

Palo Alto USD

# CTE Handbook





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# WHY CTE?

## Career Technical Education (CTE)

CTE is a term applied to schools, institutions, and educational programs that aligns academic standards with technical knowledge and skills to prepare students for careers in current or emerging occupations through various course offerings and further education. CTE course content is guided by business and industry input directly from our PAUSD CTE Advisory Committee.

## CTE Pathways

A pathway is defined as a two to three-year course sequence that consists of an introduction (optional), concentrator, and capstone courses, as determined by the CDE. The pathways are organized into fifteen high-employing industry sectors, selected by over 1,000 stakeholders from industry, secondary and postsecondary education. These course sequences are inherent in the federal Perkins legislation.

## CTE Advisory (Stakeholder Group)

The purpose of our CTE advisory committee is to provide technical assistance and resources; revise career & technical training program curriculum to meet the needs of business, industry, labor, the professional, technical trades, and/or the community it is designed to serve; and that career & technical education program graduates are capable of performing entry-level skills in the occupation in which they are trained.

An advisory committee is a group of employers and employees from outside the field of education, which provides guidance and direction to educators on the design, development, implementation, evaluation, maintenance, and revision of career and technical education programs.

Successful advisory committees focus on innovative, quality programs. Because representatives on the committee have first-hand information concerning current business trends, technological demands and realistic job requirements, their participation on the committee helps strengthen communication lines between education and the world of work.

Special populations, as defined by Perkins V are<sup>1</sup>:

1. Individuals with disabilities
2. Individuals from economically disadvantaged families, including low-income youth and adults

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<sup>1</sup> (2020, January 17). Special Populations - CDE - CA.gov. Retrieved March 26, 2020, from <https://www.cde.ca.gov/ci/ct/pk/pops.asp>

3. Individuals preparing for nontraditional fields
4. Single parents, including single pregnant women
5. Out-of-workforce individuals
6. Homeless individuals
7. Youth who are in, or have aged out of, the foster care system
8. Youth with a parent who is a member of the armed forces and is on active duty
9. Individuals with other barriers to educational achievement, including individuals with limited English proficiency



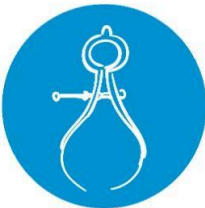
# Career Technical Education

## Middle School Offerings



### Arts, Media and Entertainment

- Participate in daily news broadcast at your school
- Learn how to use video equipment
- Create a yearbook



### Engineering and Architecture

*(Includes Industrial Technology)*

- Design and build furniture from scratch
- Create an electric car (and ride it too!)
- Use a 3D printer



### Information and Communication Technologies

- Design your own digital game or app
- Create games using VR/AR
- Manipulate & create images in Photoshop & Illustrator



### Hospitality, Tourism, and Recreation

*(Includes Family Consumer Science and Culinary Science)*

- Learn how to make local and international foods
- Cook food that is fit for royalty
- Use professional kitchen appliances like Stand Mixers



**Fletcher**  
Middle School



## High School Offerings

### ARTS, MEDIA, AND ENTERTAINMENT

Arts, Media and Entertainment is a California Department of Education industry sector program that requires both independent work and interdependent management skills for career success. New technologies are constantly reshaping the boundaries and skill sets of many arts career pathways. Consequently, core arts-sector occupations demand constantly varying combinations of artistic imagination, metaphoric representation, symbolic connections, and technical skills.

#### Design, Visual, and Media Arts Pathway Courses

This pathway program includes the Journalism and Digital Filmmaking programs. Journalism students study journalistic writing styles, media analysis, layout/design, and digital and social media. Digital Filmmaking students study video production tools and techniques.

#### Graphic Design



#### Multimedia Production



#### Film/Video Production



## Audio Production



## OTHER COURSES - PALY

### DESIGN, VISUAL & MEDIA ARTS



### INTRODUCTORY

### INTERMEDIATE (CONCENTRATOR)

### ADVANCED (CAPSTONE)

## Graphic Design Sub-Pathway

### GRAPHIC DESIGN

This year-long course is based on studio inquiry into the nature of graphic design and visual problem-solving. Topics introduced in the course are: symbols, typography, information design, visual concepts, and three-dimensional graphic design.

