





# OUR MISSION



The mission of the Career Technical Education program is to cultivate the potential in our students by integrating rigorous classroom instruction with relevant, work-based experiences that inspire, guide and empower them for post-secondary college and careers. Our CTE program will bridge the academic, employability and technical skills that prepare our students for leadership roles in the working world.



Modesto City Schools CTE



@modesto\_city\_schools\_cte



@CTE\_MCS



CTE Website



# Message from Senior Director

Modesto City Schools has a long history of operating successful Career Technical Education (CTE) programs.

Formerly known as Regional Occupational Program (ROP), today's CTE programs are rigorous and relevant programs that combine academic knowledge with technical skills and application of learning in hands-on, real life contexts to prepare students with viable skills for today's increasingly complex workforce.

CTE programs reflect the instructional and learning design of: problem or project-based learning, development of critical thinking and problem-solving skills, teaming/collaboration, and increased awareness of the expectations of business, industry, and the workplace. Students taking a CTE sequence perform better on assessments, graduate at higher rates, and are more successful in both college and the job market.

Modesto City Schools is proud to offer work-based learning opportunities, certifications, and job shadowing through our successful programs. Participating in CTE programs increases wages, probability and consistency of employment and leads to higher quality jobs.

Thank you for taking the time to review our CTE courses. For additional information on course opportunities, or how to partner with our programs, please contact me at (209) 574-1628 or via email at [Barkus.r@monet.k12.ca.us](mailto:Barkus.r@monet.k12.ca.us).

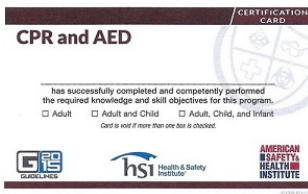
Respectfully,  
Rachelle Barkus  
Senior Director, Educational Options



\*Course availability is subject to change due to student interest and teacher availability.

# Certifications

Many of our CTE pathways offer industry recognized certifications that can be added to a student's portfolio. Some examples are OSHA 10, CPR and Automated External Defibrillator, ServSafe Food Handler, and Adobe Certified Professional of the more than 20 certifications available to our students.



## How can we help?

For more information regarding CTE programs and courses, see your Career Navigator or Work Experience teacher located at your high school.



CTE Website

You can also contact the CTE office at (209) 492-4222.

# Standards for Career Ready Practice

1. Apply appropriate technical skills and academic knowledge
  2. Communicate clearly, effectively, and with reason
  3. Develop an education and career plan aligned with personal goals.
  4. Apply technology to enhance productivity
  5. Utilize critical thinking to make sense of problems and persevere in solving them
  6. Practice personal health and understand financial literacy
  7. Act as a responsible citizen in the workplace and the community
  8. Model integrity, ethical leadership, and effective management
  9. Work productively in teams while integrating cultural and global competence
  10. Demonstrate creativity and innovation
  11. Employ valid and reliable research strategies
  12. Understand the environmental, social, and economic impacts of decisions
- 



# Industry Sectors and Pathways

Modesto City Schools offers various course pathways within thirteen (13) CTE Industry Sectors. To qualify under an Industry Sector, each pathway must meet the following criteria:

- Unique to an industry sector
- Has an occupational focus
- Consistent in size and scope
- Composed of similar functions
- Inclusive of all aspects of the industry
- Includes 8-12 pathway-specific standards
- Demonstrates sequence potential
- Reasonable and appropriate for high school
- Leads to high-skill, high-wage, or high-demand jobs
- Sustainable and viable over the next ten years

Pathways are made up of introductory, concentrator, and capstone courses. Introductory courses give students an overview and foundation in industry sector pathways. Concentrator courses provide in-depth instruction and exploration of specific industry sectors. Capstone courses provide a rigorous and intensive culmination of a course of study. All CTE courses, but especially capstone courses, provide students the opportunity to learn, practice, and apply the industry skills needed for career success after high school.



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# Agriculture & Natural Resources



## About the Industry Sector:

The Agriculture and Natural Resources sector aims to establish a strong agricultural base for all California agriculture students. Students participate in a program that combines academic and technical training, with a focus on career awareness, exploration, and skill development across different pathways. These pathways offer practical, job-related experiences for students within the Modesto City Schools District. Through classroom and lab sessions, supervised agricultural projects, and the development of leadership and interpersonal skills, students are equipped for further training, advanced education, and entry into the workforce.



# PATHWAY MAP

PATHWAY	INTRO	CONCENTRATOR	CAPSTONE
<b>Agriculture Business</b>	Agribusiness 1-2	Agribusiness 3-4	Ag Leadership ----- Agriculture Government & Economics
<b>Agriscience</b>	Agriscience ----- Agriculture Food Science I	Biology & Sustainable Ag ----- Integrated Ag Biology ----- Agriculture Food Science II	Agriscience Systems Management ----- Agriculture Farm to Fork
<b>Animal Science</b>	Agriscience	Animal Science 3-4	Animal Science 5-6 ----- Veterinary Science
<b>Ornamental Horticulture</b>	Ornamental Horticulture	Landscape Design & Maintenance ----- History & Art of Floral Design II	Greenhouse & Horticulture Practices ----- History & Art of Floral Design III ----- Advanced Floriculture
<b>Agriculture Mechanics</b>	Ag Mechanics 1-2	Ag Mechanics 3-4	Ag Mechanics 5-6 ----- Ag Mechanics 7-8 ----- Structural Ag Welding
<b>Ag Mechanics: Manufacturing</b>	Ag Manufacturing 1-2	Ag Manufacturing 3-4	Ag Manufacturing 5-6 ----- Ag Manufacturing 7-8
<b>Ag Mechanics: Small Engines</b>	Ag Small Engine Repair 1-2	Ag Small Engine Repair 3-4	Ag Small Engine Technology ----- Ag Diesel Engine Technology
<b>Ag Mechanics: Wood Construction</b>	Ag Wood Construction 1-2	Ag Wood Construction 3-4	Ag Wood Construction 5-6 ----- Ag Wood Construction 7-8



# Agriculture & Natural Resources



## LOCATION(S)

Pathway	Beyer	Davis	Downey	Enochs	Gregori	Johansen	Modesto	Elliott
Agriculture Business		●		●			●	
Agriscience	●	●	●	●	●	●	●	
Animal Science				●	●		●	
Ornamental Horticulture	●	●	●	●	●	●	●	
Agriculture Mechanics		●	●	●	●	●	●	
Ag Mech: Manufacturing		●						
Ag Mech: Small Engines	●							
Ag Mech: Wood Construction		●						



# Agriculture and Natural Resources

## Courses



### **Agriscience Pathway:**

#### **Agriscience (Intro)**

This course explores the physical and chemical nature of soil, as well as the relationships between soil, plants, animals, and agricultural practices. Students will examine properties of soil and land and their connections to plant and animal production. Agriscience meets the University of California's "D" list of required courses for college admissions.

#### **Biology and Sustainable Ag (Concentrator)**

Sustainable Agriculture is a one-year course designed to integrate biological science practices and knowledge into the practice of sustainable agriculture. Biology and Sustainable Ag meets the University of California's "D" list of required courses for college admissions.

#### **Integrated Ag Biology (Concentrator)**

This course is a one year, laboratory science course designed for the college-bound student with career interests in agriculture. The course is centered around an extensive laboratory component in order to connect the big ideas of life science with agricultural applications, earth and physical science principles, and other curricular areas, including written and oral reporting skills. Integrated Ag Biology meets the University of California's "D" list of required courses for college admissions.

#### **Agriscience Systems Management (Capstone)**

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 systems and experiments to solve agricultural management issues currently facing the industry. Agriscience Systems Management meets the University of California's "D" list of required courses for college admissions.

#### **Agriculture Food Science I (Intro)**

The class is designed to help students learn the relationships between agriculture, food, science, and nutrition. Through laboratory experimentation, class discussions and hands-on activities, students will apply scientific principles as they pertain to agriculture food science. Agriculture Food Science I meets the University of California's "G" list of required courses for college admissions.

#### **Agriculture Food Science II (Concentrator)**

Food Science is designed to help you learn about relationships between agriculture, food, science, and nutrition. Students will also have the opportunity to discuss and become involved in the process of growing their own food and learning how to integrate these foods into their daily lives! Agriculture Food Science II meets the University of California's "G" list of required courses for college admissions.

#### **Agriculture Farm to Fork (Capstone)**

Students will utilize their skills in designing, cultivating, growing, and harvesting crops from the garden plots that they have been established to cultivate and prepare meals and seasonal menus that incorporate items from the garden and farm that represent healthy and nutritious food choices aligned to the "whole system" farming in modern cuisine. Agriculture Farm to Fork meets the University of California's "G" listed of required courses for college admissions.



## **Agricultural Business Pathway:**

### **Agribusiness 1-2 (Intro)**

This course will focus on current trends in agriculture, ag business, and economics including statistics, laws and regulation, and the world of work in agriculture.

Agribusiness 1-2 meets the University of California's "G" list of required courses for college admissions.

### **Agribusiness 3-4 (Concentrator)**

Agribusiness 3-4 builds on the knowledge gained in the first-year course and will prepare individuals for employment in agriculture and may also prepare them for advanced training, leading to an agricultural career requiring education at a postsecondary level. Agribusiness 3-4 meets the University of California's "G" list of required courses for college admissions.

### **Ag Leadership (Capstone)**

The Ag Leadership class is designed to teach leadership skills three (3) times per week, with the remaining two (2) days devoted to lab application, focusing on the activities, calendars, and needs of the individual clubs and organizations represented in the class enrollment. Ag Leadership meets the University of California's "G" list of required courses for college admissions.

### **Agriculture Government & Economics (Capstone)**

This course is designed to provide students with a comprehensive understanding of the economic principles and government systems that shape the agriculture industry. Students can gain a holistic perspective on how policies, regulations, and governmental decisions impact agriculture business opportunities. This course will equip students with the knowledge and skills needed to navigate the intersection of economics and government within the agricultural sector, preparing them for careers in agri-business management, policy analysis, or other related fields. Agriculture Government & Economics meets the University of California's "A" and "GA" list of required courses for college admissions.

## **Agricultural Mechanics Pathway:**

### **Ag Mechanics 1-2 (Intro)**

Students will use a classroom and laboratory-type situation to cover the principles and applications of topics.

Areas of instruction will include: safety, tools, measurement, drawing, woods, welding, concrete, metalwork/sheet metal, electricity, rope, and plumbing. Ag Mechanics 1-2 meets the University of California's "G" list of required courses for college admissions.

