Information: Compete in programming competitions

Industry Certifications: TBD

Skills Certifications: Utah State Skill Certificate Test(s)

Requirements: Secondary Math II completed. All 2nd semester classes require passing the 1st semester (College requirement).
Keyboarding and basic computer skills.

COURSE DESCRIPTIONS:

CSIS 1400 Fundamentals of Programming: Students will learn the basics of programming using Java including GUI development.

AP Computer Science Principles: Students will use the Swift programming language to develop iOS applications to learn about computer science and software development principles and address real world topics.

CSIS 1410 Object Programming: Students will create more complex GUI applications including a game using Java. Build more complex applications that involve data structures and prepare for the AP Computer Science A Exam.

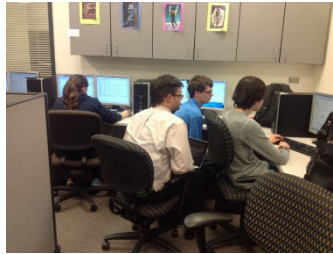
CS 2550 Database Design: Students will design and implement databases using SQL. Students will solve database problems using simple and complex queries on datasets.

Costs/Fees for the 2024-2025 school year: Pending school board approval.

Career Possibilities:

Computer Programmer
Game Developer
Software Engineer
Computer Engineer

Software Developer
Database Developer
Database Administrator



"I really enjoyed the programming class at CTEC because of the fun projects, and the great instruction. It is a lot of hands-on learning, which makes concepts easier to understand. My favorite project that we did was programming Lego robots in Java". L. Wyness

"I absolutely loved my time at CTEC! Being able to take higher-level classes for computer science helped me realize my interest could actually become a viable career. The hands-on projects, certifications, and college credit were an invaluable preparation for my future internships, scholarships, and college applications. And not to mention the staff! My professor was an amazing mentor that was constantly seeking opportunities for us to continue our development. His support and connections were a great aid and I would not be where I am today without the experiences I had at CTEC!" M. Madariaga



WELDING TECHNICIAN *Full Year*

Skilled and Technical Sciences



Instructor: Dalton Magee

dalton.magee@canyonsdistrict.org

801-826-6638

PROGRAM DESCRIPTION: The skills and experience gained in this class will prepare you for the careers of the future. The demand for skilled welders is at an all-time high. Students will gain skills in a range of welding processes including SMAW, FCAW, GMAW, and GTAW. Cutting processes including oxy-fuel, plasma and mechanical cutting will be used. Project creation, design, and layout will be emphasized. This course can prepare you for a welding career, or it can open opportunities to better summer and college jobs and a career to fall back on. Employability skills are a high priority. This means being on time, attending consistently, working with others, and following safety procedures.



High School Credit: CTE credit or elective credit: Up to 4 credits

Concurrent Enrollment: 7 college credits available. Student is responsible to register and pay for concurrent enrollment classes through SLCC (1st semester) and Weber State (2nd Semester). For more information on these classes, see Appendix.

Skills Certification: Utah State Skill Certificate Test(s) and AWS SENSE certification opportunity.

Additional Opportunities: Participate in SkillsUSA competitions and leadership roles.

Recommended: This class is for any student who enjoys working and learning in a hands-on environment. No prior welding experience needed.

COURSE DESCRIPTIONS:

WLD 1005 Entry Welding Technician: This is an entry level course that will teach basic welding skills. This course will prepare students to apply technical knowledge and skills in the workplace and in project construction. SMAW and GMAW welding will be the main welding processes covered in this portion of the class.

MFET 2153 Intermediate Welding Technician: This is an intermediate level course that will teach the next level of welding skills. This course will dive deeper in the GMAW process, along with FCAW. How to plan, prepare, and construct projects will be covered.

MFET 2670 Advanced Welding Technician: This is an advanced welding skills course. This course will teach students the processes that will prepare them to apply technical knowledge and skill in the workplace and in project construction. A focus on project creation, structural welding and refining welding techniques will be the main focus. An introduction to the GTAW process will also be covered.

