



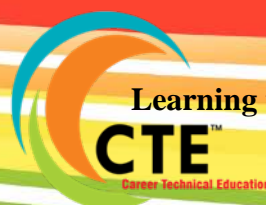
Chico Unified School District Career Technical Education

Pathways and Course Sequences:

*A Reference Guide for Counselors,
Administrators, Parents, and Students*



Published January 2021



Learning that works for Chico Unified

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Chico High School and Pleasant Valley High School are accredited by
Western Association of Schools and Colleges (WASC).



District Wide Expected Results for Students

Career Ready

- Career Plan
- Portfolio Development
- Professionalism

Technically Skilled

- Industry Safety Standards
- Industry Competencies
- Industry Technology
- Industry Certificates

Educationally Prepared

- Integrated Academics
- Post-Secondary Opportunities
- Productive Citizens



The mission of CTE is: to provide industry-linked programs and services that enable all individuals to reach their career goals in order to achieve economic self-sufficiency, compete in the global marketplace, and contribute to California's and Chico's economic prosperity.

CTE's vision is: to engage every student in high quality, rigorous, and relevant educational pathways and programs, developed in partnership with business and industry, promoting creativity, innovation, leadership, community service, and lifelong learning, and allowing students to turn their "passions into paychecks" - their dreams into careers.



Learning that works for Chico Unified.

High School CTE At-A-Glance

Chico Unified School District career and technical education (CTE) offers classroom and work based learning to high school students.

CTE currently offers training in more than 45 courses based upon current and future labor market demands. Programs focus on those career sectors where there is proven local industry demand and sufficient student interest and need.

Why take a CTE course?

CTE courses are sequenced to create pathways for students in a course of study, which can lead to employment and/or post-secondary education opportunities.



Experience is the best teacher and industry experience is one of the unique qualifications that our teachers bring to the classroom. CTE can help you get the experience needed to get a job of your choice, explore careers and/or train completely in a new field. Many classes include the opportunity to intern in a business within our community.

Who can enroll?

CTE class offerings are expanding to include more opportunities for students in grades 9-12. Some classes have special requirements and prerequisites. Please inquire with your high school guidance office, CTE coordinator and/or CTE instructor regarding any special requirements.

How are CTE classes unique?

CTE classes are conducted in classrooms equipped to industry standards or in some cases actual business and industry locations. Courses are a combination of classroom instruction, work-based learning and some utilize on-the-job training. Classes are taught by highly-qualified professionals from the industry who are credentialed through the California Commission on Teacher Credentialing to teach in their areas of expertise.

Can I get college credit for taking CTE classes?

CTE offers many University of CA, A-G approved courses. Some courses are articulated with the local community colleges and offer students the opportunity for postsecondary credit.

Look for the symbol to indicate a **Butte College articulated** course (2+2). For details see page 39.



Look for the **University of CA (UC) symbol** to indicate a course that receives University of CA A-G entrance credit. See page 41 for details on each course.



Can I get a job?

Your CTE course will include employment search skills. Many courses offer unpaid internships and on-the-job training with local businesses. It is possible in some classes to have a “CC or CVE” contract. Talk to a CTE Teacher.

How can I enroll?

For additional information, contact your high school counselor, guidance office, or search CTE at our website: www.chicousd.org.

Decoding Definitions, Acronyms and Phrases for CTE

CTE: Career and Technical Education

CTSO: Career and Technical Student Organizations

These include integrated student leadership co-curricular organizations; there are several recognized in California including FFA, FCCLA, HOSA, DECA, Skills USA and FBLA. Within Chico Unified there are FFA, FCCLA, HOSA and SkillsUSA are represented.

FFA is the student leadership organization associated with Agriculture pathways. The acronym no longer is formed from a name; historically FFA was Future Farmers of America. State website <https://www.calaged.org/>

FCCLA is the student leadership organization associated with Hospitality, Fashion, Education and Child Development. The acronym stands for Family, Careers and Community Leaders of America. The state website is <https://www.ca-fccla.org/>

SkillsUSA is the student leadership organization associated with Architecture, Engineering, Arts, Media/Entertainment and all of the Information Technology pathways. The state website is <http://www.skillsusaca.org/>

HOSA is the student leadership organization for the Patient and Medical Care Pathways. The acronym stands for Health Occupations Students of America. The state website is <http://www.skillsusaca.org/>.

Pathway: A series of linked courses that lead to industry certified skill sets as defined in Model Curriculum Guides and Standards for Industry Sectors. These are defined by the California Department of Education and more information can be found at <https://www.cde.ca.gov/ci/ct/sf/ctemcstandards.asp>

Introduction: A course that provides information for more than one CTE defined industry sector. Generally this course is recommended for implementation within grades 7-9; guiding to a pathway.

Concentrator: CTE course that provides industry pathway specific content skills leading to a single industry competency skill set.

Capstone: The final course in a planned sequence of courses that provides a rigorous and intensive culmination of a course of study. Students that complete a concentrator and capstone course are considered **completers** in that pathway.

Industry Certifications: Many pathway allows students to be certificated. See each pathway for details.

Work Based Learning: Defined by many different types of experiences depending on grade level and detailed below. Work based learning can refer to career search, a job shadow, unpaid internship called a “CC” or community classroom to paid internships and work experience.

Job Shadow: Observational and interview only activity at the business or industry site.

Community Classroom: An unpaid internship or contract in which trained industry specific students are placed with a mentor within the community for work-based training. Students must be at least 16; within either concentrators or capstones for no less than 45 hours of instructor for that jobsite. Abbreviated as “CC”

Cooperative Vocational Education: A paid internship or “CVE” between the student, parent, and business.

Internship: A paid or unpaid supervised training experience through a CTE course.

Agriculture and Natural Resources Pathway Courses at CHS



Site	Course Title	Course Hours	Pathway	Course Sequence Level	Suggested Grade Level(s)
CHS	Biology and Sustainable Ag.	180	AgriScience	Introductory	9-10
CHS	Agriscience Chemistry	180	Agriscience	Concentrator	10-12
CHS	Advanced Interdisciplinary Ag Science	180	Agriscience	Capstone	11-12
CHS	Ag Welding I	180	Agricultural Mechanics	Introductory	9-10
CHS	Ag Welding II	180	Agricultural Mechanics	Concentrator	10-11
CHS	Advanced Welding	180	Agricultural Mechanics	Capstone	11-12
CHS	Floral Design	180	Floral Design	Concentrator	9-12
CHS	Advanced Floral Design	180	Floral Design	Capstone	10-12
CHS	Horticulture I	180	Ornamental Horticulture	Concentrator	9-12
CHS	Environmental Horticulture Science	180	Ornamental Horticulture	Capstone	10-12

Courses in a pathway are denoted by the same color

Using Perkins Guidelines, Instructions, and the CTE Framework, the following definitions are utilized in course sequences and pathways:

Pathway – Designed to provide students with a non-duplicative sequence of progressive achievement leading to technical skill proficiency, a credential, a certificate, and/or a degree.

CTE Course Sequencing – The process of developing at least two sequential courses in each CTE program offered by the school. A preferable sequence format has at least three courses in each program, adding a capstone or advanced course to (1) an introductory and concentration course; or (2) two concentration courses.

Introductory – Preliminary course, beginning level containing introductory concepts required to build foundational and general knowledge.

Concentrator – CTE course beyond the introductory level intended to provide more in-depth instruction in and exploration of a specific industry sector.

Capstone – The final course in a planned sequence of courses that provides a rigorous and intensive culmination of a course of study.

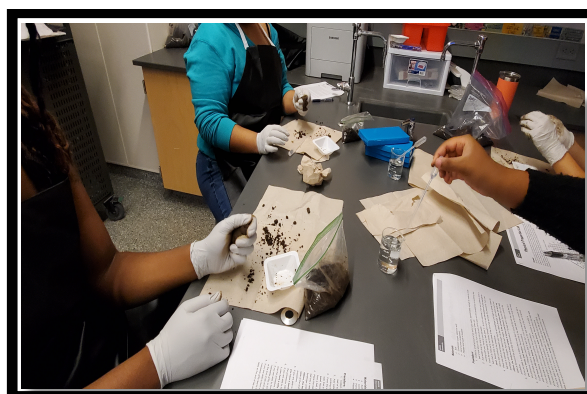
Agriculture and Natural Resources Pathway Courses at CHS



Pathway: Agriscience

Course Title: Biology and Sustainable Agriculture

Course Description: Sustainable Agriculture is a one year introductory course designed to integrate biological science practices and knowledge into the practice of sustainable agriculture. This year-long course is designed for the college bound student and integrates biological science into the practice of sustainable agriculture. The course is organized into four major sections, each with a guiding question: What is sustainable agriculture? How does sustainable agriculture fit into our environment? What molecular biology principles guide sustainable agriculture? How do we make decisions to maximize sustainable agricultural practices within a functioning ecosystem? The course culminates with the development of a sustainable farm model and portfolio of supporting student research. Students are graded on participation and development of leadership skills in intra-curricular FFA activities as well as the creation and maintenance of an ongoing Supervised Agricultural Experience (SAE) program. This course meets UC A-G "D" lab science entrance requirement.



Course Title: Chemistry and Sustainable Agriculture

Course Description: This course explores the physical and chemical relationships between soil plants, animals, and agricultural practices. Students examine properties of soil and land and the connection to plants and animal production. Using knowledge of scientific protocols as well as course content, students develop an Agriscience research program to be conducted throughout the first semester of the course. Additionally, students develop and present a capstone soil management plan for agricultural producers, demonstrating their knowledge of the soil chemistry content learned throughout the course.

