Welcome to the Central Orange County Career Technical Education Partnership (CTEp). As part of the Career Education Department, CTEp is a consortium of the Garden Grove, Orange and Santa Ana Unified School Districts and the Orange County Department of Education. Together with our partners, we create innovative, rigorous and challenging courses that form Career Technical Education Pathway Programs for over 18,400 middle and high school students at our member districts. Last year, CTEp provided CTE classes for 39% of our partner districts’ 37,000+ high school students, and 74% of their high school seniors.

CTEp’s mission is to ensure that all students graduate from high school fully prepared for both College and Career. To accomplish this, we provide a full array of courses that integrate core academics, state-of-the-art technologies and 21st Century skills. As an active member of a variety of vibrant and supportive county-wide collaboratives, CTEp has partnerships with post-secondary institutions and businesses that provide valuable opportunities for students. For example, many of the courses satisfy UC and CSU “a-g” entrance requirements, as well as provide opportunities to earn both high school and college credit through articulated courses. In addition, students in several pathways can gain industry certifications and participate in a variety of work-based learning activities. These include internships at local businesses where they can apply academic theory to solve real-world problems, practice team work, and begin to apply soft-skills so vital to their preparation and success in the high wage, high skill careers of the future.

In line with National and State priorities, CTEp’s courses use a proven combination of CTE standards, integrated academics, work-based learning and career guidance to prepare students for success in both College and Career.

Best regards,
Central Orange County CTE Partnership

www.ocde.us/ctep
GOVERNANCE STRUCTURE

The Central Orange County Career Technical Education Partnership is a division of the Orange County Department of Education. It is governed by the Orange County Board of Education and is overseen by the Orange County Superintendent of Schools. The interests of the member districts are represented by each district’s appointee to the CTE Partnership’s Steering Committee.

ADMINISTRATION
Al Mijares, Ph.D., Orange County Superintendent of Schools
Jeff Hittenberger, Ph.D., Chief Academic Officer
Christine Olmstead, Ed.D., Assistant Superintendent
Kathy Boyd, Director, Career Education

ORANGE COUNTY BOARD OF EDUCATION
District 1: Rebecca “Beckie” Gomez
District 2: David L. Boyd
District 3: Dr. Ken L. Williams
District 4: John “Jack” W. Bedell, Ph.D.
District 5: Linda Lindholm

Central Orange County Career Technical Education Partnership
STEERING COMMITTEE

JILLIAN JOHNSON-SHARP
Administrator
Central Orange County CTE Partnership (CTEp)

MYRA CLARKE
Director
Career and Technical Education

CATHLEEN CORELLA
Administrative Director
K-12 Curriculum / GATE

DON ISBELL
Director
Career Technical Education

ORANGE COUNTY DEPARTMENT OF EDUCATION
GARDEN GROVE UNIFIED SCHOOL DISTRICT
ORANGE UNIFIED SCHOOL DISTRICT
SANTA ANA UNIFIED SCHOOL DISTRICT
 Members of CTE Partnership: Garden Grove, Orange and Santa Ana Unified School Districts and the Orange County Department of Education

Board of Trustees: Orange County Board of Education

State Agency: California Department of Education

Region Served: Cities of Garden Grove, Orange and Santa Ana

Total High School Students in Region: 39,663
CTEp Enrollment, High School Students: 15,604

High School Campuses: 21
CTE Regional Centers: 2

Teachers: 179

Course Titles Offered: 216

Total Class Sections: 1037

UC/CSU Approved Courses: 80

Articulated/Dual Credit Courses: 58

Career Pathway Choices: 39

Active Business Partnerships: 339

High school courses offered through the Central Orange County CTE Partnership are taught by district teachers and are included in the Western Association of Schools and Colleges (WASC) accreditation process.

NON DISCRIMINATION/UNIFORM COMPLAINT POLICIES

The Central Orange County Career Technical Education Partnership (CTEp) is committed to maintaining an employment, educational and business environment free from harassment, intimidation, or insult on the basis of an individual’s gender. Positive action will be taken when necessary to eliminate such practices or remedy their effects. No person shall be excluded from participation in career technical education programs on the basis of sex, sexual orientation, gender, ethnic group identification, race, ancestry, national origin, religion, color or mental or physical disability.

CTEp programs are accessible for handicapped/disabled individuals. Section 504 - the Rehabilitation Act of 1973 (Public Law 93-112) makes it illegal to discriminate against the hiring of or admission into a vocational education program of qualified individuals on the basis of their handicapped condition. Inquiries may be directed to the appropriate School District Uniform Complaint Procedures Officer.

Page No. 003
START COMMUNITY COLLEGE EARLY!
Earn High School and College Credit at the Same Time.