### ADVANCED GRAPHIC DESIGN

This year-long course helps students develop an advanced understanding of the methods and concepts employed in solving communications problems in graphic and package design. This course also serves to prepare a portfolio of fundamental and dependable methods.



## **Multimedia Production Sub-Pathway**

### **BROADCAST JOURNALISM**

This year-long course is an intensive laboratory course in gathering, writing and producing news for High School based broadcast media.

### **MULTIMEDIA JOURNALISM**

This year-long course is an intensive laboratory course in gathering, writing and producing multimedia content for high school based digital media.

## **Film/Video Production Sub-Pathway**

### **VIDEO PRODUCTION - DIGITAL FILMMAKING I**

In this year-long course, students will investigate techniques of video production: directorial style, script development, camera technique, editing, etc. Students will write, shoot, and edit short films ranging from the traditional to the avant-garde. In order to produce original digital films, students will be trained in camera technique and in the uses of non-linear editing and audio creation software applications.

### **ADVANCED VIDEO PRODUCTION - DIGITAL FILMMAKING II**

This year-long course provides students with opportunities to work on individual and small group video projects at the mastery level with industry grade equipment and software. This course also has an **honors option**. The honors option includes additional written, production presentation and exhibition work that may include, but is not limited to, genre analysis essay, script revision and portfolio, production journals, film analysis journals, a capstone end of class portfolio reflection and presentation.

## **Audio Production Sub-Pathway**

### **AUDIO MUSIC PRODUCTION I**

The Audio Music Production course focuses on the aesthetic qualities of sound production and analyzes the impact of digital audio technology as an inherent form of communication in today's society, including production, recording, composing and editing. Students will convey creative expression and develop ideas individually and within groups, write compositions, proposals, and budgets.

### **ADVANCED AUDIO MUSIC PRODUCTION**

This CTE Audio Production capstone course builds on the skill sets of the Audio Production I course and further prepares students for a wide variety of careers in professional audio industries.

## Production and Managerial Arts Pathway Courses

This pathway program includes the Stage Tech program. Students study the design and construction of sets, lighting, sound, and costumes, and apply their skills by developing design concepts and mounting productions from various theatrical genres.



### STAGE TECHNOLOGY AND DESIGN

In this year-long course, students will integrate theoretical and practical knowledge of stage technology and design, including the design and construction of sets, lighting, sound, and costumes, and apply their skills by developing design concepts and mounting productions from a variety of theatrical genres.

### ADVANCED STAGE TECHNOLOGY II

In this year-long course, students will manage and supervise a design or construction crew while drawing on their knowledge of theater history, design aesthetics, and creative processes. The course offers a **dual enrollment option**. The dual enrollment version of the course requires additional work and rigor.

## Performing Arts Pathway Courses



\*Gunn also offers Theater 3 and Theater 4, however, those courses are not eligible for CTE credit at Gunn.

### THEATER 3 @ Paly

In this year-long course, students will apply and develop directing, acting, technical and dramaturgical skills.

### THEATER 4 @ Paly

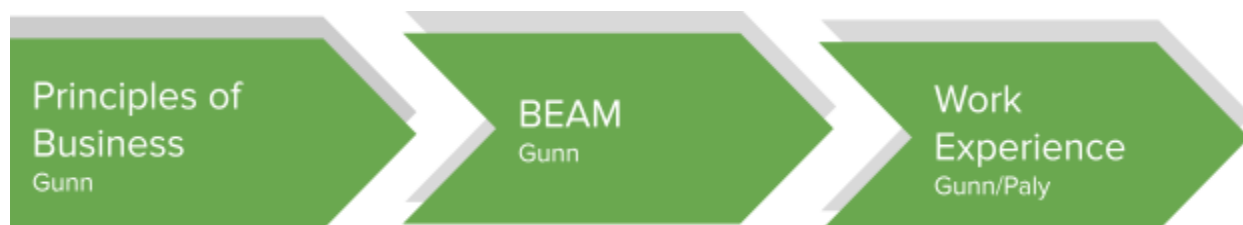
In this year-long course, Students will pursue an individualized course of study, taking leadership roles in in-depth theatrical projects in their areas of interest. This course also has an