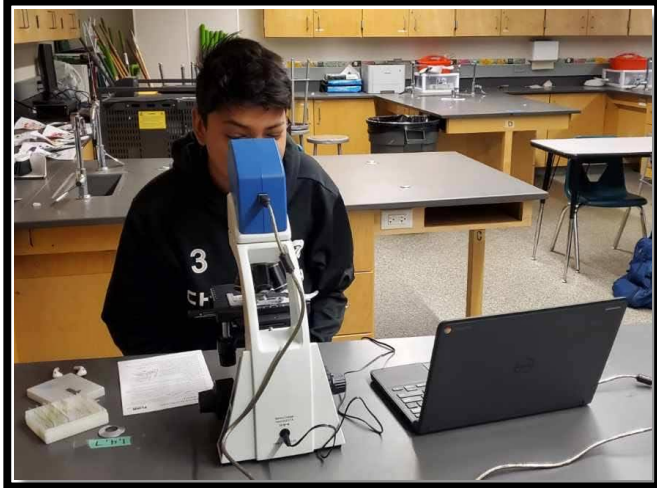
Students are graded on participation and development of leadership skills in intra-curricular FFA activities as well as the creation and maintenance of an ongoing Supervised Agriculture Experience (SAE) program. This course meets UC A-G "D" lab science entrance requirements.



Agriculture and Natural Resources Pathway Courses at CHS



Pathway: Agriscience



Course Title: Advanced Interdisciplinary Science for Sustainable Agriculture

Advanced Interdisciplinary Science for Sustainable Agriculture is a laboratory science course designed for the college bound student. This integrated class combines an interdisciplinary approach to laboratory science and research with agricultural management principles. Using skills and principles learned in the course, students design experiments to solve agricultural management issues currently facing the industry. Additionally, students will connect the products created in this class with industry activities to link real world encounters and implement skills demanded by both colleges and careers. The course culminates with an agriscience experimental research project in which students design and conduct an experiment to solve a relevant issue identified in the fall semester. Final projects will be eligible for Career Development Event competition at FFA events. Throughout the course, students will be graded on FFA activities as well as the development and maintenance of an ongoing Supervised Agricultural Experience (SAE) program. This course receives UC **honors** A- G “D” lab science credit.



Agriculture and Natural Resources Pathway Courses at CHS



Pathway: Ag Mechanics

Course Title: Ag Welding I

Course Description: This course covers general shop safety, AC/DC arc welding and oxygen-acetylene welding in flat positions. Ag Welding I covers more advanced and job oriented welding processes used in the welding and agriculture fabrication industries. These include: Gas Metal Arc Welding (GMAW) or wire welding, oxygen-acetylene welding, and cutting. The last quarter of the class students will design and fabricate individual projects: Time in class: 40%; time in lab: 60%. FFA projects and record books are used. This course meets UC A-G "G" entrance requirement.



Course Title: Ag Welding II

Course Description: This course is taught both in theory and a laboratory setting and is designed to prepare students for careers related to agriculture construction, and repair, operation, and maintenance of equipment used in the agriculture industry. Agricultural mechanics skills, construction, and safety are covered along with any electrical systems, plumbing, cold metal work, concrete and welding technology. FFA projects and record books are used. This course meets UC A-G "G" entrance requirement.

Prerequisite: Ag Welding I



Course Title: Advanced Ag Welding

Course Description: Students will learn skills in the areas of welding, sheet metal, heat treating, hardfacing, light construction, use of tools, and equipment and safety. Upon completion, students will be qualified for entry-level jobs in welding, cutting and metal fabrication. Course objectives focus toward optional AWS Welding Certification training. Students may be placed in internships for related hands-on training. Work-based learning and advanced lab techniques, large FFA projects and application to industry and real-world settings are emphasized. FFA projects and record books are used. Prerequisite: Ag Welding II



Agriculture and Natural Resources Pathway Courses at CHS



Pathway: Floral Design

Course Title: Floral Design

Course Description: This concentrator course is for students who have an interest in agriculture and the concepts and practices of floral design. It includes the study of the principles of design used in floral composition. Students have an opportunity to understand the basic principles of design as well as the design process and implement this process through the medium of floral materials. Students will be able to identify multiple flowers and foliage; and prepare fresh and permanent floral arrangements. Hands-on laboratory experiences will allow students to practice the art of floral design. This course meets UC A-G "F" entrance requirement.



Course Title: Advanced Floral Design

Course Description: This capstone course allows students to learn professional florist skills for employment in the floriculture field. Students will explore the floriculture industry on a more technical and advanced level including the proper care and handling of flowers, plants, and foliage. Students will evaluate floral materials and arrangements; utilize floral tools, supplies and products to apply design principles to floral medium; construct arrangements for all occasions; display, price and market floral designs; and preserve floral materials as students run their own floral shop. The art elements and principles of design will serve as a foundation for each unit covered. Students will research and simulate careers in Agriculture Business. Students will automatically become members of the FFA and participation in FFA activities and supervised agricultural experience programs will be a graded component of the course. Prerequisite: Floral Design.



Agriculture and Natural Resources Pathway Courses at CHS



Pathway: Ornamental Horticulture

Course Title: Horticulture I

Course Description: This course uses theory, principles, and a laboratory setting. Horticulture I prepares students for careers related to the field of ornamental horticulture and plant sciences. Students will learn about the structure, growth processes, propagation, physiology, growth media, biological competitors, and post-harvest factors of food, fiber, and plants. Students are expected to participate in course projects propagating plants. FFA projects and record books are integrated into the class.



Course Title: Environmental Horticulture Science

Course Description: This year-long course is open to students who have successfully completed Horticulture I. Students learn about greenhouse crop production through hands-on work and projects in the school greenhouse. Each student will learn to grow and raise horticulture crops with daily lab work and practical applications to life science. Crop planning, reproduction, propagation, nutrition, weeds, pests and diseases will be covered. Students will learn about nursery laws and regulations as well as hydroponics, and will have the opportunity to raise plants for themselves and participate in plant sales to the public. FFA projects and record books are utilized. This course meets the district Life Science requirement.



Arts, Media and Entertainment Industry Sector at CHS & PVHS



SITE	Course Title	Course Hours	Pathway	Course Sequence Level	Suggested Grade Level(s)
CHS	Digital Arts I	180	Design, Visual and Media Arts, Pathway 111D	Concentrator	9-10
CHS	Digital Arts II	180	Design, Visual and Media Arts, Pathway 111D	Capstone	10-12
CHS	Digital Arts III	180	Design, Visual and Media Arts, Pathway 111D	Capstone +	11-12
PVHS	Intro to Multimedia	90	Production and Managerial Arts Film and Video 113B	Introductory	9
PVHS	Video Production 1	180	Production and Managerial Arts Film and Video 113B	Concentrator	10-11
PVHS	Film and Media Studies	180	Production and Managerial Arts Film and Video 113B	Concentrator	10-12
PVHS	Audio & Media Production	180	Production and Managerial Arts Film and Video 113B	Concentrator	11-12
PVHS	Video Production 2 and 3	180	Production and Managerial Arts Film and Video 113B	Capstone	11-12
PVHS	Digital Photography I	180	Graphic Design Pathway 111A	Concentrator	10-12
PVHS	Graphic Arts and Design I	180	Graphic Design Pathway 111A	Concentrator	10-12
PVHS	Graphic Arts and Design II	180	Graphic Design Pathway 111A	Capstone	11-12
PVHS	Art 1	180	Visual/Commercial Art Pathway 111C	Introductory	9-12

Courses in a pathway are denoted by the same color.

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Concentrator – CTE course beyond the introductory level intended to provide more in-depth instruction in and exploration of a specific industry sector.

Capstone – The final course in a planned sequence of courses that provides a rigorous and intensive culmination of a course of study.

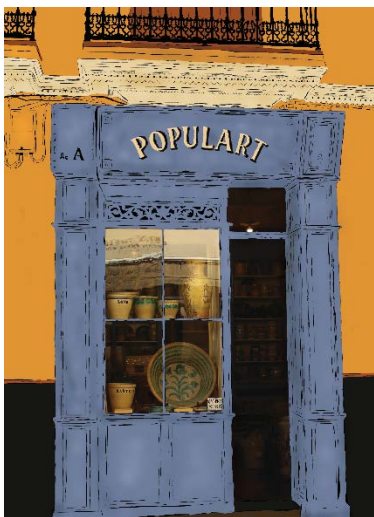
Arts, Media and Entertainment Pathway Courses



DIGITAL ARTS & DESIGN

AT CHICO HIGH SCHOOL

Use of visual arts, digital media, and web-based tools and materials will be the primary means of communication and expression. In addition to an understanding of current workplace practices, this career pathway requires the development of knowledge and skills in both visual arts concepts as well as new and emerging digital processes by which individuals are able to create and communicate complex concepts in a broad range of occupations and professions. Students will develop foundational knowledge in photography, video, and graphic design. Students will also apply academic skills and knowledge to be creative partners in while building capacity for employment in all areas of the creative workforce. In addition, students have access to a variety of industry equipment including: WACOM Cintiq touch monitors, Sony A6000, A6500, and A7III cameras, and a variety of lenses, video sliders, gimbals, professional light kits and overhead lights, professional audio booth, and Rode mics, button makers, cricut makers, large format printer, dye sublimation printer/heatset, laserengraver, and 3D printer.



Digital Multi Media- Original student photograph with Vector Illustration. Created using Adobe Illustrator.

Course Title: Digital Arts I

Course Description: This concentrator course begins by looking at art, and studies the process of art creation in various subjects and mediums throughout history using digital tools. Students will understand the importance of art as a means of expression and communication and the way art impacts society and culture. Basic elements of art and principles of design will be incorporated as a foundation for creating all work. Critical thinking skills will be used to examine art and designs for content, artistic skill and aesthetic value. Lessons will include class lectures, demonstrations, guest speakers and hands-on art activities. Students will use studio art supplies and the computer as tools to visually articulate, express, and communicate ideas, concepts and personal experiences in creative meaningful ways. Industry standard software used in the course includes Adobe Photoshop and Adobe Premier, and will be used to produce a variety of digital art projects that include digital illustration, digital painting, digital manipulation, graphic design, as well as cover a variety of genres of photography and video projects. Students will become increasingly aware of art and design in our everyday environment and realize that all manmade surroundings have, to some degree, been designed or created by an artist. Students will understand and recognize current trends in art and design, how they are influenced by culture and impact the industry standards. Skills learned will relate to current careers in visual arts. Students will build a digital website portfolio that showcases their best work. Students will also have opportunities to display artwork at various venues including gallery shows, and have the opportunity to design and produce merchandise for the Chico High Media Marketplace. This course meets UC A-G "F" entrance requirements, and is articulated to Butte College.