### **Ag Mechanics 3-4 (Concentrator)**

Students will use a classroom and laboratory-type situation to cover the principles, care of, and maintenance of small gas and diesel engines. Areas of instruction will include: use of equipment manuals, equipment maintenance, and types of engines, oxy-acetylene welding, arc welding, measurement, drawing, safety, and project construction. Ag Mechanics 3-4 meets the University of California's "G" list of required courses for college admissions.

### **Ag Mechanics 5-6 (Capstone)**

Students will use a classroom and laboratory-type situation to cover the principles of surveying, power hydraulics, equipment maintenance, oxy-acetylene welding, arc welding, MIG and TIG welding. Project construction will emphasize project drawing, measurement, and cost analysis. Ag Mechanics 5-6 meets the University of California's "G" list of required courses for college admissions.



## **Agricultural Mechanics Pathway cont:**

### **Ag Mechanics 7-8 (Capstone)**

Students will use a laboratory-type situation to cover the principles, and applications of MIG, TIG, and oxy-acetylene welding of large equipment. Strong emphasis is put on the instruction and participation of project design, project construction, and cost of materials. Ag Mechanics 7-8 meets the University of California's "G" list of required courses for college admissions.

### **Structural Ag Welding (Capstone)**

Students will use a laboratory-type situation to cover the principles, and applications of MIG, TIG, and oxy-acetylene welding of large equipment. Strong emphasis is put on the instruction and participation of project design, project construction, and cost of materials. Structural Ag Welding meets the University of California's "G" list of required courses for college admissions.

### **Ag Manufacturing 1-2 (Intro) 3-4 (Concentrator) 5-6 (Capstone) 7-8 (Capstone)**

The Agricultural Manufacturing courses offer instruction in operations and techniques of manufacturing processes and machine tools common to machinists, metal fabricators, and welders in the Agricultural Manufacturing Industry. Safe work habits and practices are stressed in the class. This includes safety instruction on each machine and type of welding equipment as well as general safety in the lab. Students engage in a full range of processes and experience in operating lathes, milling machines, drill presses, grinders, oxy-acetylene welding, CNC operation, and the use of robotics in manufacturing. Students also will receive instruction on using classroom computers to design and program a part to be cut on a CNC machine and to control robotic functions. Students also receive learning experiences in plastic products, precision measurement, blueprint reading, and applied mathematics. The hands-on approach while completing projects and tasks leads to competency of shop skills. Each course level builds upon previous experiences and skills. Ag Manufacturing 1-8 meets the University of California's "G" list of required courses for college admissions.

### **Ag Small Engine Repair 1-2 (Intro)**

This course is designed to educate students about the fast-growing industry of small engines and compact power equipment. There is a large demand for small engine technicians in the areas of lawn, garden, farm, and construction equipment. This course places emphasis on overhaul, repair, adjustment, and troubleshooting of lawnmowers, chainsaws, and other agricultural compact power equipment. Ag Small Engine Repair 1-2 meets the University of California's "G" list of required courses for college admissions.

### **Ag Small Engine Repair 3-4 (Concentrator)**

This course is designed to enhance the student's former knowledge about the fast-growing industry of small engines and compact power equipment. This course places emphasis on advanced techniques of overhauling, repairing, adjusting, and troubleshooting of two and four-stroke agricultural compact power equipment. Ag Small Engine Repair 3-4 meets the University of California's "G" list of required courses for college admissions.

### **Ag Small Engine Technology 1-2 (Capstone)**

This course is designed to train students for entry-level jobs in the fast-growing industry of agricultural compact power equipment. There is a large demand for small engine mechanics in the areas of lawn, garden, and farm equipment small motor repair. This course places emphasis on employment skills concerning overhaul, repair, adjustment, and troubleshooting of agricultural compact power equipment. Ag Small Engine Technology 1-2 meets the University of California's "G" list of required courses for college admissions.



## **Agricultural Mechanics Pathway cont:**

### **Ag Diesel Engine Technology (Capstone)**

Diesel Equipment Technology is designed to train students for employment opportunities available within the agricultural/industrial industry. This course emphasizes skills necessary in the field of diesel equipment mechanics where students will learn major overhaul and tune-up diesel engines. The course will also focus on skills in power machinery and small engine repair and maintenance with strong emphasis upon safety, tool and equipment usage and preventative maintenance procedures. Ag Diesel Engine Technology meets the University of California's "G" list of required courses for college admissions.

### **Ag Wood Construction 1-2 (Intro)**

This course covers basic hand tool and machine operations in the wood/carpentry shop. Shop and machine safety are prioritized. Operation of planer, jointer, table saw, band saw, jigsaw, drill press, sanders, and portable tools will be implemented. First semester consists of required projects aimed at principles of construction, joints, assembly, gluing, clamping, and finish. Second semester focuses on the design and construction of the student's own project(s). Ag Wood Construction 1-2 meets the University of California's "G" list of required courses for college admissions.

### **Ag Wood Construction 3-4 (Concentrator)**

Ag Wood Construction 3-4 is a continuation of Ag Wood Construction 1-2 with an emphasis placed on advanced joints (mortise and tenon), advanced construction principles, doors, drawers, and spray finishes. Primary focus is on machine woodworking skills and the use of materials and processes. Ag Wood Construction 3-4 meets the University of California's "G" list of required courses for college admissions.

### **Ag Wood Construction 5-6 (Capstone)**

Ag Wood Construction 5-6 is a continuation of Ag Wood Construction 3-4 with an emphasis placed on advanced construction principles and applications. Students will plan and construct a project that shows off skills learned in the previous courses that is appropriate in size and scope for a continuing course. Ag Wood Construction 5-6 meets the University of California's "G" list of required courses for college admissions.

### **Ag Wood Construction 7-8 (Capstone)**

Ag Wood Construction 7-8 is a continuation of Ag Wood Construction 3-4 and 5-6 with an emphasis placed on advanced construction principles and applications. Students will plan and construct a project that shows off skills learned in the previous courses that is appropriate in size and scope for a continuing course. Ag Wood Construction 7-8 meets the University of California's "G" list of required courses for college admissions.

## **Animal Science Pathway:**

### **Agriscience (Intro)**

This course explores the physical and chemical nature of soil, as well as the relationships between soil, plants, animals, and agricultural practices. Students will examine properties of soil and land and their connections to plant and animal production. Agriscience meets the University of California's "D" list of required courses for college admissions.



## Animal Science Pathway cont:

### **Animal Science 3-4 (Concentrator)**

Animal Science 3-4 will provide students with principles focusing on the areas of mammalian production, anatomy, physiology, reproduction, nutrition, respiration, and genetics. Hands-on scientific experiences are designed to enhance student's understanding of Agriculture, the environment, and society. Animal Science 3-4 meets the University of California's "G" list of required courses for college admissions.

### **Animal Science 5-6 (Capstone)**

Animal Science 5-6 is a course designed to provide students an applied scientific study in the area of animals and veterinary care. This course focuses on the application of animal anatomical and physiological knowledge to the maintenance and improvement of animal health to include; clinical diagnosis of disease and parasites, administration of medications, and common surgical procedures. Animal Science 5-6 meets the University of California's "G" list of required courses for college admissions.

### **Veterinary Science (Capstone)**

Veterinary Science is an advanced level course that covers topics such as: laboratory research, anatomy and physiology, circulatory and respiratory systems, nutrition, genetics, and more when it comes to animals. It will also give students the opportunity to research various professional opportunities within the veterinary field. Veterinary Science meets the University of California's "G" list of required courses for college admissions.

## Ornamental Horticulture Pathway:

### **Ornamental Horticulture (Intro)**

Ornamental Horticulture will provide the student with the necessary entry-level techniques for a career in ornamental horticulture and the nursery industry. Topics covered include the anatomy and physiology of plants and the requirements for plant growth. Ornamental Horticulture meets the University of California's "G" list of required courses for college admissions.

### **Landscape Design and Maintenance (Concentrator)**

Landscape Design and Maintenance is a course where students will receive training in the greenhouse as well as on landscapes. Students will learn about topics such as lawn maintenance, care, and management, lawn installation, landscape design, landscape installation, as well as landscape construction. Landscape Design and Maintenance meets the University of California's "G" list of required courses for college admissions.

### **History and Art of Floral Design II (Concentrator)**

The History and Art of Floral Design II provides an introduction to artistic and creative perception including aesthetic valuing through a series of projects in various media including tempera, pencil, flowers, tile, and a variety of papers. Students are also introduced to the elements and principles of visual art design such as line, shape/form, color, balance, and emphasis using a series of floral-based projects to explore the connections, relations, and application to visual arts design. History and Art of Floral Design II meets the University of California's "F" list of required courses for college admissions.



## Ornamental Horticulture Pathway cont:

### **Greenhouse and Horticulture Practices (Capstone)**

Designed as an advanced class in ornamental horticulture, students learn and apply skills in both operating and maintaining environments for correct plant growth. Labs and activities will have an emphasis on plant identification and control of agriculture pests and weed control, plant environments, soil media, plant growth, plant propagation, transplanting, and merchandising of ornamental plants. In addition, purchasing and inventory control, and safe use of nursery materials, supplies, and equipment. Greenhouse and Horticulture Practices meets the University of California's "G" list of required courses for college admissions.

### **History and Art of Floral Design III (Capstone)**

In History and Art of Floral Design III, the students will explore the floriculture industry on a more technical and advanced level. Students will expand upon their creative expression, aesthetic valuing, perceptions, and historical and cultural context. The art elements and principles of design will serve as a foundation for each unit covered. History and Art of Floral Design III meets the University of California's "F" list of required courses for college admissions.

### **Advanced Floriculture (Capstone)**

The advanced floral design class is designed to give the student advanced design techniques including wedding, sympathy, and high-style floral design. This includes everlasting flowers, oriental style of design, contemporary design and techniques, and harvest and distribution. This class also goes into greater detail of operating a retail flower shop and covers careers and continuing education. Advanced Floriculture meets the University of California's "F" list of required courses for college admissions.



# Arts, Media, & Entertainment



## About the Industry Sector:

The Arts, Media, and Entertainment sector necessitates a variety of skills such as creative imagination, technical proficiency, and effective communication to thrive. Continuously adapting to new technologies, this industry places importance on collaboration, innovation, and decisive actions. Its goal is to enrich life by delivering visual, auditory, and interactive experiences.