Costs/Fees for the 2024-2025 school year: Pending school board approval.

Career Possibilities:

Welding Technician
Welding Repair Technician

Welding Engineer
Welding Salesman

Welding Inspector
Welding Instructor



"I believe that in joining welding, I have greatly improved my future in many fields and I will almost never have financial troubles". Shawn

"Taking the welding class has helped me a lot. I have learned skills that will help me throughout my life. I am very glad to have taken the class". Austin

"Taking this class has been a very good experience for me. I have learned valuable life skills and more". Anthony

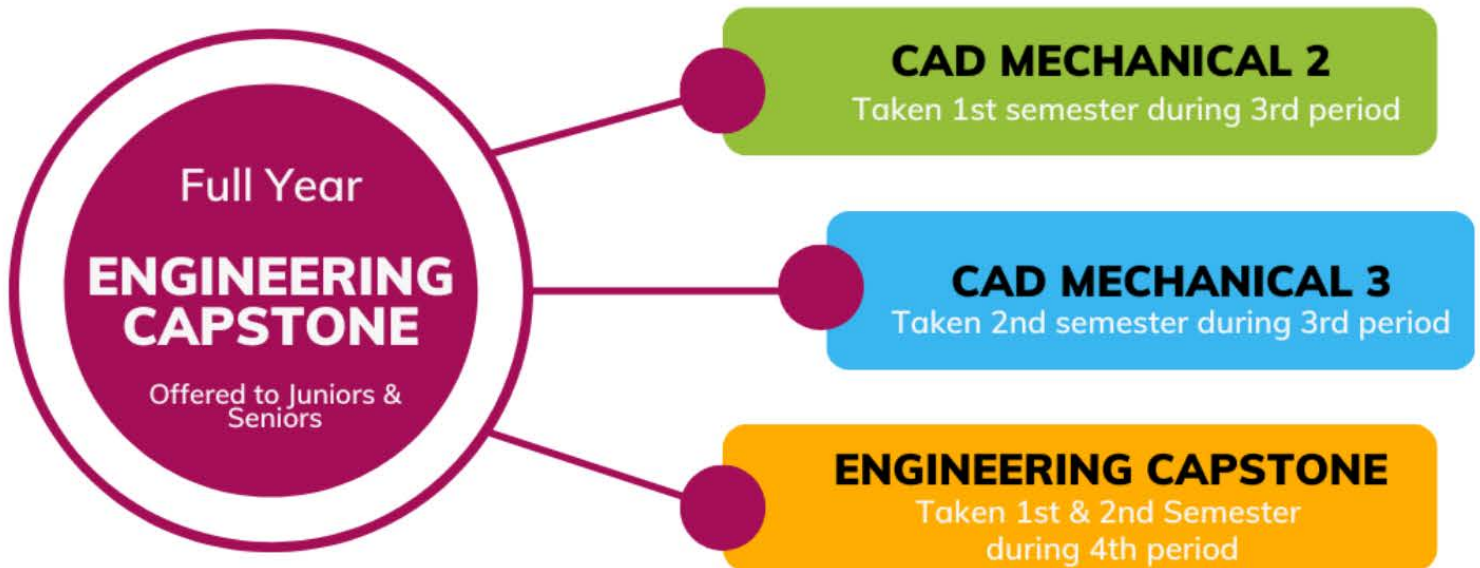
"Welding is an invaluable skill. There are many job opportunities for a certified welder. Welding is all over the world and in many fields such as underwater and construction. Welding teaches patience and control. It truly is a valuable skill to learn". Caleb



CTE Engineering Pathway

Housed at Alta High School

This program is open to all Canyons School District students in their Junior or Senior Year



While the Engineering Capstone Program only requires 3 classes taken over the space of one year, there are additional classes that would benefit students in an Engineering Pathway. **Here is a recommended (but not required) class sequence.**

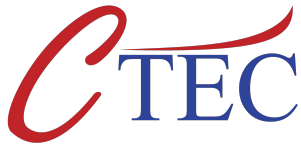
Engineering Technology should be taken during 9th grade, but can be taken anytime during the four years of high school. It must be taken before or concurrently with Robotics 1 & 2.