After learning about the art of food photography including lighting, and plating techniques students made food (simple or elaborate) and applied the concepts learned while taking photos.

Arts, Media and Entertainment Pathway Courses



Graphic Arts and Design Pathway- PVHS

Course Title: Digital Arts II

Course Description: This capstone class will continue to build on the skills of Digital Arts I to develop advanced skills in digital art techniques. More emphasis on the fine art aspects of graphic images, still images and moving images using design, composition, and storytelling. Lessons will include class lectures, demonstrations, guest speakers, and hands-on art activities. Students are expected to continue building a digital portfolio website and work more closely with industry professionals. In some cases guest speakers will also act as clients and present students with a project. The process reflects a real world industry situation, as students create mock-ups, rough drafts, submit images to the client and make necessary adjustments after receiving client feedback. Second semester students will be placed in a job shadow, and have an opportunity to complete in SkillsUSA. Students can display artwork at a variety of venues. Students also have an opportunity to design and produce merchandise for the Chico High Media Marketplace. The Marketplace club is student run and allows students a venue to not only design, and produce a multitude of merchandise, but learn entrepreneurial skills. This course has received approval from the UC A-G "F" entrance requirement, and is articulated to Butte College.



Digital Multi Media- Original student photograph with Digital Illustration. Created using Photoshop.

Course Title: Digital Arts III

Course Description: This yearlong capstone plus class is designed to elaborate on the skills learned within Digital Arts I & II. In this career-based course students will continue to learn and hone digital media production and design skills. Students will focus on creating a concentrated body of personal work. For such projects, students will complete a project proposal and present it to the teacher. Other projects will be driven by community need and those projects will be presented to the students by an outside client. Like in Digital Arts II, this process reflects a real world industry situation. After the client comes to class and gives students a brief, students then create mock-ups, rough drafts, submit images to the client. After receiving feedback the students make any necessary adjustments. Students will develop digital art, illustration, and graphic design projects that can be transferred to t-shirts, and other three-dimensional items or flat work such as posters, banners and stickers. In addition, students have an opportunity to design and produce merchandise for the Chico High Media Marketplace. Students will be required to conduct research and identify target markets. Second semester students will be placed in a job shadow, or community classroom, and have an opportunity to complete in SkillsUSA.

<https://chsdigitalartsdesign.wixsite.com/website-1>



Arts, Media and Entertainment Pathway Courses



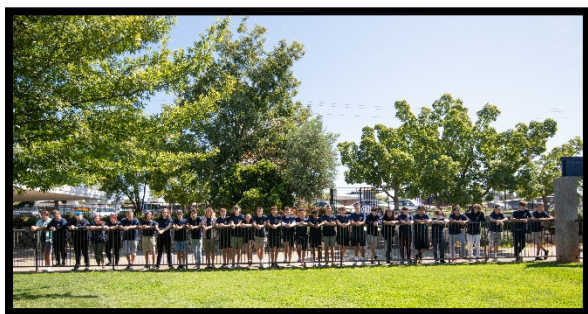
Media Arts Pathway at PVHS

Course Title: Introduction to Multimedia

Course Description: Introduction to Multimedia is a one semester course that focuses on the film and video production. Students are engaged in hands-on projects and can see if this dynamic pathway fits their career and college interests. Recommended for freshman, this course pairs with health and is a great start into the Media Arts Pathway.

Course Title: Film and Media Studies

Course Description: This concentrator course uses storytelling: the most common way that we communicate to one another. Stories told with film have a tremendous influence on our attitudes and perceptions of the world around us. In fact, films may be one of the most powerful tools in modern culture for shaping values and conveying information. By viewing, studying, discussing, and writing about film, students develop and demonstrate skills in technological, cultural, and media literacy, as well as critical thinking and problem solving skills that will serve them well in the real world. We will be viewing many of the best films ever produced in this exciting new course.



Course Title: Audio and Media Production

Course Description: The Audio Production course focuses on the aesthetic qualities of sound production in the studio and live environment. It will analyze the impact of digital and analog audio technology as a vital part of communication in the world today. Students will creatively express and develop written ideas within groups and individuals including, proposals, budgets, and musical compositions. Students will also write and produce podcasts, webcasts, and songs in a variety of formats. Students will also study the impact audio and sound production in our society. Students will learn the history of sound production and the technological advances in the art form. Knowledge and utilization of microphones, digital, analog and computer-based audio editing and recording equipment, and software programs such as Pro Tools, Adobe Audition, and Sony Acid. Study and training in the Audio Production course will prepare students for careers in music engineering and production, post-production for film and television, and live sound-mixing for theater and concerts. This course meets UC A-G “F” entrance requirement.



Arts, Media and Entertainment Pathway Courses at PVHS



Media Arts at PVHS



Course Title: Video Production I

Course Description: A year-long class, the primary focus of this **hands-on course is filming and editing video**. Students will experience full video production conceptualization, creating storyboards, producing full scripts, filming and editing. Students will also research technical schools, college and university options in the field of video production. Course units include music videos, commercials, silent films, and short movies. Students are able to earn **Butte College credit (RTVF 40)** upon completing this course. This course also receives University of CA A-G Fine Arts **"F"** credit.



Course Title: Video Production II

Course Description: Year-long course for students who have successfully completed Video Production 1. This advanced course provides students with entry level career skills in audio and video production. Video Production 2 **students train with professional hardware, software, and audio and video equipment**. Students shoot video in-studio and on location for various projects under the *House of BLUE Productions* name and at hands-on experience running a small business. Work-based learning includes industry tours and guest speakers. Students are able to earn **Butte College credit** upon completing this course. This course meets UC A-G "F" entrance requirement. Prerequisite: Video Production Articulated with Butte College RTVF 40



Arts, Media and Entertainment Pathway Courses at PVHS



Course Title: Video Production III

Course Description: Students enrolled in this course will concentrate on more Work Based Learning projects in the community under the “House of Blue” production team. Some examples of projects include wedding videography, public service announcements, athlete recruitment videos, various studio and in the field still photography shoots, commercials and promotional videos. course meets UC A-G “G” entrance requirement. Articulated with Butte College RTVF 40.

Prerequisite: Completion of Video Production II course or equivalent.



Arts, Media and Entertainment Pathway Courses at PVHS



Graphic Arts and Design Pathway at PVHS

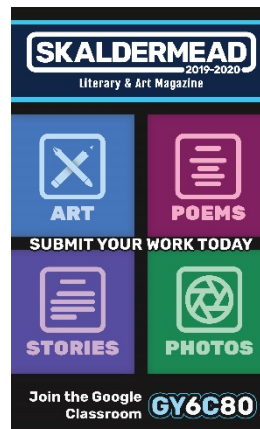
Course Title: Digital Photography

Focus on the **art of photography** and how to take great photos! Learn to use **composition**, create mood, and **develop your creativity** using a digital camera and Photoshop! This concentrator course investigates art genres through the lens! Apply your skills in a variety of visual communication opportunities. You will find your unique point of view using the art and design of photography while developing useful skills in **technology**. Digital Photography is articulated with Butte College to earn high school and Butte College credits which are also transferable to the CSU and UC systems. This is a foundation course in the Art Department and a CTE concentrator course in the Graphic Arts and Design pathway.



Course Title: Graphic Arts and Design I

Graphics are all around you — **print media**, Internet, TV, packaging, and the document you are reading now! As our world becomes increasingly **visual**, graphics are impacting how information is delivered. This course provides experiences for you to use image, type, color, illustration, and photography to **create dynamic media** using Adobe Creative Suite. We will focus on the **design process** needed to **create print and digital media** that effectively communicate messages and information. This also is a concentrator course in the Graphic Arts and Design Pathway.



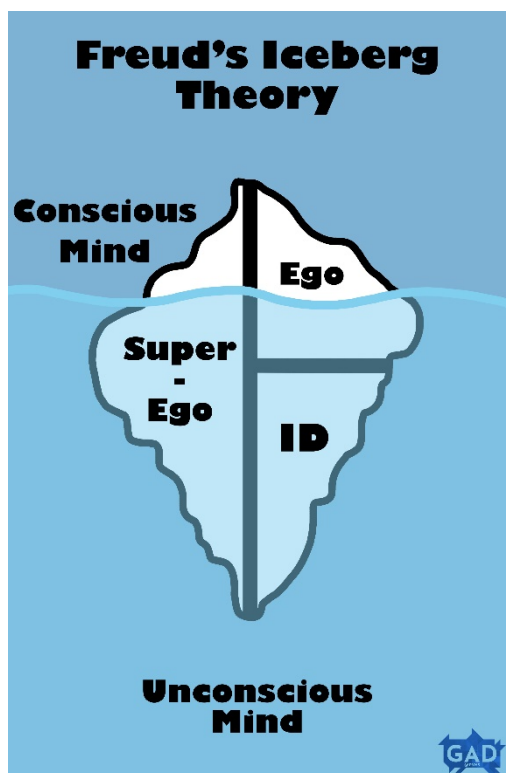
Arts, Media and Entertainment Pathway Courses at PVHS



Course Title:

Graphic Arts and Design II

This is a CTE pathway capstone course for Graphic Arts and Design. Today's world largely communicates with visual arts. In this course, we will build on the technical skills learned in one of the previous concentrator courses and gain industry experience by working with real clients. You will have the opportunity to develop graphic design projects directed by your clients' needs. In addition, you will work on individual projects that further explore your graphic art skills and will have a professional portfolio to show for it. By the end of this class, you will have developed a deeper understanding of how to communicate in a visual world!