# PATHWAY MAP

### PATHWAY

### INTRO

### CONCENTRATOR

### CAPSTONE

#### Design, Visual, & Media Arts

DSLR Photography 1-2  
-----  
Intro to Digital Art

DSLR Photography 3-4  
-----  
3D Computer Graphics & Animation 1-2  
-----  
Graphic Design II

Desktop Publisher & Photo Journalism  
-----  
3D Computer Graphics & Animation 3-4  
-----  
Graphic Design III  
-----  
Concepts of Visual Communication

#### Performing Arts

Theatre & Stage Technology 1-2  
-----  
Professional Theatre 1-2

Professional Theatre 3-4

Professional Theatre 5-6

#### Production & Managerial Arts

Multimedia Broadcasting 1-2

Video Arts & Production 1-2  
-----  
Multimedia Broadcasting 3-4

Video & Media Production  
-----  
Multimedia Broadcasting 5-6  
-----  
Internship in Video Arts

## LOCATION(S)

Pathway	Beyer	Davis	Downey	Enochs	Gregori	Johansen	Modesto	Elliott
Design, Visual, & Media Arts	●	●	●	●	●	●	●	●
Performing Arts		●	●		●		●	
Production & Managerial Arts			●		●	●	●	



# Arts, Media, and Entertainment

## Courses



### Design, Visual & Media Arts Pathway:

#### **DSLR Photography 1-2 (Intro)**

DSLR (Digital single-lens reflex) Photography gives the student training in still picture acquisition, graphic editing and retouching, presentation graphics and systems (electronic & print), lighting design, special effects and titling, multimedia workflows, as well as studio based and field (location) photo production on both DSLR and mirrorless cameras. DSLR Photography 1-2 meets the University of California's "F" list of required courses for college admissions.

#### **Intro to Digital Art (Intro)**

This is an introductory course to digital arts. Students will have an introduction to concepts as well as hands-on experiences such as photography skills using Adobe Photoshop for photo enhancement, design elements using Adobe Illustrator to create vector graphics, video production using Adobe Premiere to edit stories and footage, and animation principles using Autodesk's Maya software. Intro to Digital Art meets the University of California's "F" list of required courses for college admissions.

#### **DSLR Photography 3-4 (Concentrator)**

DSLR (Digital single-lens reflex) Photography 3-4 provides students with the opportunity to expand and enhance skills developed in DSLR Photography 1-2. Advanced Photography gives the student training in still picture acquisition, graphic editing and retouching, presentation graphics and systems (electronic and print), lighting, design, special effects and titling, multimedia workflows, as well as studio based and field (location) photo production on both DSLR and mirrorless cameras. DSLR Photography 3-4 meets the University of California's "F" list of required courses for college admissions.

#### **3D Computer Graphics and Animation 1-2 (Concentrator)**

In this course, students will pursue an in-depth study of fundamental concepts of 2D and 3D computer graphics. Students will learn to produce high quality images and animated sequences using 3D software, and to develop their own 3D content using the tools learned, techniques studied, and their own creativity. 3D Computer Graphics and Animation 1-2 meets the University of California's "F" list of required courses for college admissions.

#### **Graphic Design II (Concentrator)**

This course will explore the ever-changing trends in the global field of design and its application in print (two dimensional), product and environmental (three dimensional). Graphic Design II meets the University of California's "F" list of required courses for college admissions.

#### **Desktop Publisher and Photo Journalism (Capstone)**

This two-semester course combines the high-level critical thinking, reading, and writing skills of print journalism with the artistic, creative, and aesthetic skills of visual and graphic arts, photography, and computer technology. Desktop Publishing and Photo Journalism meets the University of California's "F" list of required courses for college admissions.



## Design, Visual, & Media Arts Pathway cont:

### **3D Computer Graphics and Animation 3-4 (Capstone)**

In this course, students will expand and apply the foundational skills and techniques learned in the introduction course of 3D Graphics and Animation. Students will learn to produce professional/industry standard images and animated sequences using 3D software and utilize their technical and artistic knowledge to develop their own 3D animation short film. 3D Computer Graphics and Animation 3-4 meets the University of California's "F" list of required courses for college admissions.

### **Graphic Design III (Capstone)**

Graphic Design III gives the student the opportunity to build on their technical knowledge and requisite skills needed for successful entry-level employment in media related occupations, and/or advanced post-secondary studies. It provides intermediate to advanced experience in computer-generated print and beginning experience in motion graphics. Professional software will continue to be explored through demonstration and studio practice. Graphic Design III meets the University of California's "F" list of required courses for college admissions.

## Performing Arts Pathway:

### **Theatre and Stage Technology 1-2 (Intro)**

This course covers a range of topics include producing, staging, designing, filming, editing, lighting, storyboarding and script writing, rehearsing, audio creation, audio editing, file conversion and file management as well as marketing and promoting live and recorded productions. Theatre and Stage Technology 1-2 meets the University of California's "F" list of required courses for college admissions.

### **Professional Theatre 1-2 (Intro)**

Professional Theatre is an intro course in the Professional Theatre pathway that will introduce basic acting skills, play analysis, scene study, monologues, and performance techniques. Students will study a range of professional models from Broadway to regional to community theatre to identify established practices and basic competencies required to create professional theatre. Professional Theatre 1-2 meets the University of California's "F" list of required courses for college admissions.

### **Professional Theatre 3-4 (Concentrator)**

Professional Theatre 3-4 is an actor's training course that introduces the student to the skills and knowledge necessary to pursue a professional acting career, as well as providing knowledge and practical experience for careers in the collaborative field of professional theater. Professional Theatre 3-4 meets the University of California's "F" list of required courses for college admissions.

### **Professional Theatre 5-6 (Capstone)**

Students will be exposed to practices and skills that they can rely on during an audition process, either for admission to a post-secondary training program or in an industry context. Students will learn how to curate, plan, produce, market, present, and reflect on a Capstone Showcase in which is the summative assessment for this two-course sequence. Professional Theatre 5-6 meets the University of California's "F" list of required courses for college admissions.

### **Concepts of Visual Communication (Capstone)**

This is a capstone course in the Performing Arts Academy (PAA) at Modesto High School. Students will have extensive hands-on lab experience designing, developing, and maintaining websites, creating animations, and exploring various graphic design elements to create diverse projects including a professional portfolio. Concepts of Visual Communications meets the University of California's "F" list of required courses for college admissions.



## **Production & Managerial Arts Pathway:**

### **Video Arts and Production 1-2 (Concentrator)**

Video Arts and Production gives the student the opportunity to acquire the technical knowledge and requisite skills needed for successful entry level employment in media related occupations, and/or advanced post-secondary studies. It provides training in still and motion picture acquisition, non-linear editing, presentation graphics and systems (electronic and print), sound and lighting design, digital animation, special effects and titling, multimedia workflows, as well as studio based and field (location) video production. Video Arts and Production 1-2 meets the University of California's "F" list of required courses for college admissions.

### **Video and Media Production (Capstone)**

Video and Media Production gives the student the opportunity to acquire the technical knowledge and requisite skills needed for successful entry level employment in media related occupations and/or advanced post-secondary studies. It provides training in still and motion picture acquisition, non-linear editing, presentation graphics and systems (electronic & print), sound and lighting design, digital animation, special effects and titling, multimedia workflows, as well as studio based and field (location) video production. Video and Media Production meets the University of California's "F" list of required courses for college admissions.

### **Internship in Video Arts (Capstone)**

An internship is a work-based learning experience that provides students the opportunity to apply their technical and academic skills in a professional setting. Students will develop and practice an understanding of the duties and responsibilities of high-skilled career areas, including terminology, climate, protocol, and other information that will enable them to analyze and revise their meaningful future plans. Internship in Video Arts will expose students to the career readiness skills necessary for a successful internship and prepare them for the world of work. The internship is supported with activities and assignments to deepen and enhance the experience. Internship in Video Arts meets the University of California's "F" list of required courses for college admissions.

### **Multimedia Broadcasting 1-2 (Intro)**

This course series explores the advanced commercial and industrial aspects of video production. Students will explore the interaction between the video industry and the business community. Multimedia Broadcasting 1-2 meets the University of California's "F" list of required courses for college admissions.

### **Multimedia Broadcasting 3-4 (Concentrator)**

Multimedia Broadcasting 3-4 will be set up to run like a production company, where students will have to manage all the specifics of major productions. Students will apply what they have learned in previous courses to produce a variety of more advanced video productions. Multimedia Broadcasting 3-4 meets the University of California's "F" list of required courses for college admissions.

### **Multimedia Broadcasting 5-6 (Capstone)**

In Multimedia Broadcasting 5-6 students will coordinate and produce field and broadcast productions to help benefit the school, its students and staff, the district, and the community, giving them first-hand experience in running their own production company. Students will develop the skills and knowledge to be creative partners in industry while building capacity for employment in all areas of the creative workforce. Students will also engage in numerous cross-curricular video and television/broadcasting production projects, supporting learning in their core classes through media and technology. Multimedia Broadcasting 5-6 meets the University of California's "F" list of required courses for college admissions.



# Building & Construction Trades



## About the Industry Sector:

This sector in California offers a foundational program in the Building and Construction Trades industry for high school students. The program combines academic and technical training, focusing on career awareness, exploration, and skill development in the industry. It includes four career pathways: Cabinetry, Millwork, and Woodworking; Engineering and Heavy Construction; Mechanical Systems Installation and Repair; and Residential and Commercial Construction, highlighting construction processes and systems. Students follow a standards-based pathway program to acquire knowledge and skills through hands-on, project-based, and work-based learning. The standards within the Building and Construction Trades sector aim to prepare students for technical training, higher education, and entry into the workforce.



# PATHWAY MAP

PATHWAY

INTRO

CONCENTRATOR

CAPSTONE

Residential & Commercial Construction

Construction Technology 1-2

Construction Technology 3-4

Construction Technology 5-6



## LOCATION(S)

Pathway	Beyer	Davis	Downey	Enochs	Gregori	Johansen	Modesto	Elliott
Residential & Commercial Construction			●			●	●	●



# Building and Construction Trades

## Courses



### Residential and Commercial Construction Pathway:

#### Construction Technology 1-2 (Intro)

This course provides a student experience that develops career ready practices through career exploration in the context of project-based learning. In Construction Technology 1-2, students will cover such topics as blueprint reading, estimation, surveying and site planning, wall framing, electrical, plumbing and more. Construction Technology 1-2 meets the University of California's "G" list of required courses for college admissions.

#### Construction Technology 3-4 (Concentrator)

Students will work productively in small teams of two, use technology to enhance productivity, plan education and career paths, utilize critical thinking, define problems, and persevere in solving them, demonstrate creativity and innovation, employ valid and reliable research methods, and apply appropriate academic and technical skills. In Construction Technology 3-4 students will learn about roof framing, tile setting, drywall, HVAC, weatherization, concrete, and more. Construction Technology 3-4 meets the University of California's "G" list of required courses for college admissions.