<table>
<thead>
<tr>
<th>CTEp Course Name</th>
<th>College Credit</th>
<th>Offered By</th>
</tr>
</thead>
<tbody>
<tr>
<td>3D Computer Aided Design</td>
<td></td>
<td>SAC</td>
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<tr>
<td>Accounting with QuickBooks (UC)</td>
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<td>FCC, SCC</td>
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<tr>
<td>Art of Animation I (UC)</td>
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<td>CCC, SAC</td>
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<tr>
<td>Art of Animation II (UC)</td>
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<td>CCC</td>
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<tr>
<td>Art of Digital Photography (UC)</td>
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<td>CCC, SAC</td>
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<tr>
<td>Art of Graphic Design I (UC)</td>
<td></td>
<td>CCC, SAC</td>
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<tr>
<td>Art of TV and Video Production (UC)</td>
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<td>OCC</td>
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<tr>
<td>Auto MLR I &amp; II (UC)</td>
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<td>FCC, SAC</td>
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<tr>
<td>Aviation I &amp; II</td>
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<td>OCC</td>
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<tr>
<td>Career Focus - Aviation</td>
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<td>OCC</td>
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<tr>
<td>Careers in Education (UC)</td>
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<td>SAC, SCC</td>
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<tr>
<td>Child Development (UC)</td>
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<td>SAC, SCC</td>
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<tr>
<td>Criminal Justice (UC)</td>
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<td>SAC</td>
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<tr>
<td>Culinary and Restaurant Management I (UC)</td>
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<td>OCC, SAC</td>
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<tr>
<td>Culinary Arts (UC)</td>
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<td>Entrepreneurship I</td>
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<td>CCC</td>
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<td>Fashion Design and Merchandising (UC)</td>
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<td>FCC, SAC</td>
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<td>Fire Technology (Fire Service)</td>
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<td>SAC</td>
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<td>Global Marketing</td>
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<td>ICT Essentials I</td>
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<td>CCC</td>
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<tr>
<td>ICT Essentials II</td>
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<tr>
<td>International Business</td>
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<td>SAC</td>
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<tr>
<td>Introduction to Engineering and Design (PLTW)</td>
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<td>IVC, SAC</td>
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<tr>
<td>Law and Order (UC)</td>
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<td>SAC</td>
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<tr>
<td>Marketing I</td>
<td></td>
<td>CCC</td>
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<td>Marketing and Society (UC)</td>
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<td>CCC</td>
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<td>Medical Core (UC)</td>
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<td>CCC, SAC</td>
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<tr>
<td>Network +</td>
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<td>CCC</td>
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<tr>
<td>Principles of Business Principles</td>
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<tr>
<td>Principles of Engineering (PLTW)</td>
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<td>SAC</td>
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<td>QuickBooks I</td>
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<td>CCC</td>
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<td>QuickBooks II</td>
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<td>Robotics I</td>
<td></td>
<td>OCC, SAC</td>
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<tr>
<td>Sports Medicine (UC)</td>
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<td>IVC, SAC</td>
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<td>STEM Teaching - Science</td>
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<td>Technology Certification For Business</td>
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<td>Theatre Technology I</td>
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<td>FCC</td>
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<td>Video Game Design I</td>
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<td>CCC</td>
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<tr>
<td>Video Game Design II</td>
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<td>CCC</td>
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<tr>
<td>Virtual Enterprise (UC)</td>
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<td>CCC</td>
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</tbody>
</table>

**KEY:**

- CCC – Coastline Community College
- FCC – Fullerton Community College
- GWC – Golden West College
- IVC – Irvine Valley College
- OCC – Orange Coast College
- SAC – Santa Ana Community College
- SCC – Santiago Community College

Disclaimer: Please note that articulation agreements must be renewed annually and are subject to change.

*Credit is available for a limited time from completion date of high school course. Please see your high school counselor for details.*
CTEp OFFERS 80 COURSES THAT MEET UC/CSU COLLEGE ENTRANCE REQUIREMENTS

The following courses meet one or more of the prerequisites for entrance into the California State University (CSU) or the University of California (UC):