Robotics 1 & 2 should be taken during 10th or 11th grade, but can be taken anytime during the four years of high school. It can be taken concurrently with CAD Mechanical 1 and Engineering Principles 1. (AP Physics recommended)

CAD Mechanical 1 and Engineering Principles 1 can only be taken in 11th or 12th grade. No prerequisites required.

CAD Mechanical 2 & 3 can only be taken during 11th or 12th grade. It should be taken after CAD Mechanical 1 and Engineering Principles 1. Required for CTE Engineering Pathway at Alta.

Engineering Capstone can only be taken during the 11th or 12th grade year. It should be taken after CAD Mechanical 2 & 3, but can be taken concurrently with CAD Mechanical 2 & 3. Required for CTE Engineering Pathway at Alta. (AP Physics or AP Physics C Mechanics recommended)



Canyons Technical Education Center

Please see ctec.canyonsdistrict.org for more information and to apply!

2024-25
Class / Program
Information

| ctec.canyonsdistrict.org | | 825 East 9085 South, Sandy, UT 84094 | Doug Hallenbeck, Principal, (801) 826-6601 | |
|--|------------------------------------|---|--|---------------------------------|
| | | (801) 826-6600 | Emalee Brown, CTE Coordinator, (801) 826-6621 | |
| PROGRAM | | DESCRIPTION | Certifications | College Credit Available |
| Information Technology & Digital Media | | | | |
| | Cybersecurity / Networking | Build and secure computer systems and networks with hands-on labs and cybersecurity briefings. This course prepares students for successful job placement by earning industry certifications in IT and cybersecurity. | TestOut: PC Pro, Network Pro, Security | |
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| | | | | |
| | Digital Media | Learn to use digital media, 3D animation and digital editing software, 2D and 3D graphics, game development, and audio and video production to prepare for jobs in graphic design and the multimedia industry. | Photoshop, Flash, Premiere, Illustrator, Dreamweaver | 4 SLCC Credits |
| | | | | |
| | | | | |
| | Programming/Software Development | Learn advanced programming skills and develop software applications, including Java, Swift and SQL. Build computer programs and apps for mobile devices, the internet, and gaming systems. | | 8 SLCC credits 4 WSU credits |
| | | | | |
| | | | | |
| Business | | | | |
| | Business Leadership CAPS | Be a business professional and learn skills such as: communication, creating business plans, and essential workplace skills. Build your resume and work on real industry projects. Complete a CTE internship with a local business. | | 6 SLCC credits |
| | | | | |
| | | | | |
| Health Sciences | | | | |
| | Certified Nurse Assistant (CNA) | Learn patient care, anatomy, physiology, nutrition, medical terminology, first aid, and CPR. Prepare to take the state CNA exam. Participate in clinicals at a hospital or care facility. | Utah CNA License | 5 SLCC credits |
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| | Emergency Medical Technician (EMT) | Learn training standards for EMT, administering basic life support, splinting, airway management, rapid extraction, emergency childbirth, etc. Prepare to take the state EMT certification exam. | Utah EMT License and NREMT Certification | 10 SLCC credits |
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| | Medical Assisting | Learn clinical skills to work in a physician's office. These skills include: taking vital signs, drawing blood, giving shots, performing simple lab tests, and documenting medical records. Clinical externship. | Utah and National Medical Assistant Certification | 3 SLCC credits |
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| | Medical Forensics | Solve mysteries using problem solving techniques. Learn Health Science skills such as microscopy, toxicology, measurements, physical evidence ID, pathology, entomology, and photography. | | 3 SLCC credits |
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| | Physical Therapy | Learn physical therapy skills such as: therapy treatments, communication skills, patient transfers, patient ambulation, patient range of motion, clinic policies, procedures and professionalism. | | 2 UVU credits |
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| | Pharmacy Technician | Prepare to work in retail, closed-door, compounding and institutional pharmacies under the direction of a pharmacist. Learn to provide counter assistance, record patient health information, and fill prescriptions. | National Pharmacy Technician Exam and Utah licensing | 3 SLCC credits |
| | | | | |
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| Skilled and Technical Sciences | | | | |
| | Construction Management | Learn construction management skills including managing and participating in framing, roofing, painting, finish carpentry and concrete finishing. Build a project house from start to finish. | | 8 SLCC credits |
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| | | | | |
| | Cosmetology / Barbering | Learn hair styling, cutting, coloring, chemical texturizing, skin care, nail care, lash extensions and business practices with emphasis on safety, sanitation, and professionalism. Will have constant exposure to clients to practice. | Prepare for Utah DOPL Cosmetology / Barbering License | 23 USU credits |
| | | | | |
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| | Criminal Justice | Learn about the criminal justice system, including law enforcement officer functions, criminal law, and diversity of law enforcement careers. Learn take-down tactics, arrest techniques, interacting with the public. | | 12 SLCC credits |
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| | | | | |
| | Heavy Duty Mechanics / Diesel | Learn diesel technician competencies in the following areas: safety, brakes and bearing adjustments, air brake systems, electrical repair and trouble shooting, complete engine overhaul, suspensions, and many more. | ASE Certifications in Brakes, Engines, Electrical Systems, Suspension/Steering | 8 SLCC credits |
| | | | | |
| | | | | |
| | Welding Technician | Learn technical skills and knowledge through hands on lessons in gas and electric welding, metal fabrication, plasma cutting, pipe welding, and more. American Welding Society task list emphasized. | Utah Skills Certificates, AWS Welding Certifications | 3 SLCC credits 4 WSU credits |
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| Technology and Engineering | | | | |
| | Engineering Capstone | These courses are housed at Alta High and are available to all Canyons School District high school students. See the CTEC catalog for a full description of the courses and the recommended class sequence. | Utah Skills Certificates | 3 SLCC credits |
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Juniors and Seniors can enroll in any classes unless indicated as "Seniors Only"