**honors option.** The honors option includes an additional pre-approved, in-depth, theatre-related Honors project.

## BUSINESS AND FINANCE

Business and Finance is a California Department of Education industry sector program that helps students master basic business principles and procedures before proceeding to the career path specializations. The specializations emphasize concepts of accounting and finance, including computer applications, taxes, investments, and asset management as well as pathways in international business and business management. Because almost every business and organization has a financial and management component, students will find that opportunities exist in many career paths in addition to those in business and finance. Persons trained in fields such as business management, international trade, and various financial services specialties (e.g., accounting, banking, and investing) will find that their skills are highly marketable.

### Business Management Pathway Courses



#### PRINCIPLES OF BUSINESS

This year-long, blended course introduces students to the study of Business Management, Economics, Personal Finance, Marketing, and Entrepreneurship.

#### BEAM - BUSINESS, ENTREPRENEURSHIP AND MATH

This year-long, blended course allows students to form private-public partnerships that replicate real-life business environments, which require application of mathematical principles.

#### WORK EXPERIENCE + NAFTRACK CERTIFICATION

In addition to pathway courses, students can pursue NAFTrack certification by completing 120 hours of paid internship(s) through the Work Experience program<sup>2</sup>. Students are assessed on a broad range of skills during their internship(s) to earn certification.

### ADDITIONAL ELECTIVES

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<sup>2</sup> To accommodate COVID-19 pandemic restrictions, NAF is updating their internship requirements to 80 hours paid/unpaid internship through August 2023.

### BUSINESS LAW I @ Paly

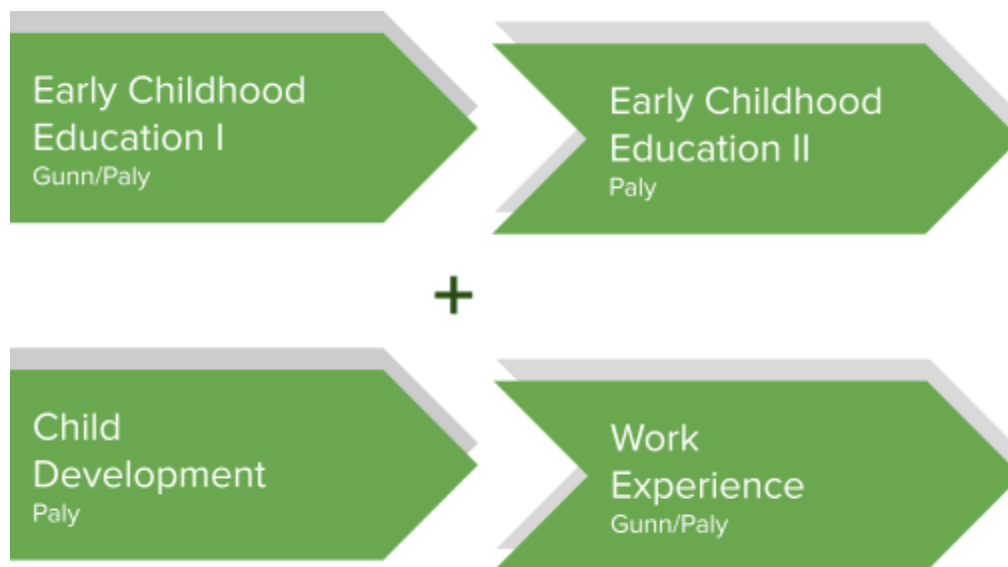
This year-long course will expose students to an overview of our legal system and how it was formed. Topics include: law enforcement and the court systems, crimes and torts, contracts, insurance, property, personal injury laws, laws for minors, buying and selling goods, product liability, credit, bankruptcy, unions, wills and estate planning, labor law, consumer protection and how to create a business plan.

## EDUCATION, CHILD DEVELOPMENT, AND FAMILY SERVICES

Education, Child Development and Family Services is a California Department of Education industry sector program that provides students with the skills and knowledge they need to pursue careers in child care and related fields.