<table>
<thead>
<tr>
<th>HIGH SCHOOL COURSE TITLE</th>
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</thead>
<tbody>
<tr>
<td>A Baker’s Dozen: The Professional Baker</td>
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<tr>
<td>A+ Certification Application</td>
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<tr>
<td>Accounting with QuickBooks</td>
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<tr>
<td>Advanced Art of TV and Video Production</td>
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<tr>
<td>Advanced Culinary and Restaurant Management</td>
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<tr>
<td>Advanced Dental Assistant</td>
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<tr>
<td>Advanced Engineering and Technology</td>
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<tr>
<td>Advanced Medical Assistant–Clinical</td>
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<tr>
<td>Aerospace Engineering</td>
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<tr>
<td>Algebra 1 with Programming</td>
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<tr>
<td>AP Computer Science Principles</td>
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<tr>
<td>Application of Business Technology</td>
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<tr>
<td>Arts, Media, and Entertainment/ Digital Media Arts Professional Internship</td>
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<tr>
<td>Art of Animation I</td>
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<tr>
<td>Art of Animation II</td>
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<tr>
<td>Art of Dance Composition</td>
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<tr>
<td>Art of Digital Photography</td>
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<tr>
<td>Art of Digital Photography II</td>
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<tr>
<td>Art of Graphic Design I</td>
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<tr>
<td>Art of Graphic Design II</td>
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<tr>
<td>Art of TV &amp; Video Production</td>
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<td>Auto MLR 1</td>
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<td>Auto MLR II</td>
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<tr>
<td>Auto MLR III</td>
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<tr>
<td>Automotive Technology</td>
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<tr>
<td>Aviation Science</td>
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<tr>
<td>Biomedical Innovation (PLTW)</td>
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<tr>
<td>Body Systems and Disorders</td>
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<tr>
<td>Business Design and Development</td>
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<tr>
<td>Business Economics and Finance</td>
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<tr>
<td>Business Law</td>
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<tr>
<td>Careers in Education</td>
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<tr>
<td>Child Development</td>
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<tr>
<td>Computer Integrated Manufacturing (PLTW)</td>
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<tr>
<td>Computer Science and Software Engineering (PLTW)</td>
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<tr>
<td>Computer Science Principles</td>
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<tr>
<td>Criminal Justice</td>
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<tr>
<td>Culinary and Restaurant Management</td>
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<tr>
<td>Culinary Arts</td>
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<tr>
<td>Dental Assistant</td>
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<tr>
<td>Engineering and Architecture/ Engineering Design Professional Internship</td>
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<tr>
<td>Engineering and Design</td>
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<tr>
<td>Engineering Design</td>
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<tr>
<td>Exploring Computer Science</td>
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<td>Fashion Design and Merchandising</td>
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<tr>
<td>Fashion E-Commerce</td>
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<tr>
<td>Foundations Digital Audio Production–Career Focus</td>
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<tr>
<td>Foundations in Health Science (Paxton/Patterson)</td>
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<td>Foundations of Digital Media</td>
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<tr>
<td>Foundations of Law</td>
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<tr>
<td>Foundations of Technology &amp; Engineering (Paxton/Patterson)</td>
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<td>Fundamentals of Business</td>
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<tr>
<td>Graphic Design Honors</td>
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<tr>
<td>Health Science and Medical Technology</td>
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<tr>
<td>Health Science and Medical Technology/ Biotechnology Professional Internship</td>
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<tr>
<td>Hospital Occupations Internship</td>
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<tr>
<td>Hotel and Tourism Management</td>
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<tr>
<td>Human Body Systems (PLTW)</td>
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<tr>
<td>Information and Communication Technology</td>
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<tr>
<td>–Networking/Professional Internship</td>
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<tr>
<td>Information and Communication Technology–Software and Systems Development Professional Internship</td>
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<tr>
<td>Introduction to Engineering Design (PLTW)</td>
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<tr>
<td>Law and Order</td>
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<tr>
<td>Level One: Introduction to Game Design</td>
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<tr>
<td>Marketing and Society</td>
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<tr>
<td>Medical Assistant–Administrative Front Office</td>
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<td>Medical Assistant Clinical</td>
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<td>Medical Core</td>
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<tr>
<td>Medical Interventions (PLTW)</td>
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<tr>
<td>Mobile Applications Development</td>
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<tr>
<td>Principles of the Biomedical Sciences (PLTW)</td>
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<tr>
<td>Principles of Engineering (PLTW)</td>
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<tr>
<td>Public Services/Legal Practices Professional Internship</td>
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<tr>
<td>Sports Medicine</td>
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<tr>
<td>Sports Medicine and Athletic Training</td>
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<tr>
<td>The Art of Animation</td>
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<td>The Art of Graphic Design</td>
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<tr>
<td>3D Computer Aided Design</td>
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<tr>
<td>Virtual Enterprise</td>
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<tr>
<td>Writing for Stage and Screen</td>
</tr>
<tr>
<td>Yearbook: Digital Media Communications</td>
</tr>
</tbody>
</table>
CTE Pathway Planning Guide

When utilizing this booklet as a planning guide to map out CTE Pathways leading to facilitating Pathway Completion there are a few things to keep in mind.

1. Many level 3 or Capstone courses provide the opportunity for students to earn an industry certification which in many cases will assist in gaining employment.
2. Not all pathway courses are offered at all high schools. District and school administration will work together to determine course offerings.
3. All pathway courses must be from the same industry sector.
4. A pathway must be comprised of 300 hours of course work. Typically CTE classes are 180 hours in length.
5. Many pathway Capstone courses involve an internship; student personal transportation will be needed in many cases in order to participate in these classes.
6. Flexible and creative scheduling is sometimes needed to create room in student schedules to accommodate CTE course participation.

A pathway completer is defined as a student that has taken at least two courses from the same industry sector. One course at a level 3 or Capstone level and at least one course at level 2 or Concentrator level can constitute the minimum number of required courses for pathway completion. There are many combinations of courses that will allow a student to become a pathway completer.

a. There may or may not be a level 1 or Intro course in a pathway.

b. There may be multiple level 2 or Concentrator courses in a pathway; there must have at least one.

c. There must be at least one level 3 or Capstone course in a pathway; there may be more than one capstone course in a pathway.

For more information about pathway and certification availability contact your district CTE administrator.
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<thead>
<tr>
<th>PATHWAYS DIRECTORY</th>
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</table>
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| (3) Building & Construction Trades ..............................................pg 016  
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| (4) Business and Finance ..........................................................pg 018  
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Engineering Design Pathway |
| (7) Fashion & Interior Design ....................................................pg 026  
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Section 1

AGRICULTURE & NATURAL RESOURCES

PATHWAY OPTIONS

ANIMAL SCIENCE PATHWAY
“We do not inherit the earth from our ancestors; we borrow it from our children.”
- Native American Proverb

AGRICULTURE
& NATURAL RESOURCES

ANIMAL SCIENCE PATHWAY

ANIMAL CARE I
2 Semesters
This course includes instruction in animal handling and restraint, medical/scientific terminology, immunology/physiology, sanitation, safety, nutrition/health, domestic/exotic breeds and species, genetics, cellular biology, animal behavior, conservation/ ecology, evolution and animal traits. Course meets California science standards. High school students may apply this class toward graduation credit.