Arts, Media and Entertainment Pathway Courses at PVHS



Visual/Commercial Art Pathway at PVHS

Course Title: Art 1

Course Description: This introductory year-long class is designed to provide students with a basic understanding of the elements of art and the principles of design through various media. They will learn drawing, painting, printing, ceramics, and other various 3D building methods. Students will learn how to creatively problem solve: a skill that will help in *any* field of study.



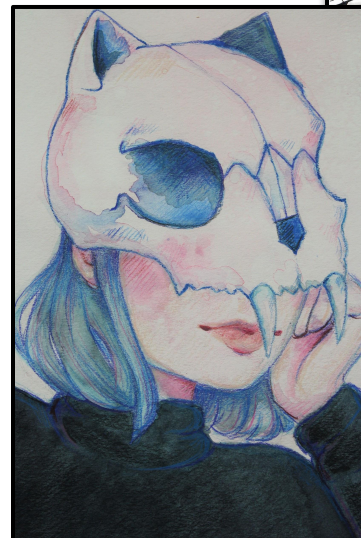
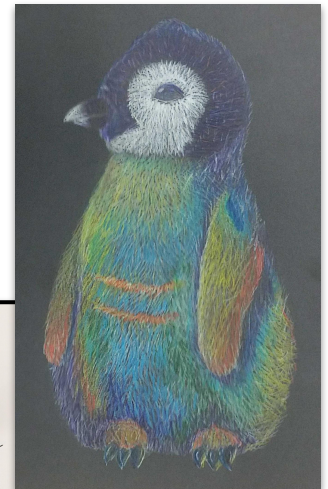
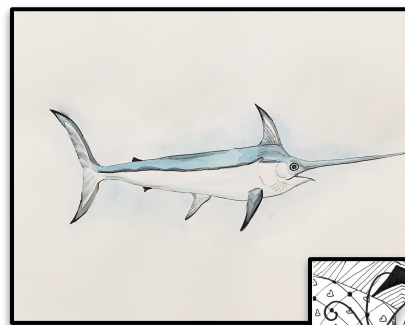
Course Title: Life Drawing and Design

Course Description: This year-long concentrator course is designed to help students obtain the concentrated skill of observational drawing. Students will gain the basic skills of drawing from life, including anatomy and fundamental exercises in gesture, contour line, and tonal modeling. Life Drawing and Design will emphasize strong skill development along with an understanding of materials and craftsmanship. Working with an assortment of traditional media, students will explore the human form, figure/ground relationships, composition, illustrative design, and layout.



Course Title: Ceramics

Course Description: This year-long concentrator course blends design ideas and studio experience in clay to provide an experience in the Visual Arts. Elements and Principles of design are emphasized as foundational ideas in ceramic media. Students will learn how to create, critique, evaluate, and appreciate works of art through beginning hand-building techniques such as pinch, coil, slab and mould work; introductory forms on the potter's wheel; and exploration of decorative temperatures.



Arts, Media and Entertainment Pathway Courses at PVHS



Visual/Commercial Art Pathway at PVHS

Course Title: Art 1

Course Description: This introductory year-long class is designed to provide students with a basic understanding of the elements of art and the principles of design through various media. They will learn drawing, painting, printing, ceramics, and other various 3D building methods. Students will learn how to creatively problem solve: a skill that will help in *any* field of study.



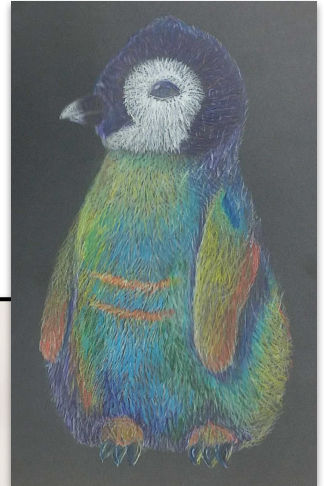
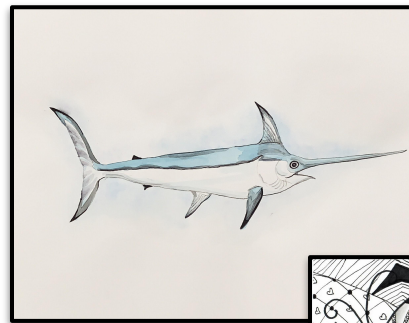
Course Title: Life Drawing and Design

Course Description: This year-long concentrator course is designed to help students obtain the concentrated skill of observational drawing. Students will gain the basic skills of drawing from life, including anatomy and fundamental exercises in gesture, contour line, and tonal modeling. Life Drawing and Design will emphasize strong skill development along with an understanding of materials and craftsmanship. Working with an assortment of traditional media, students will explore the human form, figure/ground relationships, composition, illustrative design, and layout.



Course Title: Ceramics

Course Description: This year-long concentrator course blends design ideas and studio experience in clay to provide an experience in the Visual Arts. Elements and Principles of design are emphasized as foundational ideas in ceramic media. Students will learn how to create, critique, evaluate, and appreciate works of art through beginning hand-building techniques such as pinch, coil, slab and mould work; introductory forms on the potter's wheel; and exploration of decorative temperatures.



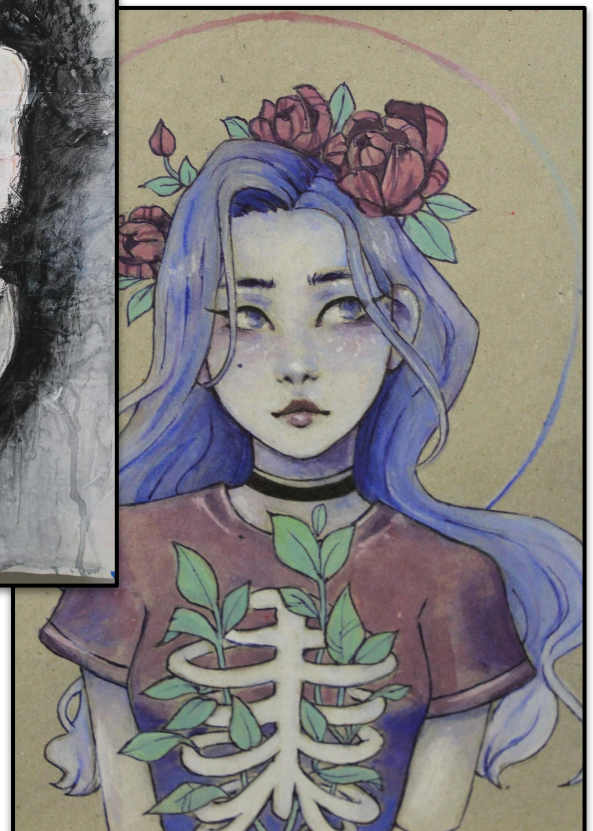
Arts, Media and Entertainment Pathway Courses at PVHS



Visual/Commercial Art Pathway at PVHS

Course Title: Studio Art

Course Description: This year-long capstone advanced art class encourages and expects students to delve into conceptual and formal issues relating to drawing, painting, graphic design, and commercial art. Highly motivated students will be provided with an environment that fosters artistic growth, work ethic and focus. Students are allowed some creative freedom to work in their medium of choice in order to hone their artistic skills and build their portfolio. Students will not only create a professional portfolio of work, but will get hands-on experience running a small business. Work-based learning includes industry tours and guest speakers.



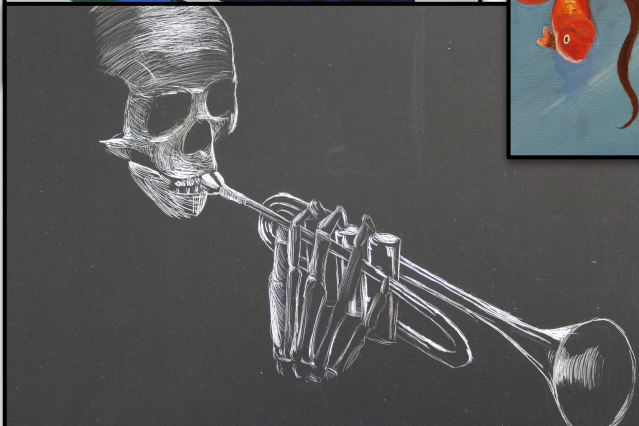
Arts, Media and Entertainment Pathway Courses at PVHS



Visual/Commercial Art Pathway at PVHS

Course Title: AP Studio Art

Course Description: AP Studio Art is an advanced capstone course that offers advanced placement opportunities. It is an invigorating course designed to offer students the ability to develop a portfolio of original work that expresses their personal style and interests. This course will focus on 2D work including, but not limited to, drawing, painting, photography, graphic design, printmaking and mixed media. Students will not only receive CTE completion, but AP credit as well.



Education, Child Development and Family Services Pathway at PVHS



Site	Course	Course Hours	Pathway	Course Sequence Level	Suggested Grade Level(s)
PVHS	Life Management	180	Child Development	Introductory	9
PVHS	Human Development	180	Child Development	Concentrator	10, 11, 12
PVHS	Careers with Kids	180	Child Development	Capstone	11, 12
PVHS	HEROES Teach	180	Education	Concentrator	10, 11
PVHS	Teaching in the Afterschool Program (TAP)	300-720	Education	Concentrator and Capstone	11,12



Using Perkins Guidelines and Instructions and the CTE Framework, the following definitions are utilized in course sequences and pathways:

Pathway – Designed to provide students with a non-duplicative sequence of progressive achievement leading to technical skill proficiency, a credential, a certificate, or a degree.

CTE Course Sequencing – The process of developing at least two sequential courses in each CTE program offered by the school. A preferable sequence format has at least three courses in each program, adding a capstone or advanced course to (1) an introductory and concentration course; or (2) two concentration courses.

Introductory – Preliminary course, beginning level containing introductory concepts required to build foundational and general knowledge.

Concentrator – CTE course beyond the introductory level intended to provide more in-depth instruction in and exploration of a specific industry sector.

Capstone – The final course in a planned sequence of courses that provides a rigorous and intensive culmination of a course of study.