#### Construction Technology 5-6 (Capstone)

This course is designed to reinforce knowledge and skills that were attained in the first two Construction Technology courses before moving on to the Capstone course. Construction Technology 5-6 meets the University of California's "G" list of required courses for college admissions.



# Business & Finance



## About the Industry Sector:

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. 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.



# PATHWAY MAP

PATHWAY

INTRO

CONCENTRATOR

CAPSTONE

Business Management

Virtual Business

## LOCATION(S)

Pathway	Beyer	Davis	Downey	Enochs	Gregori	Johansen	Modesto	Elliott
Business Management		●						



# Business and Finances

## Courses



### **Business Management Pathway:**

#### **Virtual Business (Concentrator)**

Virtual Business is a simulated business that is set up and run by students to prepare them for working in a real business environment. With the guidance of a teacher (“consultant”) and real-world business partners, the students determine the nature of their business, its products and services, its management and structure, and engage in the daily operations of running a business. Emphasis is placed on using current business software, communications, and the Internet for business transactions. This simulation takes the teacher outside the traditional instructional paradigm and places the students on the front lines of the business world. Virtual Business meets the University of California’s “G” list of required courses for college admissions.

# Education, Child Development, & Family Services



## About the Industry Sector:

In the Education, Child Development, and Family Services field, students receive the essential academic and technical training needed to pursue careers in high-demand sectors. This sector comprises four interconnected career pathways: Child Development, Consumer Services, Education, and Family and Human Services. The Education pathway focuses on teacher preparation and readies students for roles in childcare and related areas. This pathway includes hands-on projects, work-based learning, and leadership opportunities such as those provided by Family, Career and Community Leaders of America (FCCLA). The Education, Child Development, and Family Services sector standards aim to prepare students for technical training, higher education, and entry into professional fields.

# PATHWAY MAP

**PATHWAY**

**INTRO**

**CONCENTRATOR**

**CAPSTONE**

**Education**

**Education & Child Development 1-2**

**Education & Child Development 3-4**

**Internship in Education & Child Development**

## LOCATION(S)



Pathway	Beyer	Davis	Downey	Enochs	Gregori	Johansen	Modesto	Elliott
Education			●			●	●	



# Education, Child Development, and Family Services

## Courses



### Education Pathway:

#### **Education & Child Development 1-2 (Intro)**

This course helps students understand children's physical, cognitive, emotional, and social growth. It also provides instruction in the care and guidance of young children. This course provides a comprehensive foundation for any career that involves working with children. Education & Child Development 1-2 meets the University of California's "G" list of required courses for college admissions.

#### **Education & Child Development 3-4 (Concentrator)**

Education & Child Development 3-4 is a year-long course that provides students with a detailed knowledge of human development. Instruction includes prenatal development, inherited characteristics, health and safety, guidance and discipline, cultural diversity, and child abuse and neglect. In addition to learning theoretical knowledge, students are able to apply this through practical demonstrations and assignments. Education & Child Development 3-4 meets the University of California's "G" list of required courses for college admissions.

#### **Internship in Education & Child Development (Capstone)**

This is a course in which the study of child development is combined with work with children in an educational setting on a regular basis. It gives students opportunities to develop competence with children and guidelines for understanding the forces that shape human development. Students learn to study their own attitudes toward children and are able to work competently in an educational environment, balancing work, school, and family life. Students completing the course should be equipped with the skills and knowledge to be hired as aides in an educational capacity. Internship in Education & Child Development meets the University of California's "G" list of required courses for college admissions.



# Engineering & Architecture



## About the Industry Sector:

This sector is designed to provide a foundation in engineering and architecture sector pathways and 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 four pathways that emphasize real-world, occupationally relevant experiences of significant scope and depth: Architectural Design; Engineering Technology; Engineering Design; and Environmental Engineering. 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



# PATHWAY MAP

**PATHWAY**

**INTRO**

**CONCENTRATOR**

**CAPSTONE**

Engineering Design

Engineering Design  
-----  
Engineering Essentials

Principles of Engineering

## LOCATION(S)

Pathway	Beyer	Davis	Downey	Enochs	Gregori	Johansen	Modesto	Elliott
Engineering Design					●	●		



# Engineering and Architecture

## Courses



### Engineering Design Pathway:

#### Engineering Design (Concentrator)

In IED students are introduced to the engineering profession and a common approach to the solution of engineering problems, an engineering design process. Students will develop skills in technical representation and documentation of design solutions according to accepted technical standards, and they will use current 3D design and modeling software to represent and communicate solutions. Engineering Design meets the University of California's "D" list of required courses for college admissions.

#### Engineering Essentials (Concentrator)

The course introduces students to engineering concepts that are applicable across multiple engineering disciplines and empowers them to build technical skills using a variety of engineering tools, such as geographic information systems (GIS), 3D solid modeling software, and prototyping equipment. Students learn and apply the engineering design process to develop mechanical, electronic, process, and logistical solutions to relevant problems across a variety of industry sectors, including health care, public service, and product development and manufacturing. Engineering Essentials meets the University of California's "D" list of required courses for college admissions.

#### Principles of Engineering (Capstone)

This course exposes students to some of the major concepts that they will encounter in a postsecondary engineering course of study. Through problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of materials and structures, automation, and kinematics. Principles of Engineering meets the University of California's "D" list of required courses for college admissions.



# Health Science & Medical Technology



## About the Industry Sector:

The standards in this sector represent 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. The standards describe what workers need to know and be able to do to contribute to the delivery of safe and effective health care. The six career pathways are grouped into functions that have a common purpose and require similar attributes. The pathways are Biotechnology, Patient Care, Health Care Administrative Services, Health Care Operational Support Services, Public and Community Health, and Mental and Behavioral Health. Standards for each career path build on and continue the anchor standards with more complexity, rigor, and career specificity.



# PATHWAY MAP

**PATHWAY**

**INTRO**

**CONCENTRATOR**

**CAPSTONE**

**Biotechnology**

**Applied Chemistry & Biotechnology**

**Science & Ethics of Biotechnology**

**Patient Care**

**Medical Science I**

**Medical Science II  
Health Science Careers 1-2**

**Hospital/Health Services Occupations  
-----  
Nursing Assistant Precertification Program  
-----  
Health Science Careers 3-4  
-----  
Sports Medicine**



## LOCATION(S)

Pathway	Beyer	Davis	Downey	Enochs	Gregori	Johansen	Modesto	Elliott
Biotechnology				●				
Patient Care		●			●			●

# Health Science and Medical Technology

## Courses



### Biotechnology Pathway:

#### Applied Chemistry and Biotechnology (Concentrator)

This course allows students to investigate and apply chemistry and biotechnology concepts and methods to understand and address issues related to five essential human needs- Water, Food, Health, Waste Management, and Energy. Throughout the course students will be required to research and develop solutions to threats in these areas of essential needs. Applied Chemistry and Biotechnology meets the University of California's "D" list of required courses for college admissions.

#### Science and Ethics of Biotechnology (Capstone)

In this course students examine concepts and conduct relevant and authentic laboratory investigations. Students review and extend learning in cell biology, biomolecules and atomic structure, DNA, gene expression and genetic code, evolution, physiology, and energy and metabolism. Science and Ethics of Biotechnology meets the University of California's "D" list of required courses for college admissions.

### Patient Care Pathway:

#### Medical Science I (Intro)

This course is designed to acquaint students with an overview of each body system and introduce: (1) medical terminology; (2) ethics, confidentiality, and asepsis and disease prevention; and (3) the significance and importance of cultural awareness. Medical Science I meets the University of California's "G" list of required courses for college admissions.

#### Medical Science II (Concentrator)

Students will understand and apply the following objectives in the physical assessment of a patient: (1) structure and function of the body systems; (2) subjective data; (3) objective data; (4) common abnormal findings; and (5) application and documentation. Medical Science II meets the University of California's "G" list of required courses for college admissions.

#### Hospital and Health Services Occupations (Capstone)

Students learn entry-level skills in basic patient care. Students in this course will obtain hands-on training in direct patient care/nursing departments. Hospital and Health Services Occupations meets the University of California's "G" list of required courses for college admissions.

#### Nursing Assistant Precertification Program (Capstone)

Students attain state competencies for employment as nurse's aide or home health aide and apply for certification. Students also learn entry-level skills for employment in institutional maintenance and basic nursing and home management. Nursing Assistant Precertification Program meets the University of California's "G" list of required courses for college admissions.



## Patient Care Pathway cont:

### **Sports Medicine (Capstone)**

Students enrolled in this course will learn the basic skills and fundamentals necessary for careers in rehabilitation of the musculoskeletal system including sports medicine and physical therapy. Students will demonstrate knowledge of the anatomy and disorders of the musculoskeletal system, physical conditioning, common athletic injury recognition, assessment, management, and prevention. Sports Medicine meets the University of California's "G" list of required courses for college admissions.

### **Health Science Careers 1-2 (Concentrator)**

Health Science Careers 1-2 will cover six Healthcare Areas (HCA) including Dentistry, Emergency Medical Technician, Mental Health, Nursing, Pharmacology, and Therapeutic Services. Health Science Careers 1-2 meets the University of California's "D" list of required courses for college admissions.

### **Health Science Careers 3-4 (Capstone)**

Health Science Careers 3-4 will cover eight additional Healthcare Areas (HCA) including Clinical Lab Practices, Environmental Health and Safety, Forensics, Health Information Management, Medical Imaging, Ophthalmology, Sports Medicine, and Veterinary Medicine. Health Science Careers 3-4 meets the University of California's "D" list of required courses for college admissions.



# Hospitality, Tourism, & Recreation



## About the Industry Sector:

The Hospitality, Tourism, and Recreation sector equips students with the necessary academic and technical foundation to pursue rewarding and in-demand careers within these interconnected industries. Within this sector, Modesto City Schools offers the career pathway of Food Science, Dietetics, and Nutrition. The standards are crafted to blend academic and technical concepts seamlessly. The anchor standards encompass comprehensive technical knowledge and skills from Consumer and Family Studies that prepare students for further exploration in these pathways. These standards aim to ready students for technical training, higher education, and career entry.