ANIMAL CARE II
2 Semesters
This course combines classroom instruction with internship in the field of animal care. Students will study animal health and safety, behavior, diagnostics, grooming, ecology, conservation and canine CPR. Internship sites include zoos and nature centers, veterinary facilities, kennels/stables, pet stores and groomers.

PROFESSIONAL INTERNSHIP
ANIMAL SCIENCE
2 Semesters
This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.

VETERINARY SCIENCE
2 Semesters
This course prepares students for post-secondary level education, leading to careers in animal science, biology, zoology, and/or veterinary science. Students will complete various science projects, perform academic research and participate in lab experiences to prepare for advanced study.

Section 1
Section 2

ARTS, MEDIA & ENTERTAINMENT

PATHWAY OPTIONS

DESIGN, VISUAL AND MEDIA ARTS PATHWAY
PERFORMING ARTS PATHWAY
PRODUCTION AND MANAGERIAL ARTS PATHWAY
GAME DESIGN AND INTEGRATION PATHWAY
ART OF DIGITAL PHOTOGRAPHY II (UC)
2 Semesters
The goals of this course is to develop advanced digital artists and photographers by teaching a variety of skills and outcomes that will include not only traditional imaging projects but advanced photojournalism and photo manipulation techniques. This course meets the UC “g” requirement.
PRQ, UC/CSU

ART OF GRAPHIC DESIGN I (UC)
2 Semesters
This is an introductory course in graphic design. Students study the history and aesthetics of art and graphic design while developing their perceptual and creative skills. This course meets the UC “I” requirement.
PRQ, UC/CSU, CCR

ART OF GRAPHIC DESIGN II (UC)
2 Semesters
Building on the skills learned in The Art of Graphic Design I, students will develop 2D and 3D visual communications of increasing sophistication and complexity. They will explore the relationship of graphic imagery to the cultural, political and psychological dynamics of information exchange. Emphasis will be placed on written reflections, critiques and the development of high-quality graphic art images. This course meets the UC “I” requirement.
PRQ, UC/CSU

ART OF DIGITAL PHOTOGRAPHY II (UC)
2 Semesters
The goals of this course is to develop advanced digital artists and photographers by teaching a variety of skills and outcomes that will include not only traditional imaging projects but advanced photojournalism and photo manipulation techniques. This course meets the UC “g” requirement.
PRQ, UC/CSU

ART OF DIGITAL PHOTOGRAPHY (UC)
2 Semesters
This course provides an introduction to the art and appreciation of digital photography. Students will explore the basic elements of composition and the principles of design including light, movement, and color theory. Combining training in camera operation and image editing with artistic theory, students will learn to visually communicate their ideas and creativity. This course meets the UC “I” requirement.
PRQ, UC/CSU, CCR

FOUNTIONS OF DIGITAL MEDIA (UC)
2 Semesters
This course will cover art’s influence on society as students learn basic graphic design, drawing, photography, art history, digital media and video and audio editing. Each student will create an electronic portfolio that demonstrates their artistic eye and the progress of their skills. Students will earn the skills necessary to prepare for professional industry certifications. This course meets the UC “g” requirement. UC/CSU

PROFESSIONAL INTERNSHIP DESIGN, VISUAL & MEDIA ARTS
2 Semesters
This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.
PRQ, INT

YEARBOOK: DIGITAL MEDIA COMMUNICATIONS (UC)
2 Semesters
Yearbook Design is an entrepreneurial course for students interested in Digital Media Arts careers. In this course, students will design and submit for publication, the high school yearbook. They will collaborate with other DMA classes and their peers. They will work with school administrators and teachers and be mentored by professionals in the industry. Through this course, students will not only apply the principles of design in their work, but they will also practice and cultivate 21st Century Skills, including innovative problem solving and creative thinking. The course meets the UC “g” requirement.
PRQ, UC/CSU

CAREER FOCUS: ARTS & MEDIA AND ENTERTAINMENT
2 Semesters
This course is an exploration of the various careers in the fields of art and media. Students will learn the requirements and opportunities for post-secondary education and develop a personal career/life plan.
PERFORMING ARTS PATHWAY

ART OF DANCE COMPOSITION (UC)
2 Semesters
This course will develop students' ability to translate emotional and dramatic content into personal dance performances of an increasingly complex range of combinations and variations. Students will recognize and enhance their personal movement style and individual creative process in order to develop choreographic phrases. Observation, discussion and writing skills relevant to interpretation and evaluation of choreography will be refined. Students will complete in-class showings and a final showcase performance of personally choreographed dances. This course meets the UC "f" requirement.
PRQ, UC/CSU

CAREER FOCUS: FOUNDATIONS
DIGITAL AUDIO PRODUCTION (UC)
2 Semesters
This course focuses on the use of entry level software for basic audio engineering. Students are given projects that allow them to design and complete artistically viable musical files. Through projects and research, students will experience different aspects of the Digital Media Arts Industry. They will learn to critique music and watch for trends and patterns. Students will learn to identify and create specific genres of music and apply this knowledge to audio engineering. This course meets the UC "g" requirement.
UC/CSU

PROFESSIONAL INTERNSHIP
PERFORMING ARTS
2 Semesters
This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.
PRQ, INT