### Child Development Pathway Courses

This pathway program prepares students to become competent in child development; fostering positive learning environments, trends, and issues in early childhood development; classroom management techniques; and professional standards. Students create lessons to demonstrate their knowledge of physical, cognitive and social-emotional development.



### EARLY CHILDHOOD EDUCATION (ECD) I

This year-long course examines the major physical, psychosocial, and cognitive/language developmental milestones for children, both typical and atypical, from conception through early childhood. The course offers a **dual enrollment option**. The dual enrollment version of the course requires additional work and rigor.

### EARLY CHILDHOOD EDUCATION (ECD) II

This year-long course examines the knowledge and skills related to providing appropriate curriculum and environments for infants and young children. The course offers a **dual enrollment option**. The dual enrollment version of the course requires additional work and rigor.

### CHILD DEVELOPMENT

This year-long course examines developmental theory and hands on experience regarding the development of the child from middle childhood through adolescence. The course offers a **dual enrollment option**. The dual enrollment version of the course requires additional work and rigor.

### WORK EXPERIENCE + ASSOCIATE TEACHER PERMIT

In addition to the three pathway courses, students can pursue an associate teacher permit by completing an internship for 50 days of 3+ hours per day at an early childhood facility through the Work Experience Program.<sup>3</sup>

## ENGINEERING AND ARCHITECTURE

Engineering and Architecture is a California Department of Education industry sector program that is designed to provide a foundation in engineering and architecture occupations for students in California. Students are engaged in an instructional program that integrates academic and technical preparation and focuses on career awareness, career exploration, and career preparation in pathway programs that emphasize real-world, occupationally relevant experiences of significant scope and depth. To prepare students for continued training, advanced educational opportunities, and direct entry to a career, the Engineering and Architecture programs offer the following components: classroom, laboratory, and hands-on contextual learning; project- and work-based instruction; and leadership and interpersonal skills development.

### Engineering Design Pathway Courses

This pathway program introduces students to basic concepts of design and engineering. Conceptual instruction begins with the design cycle, which students experience in all stages through hands-on skill development from brainstorming to prototyping to manufacturing and testing.



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<sup>3</sup> [Child Development Permit Matrix](#)

### **INTRODUCTION TO ENGINEERING DESIGN (PLTW)**

This year-long course will introduce students to basic concepts of design and engineering. The course is based on the curriculum provided by Project Lead the Way (PLTW). This course also has an **honors option**. The honors option requires additional independent CAD study to earn an **Autodesk Inventor certification** (by passing an online Autodesk exam).

### **PRINCIPLES OF ENGINEERING & ROBOTICS (PLTW)**

This year-long course will introduce basic engineering concepts to students who want to build and program their own mechanical inventions. The course is based on the curriculum provided by Project Lead the Way (PLTW). This course also has an **honors option**. The honors option requires additional independent on-line study to earn a **pre-engineering certification** (by passing an online exam administered by the REC Foundation).

### **COLLEGE BOARD AP + PLTW STUDENT CERTIFICATE OF PREPARATION:**

Students who complete two PLTW courses and a STEM (math or science) AP class, with qualifying scores on course-related exams and assessments, earn a College Board AP + PLTW certificate of preparation for more advanced coursework in college.

### **ADDITIONAL ELECTIVES**

#### **ENGINEERING TECHNOLOGY @ Gunn**

This year-long course is a hands-on course that will provide students real-life experience in mechanical design, machine shop skills, engineering project work and leadership. Students who wish to enroll in Engineering Technology must first be selected as members of the Gunn Robotics Team (GRT).

#### **ENGINEERING TECHNOLOGY @ Paly**

This semester or year-long course is designed to inspire students to be engineering and technology leaders. By engaging them in exciting mentor-based programs, they build skills in science, engineering and technology. Innovation, creativity and problem-solving skills are encouraged. Students can participate in exciting national competitions such as USFIRST Robotics and the Silicon Valley Tech Challenge.

#### **DIGITAL ELECTRONICS (PLTW)**

This course will introduce basic analog and digital electronics concepts to students who want to explore how binary numbers and logic elements are used to implement complex digital circuits. Teamwork, problem-solving, and communication skills are developed through group projects.