# PATHWAY MAP

**PATHWAY**

**INTRO**

**CONCENTRATOR**

**CAPSTONE**

Food Science, Dietetics, & Nutrition

Culinary Arts I

Culinary Arts II

Culinary Arts III  
-----  
Culinary Arts III 2 HR

## LOCATION(S)

Pathway	Beyer	Davis	Downey	Enochs	Gregori	Johansen	Modesto	Elliott
Food Science, Dietetics, & Nutrition		●	●				●	



# Hospitality, Tourism, and Recreation

## Courses



### **Food Science, Dietetics, and Nutrition Pathway:**

#### **Culinary Arts I (Intro)**

This course gives students a hands-on education in nutrition, sanitation, safe food handling, and meal planning. In addition to preparing and planning meals, students will discover food preparation techniques, etiquette, and traditions from different cultures. Culinary Arts I meets the University of California's "G" list of required courses for college admissions.

#### **Culinary Arts II (Concentrator)**

Students will apply advanced food preparation techniques and meal planning. Students will compare food preparation techniques, meal etiquette, and food traditions of different cultures. Students will also identify pre-professional associations and careers in the food and nutrition industries. Culinary Arts II meets the University of California's "G" list of required courses for college admissions.

#### **Culinary Arts III (Capstone)**

Students receive instruction in preparation of specialty dishes that require greater skills and time than food prepared in Culinary Arts I and II. Included is instruction in advanced meat cutting and cookery and sauces. Students prepare stocks, sauces, and various types of soups. Also included are learning activities that involve menu planning, buying, the storage of food, portion control, and restaurant accounting. Culinary Arts III meets the University of California's "G" list of required courses for college admissions.

# Information & Communication Technology



## About the Industry Sector:

Information and Communication Technologies (ICT) have expanded the 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 the ICT 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 ICT sector meets national criteria for high demand, high wages, and high skills and provides students with excellent opportunities for interesting work and good pay. More than 70 percent of jobs in this sector will require a bachelor's degree or higher by 2018.

# PATHWAY MAP



**PATHWAY**

**INTRO**

**CONCENTRATOR**

**CAPSTONE**

**Information Support & Services**

**Cybersecurity 1-2**

**Cybersecurity 3-4**  
-----  
**Honors Networking 1-2**

**Honors Cybersecurity 5-6**  
-----  
**Internship in Computer Science**

**Software & Systems Development**

**Exploring Computer Science**  
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**Robotics Engineering I**  
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**2D Video Game Development**  
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**3D Graphics & Animation for Computer Science**

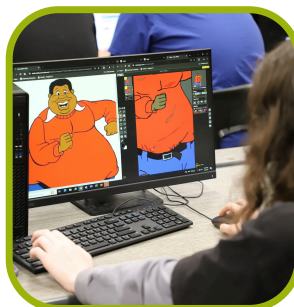
**Honors Computer Programming 1-2**  
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**Robotics Engineering II**  
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**Artificial Intelligence**  
-----  
**Web Application Development**  
-----  
**Honors Data Science**  
-----  
**Honors Video Game Development 1-2**  
-----  
**Honors Video Game Development 3-4**

**Robotics Engineering III**  
-----  
**Honors Software Engineering**  
-----  
**Honors Individual Studies in Computer Science**

## LOCATION(S)



Pathway	Beyer	Davis	Downey	Enochs	Gregori	Johansen	Modesto	Elliott
Information Support & Services		●		●			●	
Software & Systems Development	●			●				



# Information and Communication Technologies

## Courses



### Information Support and Services Pathway:

#### **Cybersecurity 1-2 (Intro)**

Cybersecurity 1-2 prepares students for a career in network administration and information technology support services with a focus on cyber security. This course includes a series of technical modules that provide hands-on knowledge and skills development in computer hardware, operating systems, networking, coding, and security infrastructures. Industry-based curricula are utilized in network and virtual image environments to emulate real-life scenarios and prepare students for industry recognized certifications. Cybersecurity 1-2 meets the University of California's "D" list of required courses for college admissions.

#### **Cybersecurity 3-4 (Concentrator)**

This course builds on the technical skills and knowledge students acquired in Cybersecurity 1-2. Cybersecurity 3-4 prepares students for post-secondary information technology majors and for careers in network administration and information technology support services with a focus on cybersecurity. Cybersecurity 3-4 meets the University of California's "D" list of required courses for college admissions.

#### **Honors Networking 1-2 (Concentrator)**

This course is designed for students who want to pursue careers in IT and learn how computers work, how to assemble computers, and how to troubleshoot hardware and software issues and want to build a foundation for success in computer networking-related careers and degree programs. Honors Networking 1-2 meets the University of California's "D" list of required courses for college admissions.

#### **Honors Cybersecurity 5-6 (Capstone)**

Honors Cybersecurity 5-6 is the advanced capstone class of the pathway. Ethical hacking and penetration testing concepts will be introduced with an emphasis on information security research. Honors Cybersecurity 5-6 meets the University of California's "D" list of required courses for college admissions.

#### **Internship in Computer Science (Capstone)**

An internship is a work-based learning experience that provides students the opportunity to apply their technical and academic skills in a professional setting. This course will expose students to the career readiness skills necessary for a successful internship and prepare them for the world of work. The internship is supported with activities and assignments to deepen and enhance the experience. The structure of the internship aligns with local policy and program expectations for internships. Internship in Computer Science meets the University of California's "G" list of required courses for college admissions.



## Software & Systems Development Pathway:

### Exploring Computer Science (Intro)

Exploring Computer Science provides students with opportunities for problem solving, designing, collaborating, critical thinking, and communicating. Students will be introduced to the central ideas of computer science, inviting students to develop the computational thinking vital for success across multiple disciplines, and giving everyone the chance to learn coding, a skill that provides limitless creative opportunity. Exploring Computer Science meets the University of California's "G" list of required courses for college admissions.

### Robotics Engineering I (Intro)

Robotics Engineering Technology explores the interaction of science and technology. Students work in small groups to design, program, and construct robotic devices used in small class competitions, and possibly including competition at NASA's U.S. FIRST. Robotics Engineering I meets the University of California's "G" list of required courses for college admissions.

### 2D Video Game Development (Intro)

This course is designed for students who want to learn more about computer science through the process of how a video game is conceived, put together and published; it focuses on the development of game design fundamentals and on establishing a framework for the analysis, problem-solving, and design of games. Students learn how to deconstruct, re-construct, and build core mechanics in game systems through the application of design criteria. 2D Video Game Development meets the University of California's "F" list of required courses for college admissions.

### 3D Graphics and Animation for Computer Science (Intro)

Students will pursue an in-depth study of the 2D and 3D computer graphics and animation fundamentals necessary for advanced studies in computer science. Topics include modeling, printing, painting, sculpting, mapping, lighting, rendering, animation, compositing, visual effects, scripting, and virtual reality. 3D Graphics and Animation for Computer Science meets the University of California's "F" list of required courses for college admissions.

### Honors Computer Programming 1-2 (Concentrator)

This course introduces students to basic features of the Java programming language. Students will be introduced to Java primitive and non-primitive data types, control flow constructs, built-in class libraries, Java applets, object-oriented programming concepts such as classes, objects, graphical user interfaces, method overloading, and encapsulation. Honors Computer Programming 1-2 meets the University of California's "C" list of required courses for college admissions.

### Robotics Engineering II (Concentrator)

Students learn the concepts of mechanics, engineering, and computer programming in order to build an autonomous robot. They also develop the skills of effective communication, teamwork and problem solving. Students will learn the value of writing skills when they present projects that describe the ideas embodied in their robotic designs. Students will be expected to share project results both electronically (web presentation) and during public presentations with peers, teachers, and community professionals. Robotics Engineering II meets the University of California's "G" list of required courses for college admissions.

### Artificial Intelligence (Concentrator)

Students taking this course will learn the fundamentals of artificial intelligence, including programming, problem solving, algorithmic techniques, intelligent automation, machine learning, and ethical considerations. Emphasis is placed on artificial intelligence in the context of industrial and community applications. Students will efficiently design, develop, and assess Intelligent Agents using Python and probability. Artificial Intelligence meets the University of California's "C" list of required courses for college admissions.



## Software & Systems Development cont:

### **Web Application Development (Concentrator)**

Students will explore the historical and rapidly changing trends in the field of design for the web. Students will use their design expertise to propose a project that will be built throughout the year. They will implement their design using application of visual arts and elements of design, color, usability, and accessibility; HTML markup, CSS styling, Grid based web design, Responsive web development, JavaScript, Document Object Model, database functions, data modeling and database design. Web Application Development meets the University of California's "F" list of required courses for college admissions.

### **Honors Data Science 1-2 (Concentrator)**

In this course, students will learn to understand, ask questions, and represent data through project-based units. The units will give students opportunities to be data explorers through active engagement, developing their understanding of data analysis, sampling, correlation/causation, bias and uncertainty, modeling with data, making and evaluating data-based arguments, and the importance of data in society. Honors Data Science 1-2 meets the University of California's "C" list of required courses for college admissions.

### **Honors Video Game Development 1-2 (Concentrator) 3-4 (Concentrator)**

These courses introduce students to the entire process of how a video game is conceived, how it is put together, and how it is published using industry leading software. Students are introduced to the game development process (and principles associated with it), elements of game play, and the items needed for successful management of the game project. Students are also introduced to leading industry software and the various tools that can be used in creating their games with a powerful game engine. Students will build a variety of 3d objects and environments for their video games. Teams will plan, assemble, and market a video game using the tools learned. Both courses meet the University of California's "F" list of required courses for college admissions.

### **Robotics Engineering III (Capstone)**

This course is designed for self-directed learner students whose educational needs are beyond the level of the other Industrial Technology/Engineering courses. Each student's advanced course of study will coincide with the student's personal career choice, and/or educational goals in STEM fields of study, and he/she will work individually with the teacher towards mutually agreed upon goals, objectives, and activities. Students will demonstrate mastery of content and process by completion and presentation of the assigned long-term projects. Robotics Engineering III meets the University of California's "G" list of required courses for college admissions.

### **Honors Software Engineering (Capstone)**

Students taking this course will learn the fundamentals of Software Engineering, including project life cycle, project proposal, timeline, scrum/agile software development, client communication, specifications, requirements, product design, team dynamics, skills assessment, version control, minimally viable product, and testing. Students will create projects utilizing Software Engineering principles and process with the instructor acting as the project manager. Honors Software Engineering meets the University of California's "D" list of required courses for college admissions.

### **Honors Individual Studies in Computer Science (Capstone)**

This unique course offers an individualized program of study for junior and senior students with specific career goals in the field of Computer Science. Students will choose an instructor approved path of study through this course's extensive units which encapsulate virtually all areas of computer science -- and which will reflect student's areas of greatest learning interest. This course incorporates advanced mathematical concepts, principles, and skills to help students prepare for post-secondary studies and careers in the field of Computer Science. Honors Individual Studies in Computer Science meets the University of California's "C" list of required courses for college admissions.