PROFESSIONAL DANCE I
2 Semesters
Professional Dance is for the student with previous dance experience who would like to explore and prepare for careers in the dance pathway. Students will learn the physical conditioning and preparation needed to prepare for post-secondary education and/or entry employment. Dance technique will be perfected in a variety of disciplines through a traditional dance class format and showcase performances.
PRQ

PROFESSIONAL DANCE II
2 Semesters
Students continue to perfect their dance technique in a variety of disciplines while building choreographic and production skills.
PRQ

PROFESSIONAL DANCE III
2 Semesters
This is the capstone course in the Professional Dance sequence. Students will continue to improve and refine their dance, compositional and performance techniques. They will expand the depth and artistry of their performances by exploring characterization and the development of personal style and professional presence.
PRQ

PROFESSIONAL INTERNSHIP
PRODUCTION & MANAGERIAL ARTS
2 Semesters
This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.
PRQ, INT

THEATRE TECHNOLOGY I
2 Semesters
This course will introduce students to the various elements of stagecraft and design. Instruction will include stage properties, scenic design, sound technology, lighting, costuming and makeup.
CCR

THEATRE TECHNOLOGY II
2 Semesters
In this advanced course, students will research theatrical design and produce original unified designs for sets, lighting, sound and costume plots. They will act as crew chiefs, directors, stage managers and business managers, assuming oversight responsibility for various aspects of school productions.
PRQ

VIDEO PRODUCTION I
2 Semesters
This course is designed to provide students with the required skills needed for employment in the video and film industry. Instruction will include video production theory, camera and recording equipment operation, basic lighting and editing techniques.
CCR, INT

VIDEO PRODUCTION II
2 Semesters
This course builds on the introductory skills acquired in Video Production I. Students will continue to develop video camera operation, writing and in-studio editing skills and will be introduced to the complexities of remote location shooting.
PRQ, INT
VIDEO PRODUCTION III
2 Semesters
In this capstone course, students will gain the experience of working within the framework of a professional video production company. Instruction will include the organizational elements of a professional team and marketing a finished project.
PRQ, INT

WRITING FOR STAGE AND SCREEN (UC)
2 Semesters
This course is designed to provide students a rigorous formal English course integrated with script writing for theater, film and on-line digital media projects. Each unit will incorporate the Common Core English Language Arts standards and district course requirements through selected literacy and informational texts, frequent substantial writing assignments, and practice speaking and listening in large and small groups. Scriptwriting skills will be developed to create meaningful connections between language arts and real life. This course meets the UC “b” requirement.
UC/CSU

GAME DESIGN & INTEGRATION PATHWAY

PROFESSIONAL INTERNSHIP
GAME DESIGN & INTEGRATION
2 Semesters
This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.
PRQ, INT

VIDEO GAME DESIGN I
2 Semesters
This is an introductory course into the growing field of Video Game Design. Students learn the basic concepts of game design, together with a study of the technologies, tools and languages.
CCR

VIDEO GAME DESIGN II
2 Semesters
Students will continue to expand the skills acquired in Video Game Design I. Instruction will include the study of 2D and 3D game design concepts, technologies and programming, including 3D modeling, animation, scripting & production.
PRQ, CCR
Section 3

BUILDING & CONSTRUCTION TRADES

PATHWAY OPTIONS

RESIDENTIAL & COMMERCIAL CONSTRUCTION PATHWAY
"The children of today are the builders of a brave, new world - a world without want." - Dada Vaswani

BUILDING & CONSTRUCTION TRADES

RESIDENTIAL & COMMERCIAL CONSTRUCTION PATHWAY

PROFESSIONAL INTERNSHIP BUILDING & CONSTRUCTION
2 Semesters

This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.

PRQ. INT
Section 4

BUSINESS & FINANCE

PATHWAY OPTIONS

FINANCIAL SERVICES PATHWAY
BUSINESS MANAGEMENT PATHWAY
BUSINESS & FINANCE

“Disneyland is a work of love. We didn’t go into Disneyland just with the idea of making money.”  - Walt Disney

CAREER FOCUS: BUSINESS
2 Semesters
This introductory course teaches students to utilize QuickBooks software for the bookkeeping needs of small and medium-sized businesses. Students will learn to maintain accounting records by balancing a checkbook, processing payables and receivables, invoicing, generating inventory, preparing financial reports, charts, graphs and closing an accounting period. CCR

FINANCIAL SERVICES PATHWAY

FUNDAMENTALS OF BUSINESS (UC)
2 Semesters
In this course, students will be introduced to the principles and practices of contemporary business, become fluent in business language and concepts, and will examine the driving forces that determine an organization’s success or failure. Students will learn the characteristics of a successful business, including the market conditions, organizational details, management fundamentals, and financial analysis critical to a company’s success. Topics covered in the course include economic decisions and systems, international business, social responsibility and ethics, forms of business ownership, entrepreneurship, risk management, finance and other important elements of business. This course meets the UC requirement for a “g” elective course.
PRQ, UC/CSU

BUSINESS MANAGEMENT PATHWAY

ACCOUNTING WITH QUICKBOOKS (UC)
2 Semesters
This course is a comprehensive, self-contained, fully computer integrated course which gives an overview of the complete accounting process using both manual entry and industry-standards accounting software. Students will learn basic accounting principles and how to prepare accounting records for businesses using QuickBooks. Students will gain hands-on-experience in processing customer transactions, vendor transactions, bank reconciliations and will learn how to customize QuickBooks. This course meets the UC “g” requirement.
PRQ, UC/CSU