#### **COMPUTER AIDED DESIGN (CAD) @ Paly**

Students use high-speed computers to learn the industry standard in Computer Design Software. AutoCAD release 14 and 2000 along with 3D Studio Max release 3 provide the

students the ability to create two- and three-dimensional drawings. Certification in AutoCAD, SolidWorks, and Adobe Software such as Photoshop and Dreamweaver, are also available.

## **FASHION AND INTERIOR DESIGN**

Fashion and Interior Design is a California Department of Education industry sector program that provides students with the academic and technical preparation necessary to pursue high-skill, high-demand careers in these related and growing industries. The sector encompasses three distinct career pathways: Fashion Design and Merchandising, Interior Design, and Personal Services. The knowledge and skills are acquired within a sequential, standards-based pathway program that integrates hands-on projects, work-based instruction, and leadership development such as that offered through Family, Career and Community Leaders of America (FCCLA).

### **FIBER ARTS AND FASHION DESIGN @ GUNN**

This semester-long course is designed to allow students to work with many different fibers and material applications. Students learn fashion design basics - from repairing clothes, to repurposing thrift store finds and learning how to design and construct clothing.

### **INTERIOR DESIGN**

This semester-long course is designed for students to learn architectural and furniture styles, line, design, form, color and texture and be able to combine them into the kind of living environment which best reflects their personality.

## **HEALTH SCIENCE AND MEDICAL TECHNOLOGY**

Health Science and Medical Technology is a California Department of Education industry sector program that provides the academic and technical skills and knowledge students need to pursue a full range of career opportunities in health science and medical technology, from entry level to management as well as technical and professional career specialties. Pathway programs teach students what workers need to know and be able to do to contribute to the delivery of safe and effective health care.

### **Biotechnology Pathway Courses**

This pathway program introduces students to the theoretical aspects of Biotechnology (Cell Biology, Microbiology, Molecular Biology, Immunology) and societal issues arising from this new technology. Students can complete a Biotechnology capstone project through AAR to complete the pathway.



### **PRINCIPLES OF BIOMEDICAL SCIENCE (PLTW)**

In this introductory course of the Biomedical Science pathway program, students explore concepts of biology and medicine to determine factors that led to the death of a fictional person using curriculum from Project Lead the Way (PLTW). The activities and projects introduce students to human physiology, basic biology, medicine, and research processes while allowing them to design their own experiments to solve problems.

### **BIOTECHNOLOGY: THEORY & PRACTICES**

This course will introduce students to the theoretical aspects of Biotechnology (Cell Biology, Microbiology, Molecular Biology, Immunology) and societal issues arising from this new technology. Hands-on laboratory activities will reinforce theoretical information and teach lab safety, data analysis, the scientific method, and related computer skills. This course may include topical speakers from biotechnology.

### **Sports Medicine Pathway Courses**

This pathway program, aligned to the state CTE standards for Patient Care, integrates knowledge and skills from several science disciplines and practical skills, including basic anatomy and physiology, care and prevention of injuries, protective taping and wrapping techniques, and overall wellness.



### **SPORTS MEDICINE**

This year-long course is designed to emphasize athletic injury prevention through pre-participation physical exams, exercise programs, preventative taping, proper fitting of equipment, and protective braces. Basic injury recognition and emergency response of acute trauma. The course offers a **dual enrollment option**. The dual enrollment version of the course requires additional work and rigor.

### **ADVANCED AUTHENTIC RESEARCH**



This year-long course is designed for students with interest, passion, curiosity, and perseverance to investigate an authentic topic of their choosing. Students are paired with mentors in the particular field of research who will support and facilitate each students' work in their own laboratories, offices, and other settings.

## **HOSPITALITY, TOURISM, AND RECREATION**

Hospitality, Tourism and Recreation is a California Department of Education industry sector program that provides students with the academic and technical preparation necessary to pursue high-skill, high-demand careers in these related and growing industries. The sector encompasses three distinct, yet interrelated, career pathways: Food Science, Dietetics, and Nutrition; Food Service and Hospitality; and Hospitality, Tourism, and Recreation. The standards are designed to integrate academic and career technical concepts. The anchor standards include Consumer and Family Studies comprehensive technical knowledge and skills that prepare students for learning in the pathways. The knowledge and skills are acquired within a sequential, standards-based pathway program that integrates hands-on projects, work-based instruction, and leadership development such as that offered through Family, Career and Community Leaders of America (FCCLA).