# Marketing, Sales, & Service



## About the Industry Sector:

The Marketing, Sales, and Services sector focuses on preparing individuals for various career opportunities related to marketing, sales, and entrepreneurship. It emphasizes skills in communication, small business management, advertising, marketing strategies, and promotion. The sector offers pathways in Marketing, Professional Sales, and Entrepreneurship/Self-Employment to meet the demand for marketing professionals with diverse skills. This sector provides a foundation for further education, career entry, and success in the global marketplace, offering students a range of career options.



# PATHWAY MAP

**PATHWAY**

**INTRO**

**CONCENTRATOR**

**CAPSTONE**

**Professional Sales**

Employment Opportunities 1-2

Employment Opportunities 3-4

Employment Opportunities 5-6

**Entrepreneurship/Self Employment**

Marketing Essentials

Entrepreneurship 1-2

Entrepreneurship 3-4

## LOCATION(S)

Pathway	Beyer	Davis	Downey	Enochs	Gregori	Johansen	Modesto	Elliott
Professional Sales			●					
Entrepreneurship/Self Employment					●			



# Marketing, Sales, and Services

## Courses



### Professional Sales Pathway:

#### **Employment Opportunities 1-2 (Intro) 3-4 (Concentrator)**

This course is designed to help students acclimate into the professional real world and prepare them for relationships throughout their lives. Employment Opportunities 1-2 provides hands-on learning and direction, as students develop realistic plans for their own careers and continued education. Employment Opportunities 3-4 offers student awareness of the connection between schoolwork and the real world as they investigate: Personal Growth and Character, Responsible Citizenship, Communication Skills, Problem Solving Life Skills, Dealing with Constant Change, Managing Finances and Exploring Career Pathways. Employment Opportunities 1-4 meet the University of California's "G" list of required courses for college admissions.

#### **Employment Opportunities 5-6 (Capstone)**

Students will learn skills related to retail merchandising in the areas of display, sales, check out, inventory, receiving, cashier, and other areas. They will work in various stations of a local store and will rotate through workstations to obtain a range of experiences in marketing. There will also be in-store classroom work which will cover various sales techniques, use of the cash register, making proper change, store security, customer relations, and receiving/checking methods. Students will meet in a classroom and work in stores located throughout the community including Vintage Faire Mall. Employment Opportunities 5-6 meets the University of California's "G" list of required courses for college admissions.



## **Entrepreneurship/Self-Employment Pathway:**

### **Marketing Essentials (Intro)**

The Marketing Essentials course provides a comprehensive three-pronged approach. First, it explores marketing practices and principles at both the retail and industrial level to give students an overview of the importance of marketing to the business world. Second, it stresses the mathematics fundamentals and applications they need to pursue marketing careers. Third, through values clarification, students identify their interest and aptitudes in a chosen marketing career. Marketing Essentials meets the University of California's "G" list of required courses for college admissions.

### **Entrepreneurship 1-2 (Concentrator)**

This course offers lessons that include a multitude of concepts: such as competitive advantage, ownership, opportunity recognition, marketing, finance, and product development. Each student works toward completing a business plan, which will be presented in a classroom competition. The winners from each classroom attend the regional event in hopes of reaching the national competition held annually in New York City. NFTE Entrepreneurship-Owning Your Future meets the University of California's "G" list of required courses for college admissions.

### **Entrepreneurship 3-4 (Capstone)**

Students will use their entrepreneurial skills and mindset to design and test business concepts and develop validated business models. Students conduct customer interviews, work with industry mentors, develop marketing campaigns and financial and operational plans in preparation for launching their businesses. Students will have opportunities to pitch their business concepts to potential investors locally, regionally, and nationally. It is designed as a comprehensive road map towards completing the Certiport Entrepreneurship and Small Business Management certification exam. Entrepreneurship 3-4 meets the University of California's "G" list of required courses for college admissions.



# Public Services



## About the Industry Sector:

A public service is a government-provided service to citizens directly or through financing another entity. Careers in public service are distinct as they address critical public agenda issues and deliver essential services from local to global levels. Public service professions present various career paths, such as Public Safety, Emergency Response, and Legal Practices. Students participate in a program combining academic and technical training, focusing on career awareness, exploration, skill development, and preparation for further education and training. This structured pathway program integrates classroom, lab, project, and work-based learning to apply knowledge and skills. The sector's standards aim to equip students for technical training, higher education, and entry-level jobs.



# PATHWAY MAP

PATHWAY	INTRO	CONCENTRATOR	CAPSTONE
Public Safety		Criminal Justice 1-2 ----- Criminal Justice 3-4	Criminal Justice 5-6
Emergency Response		First Responder ----- Fire Protection 1-2	Fire Protection 3-4
Army JROTC	Introduction to JROTC Drill ----- JROTC 1-2	JROTC 3-4	JROTC 5-6 ----- JROTC 7-8

## LOCATION(S)

Pathway	Beyer	Davis	Downey	Enochs	Gregori	Johansen	Modesto	Elliott
Public Safety		●						
Emergency Response		●						
Army JROTC	●							



# Public Services

## Courses



### Public Safety Pathway:

#### **Criminal Justice 1-2 (Intro)**

This course prepares high school students for work in entry-level positions in Public Safety through classroom instruction, hands-on training, and community experience. The Public Safety pathway encompasses career opportunities in a variety of jobs in which the main focus is ensuring the general safety and well-being of the community (ie: law enforcement, fire protection, emergency medical services and military). Criminal Justice 1-2 meets the University of California's "G" list of required courses for college admissions.

#### **Criminal Justice 3-4 (Concentrator)**

Students enrolled in this course will obtain entry-level skills for police and security-related occupations. Students are exposed to careers in law enforcement; federal, state, and local systems; and specified California laws. Students will develop a deeper understanding of the systems of Criminal Justice in the American society, including law enforcement, courts, and corrections. Criminal Justice 3-4 meets the University of California's "G" list of required courses for college admissions.

#### **Criminal Justice 5-6 (Capstone)**

Students enrolled in Criminal Justice 5-6 obtain entry-level skills for police and security-related occupations. Students are exposed to careers in law enforcement; federal, state, and local systems; and specified California laws. Students with demonstrated proficiency in classroom activities and/or appropriate attitudes may be assigned to community classroom sites such as the district attorney, police department, attorney's office, or communications/dispatch. Criminal Justice 5-6 meets the University of California's "G" list of required courses for college admissions.

### Emergency Response Pathway:

#### **First Responder (Intro)**

Short of certification, this course is designed to instruct a student to the level of First Responder, who serves as a vital link in the chain of the health care system. This curriculum includes skills necessary for the individual to provide emergency medical care with a limited amount of equipment. First Responder meets the University of California's "G" list of required courses for college admissions.

#### **Fire Protection 1-2 (Concentrator) 3-4 (Capstone)**

These courses provide students with an overview of fire protection thus enabling the student to acquire entry-level knowledge along with some job shadowing experience. Students will learn the standard operating procedures of the fire service, receive hands on training with the specialized equipment of the fire service, as well as certification in First Aid and CPR. Fire Protection 1-2 and Fire Protection 3-4 meet the University of California's "G" list of required courses for college admissions.



## Army Junior Reserve Officers' Training Corps (JROTC):

### **JROTC 1-2 (Intro)**

The Army JROTC 1-2 Program is the first of four courses in the Army Junior Reserve Officers' Training Corps (JROTC) high school program. The JROTC program is designed to help develop strong leaders and model citizens. As a first year Cadet, Cadets will be introduced to content that will help the leader within them emerge. JROTC 1-2 meets the University of California's "G" list of required courses for college admissions.

### **JROTC 3-4 (Concentrator)**

The Army JROTC 3-4 Program is the second of four courses in the Army Junior Reserve Officers' Training Corps (JROTC) high school program. The JROTC program is designed to help develop strong leaders and model citizens. As a second year Cadet, Cadets will continue to build on Unit 1 knowledge and skills, find themselves being introduced to new content that will help them develop as a leader in the program, school, and community. JROTC 3-4 meets the University of California's "G" list of required courses for college admissions.

### **JROTC 5-6 (Capstone)**

The Army JROTC 5-6 Program is the third of four courses in the Army Junior Reserve Officers' Training Corps (JROTC) program. This course will focus on leadership skills, post-secondary planning, career exploration, creating a portfolio, decision making and civic duties and responsibilities of U.S. Citizens. JROTC 5-6 meets the University of California's "G" list of required courses for college admissions.

### **JROTC 7-8 (Capstone)**

The Army JROTC 7-8 Program is the final of four courses in the Army Junior Reserve Officers' Training Corps (JROTC) program. This course will expand on leadership skills and personal growth, team building, project management and professional development. JROTC 7-8 meets the University of California's "G" list of required courses for college admissions.



# Transportation



## About the Industry Sector:

This sector in California is dedicated to laying the groundwork for transportation services for students in industrial technology education. The Transportation sector pathways focus on providing students with real-world experiences in Operations, Structural Repair and Refinishing, and Systems Diagnostics, Service, and Repair. These pathways aim to blend academic and technical training, emphasizing career awareness, exploration, and skill development. Key components of this sector include classroom instruction, hands-on learning, project-based activities, and leadership training. The standards within this sector aim to equip students for further training, higher education, and entry into the workforce.



# PATHWAY MAP

**PATHWAY**

**INTRO**

**CONCENTRATOR**

**CAPSTONE**

**Systems Diagnostics, Services, & Repair**

21st Century Automotive 1-2

21st Century Automotive 3-4  
(Coming '25-'26)

21st Century Automotive 5-6  
(Coming '26-'27)

## LOCATION(S)

Pathway	Beyer	Davis	Downey	Enochs	Gregori	Johansen	Modesto	Elliott
Systems Diagnostics, Services, & Repair							●	



# Transportation

## Courses



### Systems Diagnostics, Service, and Repair Pathway:

#### **21st Century Automotive 1-2 (Intro)**

A basic automotive technology program for exploratory and/or entry level students who plan to go into the automotive repair industry. It is a study of the fundamentals in theory and operation of the major parts of the automobile directed toward giving the student a general knowledge of the automobile. Major emphasis is given to vocabulary and operational principles of the automobile. 21st Century Automotive 1-2 meets the University of California's "G" list of required courses for college admissions.

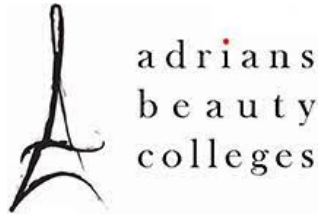


# Fashion & Interior Design



*Interested in becoming a Cosmetologist?*

Check out the **FREE** program offered through North Adrian's Beauty College to Modesto City School's Juniors and Seniors!