Education, Child Development and Family Services Pathway Courses PVHS



Pathway: Child Development

Education and Child Development Pathways

Designed to prepare students to pursue a career in the field of child care and development for infants, toddlers, and young children. Students study child growth and development, safety and emergency procedures, nutrition and health practices, positive interaction and guidance techniques, learning theories, and developmentally appropriate practices and curriculum activities. Students apply this knowledge in a variety of early childhood programs, such as child development laboratories, public and private preschools, family day care settings, and recreational facilities. Students completing the program may apply for the Child Development Assistant Permit from the California Commission on Teacher Credentialing.



Course Title: Life Management

Course Description: This introductory course offers exploratory career and technical education for the pathway, construction, design overview and opportunity to participate in projects and portfolio building activities. Child development, education and human service occupations are key units in this course. This class meets health credits and UC A-G "G" entrance requirement.



Course Title: Human Development

Course Description: This course is a study of the developmental stages of children from conception through adolescence. It offers both a theoretical and applied academic foundation to the components of psychology, including cognitive development, biosocial development and psychosocial development. Students study and write about the developmental theories of major psychologists. To gain a deeper understanding of the theoretical content, students have an opportunity for research, clinical observation, and application through an internship or practicum in a preschool or elementary school setting. This course integrates theory, research and practice and is designed to prepare students with the academic foundation needed to pursue postsecondary study in psychology, human development, or education. This course meets UC A-G "G" entrance requirement.



Education, Child Development and Family Services Pathway Courses PVHS



Pathway: Child Development

Course Title: Careers with Kids

Course Description: This course prepares students for entry-level employment. Students will learn how to work with infants, toddlers, preschool, and school age children utilizing principles of child growth and development, and following appropriate practices in the areas of health, safety, and guidance. Students will plan and present learning activities for children at local child care facilities or public schools. Part of this course is a community classroom experience and students will work directly with children and mentors. This course meets the requirements for the Child Care Provider Preventive Health and Safety Training. Certificates awarded for successful completion of this course qualifies students for employment as provisional teachers under Title XXII in accordance with the California Community Care Licensing regulations. A certificate of completion also meets the Title V requirements for a Child Development Assistant Permit as issued by the California Commission on Teacher Credentialing. Students can apply for this certificate when they turn 18. Students will perform a variety of the course competencies to earn a certificate of completion. This course articulates with the Butte Community College. This course meets UC A-G "G" entrance requirement. Suggested prerequisites: Human Development or teachers approval.



Education, Child Development and Family Services Pathway Courses PVHS



Education Pathway

Course Title: HEROES Teach

Course Description: This course is designed to provide students with knowledge of career opportunities in the field of teaching and other school site educational professions. Career preparations standards, which include basic academics, safety, communication, interpersonal, and problems solving skills are integrated throughout the course. Active class participation is enhanced by field work at school sites under the guidance of the teacher. All students get to observe and /or participate in a variety of settings and classrooms at the primary, elementary, middle/junior high, and secondary levels. The course prepares students for entry into college or university teacher training programs. This course meets UC A-G "G" entrance requirement. This course is articulated with Butte Community College.



Course Title: Teach in the After-school

Program

Course Description: This concentrator and capstone course will train and then CUSD will hire students for 300-720 hours annually to work in the after-school program. Tutoring in math/ELA, nutrition, recreation and small group activities will be organized by student staff. This course will be pending both UC A-G "G" entrance requirement. Students that have already successfully completed Human Development and HERO's Teach will have a priority; however all students must apply for the course. Students must be able to obtain a work permit, transport themselves and work independently and as a team. Students may enroll for the full year or one semester. Students will work from 2 PM to 6PM at an elementary site.



Engineering and Architecture Pathway Courses CHS/PVHS



Site Course No.	Course Title	Course Hours	Primary Pathway	Course Sequence Level	Suggested Grade Level(s)
PV/CHS	Architectural Design and CAD I	180	Architectural Design	Concentrator	9-10
PV/CHS	Architectural Design and CAD II	180	Architectural Design	Capstone	10- 12
PV/CHS	Architectural Design and CAD III	180	Architectural Design	Advanced	11- 12
PV/CHS	Architectural Design and CAD IV	180	Architectural Design	Advanced	11- 12
PV/CHS	Engineering and CAD I	180	Engineering Design	Concentrator	9-10
PV/CHS	Engineering and CAD II	180	Engineering Design	Capstone	10- 12
PV/CHS	Engineering and CAD III	180	Engineering Design	Advanced	11-12
PV/CHS	Engineering and CAD IV	180	Engineering Design	Advanced	11-12

Courses in a pathway are denoted by the same color

Using Perkins Guidelines and Instructions and the CTE Framework, the following definitions are utilized in course sequences and pathways:

Pathway – Designed to provide students with a non-duplicative sequence of progressive achievement leading to technical skill proficiency, a credential, a certificate, or a degree.

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Introductory – Preliminary course, beginning level containing introductory concepts required to build foundational and general knowledge.

Concentrator – CTE course beyond the introductory level intended to provide more in-depth instruction in and exploration of a specific industry sector.

Capstone – The final course in a planned sequence of courses that provides a rigorous and intensive culmination of a course of study.

Engineering and Architecture Pathway Courses at CHS and PVHS



Pathway: Engineering

Course Title: Engineering and CAD 1

Course Description: This course introduces all engineering design practices. Students will create a variety of manual technical drawings, geometric sketches and learn engineering lettering. Students will learn AutoCAD software and create a variety of 2 dimensional and 3 dimensional projects in Computer Aided Design (CAD). All projects will be prepared and submitted manually or digitally according to current industry standards. Students will also be introduced to 3D printing and create models of projects created in AutoCAD. This course meets the UC A-G “G” entrance requirements and is articulated with Butte Community College.



Course Title: Engineering and CAD 2

Course Description: Students will use AutoCAD Software to produce wire frame models, surface models and solid models of various manufacturing projects. Each student will then complete assembly projects of actual models using Solid Works Software. All projects will be assembled into an electronic portfolio. 3D printers will be used to create models of solid works projects. This course meets the UC A-G “G” entrance requirements and is articulated with Butte Community College.
Prerequisites: Engineering and CAD 1



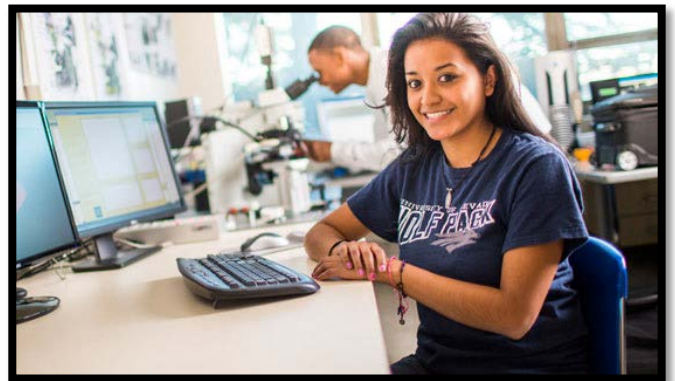
Course Title: Engineering and CAD 3

Course Description: Students will use Solid Works Software to develop 3D models, plan views, assemblies and animations of projects. All problems will be in the area of Manufacturing Engineering. Individual projects will serve as tutorials to teach students how to create an animated assembly model. All projects will be assembled into an electronic portfolio. 3D printers will be used to create models of solid works projects. This course meets the UC A-G “G” entrance requirements. Prerequisites: Engineering and CAD 2



Course Title: Engineering and CAD 4

Course Description: Course designed for advanced level students to integrate engineering skills with Manufacturing Design and Computer Aided Manufacturing (CAM). Units of study include file transferring, tool pathing, Computer Numerical Control Machining (CNCM), assembling, model building and rapid prototyping. Other elements of the course will include client projects, mentorships and job placement where applicable. Prerequisites: Engineering and CAD 3.



Engineering and Architecture Pathway Courses at CHS and PVHS



Pathway: Architecture

Provides learning opportunities for students interested in preparing for careers in such areas as architecture, industrial design, and civil engineering. Architecture provides learning opportunities for students interested in preparing for careers in the design and production, or maintenance of mechanical, electrical, electronics, or electromechanical products and systems.

Course Title: Architecture and CAD 1

Course Description: Basic elements of Architectural Design, introduction to Uniform Building Code standards, introduction to elements of fine arts as they pertain to Architectural Design, individual room and space planning, and the completion of a student portfolio which contains a partial set of working drawings for a two bedroom, one bath house. Plans will be completed on computer using AutoCAD software. Floor plans, electrical plans and elevations will be completed in this class with AutoCAD software. A full scale 3D model will be created with Sketch Up software. This is a concentrator course in the Architecture pathway.



Course Title: Architecture and CAD II

Course Description: Year-long course for students who have successfully completed Arch Design 1. Class starts by creating a foundation plan with details, section plan with details and a site plan in Auto CAD. A framing unit will be completed in Sketch Up that will cover floor framing, wall framing and roof framing. Finally, Revit software will be used to recreate a more complete set of plans and details in 2D and 3D formats. 3D printers will be used to model all Revit projects.



Course Title: Architecture and CAD III

Course Description: Year-long courses for students who have successfully completed Arch Design 1 & 2. Students must demonstrate the ability to create residential designs utilizing technical sketching, modeling and CAD presentations. Revit is the primary software used in these classes. All projects will be client-based or part of the architecture internship program. 3D printers will be used to create models of all Revit projects.



Course Title: Architecture and CAD 4

Course Description: Students will learn computer-aided drafting in 3D. Students will study and practice civil drawing and rendering. Students will utilize Computer-Aided Drafting (CAD) software to accomplish tasks and learn mathematical calculations used within the industry. Students will be engaged with industry partners in real-world projects.