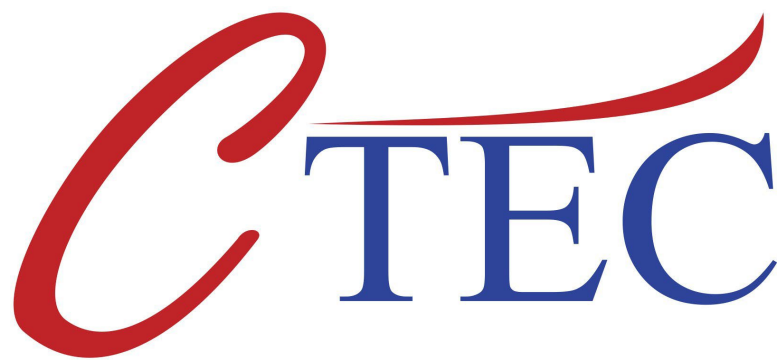
Last Revised: 12/18/23

- Seniors Only
- Semester Class
- Sophomores can enroll in addition to Juniors and Seniors

Concurrent Enrollment - Appendix 2024-2025

| Course Title | Course Code | Credit Type | Grade Level | High School Credits | Concurrent Enrollment Credits |
|--|-------------|----------------------------|-------------|---------------------|-------------------------------|
| Business Leadership - SLCC | | | | | |
| CTEL 1010 / Leadership & Teambuilding | 5706 | CTE, Elective | 11-12 | 0.5 | 3 |
| MGT 2020 / Entrepreneurship | 8342 | CTE, Elective | 10-12 | 0.5 | 3 |
| Construction Management - SLCC | | | | | |
| CMGT 1320 / Building Construction I | 9865 | CTE, Elective | 10-12 | 0.5 | 4 |
| CMGT 1330 / Interior Finishes I | 9867 | CTE, Elective | 10-12 | 0.5 | 4 |
| Cosmetology/Barbering - USU Eastern** | | | | | |
| TECS 1020/Barbering Basics | | CTE, Elective | 11-12 | 1 | 2 |
| TECS 1030/Cos/Hair Design Chemical Serv. Basics | | CTE, Elective | 11-12 | 1 | 3 |
| TECS 1050/Cos/Bar Intermediate Theory/Practice | | CTE, Elective | 11-12 | 1 | 3 |
| TECS 1060/Pro Dev, State Laws, Industry Spec. | | CTE, Elective | 11-12 | 1 | 3 |
| TECS 2900/Cos/Bar Clinical I | | CTE, Elective | 11-12 | 1 | 3 |
| TECS 2910/Cos/Bar Clinical II | | CTE, Elective | 11-12 | 1 | 3 |
| TECS 2920/Cos/Bar Clinical III | | CTE, Elective | 11-12 | 1 | 3 |
| TECS 2930/Cos/Bar Clinical IV | | CTE, Elective | 11-12 | 1 | 3 |
| Criminal Justice - SLCC | | | | | |
| CJ 1010 / Criminal Justice | 9150 | CTE, Elective | 11-12 | 0.5 | 3 |
| CJ 1300 / Intro to Corrections | 9152 | CTE, Elective | 11-12 | 0.5 | 3 |
| CJ 1330 / Criminal Law | 9151 | CTE, Elective | 11-12 | 0.5 | 3 |
| CJ 2540 / Careers in Law Enforcement | 9155 | CTE, Elective | 11-12 | 0.5 | 3 |