<b>Program:</b>	Cosmetologist
<b>Cost:</b>	\$19,641 <b>FREE!</b>
<b>Duration:</b>	13 months

Twice during the school year students are offered the opportunity to enroll at North Adrian's Beauty College.

Semester 1: Enrollment is open to both Juniors **and** Seniors.

Semester 2: Enrollment is open to current **Juniors** only.

*Information will be sent to your Counselor, Work Experience Educator, and Career Navigator when the enrollment window opens. Please check in with them periodically if interested.*



## LOCATION(S)

Pathway	Beyer	Davis	Downey	Enochs	Gregori	Johansen	Modesto	Elliott
Cosmetology at Adrian's Beauty College	●	●	●	●	●	●	●	●

# STUDENT SECTION



## 1. Industry Sector Information Flyers

*Flyers that explain what each industry is about, reasons why you should take classes in that industry, and how you'll benefit from them.*

## 2. My CTE Plan

*A worksheet for you to keep track of the industries, courses and careers you are interested in.*

## 3. Planning For My Future

*A worksheet for you to plan out the courses you'll need to take in your chosen industry or pathway each year you are in high school.*



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# Agriculture & Natural Resources

## Industry Sector



## What is Agriculture & Natural Resources all about?

Have you ever wondered where the food you eat got its start? If so, you might be interested in the Agriculture & Natural Resources sector, which could be the perfect fit for you! This sector not only helps produce the food that sustains us, but also focuses on conserving our natural resources. It offers a diverse range of pathways that can deepen your connection to the natural world. From agricultural careers and courses in animal science, floral design, and plant science, to agricultural mechanics and beyond, there are endless opportunities to explore in the Agriculture & Natural Resources sector. See your counselor to sign up for Agriculture classes.

## Highlights

- Agriculture classes provide hands-on learning
- Students gain real life experiences
- Agriculture students utilize school greenhouses, agriculture mechanic shops, and school farms
- FFA involvement makes a positive difference in the lives of students
- All courses meet the University of California's A-G list of required courses for college admissions.



## Student Spotlights



"Agriculture is the foundation that our country was built on because we feed the world. Ag means jobs and agriculture classes are a good place for students that want to get hands on training and career planning. I have enjoyed every minute of my time in agriculture classes and FFA!"

Willow Piotrowski - Junior



"I believe it is very important to take a CTE/ AG class because it prepares you for your future. It helps you gain experience, patience, and responsibility while working in a leadership environment that pushes you outside of your comfort zone and boosts your confidence. I am very thankful for all the opportunities FFA has offered me and how big of an impact it's made on my life. I have found what I am passionate about all because of the people surrounding FFA, that have pushed me to where I am today."

Katherine Higgins - Senior



Scan QR code for more information

# Arts, Media & Entertainment Industry Sector



## What is Arts, Media & Entertainment all about?

Do you have a brain that loves to create? If you have a passion for Photography, Videography, Digital Art and Design, Animation, or Performing Arts, this sector could be the perfect fit for you! For Video & Performing Arts, students can learn what it takes to work in front of the camera or live audience, or behind the scenes with a crew and equipment helping create the production. AME classes bring your imagination to life through digital creations in Design, Photography, and 3D Animation. These classes also have possibilities for internships, industry certifications and so much more! See your counselor to sign up for Arts, Media, and Entertainment classes.

## Highlights

- AME classes provide hands-on learning and training for the Industry
- Students gain Performance and Production Experience
- Students work with current Industry Equipment
- AME students have the opportunity to work in Industry related Internships
- All courses meet the University of California's A-G list of required courses for college admissions



## Student Spotlights



"I think that taking a CTE graphic design class is an excellent choice because you get to experience things that you would not normally have the opportunity to be involved in otherwise. The classes immerse you in hands-on activities that are the same type of activities that you would find in the art world."

Tyler Grant - Senior



"Taking a CTE class in high school is able to help strengthen your discipline as a student, give you real world experience, and creates opportunities beyond the classroom to prepare you for your future."

Breyden Horstman, Senior



Scan QR code for more information

# Building & Construction Trades

## Industry Sector



### What is Building & Construction Trades all about?

Do you like to work with your hands? Do you like to build or fix things? Building & Construction Trades could give you the chance to explore careers that have you earning high wages right after high school. You will develop skills in commercial and residential construction including electrical wiring, plumbing, framing, roofing, drywall, finish work, and construction management. You will also gain an understanding of safety, the use of hand and power tools, blueprint reading, estimating, and construction industry operations. The pathway for this sector is Residential and Commercial Construction. See your counselor to sign up for Construction classes.

### Highlights

- Construction classes provide hands-on learning.
- Student experiences for high demand careers.
- Construction students learn the skills of building a house from the ground up.
- Students use power tools, hand tools, and construction industry equipment.
- All courses meet the University of California’s A-G list of required courses for college admissions.



### Student Spotlights



“I signed up for the construction classes here at Downey so that I could learn basic construction skills and know how to use some tools. Now that I’m in my third year in the program and have learned about the different career opportunities, I want to get into construction management. I’m really looking forward to our field trip to the Apprenticeship Expo next month!”

Jonathan Lozano – Senior



“In the construction class at Downey we learn a little bit about all the different construction trades. It’s nice learning how to use different hand and power tools. I’m currently working on a cornhole project and I’m almost finished with it.”

Ryan Hammond – Senior



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# Business & Finance

## Industry Sector



### What is Business & Finance all about?

Are numbers your strength? Do you like the idea of being your own boss? Then your first stop is the Business and Finance sector! It's where you'll learn the skills you need to manage your own business, giving you the building blocks to dream big. The pathway in this sector is Business Management, where students master basic business principles and procedures and financial services. See your counselor to sign up for Business classes.

### Highlights

- Business classes provide crucial life skills
- Students will get an advantage for College Admissions
- Business students can participate in competitions and community service
- Students learn how to be their own boss
- All courses meet the University of California's A-G list of required courses for college admissions

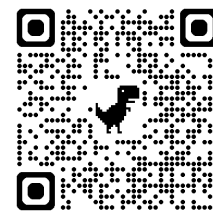


### Student Spotlight



"The benefits of taking a CTE Business class are learning the knowledge and skills to be able to run your own online business."

Nehemiah Hickman - Senior



Scan QR code for more information

# Education, Child Development, & Family Services

## Industry Sector



## What is Education, Child Development, & Family Services all about?

Do you enjoy being around children? Do you like to teach children and help them grow? 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, teaching and related fields. In the Child Development courses you'll learn how to care for and engage with children. You'll learn the development stages of children from conception through early adolescence, how they learn and grow.

## Highlights

- Education classes provide hands-on learning
- Students have FUN!
- Education students gain experience for high demand careers
- Students can earn certifications
- All courses meet the University of California's A-G list of required courses for college admissions



## Student Spotlights



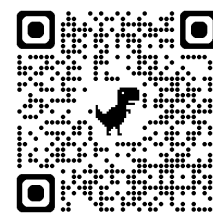
"This class has helped me learn a lot about teaching and child development. It has also helped me become a better teacher."

Future elementary teacher  
Diana Zavalza - Senior



"I have learned about the different stages of learning and development that children go through and why it is important to know each stage. I have learned so much about teaching and hope to be a great one someday."

Future kindergarten teacher  
Ana Campos - Junior



Scan QR code for  
more information

# Engineering & Architecture Industry Sector



## What is Engineering & Architecture all about?

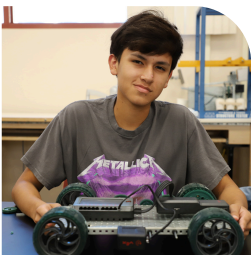
Do you like to figure out how things work and find practical uses for them? Do you enjoy working collaboratively with others? Are you good with fine details? The Engineering and Architecture sector exposes you to careers that match those interests! This sector is designed to provide a foundation in engineering and occupations for students. The Engineering Design Pathway introduces students to embedded technology concepts through project-based learning. Students learn to design, build, and operate automation equipment. See your counselor to sign up for Engineering classes.

## Highlights

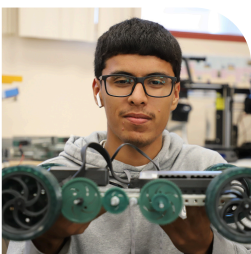
- Engineering classes give students a competitive edge for college admissions
- Engineering classes build a foundation for a successful engineering career
- Engineering classes provide project-based learning
- All courses meet the University of California's A-G list of required courses for college admissions



## Student Spotlights



"This class allows you to be creative and to also think for yourself. Everything is hands on and project based. We are currently working on a robot car and have to program it to have more torque so that it will run slower. This class is also a lot of fun!"  
Emanuel Rivas - Senior



"Taking engineering in high school was fun and it let me try out a lot of different things. It helped me decide if I wanted to go into engineering in college, and I learned to do things that I will use in real life."  
Yael Piedra - Senior



Scan QR code for  
more information

# Hospitality, Tourism, & Recreation

## Industry Sector



## What is Hospitality, Tourism, & Recreation all about?

Do you have a passion for cooking? Do you enjoy hosting events and serving up a good impression? If so, you might be interested in the Hospitality, Tourism and Recreation sector. In these courses students will learn nutrition, sanitation, safe food handling, meal planning, meal preparation techniques, etiquette, and traditions from different cultures. This sector provides students with high-skill, high-demand careers in the food service industry. See your counselor to sign up for Culinary classes.

## Highlights

- Students in the Culinary classes get to cook and eat amazing food
- Students gain invaluable hands-on experience
- Students work cooperatively with friends and have FUN
- Culinary students can obtain certifications for immediate employment in the food service industry
- All courses meet the University of California's A-G list of required courses for college admissions



## Student Spotlights



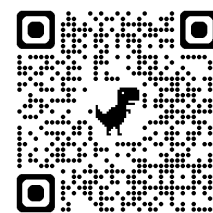
"This class helps you develop a skill that is used every day and it teaches you to feed yourself. I plan to make a career out of cooking and currently work at the Redwood Cafe as a line cook and want to attend the Culinary College in Columbia. My dream would be to become a chef at a high-end restaurant."

Alfredo Martinez - Senior



"I signed up for the culinary classes because I knew very little about cooking. I wanted to learn how to cook more healthy meals after a family member had a heart attack. I've learned so much about different spices and seasonings. I'd love to be a restaurant chef one day!"