Health Science and Medical Tech Pathway CHS/PVHS



School Course No.	Course Title	Course Hours	Primary Pathway	Course Sequence Level	Suggested Grade Level(s)
PVHS	Medical Careers and Health	180	Patient Care 198	Introductory	9-10
PVHS	Medical Terminology	180	Patient Care 198	Concentrator	10-12
Both CHS and PVHS	Sports Medicine	180	Patient Care 198	Concentrator	11-12
Both CHS and PVHS	Medical and Hospital Careers	360	Patient Care 198	Concentrator and Capstone	11-12

*CALPADS defines a CTE course as a minimum of 150 hours or one year of instruction.

Using Perkins Guidelines and Instructions and the CTE Framework, the following definitions are utilized in course sequences and pathways:

Pathway – Designed to provide students with a non-duplicative sequence of progressive achievement leading to technical skill proficiency, a credential, a certificate, or a degree.

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Introductory – Preliminary course, beginning level containing introductory concepts required to build foundational and general knowledge.

Concentrator – CTE course beyond the introductory level intended to provide more in-depth instruction in and exploration of a specific industry sector.

Capstone – The final course in a planned sequence of courses that provides a rigorous and intensive culmination of a course of study.

Health Science and Medical Technology Pathway Courses



Pathway: Patient Care

This pathway has wonderful growth and employment potential. The standards for the patient care pathway apply to occupations in the prevention, treatment, and management of illness. Coursework also includes the preservation of mental and physical well-being through the services offered by the medical and allied health professions.

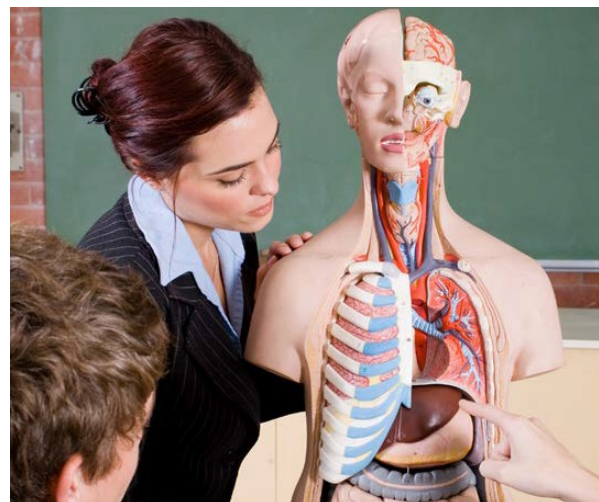
Course Title: Introduction to Medical Careers and Health

Course Description: This course is the Introductory Level Course in the Medical Careers Pathway and provides career related knowledge and experiences to enhance decision making, helping students make wise educational and career choices. Students will understand basic concepts designed to introduce them to Medical Careers, Mental Health, Social Services, and Public Health opportunities. Integrated throughout the course are career preparation standards, which include basic academic skills, leadership integration, communication, interpersonal skills, problem solving, workplace safety, technology, lifetime health, nutrition, fitness and employment literacy correlation to core academic standards. This course will include current Health curriculum requirement content embedded within the instruction materials meeting CDE standards for California Public Schools.



Course Title: Medical Terminology

Course Description: This course explores the specialized language used within the medical profession. Emphasis is placed on the definition, pronunciation and spelling of medical terms with a focus on building medical words using prefixes, word roots, suffixes and combining forms. To further advance a working knowledge of these terms, vocabulary is taught in relation to the basic anatomy, physiology and pathology of body systems. This class is directed towards those students seeking a basic anatomy/physiology and medical terminology class to support their pursuit of a job in the medical field. Medical terminology curriculum is articulated with Butte College's Medical Terminology Course.



Health Science and Medical Technology Pathway Courses



Course Title: Medical Careers

Course Description: This 2-hour daily class counts as a concentrator and a capstone. Students will learn about body systems, patient assessment, patient care, policies and procedures, and participate in interactive labs. Course context is taught through lectures, teacher demonstration, self-directed instruction, skills laboratory and practical experience. Learn industry-level skills in hospital and medical careers. Classroom training includes basic patient care, CPR and First Aid, vital signs, anatomy, medical terminology and safety. Job shadows and internships may take place in a variety of hospital and medical environments including x-ray, physical therapy, respiratory therapy, pharmacy, laboratory, medical records, cardiology, surgery, and medical offices. Transportation to internships is a vital component. This course meets the UC A-G “G” entrance requirements. Prerequisites: TB test clearance and current valid immunization records are required for internships. Students must be 16 years of age or older.



Course Title: Sports Medicine

Course Description: The sports medicine concentrator course is designed to introduce participants of the basic knowledge and skills required by a variety of Sports Medicine professionals. These skills include the management of specific sporting injuries, sports taping, and transporting an injured athlete. This course educates prospective sports (or athletic) trainers, teachers, coaches, administrators and parents on the basic principles of sports medicine. The Sports Medicine team plays a vital role in the prevention of injury, rehabilitation, and overall health of an athlete. This course provides participants with the necessary skills to assist in improving athletic performance, making sports safer for all. This course meets UC A-G “G” entrance requirement.



Hospitality, Tourism and Recreation Pathway PVHS



Site Course No.	Course Title	Course Hours	Primary Pathway	Course Sequence Level	Suggested Grade Level(s)
PVHS	Life Management	180	Food Service & Hospitality	Introductory	9
PVHS	Nutrition and Food Science	180	Food Service & Hospitality	Concentrator	9-12
PVHS	Culinary Arts I	180	Food Service & Hospitality	Concentrator	10-12
PVHS	Culinary Arts II	180 or 360	Food Service & Hospitality	Concentrator/ Capstone	10-12
PVHS	Hospitality and Event Planning	360	Hospitality and Tourism	Concentrator and Capstone	11-12

CALPADS defines a CTE course as a minimum of 150 hours or one year of instruction

Using Perkins Guidelines and Instructions and the CTE Framework, the following definitions are utilized in course sequences and pathways:

Pathway – Designed to provide students with a non-duplicative sequence of progressive achievement leading to technical skill proficiency, a credential, a certificate, or a degree.

CTE Course Sequencing – The process of developing at least two sequential courses in each CTE program offered by the school. A preferable sequence format has at least three courses in each program, adding a capstone or advanced course to (1) an introductory and concentration course; or (2) two concentration courses.

Introductory – Preliminary course, beginning level containing introductory concepts required to build foundational and general knowledge.

Concentrator – CTE course beyond the introductory level intended to provide more in-depth instruction in and exploration of a specific industry sector.

Capstone – The final course in a planned sequence of courses that provides a rigorous and intensive culmination of a course of study.

Hospitality, Tourism and Recreation Pathway Courses at PVHS



Food Service and Hospitality Pathway

Course Title: Life Management

Course Description: This introduction course is part of a comprehensive Food Service and Hospitality Pathway. The course exposes students to the skills of safety, sanitation, measurement, and recipe conversions. Instruction includes: food safety, sanitation, and meal management. This course provides an introduction to industry level food preparation, storage and service. This course is for 9th graders and will receive Health Credit when enrolled for the entire year. This course meets UC A- G "G" entrance requirement.



Course Title: Nutrition - Food Science

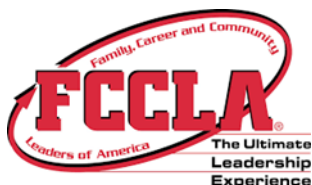
Course Description: This concentrator course receives Butte College credit while focusing on the science of food in food preparation, development and its relationship to the health and well-being of individuals.

Students pursuing this career pathway learn observational and analytical skills in food safety and sanitation; the chemistry of food; chemical and biological processes; functional and nutritional components of food; sensory evaluation; guidelines for a healthy diet; the psychology of food and eating; specialized diet planning; food production and processing; and packaging and product development. FCCLA is intercurricular. This course meets UC A-G "G" entrance requirement.



Course Title: Culinary Arts I

Course Description: This concentrator course prepares students with entry-level skills that will enable them to seek employment in institutional, commercial or independently owned food establishments or other food and hospitality industry occupations. Instruction includes topics such as safety and sanitation; side work and customer orders; use of commercial equipment, and cash handling skills. Students will develop skills in the student run catering business. FCCLA and Prostart leadership and competitions are open to students. This course meets UC A- G "G" entrance requirement. Prerequisite: Dress requirement as required by local and state health sanitation and safety laws which comply with HACCP regulation for dress code standards. State Law AB 1978.



Hospitality, Tourism and Recreation Pathway Courses at PVHS



Course Title: Culinary Arts II

Course Description: This capstone course prepares students with advanced skills that will enable them to seek employment in institutional, commercial or independently owned food establishments or other food and hospitality industry occupations. Students can enroll for one or two hours. Instruction includes topics such as customer service, line cook, and front of the house. Students will develop these skills in a campus-based catering environment. Community Classroom (CC) placement is a part of this course experience. FCCLA and Prostart competitions are open to students. This course meets UC A- G “F” entrance requirement. Prerequisite: Culinary I and dress requirement as required by local and State health sanitation and safety laws, which comply with HACCP regulation for dress code standards. State Law AB 1978. Ability to provide transportation to internship site will influence placements. Students must be 16 or older.



Course Title: Hospitality and Event Planning

Course Description:

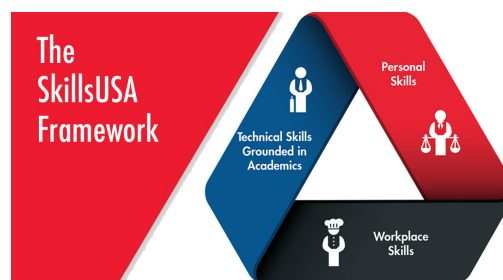
This new concentrator and capstone course is very hands-on project based learning. Students will be management and in charge of catering, hospitality, service and many events. Students will have internships in the hospitality and event planning industry and work with clients on event planning. This class uses work-based learning and is a new class for PVHS. Articulation and UC Credit will be available, but is currently pending.