APPLICATION OF BUSINESS TECHNOLOGY (UC)
2 Semesters
In this course, students will develop expertise in Microsoft Office applications. As students learn the different tasks involved in the daily operation of a business, and use the appropriate software and systems to complete these tasks, they also learn business theories that deal with management, entrepreneurship, and job creation. Application of Business Technology concentrates on Microsoft Office PowerPoint, Excel, and Word. Instruction includes those areas and skills included on the Microsoft Office Specialist (MOS) Certification exam. This course meets the UC “g” requirement.
UC/CSU

BANKING FINANCIAL OCCUPATIONS
2 Semesters
This course combines classroom instruction with internship in a local bank, credit union or other financial institution. Students will develop teller, new accounts, sales/service and loan processing skills.
INT

BUSINESS DESIGN AND DEVELOPMENT (UC)
2 Semesters
The yearlong Business Design and Development Capstone course is integrated with the Network for Teaching Entrepreneurship (NFTE) curriculum. NFTE guides students to create their own business that which set up and run by students to prepare them for working in a real business environment. The course includes task-based curriculum integrating various business topics including, Accounting, Personal Finance, Administration, Operations, Communications, Human Resources, Sales & Marketing, and Economics. This course meets the UC “g” requirement.
PRQ, UC/CSU

BUSINESS INTERNSHIP
2 Semesters
This course prepares students with the skills needed for employment in a professional business office. Classroom instruction will be combined with internship in a local business office.
INT

COMMUNICATIONS AND TECHNOLOGY SKILLS FOR BUSINESS
1 Semester
This course introduces students to the principles and elements of effective communication and their importance as a professional in today’s global society. Students will develop and apply their language and writing skills while composing and creating authentic business communications and presentations. Instruction includes the use of current business software applications together with the skills, knowledge and attitudes necessary for success in the workplace.

COMPUTER APPLICATIONS SPECIALIST I
2 Semesters
Students will learn to maximize their use of Microsoft Word for creating and formatting business documents. They will create charts, graphs and spreadsheets utilizing Excel, navigate the Internet and learn effective e-mail techniques.

COMPUTER APPLICATIONS SPECIALIST II
2 Semesters
Students will create professional presentations using Microsoft PowerPoint, design databases, produce customized reports with Access and perform Internet searches.
PRQ

ENTREPRENEURSHIP I
2 Semesters
In Entrepreneurship I, students will study the strategies and techniques of successful business ownership. They will learn how to identify and evaluate a prospective business opportunity, understand various business legal structures, small business budgeting, record keeping methods, staffing, marketing and promotion. Instruction will include an introduction to the elements of a business plan including marketing and technology.
ENTREPRENEURSHIP II
2 Semesters
Students will broaden their knowledge and understanding of entrepreneurship and business operations. They will identify a business opportunity and develop business, marketing and technology plans. Students will select an appropriate legal structure, create a budget, set up a record keeping system and design plans for staffing, marketing, promotion and monitoring results.
PRQ

GLOBAL MARKETING
1 Semester
This class provides students an overview of the culture of international marketing with a global perspective on international trade. Students will learn global marketing fundamentals as they apply to North, Central and South America, Europe, Asia, Australia and New Zealand, the Middle East and Africa. Varying cultures, demographics, geography and economics will be compared.

INTERNATIONAL BUSINESS
1 Semester
International Business provides an introduction and overview of international business with a global perspective on international trade. Career preparation/foundation skills include personal, interpersonal, critical thinking and technology skills. Academic integration supports the content areas of international and external environments, channels of distribution, finance, communication and travel.

INTERNET WEB DESIGN & DEVELOPMENT
2 Semesters
Students will learn the basics of web site design including development and maintenance, creating frames, forms, cascading style sheets with HTML, graphics, sound and animation.

MARKETING I
2 Semester
Students will understand how a new product or service concept is successfully developed and brought to market through research, brand integration and product promotion. Using real-life examples, students will explore concepts in international, direct response, and e-marketing. Additionally, they will be introduced to specialty marketing segments such as sports, travel/tourism, and hospitality marketing.

MARKETING AND SOCIETY (UC)
1 Semester
This course will give students a fundamental understanding of the relationship between marketing and popular culture. Marketing techniques, the elements of persuasion, and the effect on societal behavior will be studied. Complex ethical issues in marketing and marketing’s contribution to stereotypes, representation of gender, materialism, and over-consumption will be studied. This course meets the UC “g” requirement.
PRQ, UC/CSU

QUICKBOOKS I
1 Semester
This introductory course teaches students to utilize QuickBooks software for the bookkeeping needs of small and medium-sized businesses. Students will learn to maintain accounting records by balancing a checkbook, processing payables and receivables, invoicing, generating inventory, preparing financial reports, charts, graphs and closing an accounting period.
CCR

QUICKBOOKS II
1 Semester
Students will build upon the skills attained in QuickBooks I. They will delve further into small/medium-sized business accounting, including preparing payroll, tax forms, analyzing financial reports and year-end closing.
PRQ, CCR