### **Food Science, Dietetics, and Nutrition Elective Courses**

This pathway program gives students the opportunity to explore the diversity of U.S. regional and international cooking styles through hands-on experience. These courses help students develop an appreciation for a wider variety of foods and cultures through presentations, demonstrations, and laboratory experiences.

## **ELECTIVES**

### **INTRODUCTION TO CULINARY SCIENCE**

This semester-long course explores cooking as an art as well as a science. Good cooking rests on basic principles and skills that have been refined over centuries. These principles and skills are demonstrated and practiced in class in clear, easy steps.

### **CULINARY SCIENCE - INTERNATIONAL & REGIONAL**

This semester-long course is a classroom tour of famous food of the regional United States, Asia, Europe, Africa and more. In addition to selecting, preparing, tasting and enjoying famous dishes typical to each region, you will learn about preparation methods, serving techniques and special equipment specific to the dishes made.

### **SPORTS NUTRITION**

This semester-long course is all about empowering students with the knowledge to create nutritionally balanced meals that will enhance sports performance as well as overall good health.

## INFORMATION AND COMMUNICATION TECHNOLOGIES

Information and Communication Technologies is a California Department of Education industry sector program that addresses the expanding industry need for employees who can understand, manage, and support all rapidly emerging, evolving, and converging computer, software, networking, telecommunications, Internet, programming, and information systems. Essential skills for careers in this sector include understanding systems that support the management and flow of data, the ability to work well and communicate clearly with people, and the ability to manage projects efficiently. The Information and Communication Technologies industry offers high demand, high wages, and high skills and provides students with excellent opportunities for interesting work and good pay.

### Games and Simulations Pathway Courses

This pathway program focuses on fostering students to be creative and encouraging students to apply creative processes when developing computational artifacts. Specific topics include conditionals, loops, functions, logic, recursion, top-down design, iteration, objects, arrays, sets, linked data structures, stacks, queues, pointers, binary trees, searching and sorting algorithms, computer systems and ethics.



### FUNCTIONAL & OBJECT-ORIENTED PROGRAMING (FOOP)

This year-long course introduces the student to the functional and object-oriented programming paradigms. It includes concepts such as functions, conditionals, data abstraction, recursion, lambda, higher-order functions, lists, loops, arrays, interfaces, inheritance, and polymorphism.

### AP COMPUTER SCIENCE A

This year-long course is designed to prepare students for the Advanced Placement Exam. The course includes top down design, iteration, procedures, functions, user-defined types, classes, arrays, files, sets, linked data structures, stacks, queues, pointers binary trees, searching and sorting algorithms. The students should be able to analyze code, in terms of functionality, efficiency, readability, reusability, modularity.

## Software and Systems Development Pathway Courses



### AP COMPUTER SCIENCE PRINCIPLES

This year-long course introduces students to the central ideas of computer science, inviting students to develop the computational thinking vital for success across multiple disciplines. The course is unique in its focus on fostering students to be creative and encouraging students to apply creative processes when developing computational artifacts.

### COMPUTER SCIENCE CAPSTONE

This semester-long course allows students to apply their computational skills in a real-world context. Students will work in teams to use the design thinking process to identify a problem within their local community and then develop a possible solution.

## ADDITIONAL ELECTIVES

### WEB DEVELOPMENT

This course provides an in-depth, project-based investigation of how to create Web-based applications using modern, industry-standard technologies and design patterns.

### PUBLIC SERVICES

Public Services is a California Department of Education industry sector program that prepares students for careers in government service and related fields. Careers in public service are unique because they center on challenging issues that define the public agenda and involve the provision of vital services to the public—from local to international levels. Public service professions offer many career opportunities, including the following career pathways: Public Safety, Emergency Response, and Legal Practices.

### Legal Practices Elective Courses

This pathway program takes students through the criminal justice system, criminal law, Constitutional law, procedural law, the adjudication process, and an in-depth look into landmark court cases. Students also examine the Bill of Rights and how it applies to law. Students learn

about the workplace through a field trip to criminal court, expert guest speakers, debates, and mock trials.