Information and Communication Technology Pathway CHS



School	Course Title	Course Hours	Primary Pathway	Course Sequence Level	Suggested Grade Level(s)
CHS	Computers, Components and the Networking of Things	180	Information and Support Services 170	Concentrator	9-12
CHS	Cybersecurity and Networking	180	Information and Support Services 170	Capstone	10-12
CHS	Programming and Software Engineering	180	Software and Systems Development 174A	Concentrator	9-12
CHS	Robotics and Drone Design	180	Software and Systems Development 174A	Capstone	10-12



Courses in the same CTE pathway are denoted by color

*CALPADS defines a CTE course as a minimum of 150 hours or one year of instruction.

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Pathway – Designed to provide students with a non-duplicative sequence of progressive achievement leading to technical skill proficiency, a credential, a certificate, or a degree.

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Introductory – Preliminary course, beginning level containing introductory concepts required to build foundational and general knowledge.

Concentrator – CTE course beyond the introductory level intended to provide more in-depth instruction in and exploration of a specific industry sector.

Capstone – The final course in a planned sequence of courses that provides a rigorous and intensive culmination of a course of study.

Information and Communication Technology Pathway Courses at CHS



Pathway: Computer Engineering and Cybersecurity

Students today live in an Age of Information. The courses of the Information and Communication Technology Pathways are designed to provide information, skills and support for careers that involve Computer Science and the deployment of automated systems. Subjects in the pathway will discuss devices that store, retrieve, manipulate, transmit or receive information in a digital form. The ability to utilize this digital information will be a key factor for any career that a student wishes to pursue. Employment in computer and information technology occupations is projected to grow 11 percent from 2019 to 2029, much faster than the average for all occupations. These occupations are projected to add about 531,200 new jobs. Demand for these workers will stem from greater emphasis on cloud computing, the collection and storage of big data, and information security. The median annual wage for computer and information technology occupations was \$88,240 in May 2019, which was higher than the median annual wage for all occupations of \$39,810.

Course Title: Computers, Components and the Networking of Things

Course Description:

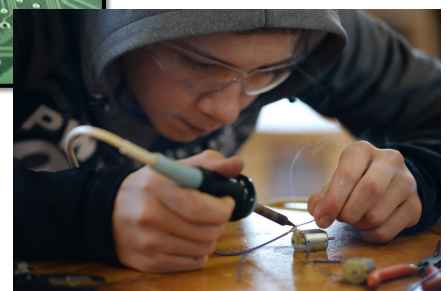
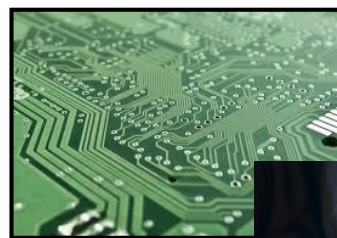
Students will learn the science and technology behind the design, construction, implementation, and maintenance of modern computing systems and computer-controlled equipment including software, hardware and related components. Upon completion of this course students have the option to test for *PC Pro Certification* from TestOut, a CompTIA Approved Quality Content. Additionally this course is pending articulation with *Butte College* for CSCI 49 and *UC A-G "G"* credit.



Course Title: Cybersecurity and Networking

Course Description:

Students in this course will learn the practice of protecting systems, networks, and programs from digital attacks. These attacks are usually aimed at accessing, changing, or destroying sensitive information, extorting money from users, or interrupting normal business processes. Students will test for a *Certification in Security PRO*, *Linux Pro* or *Network PRO*, a CompTIA Approved Quality Content. Additionally this course is pending articulation with *Butte College* for CSCI 17 and *UC A-G "G"* credit.



Information and Communication Technology Pathway Courses

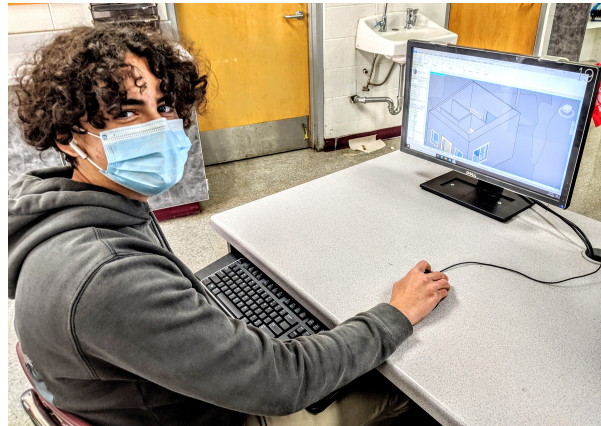
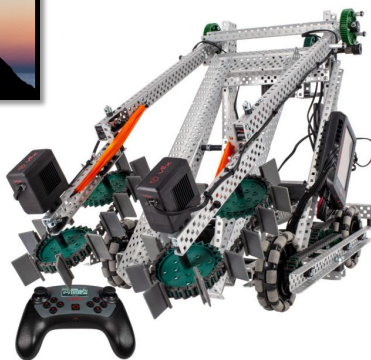


Pathway: Software and Systems Development

Course Title: Programming and Software Engineering

Course Description:

Students will learn the basics of modern programming techniques using logic, pseudocode, flow charts and story boarding with programs such as Python. They will have many opportunities to practice breaking larger problems down into smaller tasks as it is an essential skill in Computer Science. As a students skills improve, they will be given opportunity to apply their knowledge to physical devices and using 3D modeling for game design. Additionally this course is a *CHS Math Credit* and is pending articulation with *Butte College* for *CSCI 4* and *UC A-G "G"* credit.



Course Title: Robotics & Drone Design

Course Description:

Using the VEX V5 robotics platform, students will design and build robot systems to complete different challenges given to them. During this process, relationships between mathematics, science (particularly physics), power relationships and automation with programming and sensors, will be explored. Opportunities to compete in various robotics competitions with SkillsUSA are available, as well as in the VEX Robotics Competition (VRC). Drone design and implementation will also be a part of the course throughout the year. At the end of the course, students will be given the opportunity to test for certification as a *FAA-Certified Drone Pilot*. Additionally this course is pending *UC A-G "G"* credit.



Manufacturing and Product Development Pathway PVHS



Site	Course Title	Course Hours	Primary Pathway	Course Sequence Level	Appropriate Grade Level(s)
PVHS	Welding I	180	Production and Managerial Arts	Introductory	9-10
PVHS	Advanced Welding	180	Production and Managerial Arts	Concentrator	10- 11
PVHS	Welding Fabrication	360	Production and Managerial Arts	Concentrator and Capstone	11-12

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Concentrator – A CTE course beyond the introductory level that is intended to provide more in-depth instruction in and exploration of a specific industry sector.

Capstone – The final course in a planned sequence of courses that provides a rigorous and intensive culmination of a course of study.

Manufacturing and Product Development Pathway Courses at PVHS



Industry Sector: Manufacturing and Product Development



Course Title: Welding I

Course Description: This introductory course covers welding shop safety, tools, metal properties and their identification. Students learn Shielded Metal Arc Welding, Oxyacetylene Gas Welding, Gas Metal Arc Welding, Resistance Welding, sheet metal fabrication, and shop practices through theory and hands-on experience with each. While learning the welding joints and processes, students will also become familiar with the various tools and equipment such as grinders, cutting equipment and related practices involved in each process. Personal protective equipment and preventative safety techniques are discussed and implemented in labs. Students are introduced to various careers and learn the major metal working processes used in industry today and types of employment in industry. Guest speakers from industry and post-secondary institutions are included. Students learn how to complete a job application and create a quality resume. This course meets UC A-G "G" requirements and is articulated with Butte College.



Course Title: Advanced Welding

Course Description: Students will engage in project-based learning as they broaden their skills in all positions of welding. Additional welding process taught includes Gas Tungsten Arc Welding and Pulsed MIG Welding. Students will learn the types of welded joints, filler metal selection, and symbols used in welding procedures. Each project will focus on one or more industry-relevant skill or design technique, giving students real-world application. Guest speakers from industry, industry tours and post-secondary institutions are included. Students update and enhance personal resumes and complete job application training. Students can earn Butte College credit upon completing this course.
Prerequisite: Welding I



Manufacturing and Product Development Pathway Courses at PVHS



Course Title: Welding Fabrication

This is a two-hour course for students who have successfully completed Welding I. It is recommended, but not required, that students complete Advanced Welding prior to Welding Fabrication. In this year-long concentrator and capstone course, students will build industry-standard skills in the areas of welding, sheet metal, heat treating, and metal fabrication. Upon successful completion, students will be qualified for entry-level jobs in welding, cutting, and metal fabrication. Students have the opportunity to gain real-world work experience, being placed in an internship with a local welding/fabrication business. This course focuses on project-based learning and provides various work-based learning opportunities including industry tours and events and guest speakers. Resumes are updated and interview skills polished with additional practice. Students can earn OSHA Safety Certification,



Public Services Pathway PVHS



CUSD Course No.	Course Title	Course Hours	Pathway	Course Sequence Level
PVHS	Intro to Public Safety - Careers 911	90	Public Safety 232	Introductory
PVHS	Administration of Justice	180	Public Safety 232	Concentrator
PVHS	Careers in Public Service and Law	180	Public Safety 232	Capstone
PVHS	Emergency Response I	180	Emergency Response 233	Concentrator

Courses in the same CTE pathway are denoted by color

*CALPADS defines a CTE course as a minimum of 150 hours or one year of instruction.

Using Perkins Guidelines and Instructions and the CTE Framework, the following definitions are utilized in course sequences and pathways:

Pathway – Designed to provide students with a non-duplicative sequence of progressive achievement leading to technical skill proficiency, a credential, a certificate, or a degree.

CTE Course Sequencing – The process of developing at least two sequential courses in each CTE program offered by the school. A preferable sequence format has at least three courses in each program, adding a capstone or advanced course to (1) an introductory and concentration course; or (2) two concentration courses.

* **CALPADS** – defines a CTE course as a minimum of 150 hours or one year of instruction.

Introductory – Preliminary course, beginning level containing introductory concepts required to build foundational and general knowledge.

Concentrator – CTE course beyond the introductory level intended to provide more in-depth instruction in and exploration of a specific industry sector.

Capstone – The final course in a planned sequence of courses that provides a rigorous and intensive culmination of a course of study.