PRINCIPLES OF BUSINESS
2 Semesters
This course introduces students to the basic fundamentals of business through projects, case studies, and a variety of activities. Students learn about various careers and tasks involved in the daily operation of a business. Career and business categories include the areas of accounting, business communication, business ethics, economics, entrepreneurship, finance, international business, management and technology.
PRQ

PROFESSIONAL INTERNSHIP
FINANCIAL SERVICES
2 Semesters
This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.
PRQ, INT

SOFTWARE SPECIALIST
2 Semesters
In this course, students will develop expertise in Microsoft Office applications. Students learn the different tasks involved in the daily operation of a business, and use of the appropriate software and systems to complete these tasks. Technology Certification for Business concentrates on Microsoft Office PowerPoint, Excel, and Word, with an optional module of Microsoft Access. Instruction includes those areas and skills included on the Microsoft Office Specialist (MOS) Certification exam. 
CCR
Section 5

EDUCATION, CHILD DEVELOPMENT & FAMILY SERVICES

PATHWAY OPTIONS

CHILD DEVELOPMENT PATHWAY
CONSUMER SERVICES PATHWAY
EDUCATION PATHWAY
EDUCATION, CHILD DEVELOPMENT & FAMILY SERVICES

“Education is not preparation for life. Education is life itself.”      - John Dewey

CAREER FOCUS: EDUCATION AND FAMILY SERVICES
2 Semesters
This course explores careers in the field of Education and Family Services through experiential learning and observation. Students will learn the opportunities for post-secondary education and the requirements to work in each career field. Students will be prepared to take more advanced classes in the Education, Child Development and Family Services pathways.

CHILD DEVELOPMENT PATHWAY

EARLY CHILDHOOD EDUCATION I
2 Semesters
This course provides students with the knowledge and basic skills they need to pursue careers and further education in the field of early childhood education and development for infants, toddlers and young school age children. Students will study the developmental stages of children, the CA Preschool Learning Foundations and the Common Core Standards and apply this knowledge in a variety of early childhood and early school age programs. They will also study safety and emergency procedures, nutrition and health practices, positive interaction and guidance techniques. The knowledge and skills are presented in a sequential, standards-based pathway program that includes theory, hands-on projects and work-based learning. Students participate in internship activities at local day care, pre-school and K-5 sites. Upon completion of this course, students may apply for the Child Development Assistant Permit from the California Commission on Teacher Credentialing. They will also be prepared for transition to college programs.

EARLY CHILDHOOD EDUCATION II
2 Semesters
This course builds upon the knowledge and experience developed in Early Childhood Education I. Upon completion of this course, students will have a strong foundational knowledge of early childhood and K-5 education based on the California Preschool Learning Foundations and the Common Core Standards in English Language Arts and Mathematics, K-5. Students will continue to apply their understandings as they support teachers and assist the learning of young children in site-based internships at day care, pre-school and K-5 settings.

INTRO TO CAREERS WORKING WITH CHILDREN WITH SPECIAL NEEDS
1 Semester
This course prepares students to work with children with special needs in a school or child care facility. Students will learn to identify stages of child development and how developmental age relates to physical, emotional, cognitive and social skills. They will consider the legal issues governing the care of special needs children, review guidance strategies, classroom materials, safety, assessment, observation methods and techniques to enhance family/community involvement.

PROFESSIONAL INTERNSHIP
CHILD DEVELOPMENT
2 Semesters
This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.
PRQ: INT

CONSUMER SERVICES PATHWAY

PROFESSIONAL INTERNSHIP
CONSUMER SERVICES
2 Semesters
This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.
PRQ: INT

EDUCATION PATHWAY

CAREERS IN EDUCATION (UC)
2 Semesters
This course prepares students for careers in the field of Education by exploring various options for post-secondary education and the requirements to work in each career field. Students will be prepared to take more advanced classes in the Education, Child Development and Family Services pathways.

PROFESSIONAL INTERNSHIP
EDUCATION
2 Semesters
This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.
PRQ: INT

STEM TEACHING – SCIENCE
2 Semesters
This course is designed to prepare students for careers in teaching with an emphasis on science. Instruction will include classroom management and instructional strategies for multiple types of learners. Students will create standards-based lesson plans and deliver those lessons at elementary school sites under the supervision of a certificated teacher.
This course is part of the Project Tomorrow Youth Teach2Learn Program focusing on developing effective future science and math educators.

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Section 6

ENGINEERING & ARCHITECTURE

PATHWAY OPTIONS

ARCHITECTURAL DESIGN PATHWAY
ENGINEERING DESIGN PATHWAY
“Design is not just what it looks like and feels like. Design is how it works.” — Steve Jobs

**ENGINEERING & ARCHITECTURE**

**ARCHITECTURAL DESIGN PATHWAY**

**PROFESSIONAL INTERNSHIP ARCHITECTURAL DESIGN**

2 Semesters

This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity, and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.

**PRQ, INT**

**ENGINEERING DESIGN PATHWAY**

**3D COMPUTER AIDED DESIGN**

2 Semesters

This course is designed to prepare students for industry certification on 3D drafting software. Course introduces students to the fundamentals of 2D drafting and sketching. Students will master 3D modeling including sketching, assembly, and rapid prototyping in a variety of project-based applications. This course provides the student with an understanding of the engineering development process from concept through design to the final product. Upon completion of the course students will take the SOLIDWORKS*CSWA certification exam.