## **ELECTIVES**

### **CRIMINAL & CIVIL LAW @ GUNN**

This semester-long course examines the types of crimes, legal rights, as well as the civil consequences faced after a crime. Criminal and Civil Law class also examines torts, individual rights and liberties, contract law and juvenile law.

### **LAW 1 @ GUNN**

This year-long course is designed to take students through the criminal justice system, criminal law, Constitutional law, procedural law, adjudication process and an in-depth look into landmark court cases.

## **TRANSPORTATION**

Transportation is a California Department of Education industry sector program that provides a foundation in transportation services. Pathway programs within the Transportation industry sector emphasize real-world, occupationally relevant experiences of significant scope and depth in three areas: Operations, Structural Repair and Refinishing, and Systems Diagnostics, Service, and Repair.

### **Systems Diagnostics, Service, and Repair Pathway Courses**

This pathway program allows students to learn the various systems of the automobile and how to repair and service them. The pathway program provides students with the opportunity to tear down cars and rebuild them in order to learn to repair their own vehicle. Students use the latest diagnostic equipment and procedures to repair most systems in an automobile. Welding, metal fabrication, and restoration techniques are also practiced.



### **INTRODUCTION TO THE AUTOMOBILE @ PALY**

This semester-long course is designed for a student to learn the basic understandings of how an automobile works. A hands-on approach will be used to learn basic maintenance procedures on their car.

### **AUTOMOTIVE TECHNOLOGY 1**

This year-long course is designed for the student who has little or no previous knowledge of how an automobile works. The course takes students through a more in-depth, hands-on approach to learning the basics of how each system in an automobile is designed and works.

### **AUTOMOTIVE TECHNOLOGY 2**

This year-long course is designed for the student who desires more information, experience and proficiency related to automotive operation, repair and maintenance.

## **MULTIPLE-PATHWAY PROGRAMS**

Multiple Pathway programs are unique exploratory courses or programs that are not part of a specific pathway program. Instead, they support multiple pathway programs across the industry sectors.

### **Advanced Authentic Research (AAR)**

AAR is an adaptive course that can be taken as a standalone exploration or as a pathway capstone project. AAR provides a unique opportunity for students in grades 10-12 to explore and develop their interest, passion, curiosity, and perseverance as they investigate a topic of their own choosing. Students are paired with industry mentors in their chosen field of research, who provide context and professional expertise to support and facilitate each student's work. Student research is supported by the process-oriented curriculum developed by the AAR team. The recursive nature of the research process allows students to go back and forth between the different stages of inquiry as they encounter new information. The program innovatively adapts Career Technical Education (CTE) Foundation standards in conjunction with Next Generation Science Standards (NGSS) for science and engineering practices, and PAUSD's vision statement for students to explore topics in a wide variety of disciplines across all industry sectors.

### **AP Capstone**

AP Capstone is a College Board program that equips students with the independent research, collaborative teamwork, and communication skills that are increasingly valued by colleges. The program cultivates curious, independent, and collaborative scholars and prepares them to make logical, evidence-based decisions. AP Capstone is comprised of two courses – AP Seminar and AP Research – and is designed to complement and enhance the discipline-specific study in other courses. Participating schools can use the AP Capstone program to provide unique research opportunities for current AP students, or to expand access to AP by encouraging students to master the argument-based writing skills that the AP Capstone program develops.

### **Social Justice Pathway (SJP)**

SJP is an interdisciplinary pathway that cohorts 60 students with an English and History teacher for 3 years of study utilizing project-based learning and promoting leadership within the school and community. Students view the curriculum through a social justice lens, exploring who has

access to rights and opportunities in our world and why; who is being given their due and whether or not that is fair; and deciding what to do about it all. SJP's seniors, working through the AAR course, conducted extensive research of the needs and impact of social justice issues within the greater community. The students designed and proposed action research projects addressing and ameliorating the social injustices evident within the community, then executed their plan by working with members of the community who impact or are impacted by these social injustices. As students executed their AAR projects, they collected data to analyze the impact of their program to make recommendations for further study and for further action to strengthen the Palo Alto community.