Jeremiah Sanchez - Junior



Scan QR code for more information

# Health Science & Medical Technology Industry Sector



## What is Health Science & Medical Technology all about?

Medical and Biotechnology careers are in high demand and there is a need for qualified people to fill the positions. This sector allows students to not only learn about health and medical careers, but to also get first-hand experience. If you want to learn more about careers in the healthcare field and how to get there yourself, then health science and medical technology classes will be the choice for you! See your counselor to sign up for health science classes.

## Highlights

- Health classes provide hands-on learning and training with local professionals
- Students can earn certifications in CPR, First Aid, and obtain a CNA License
- Students are placed in local hospitals and medical facilities to learn with Real Patients
- Students explore career opportunities in a wide range of medical and biotech fields
- All courses meet the University of California's A-G list of required courses for college admissions



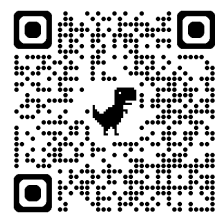
## Student Spotlights



"Taking this CTE class is highly beneficial as it gives students a head start into the world of medicine. It helps prepare us for the transition from high school to college because we will have so much background knowledge about medicine. It's a great opportunity to gain experience in high school as it also helps us understand what career path to take. CTE classes also instills many valuable skills that can be utilized throughout our life, even if one decides to not enter the medical field." - Jymena Nguyen Marquez - Junior



"I signed up for the nursing class at Davis because I want to be an ER nurse. I love helping others and with this class I will go into college with a lot more knowledge and experience in this field."  
Katlynn Rodgers - Senior



Scan QR code for more information

# Information & Communication Technology Industry Sector



## What is Information & Communication Technology all about?

Our world is now entering the age of technology. With it, we are able to experience a wide variety of conveniences including digital media, video games, and even complex software. The Information & Communication Technologies Sector introduces you to a variety of careers involving computers and the systems that keep them running. This high skill sector is in high demand and provides students with excellent opportunities in computer science. Come and join the future of technology! See your counselor to sign up for computer science or robotics classes.

### Highlights

- Students have the a diverse range of pathways to explore in this sector: Information Support & Services, Software & Systems Development, Systems Programming, and Games & Simulation
- Students will explore high demand careers that offer high wages
- Students can earn certifications in numerous areas that can lead to entry level employment
- All courses meet the University of California's A-G list of required courses for college admissions



## Student Spotlights



"As a senior at Enochs High School, I've taken many SSD pathway classes and my technological skills have exponentially increased. Starting with 2D graphic design freshman year, I learned what goes into graphic marketing. With the video game development class, I was able to put all the things I made the following year into motion. I went into the capstone course of Honors Software Engineering and created a small business with a group of 5 students. The SSD Pathway has really allowed me to work with and learn technology. I would highly recommend this pathway to anyone interested in technology, and even to those who aren't." Logan Duarte, Senior



"I have been in SSD pathway classes for three years and have learned the basics in the introduction courses and then the concentration and capstone classes increased in complexity and in depth topics. The computer science program has multiple pathways to follow, plus Internship opportunities, leadership development, college visits, and tons of fun social events."

Daniel Erazo - Senior



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more information

# Marketing, Sales, & Service Industry Sector



## What is Marketing, Sales, & Service all about?

Do you want to OWN your own future? How about be your own boss? Maybe you are a people person and like interacting with others. By taking classes in the Marketing, Sales, and Service sector you will learn the skills that employers and entrepreneurs recommend, and require of employees. Marketing is all around us from social media, commercials, YouTube ads – you name it. Studying marketing helps with self-presentation, professionalism and helps develop consumer and budgeting skills. The biggest reward is having the personal satisfaction that comes from making your own business decisions and acting on them. See your counselor to sign up for Sales or Entrepreneurship classes.

### Highlights

- Marketing classes provide project based learning
- Students can participate in Future Business Leaders of America (FBLA) competitions and community service
- Students will learn 21st Century business practice
- Students will finish with a complete Career & College Portfolio
- All courses meet the University of California's A-G list of required courses for college admissions



## Student Spotlights



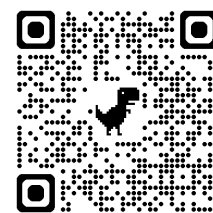
"This class has been really great for me because I have never known what I wanted to do after high school and now I have a much better idea of what college I want to attend and what career I might pursue. I have learned so much about marketing and business."

Nathaniel Carson - Junior



"I started in this pathway my freshman year and I was really shy at first. Now, I have improved my speaking skills and I can talk to people. I have learned that leadership is not just a position, it is an opportunity to learn and grow and help other people. There is such a wide spectrum of people in this program and everyone is welcome."

Giselle Cuevas - Junior



Scan QR code for more information

# Public Services Industry Sector



## What is Public Services all about?

If you like the idea of serving your community and giving back, then the Public Services sector is a good place to start! You will be introduced to careers such as criminal justice, firefighting, and emergency medical services. Together, in a partnership with community public service agencies, we offer a comprehensive program of specialized training so that, upon graduation, students will be prepared for skilled entry-level jobs and/or entrance into college, universities, academies, or technical schools. See your counselor to sign up for Public Services classes.

## Highlights

- Public Services classes provide hands-on learning with industry equipment
- Students get In-person, hands-on training with local professionals in the field
- Students develop teamwork, leadership, and work ethic skills
- Students explore career opportunities through field trips, guest speakers, and job shadowing
- All courses meet the University of California's A-G list of required courses for college admissions



## Student Spotlights



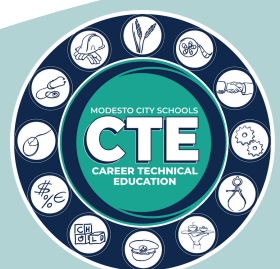
"The benefits of taking the Public Safety class is that you learn a lot of the general practices used in law enforcement. Anyone that is considering a career in law should definitely take this course."

Jonathan Gomez - Senior



"This class has taught me a lot about respect and team comradery. We get to do something new everyday. You will be well prepared for a career in firefighting by taking this class. I have enjoyed every minute."

Kylie Kulina - Senior



Scan QR code for more information

# Transportation

## Industry Sector



### What is Transportation all about?

Do you wonder how engines work? Do you enjoy working with your hands? Students will learn basic automotive repair and maintenance in the Automotive Technology courses. They will also receive industry safety training, and hours of hands-on experience by working with professional automotive equipment and diagnostic tools. Students will learn how to maintain a shop, and work in teams to diagnose and solve automotive problems. They will become familiar with the systems of a car, auto parts and their function, and how each system informs and interacts with the other. See your counselor to sign up for Automotive classes.

### Highlights

- Automotive classes provide hands-on learning
- Students can earn certifications in Tool Id, Wheel and Tire, Battery Maintenance and Engine Starting, and more
- Automotive students work with current industry equipment
- Students are trained to learn entry-level job skills in the automotive industry
- All courses meet the University of California's A-G list of required courses for college admissions



### Student Spotlights



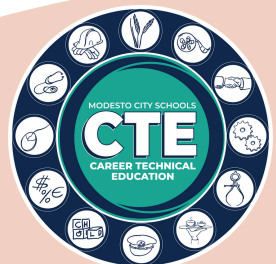
"This class is helpful because it has given me valuable lessons that can be used in the real world and in the automotive industry. I really enjoy this class."

Juan Vasquez - Senior



"This class teaches you how to change a car battery, fix a tire, and apply window tinting. Everything is hands-on so it is easier to learn and understand and you could make a future career choice to work in the automotive industry."

Othniel Hernandez - Senior



Scan QR code for more information

# MY CTE PLAN



## Top 3 most intriguing Industry Sectors

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

## Courses offered at my school I am interested in taking

- |          |          |
|----------|----------|
| 1. _____ | 4. _____ |
| 2. _____ | 5. _____ |
| 3. _____ | 6. _____ |

## Careers I am interested in learning more about

- |          |          |
|----------|----------|
| 1. _____ | 4. _____ |
| 2. _____ | 5. _____ |
| 3. _____ | 6. _____ |

## NOTES

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# PLANNING FOR MY FUTURE



## 9TH GRADE

English: \_\_\_\_\_  
Social Science/Health: \_\_\_\_\_  
Math: \_\_\_\_\_  
Science: \_\_\_\_\_  
PE or Athletics: \_\_\_\_\_  
CTE: \_\_\_\_\_  
Other Elective: \_\_\_\_\_

## 10TH GRADE

English: \_\_\_\_\_  
World History: \_\_\_\_\_  
Math: \_\_\_\_\_  
Science: \_\_\_\_\_  
PE or Athletics: \_\_\_\_\_  
CTE: \_\_\_\_\_  
Other Elective: \_\_\_\_\_

## 11TH GRADE

English: \_\_\_\_\_  
US History: \_\_\_\_\_  
Math or Elective: \_\_\_\_\_  
Science: \_\_\_\_\_  
PE/Athletics/Elective: \_\_\_\_\_  
CTE: \_\_\_\_\_  
Other Elective: \_\_\_\_\_

## 12TH GRADE

English: \_\_\_\_\_  
Government/Economics \_\_\_\_\_  
Math or Elective: \_\_\_\_\_  
Science or Elective: \_\_\_\_\_  
PE/Athletics/Elective: \_\_\_\_\_  
CTE: \_\_\_\_\_  
Other Elective: \_\_\_\_\_

## NOTES

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# C T E



*Modesto City Schools does not allow discrimination, intimidation, harassment (including sexual harassment) or bullying based on a person's actual or perceived race, color, ancestry, nationality/national origin, immigration status, ethnic group identification/ethnicity, age, religion, marital status/pregnancy/parental status, physical or mental disability, sex, sexual orientation, gender, gender identity, gender expression, genetic information, medical information or association with a person or group with one or more of these actual or perceived characteristics.*

*Modesto City Schools must provide equitable access by actively eradicating structural and institutional racism and systemic inequities to close achievement, opportunity, and access gaps that exist within our district. We are committed to understanding the individual circumstances and needs of our students, their families, and our staff. We will serve in a way to create equitable outcomes and ensure respectful environments that embrace and empower each individual recognizing that diversity and inclusion of every gender, race, religion, socioeconomic status, physical appearance, gender expression, family configuration, (dis)ability, and ethnicity leads to a thriving and just community. MCS is ultimately responsible for the success of our students and will be held accountable to the community.*

*For questions or complaints, contact  
**Equity Officer and Title IX Compliance Officer:**  
Brad Goudeau, Deputy Superintendent, Educational Services,  
Modesto City Schools  
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Phone: 209-574-1598  
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