| Digital Media - SLCC | | | | | |
| ART 1080 / Photoshop & Digital Media | 8667 | CTE, Elective | 11-12 | 1 | 4 |
| Emergency Medical Technician (EMT) - SLCC | | | | | |
| HSEM 2300 / Emergency Medical Technician (EMT) | 9730 | CTE, Elective | 11-12 | 2 | 10 |
| Heavy Duty Mechanics / Diesel - SLCC | | | | | |
| DST 1045 / Basic Diesel | 9040 | CTE, Elective | 10-12 | 1 | 4 |
| DST 1065 / Basic Engine Performance | 9042 | CTE, Elective | 10-12 | 0.5 | 4 |
| Medical Forensics - SLCC | | | | | |
| CJ 1350 / Medical Forensics | 9129 | CTE, Elective | 11-12 | 1 | 3 |
| Medical Assistant - SLCC | | | | | |
| HS 1100 / Medical Terminology | 9725 | CTE, Elective | 11-12 | 0.5 | 3 |
| Nurse Assistant (CNA) - SLCC | | | | | |
| HS 1100 / Medical Terminology | 9725 | CTE, Elective | 11-12 | 0.5 | 3 |
| HLTH 1200 / First Aid & Safety | 9118 | CTE, Elective | 11-12 | 0.5 | 2 |
| Physical Therapy - UVU | | | | | |
| PES 2400 / Exercise Science & Sports Medicine | 9175 | CTE, Elective | 11-12 | 1 | 2 |
| Computer Programming - SLCC & WSU | | | | | |
| CS 1400 / Fundamentals of Programming | 5711 | CTE, Elective, Mathematics | 11-12 | 1 | 4 |
| CS 1410 / Object Programming | 5712 | CTE, Elective, Mathematics | 11-12 | 1 | 4 |
| CS 2550 / Intro to Database Design & SQL | 5717 | CTE, Elective | 11-12 | 1 | 4 |
| Welding Technician - SLCC & WSU | | | | | |
| WLD 1005 / Related Welding | 9027 | CTE, Elective | 10-12 | 1 | 3 |
| MFET 2153 / Metal Welding | 9047 | CTE, Elective | 11-12 | 1 | 1 |
| MFET 2670 / GMA, FCA & GTA Welding | 9048 | CTE, Elective | 11-12 | 0.5 | 1 |
| MFET 2670L / GMA, FCA & GTA Welding | 8803 | CTE, Elective | 11-12 | 0.5 | 2 |

** Cosmetology CE courses are subject to change for the 24-25 school year.



Productive

Responsible

Engaged

Professional

Successful

STUDENTS