### **Work Experience Education (WEE)**

WEE is a program that combines classroom instruction with part-time student employment. Students develop good work habits, attitudes, self-confidence, job skills, and a portfolio. Students can enroll in either Work Experience (paid employment) or Exploratory Experience (unpaid internship/ observation) and can attend class at either high school. The purpose of Exploratory Experience is to contribute to students' career guidance by affording them opportunities to explore careers of interest by systematically sampling—under school supervision and with school credit—a variety of work conditions. Work Experience and Exploratory Experience follow California Department of Education guidelines and cover the following curriculum: career exploration, job/work cycle, labor law, economic awareness/financial literacy, and soft skills.

## Frequently Asked Questions

### 1. What is Career and Technical Education?

A program of study that involves a multiyear sequence of courses that integrates core academic knowledge with technical and occupational knowledge to provide students with a pathway to postsecondary education and careers.<sup>4</sup>

### 2. What are Career and Technical Education Programs of Study?

Education Code Section 51226 provides legal authority to develop the CTE standards and framework. This legislation requires the development and adoption of CTE standards that incorporate the integration of career technical and academic education no later than June 1, 2005. The original CTE Model Curriculum Standards were adopted by the State Board of Education (SBE) on May 11, 2005. The standards, written for grades seven through twelve, specify learning goals in 58 career pathways organized around 15 industry sectors.<sup>5</sup>

Career Technical Education Programs of Study take these standards and organize them in a two year course sequence. These courses offer seamless progression towards meaningful business and industry training, encourages work-based learning and includes industry-valued credentials.<sup>6</sup>

### 3. What are NAF Pathways?

NAF pathways are structured as small, focused learning communities that fit within and enhance high school systems. NAF promotes open enrollment for its academies in order to maximize every student's chance at a successful future. NAF pathways consist of two years of study plus a paid internship component and culminates with NAFTrack certification. NAFTrack Certification demonstrates that a student has achieved the highest levels of college and career readiness through their NAF academy. Created by education and business leaders, it measures student performance through career-related coursework, internship performance, and successfully completing high school.

### 4. Can Career and Technical Education students earn college credits while in high school?

Yes. CTE offers several Dual Enrollment options in multiple pathways. Dual Enrollment courses refer to high-school courses that have gone through curricular alignment with a community college and whose students are enrolled in two institutions concurrently, therefore earning high school credits and college credits simultaneously. Students in dual enrollment courses will receive regular credit per course. For example, if a "regular"

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<sup>4</sup> (n.d.). Career Technical Education - Teaching .... Retrieved April 23, 2020, from <https://www.cde.ca.gov/ci/ct/>

<sup>5</sup> (2013, January 16). CTE Model Curriculum Standards - CDE - CA.gov. Retrieved April 23, 2020, from <https://www.cde.ca.gov/ci/ct/sf/ctemcstandards.asp>

<sup>6</sup> (n.d.). CTE Programs of Study, Robin Utz - ACTE. Retrieved April 23, 2020, from <https://www.acteonline.org/wp-content/uploads/2018/05/CTE-Programs-of-Study-Utz-Robin.pdf>

high school course earns five credits, the dual enrollment version of that course will earn five credits on the PAUSD transcript. Grades, upon completion of the course, will be weighted similarly to AP or Honors classes in weighted GPA calculations, as they are rigorous courses that have gone through an alignment process with the community college.

#### **5. What are PAUSD's completable pathways?**

All Career Technical Education courses earn CTE credit. PAUSD students must complete 10 units (or two semesters) of CTE credits in order to graduate. In addition to completing their CTE graduation requirements, students can elect to take an additional year of CTE courses in a specific pathway - which makes them pathway completers. Once a student is a pathway completer, they can earn additional industry-recognized certifications. Currently, PAUSD offers completable pathways in:

- Design, Visual, and Media Arts
  - Graphic Design
  - Multimedia Production
  - Film/Video Production
- Production and Managerial Arts
- Performing Arts
- Business Management
- Early Childhood Development (ECD)
- Engineering Design
- Software and Systems Development
- Games and Simulations
- Systems Diagnostics, Service, and Repair (Auto)