Public Services Pathway Courses at PVHS



Public Safety Pathway

Course Title: Careers 911

Course Description: This semester long introductory course prepares students with an understanding of careers related to police, fire, EMS and 911 systems. This CTE standards-aligned course provides students with the foundational knowledge and skills to make effective decisions, use career information, and manage career plans. In addition to career-planning, the course of study includes both contemporary and emerging technological resources as applied to this industry sector; as well as appropriate problem-solving strategies and critical thinking skills for work-related issues and tasks. Course units also include health and safety policies, procedures, regulations, and practices for this industry sector; in addition to discussion and study of the elements of responsibility, flexibility, ethics, legal responsibilities, leadership, and teamwork required for successful workplace employment.



Course Title: Administration of Justice

Course Description: This one-year course focuses on understanding the American legal system and its importance to American life as it pertains to criminal justice. Students learn the principles of the criminal justice field including a working knowledge of state and federal laws and various segments of the judicial system. The course of study includes a historical perspective of American police agencies, with an emphasis on California law enforcement; philosophy of the origins of crime and the social impact on society; development of the criminal justice system, current trends and their relevance to local and state law enforcement agencies; hiring and testing processes for positions in law enforcement; laws of arrest, search and seizure laws; case process; penal and vehicle codes (what constitutes a crime). This course meets UC A-G "G" entrance requirements.



Public Services Pathway Courses at PVHS and CHS



Pathway: Emergency Response

Course Title: Emergency Responder I

Course Description: This course is the concentrator course in the Emergency Response and prepares high school students for work in entry-level positions in Fire Service and the Emergency Services through classroom instruction, hands-on training and community experience. This pathway encompasses career opportunities in a variety of jobs in which the focus is ensuring the general safety and public service to the community. The careers included in this pathway primarily address public order, fire protection, social services and emergency medical services.

Students understand basic concepts designed to introduce them to Fire, social services, Emergency Medical Services and the 911 Communications Systems. Students will learn how each of these groups interacts and are interdependent. Instruction will focus on understanding the multitude of careers in the field of Fire and Emergency Services and the various industry certifications available in the industry. Integrated throughout the course are career preparation standards, which include basic academic skills, communication, interpersonal skills, problem solving, and workplace safety, technology, lifetime health, nutrition, fitness, and employment literacy connection to core academic standards.

Prerequisites: Careers 911



Chico Unified CTE Courses

Approved for Community College Articulation Credit

Butte Community College			
Chico Unified CTE Course/ Site	Current College Course Link https://drive.google.com/file/d/1IjDX3R6pDjmmUffNQdUxqk4SQfrvrBP6/view	# of Units	Approval DateUpdated 1/6/2020
Criminal Justice Admin. PVHS	No current articulation	3	
Medical Terminology PVHS	No current articulation	3	
Human Development PVHS	CDF 14 pending in process with Butte	3	
Heroes Teach PVHS	EDUC 5	3	Approved
Careers w/Kids PVHS	CDF 48	3	Approved
Digital Arts I and II CHS	MSP 30	3	Approved
Engineering Design/CAD II PVHS and CHS	DFT 2	3	Approved
Engineering Design/CAD I PVHS and CHS	DFT 12	3	Approved
Architectural Design/CAD PVHS and CHS	DFT 24	3	Approved
Medical & Hospital Careers PVHS and CHS	ALH 6	4	Approved
Fashion Design PVHS	FASH 64 – pending paperwork in progress at Butte College	3	
Nutrition Science PVHS	FN 2	3	Approved
Audio Production PVHS	RTVF 30	3	Approved
Video Production 1 and 2 PVHS	RTVF 40	3	Approved
Exploratory Work Experience in AME/Peck	WKE 198	3	Approved
Welding Fabrication PVHS	WLD 20	4	Approved

University of California A-G Approved Course Listing

Course list for 2019-2020

Updated as of December 5, 2020

History/Social Science (“A”) 2 years required

Two units (equivalent to two years) of history/social science required, including: one year of world history, cultures and historical geography and one year of U.S. history; or one half year of U.S. history and one half year of civics or American government.

Title	Transcript	Discipline Abbreviation(s)	Honors Type	Course Notes
Agriculture Economics/Government	Ag Econ/Govt-P 105768	Econ/Gov.		

English (“B”) 4 years required

Four units (equivalent to four years) of college preparatory English composition and literature required, integrating extensive reading, frequent writing, and practice listening and speaking with different audiences. Students may only use 1 year of ESL/ELD English.

Title	Transcript	Discipline Abbreviation(s)	Honors Type	Course Notes
There are currently no CTE courses in this subject area.				

Mathematics (“C”) 3 years required, 4 years recommended

Three units (equivalent to three years) of college preparatory mathematics (four units are strongly recommended), including or integrating topics covered in elementary algebra, advanced algebra, and two- and three-dimensional geometry.

Title	Transcript	Discipline Abbreviation(s)	Honors Type	Course Notes
There are currently no CTE courses in this subject area.				

Laboratory Science (“D”) 2 years required, 3 years recommended *Two units (equivalent to two years) of laboratory science are required (three units are strongly recommended), providing fundamental knowledge in two of the following: biology, chemistry, or physics. Interdisciplinary science courses can also fulfill all or part of this requirement.*

Title	Transcript	Discipline Abbreviation(s)	Honors Type	Course Notes
Biology and Sustainable Agriculture	CHS AG Sust Biol-P	Lab Science – Biology/Life Science		Classroom Based
Chemistry and Agriscience	CHS AG Sci Chem-P	Lab Science – Chemistry		Classroom Based
Advanced Interdisciplinary Science for Sustainable	CHS AG AdvIntSci-P	Lab Science - Interdisciplinary		Classroom Based

Language Other than English (“E”) 2 years required, 3 years recommended

Two units (equivalent to two years, or through the second level of high school instruction) of the same language other than English (three units recommended).

Title	Transcript	Discipline Abbreviation(s)	Honors Type	Course Notes
No CTE currently offered				



Students wishing to gain entrance to any four-year university should consult with the specific entrance requirement for that program and entrance requirements for the best transition to any Institute of Higher Learning.



Visual & Performing Arts (“F”) 1 year required, One unit *(equivalent to one year)* required, chosen from one of the following categories: dance, music, theater, or visual arts (e.g., painting, web/graphic design, film/video, inter/multimedia arts).

Title	Transcript	Discipline Abbreviation(s)	Honors Type	Course Notes
Architecture Design and CAD 1	PVHS Arch Dsgn/CAD 1-P / 24004 CHS Arch Dsgn/CAD	Interdisciplinary		Classroom Based
Architectural Design and CAD 2	PVHS and CHS ArchDsign/Cad 2 / 24006	Interdisciplinary		Classroom Based
Architectural Design and CAD 3	PVHS and CHS ArchDsign/Cad 3 / 24007	Interdisciplinary		Classroom Based
Audio and Media Production	Audio Media Pro / 21517	Interdisciplinary		Classroom Based
Culinary 2	Culinary Art 2 / 23515	Interdisciplinary		Classroom Based
Digital Arts I	DA1	Visual Arts		Classroom Based
Digital Arts 2	Digital Arts 2 / 21082	Visual Arts		Classroom Based
Engineering Design and CAD 1	Eng Design/Cad 1 / 24014	Interdisciplinary		Classroom Based
Fashion Design	FshnDesign-P / 21031	Interdisciplinary		Classroom Based

Film and Media Studies	Film & Media Studies / 21519	Interdisciplinary		Classroom Based
Floral Design	AG Floral Dsgn	Visual Arts		
Video Production	Video Prod-P / 21506	Interdisciplinary		Classroom Based
Video Production 2	Video Prod 2 / 21515	Interdisciplinary		Classroom Based

College-Preparatory Elective (“G”) 1 year required

One unit (equivalent to one year) chosen from the “A-G ” courses beyond those used to satisfy the requirements of the “A-G” subjects, or courses that have been approved solely in the elective area

Title	Transcript Code	Discipline Abbreviation(s)	Honors Type	Course Notes
Administration of Justice	PVHS AdminofJustice 29309	Interdisciplinary		Classroom Based
Advanced Welding	PVHS Adv Welding 24003	Interdisciplinary		Classroom Based
Ag Welding I	CHS AG-Welding 1 20504	Interdisciplinary		Classroom Based
Ag Welding II	CHS Ag Welding 2 20504	Interdisciplinary		Classroom Based
Careers with Kids	PVHS Careers W/Kids-P / 23501	Interdisciplinary		Classroom Based
Culinary Arts	PVHS Culinary Arts-P 23503	Interdisciplinary		Classroom Based
Engineering and Design I	PVHSEng Design/CAd1 / 24014	Interdisciplinary		Classroom Based

Environmental Horticulture Science	Enviro Hort Sci 1 / 162760 Enviro Hort Sci 2 / 162763	Interdisciplinary		Classroom Based
HEROES Teach	HEROES Teach / 23517	Interdisciplinary		Classroom Based
Human Development	HumanDvlpmt-P / 23506	Interdisciplinary		Classroom Based
Integrated Life Management	IntgdLifeMgmt1-P / 23507	Interdisciplinary		Classroom Based
Medical Careers	Med/HospCr / 29817	Interdisciplinary		Classroom Based
Medical Terminology and Careers	MedTerm/Careers / 29300	Interdisciplinary		Classroom Based
Nutrition and Food Science	Nutrition Sci-P / 23508	Interdisciplinary		Classroom Based
Plant and Soil Science	Plant & Soil Sci / 162762	Interdisciplinary		Classroom Based
Senior Survival	Senior Survival / 23511	Interdisciplinary		Classroom Based
Sports Medicine	PVHS and CHS Sports Medicine / 29096	Interdisciplinary		Classroom Based
Video Production 3	PVHS Video Prod 3 / 21516	Interdisciplinary		Classroom Based
Welding I	PVHS Welding I / 24026	Interdisciplinary		Classroom Based

Need more information?

Contact

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Or pathway teachers for specific information about courses –
See staff directories for E-mails or contact the CTE Coordinator

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