**PRQ, UC/CSU**

**ADVANCED ENGINEERING AND TECHNOLOGY (UC)**

2 Semesters

This course is designed to develop students’ critical thinking skills and enable them think like engineers. Advanced Engineering and Technology UC is designed to guide students through the use of hands on practice, real-world applications, software practice, and the integration of mathematics, social science, and physics. By the end of this course, students will be able to understand the role of engineering and technology in society, apply the rules of physics and use mathematical theorems to create conceptual designs, sketches, and maps. This course allows students to develop the foundational skills needed to enter the workforce or higher education in the field of Engineering and Technology. This course meets the UC “g” requirement.

**PRQ, UC/CSU**

**AEROSPACE ENGINEERING (PLTW)**

2 Semesters

This course propels students’ learning in the fundamental of atmospheric and space flight. As they explore the physics of flight, students bring the concepts to life by designing an airfoil, propulsion system, and rockets. They learn basic orbital mechanics using industry standard software. They also explore robot systems through projects such as remotely operated vehicles.

**PRQ**

**AP COMPUTER SCIENCE PRINCIPLES (UC)**

2 Semesters

This course provides students with a foundation in computer science concepts and practices so that students learn to reason using computational and critical thinking. Students engage in problem-solving and creative aspects of the computer science field by creating products that involve computational processes the same way real world professional do. All activities will be mapped to the College Board framework. This course meets the UC “g” requirement.

**PRQ, UC/CSU**

**COMPUTER INTEGRATED MANUFACTURING (PLTW)**

2 Semesters

In this course, students will study manufacturing planning, integration, and implementation of automation. Students will explore manufacturing history, individual processes, systems and careers. They will analyze, design, and build manufacturing systems, while continually honing their interpersonal skills, creative abilities, and understanding of the design process.

**PRQ, UC/CSU**

**ENGINEERING AND DESIGN (UC)**

2 Semesters

Students will study mechanical, civil, structural, electrical, and environmental engineering topics. Engineering problems will be analyzed and students will exhibit solutions through sketches, CAD drawings, and rapid prototype models. Scientific and mathematical concepts will be used to explain observations and solutions. Research, report writing, and oral presentations will be fundamental to the course. Engineering related careers and educational pathways will also be explored. This course meets the UC “g” requirement.

**PRQ, UC/CSU**

**ENGINEERING DESIGN (UC)**

2 Semesters

The curriculum includes studies in rapid visualization, aesthetics, materials and processes, presentation techniques, principles of design methodology, elements of art, product development, human factors, and prototyping. In addition, students learn a methodology for encouraging the creative problem solving process and the attainment of the requisite level of skills needed to express visual ideas with clarity in a peer review critique setting. This course meets the UC “f” requirement.

**UC/CSU, PRQ**

**FOUNDATIONS OF TECHNOLOGY AND ENGINEERING (UC)**

2 Semesters

This course is designed to expose high school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept-driven mastery system of learning where students are engaged in hands-on projects. This course is part of the Paxton Patterson educational system. This course meets the UC “g” requirement.

**PRQ, UC/CSU**

**INTRODUCTION TO ENGINEERING DESIGN (PLTW)**

2 Semesters

This major focus of this course is to expose students to the design process, research and analysis, teamwork, various communication methods, engineering standards, and technical documentation. Through hands-on projects, students apply engineering standards while documenting their work in design. Students use industry standard 3D modeling software to help design solutions to solve proposed problems, document their work using an engineer’s notebook and communicate solutions to peers and members of the professional community. This course meets the UC “g” requirement.

**UC/CSU, CCR**

**PRE-ENGINEERING AND DESIGN**

2 Semesters

Students will be introduced to the engineering design process and how it is used to solve technological programs. Instruction will include a study of engineering and manufacturing systems, materials, processes and power sources. Students will use hand and computer generated sketching techniques and apply mathematical and scientific concepts to create original prototypes.
PRINCIPLES OF ENGINEERING (PLTW)
2 Semesters
Principles of Engineering is the second course in the Engineering Design Project Lead the Way pathway. Students apply the engineering design process to challenging projects in mechanisms, strength of structures and materials, and automation while working in collaborative teams. Complex mathematical computations will be used to solve problems. This course meets the UC “g” requirement.
UC/CSU, CCR, PRQ

PRODUCTION DESIGN
2 Semesters
This course provides a comprehensive introduction to product design, development, and production processes. Students will learn how to identify, design, and sketch a product concept, as well as the production processes that change materials to add value. Production planning and control as well as sales and distribution topics will also be examined.

PRODUCT DESIGN STUDIO I
2 Semesters
This course will provide students with further practice in developing design briefs and products that respond to product design challenges through project-based learning. Students will work in teams to coordinate their ideas, proposals, new product prototypes, and presentations. Increased emphasis in this course will be given to innovation, ergonomics, sustainability, universal design, usability, manufacturability, materials, and aesthetic appeal. Students will improve their skills in hand sketching and sculpting in various materials in order to fabricate prototypes. They will also prepare detailed drawings and illustrations using computer aided design techniques. Grading will be based on teamwork skills, the design process outcomes, presentations, and critiques.
PRQ

PRODUCT DESIGN STUDIO II
2 Semesters
This course will provide students with further practice in developing design briefs and products that respond to product design challenges through project-based learning. Students will work in teams to coordinate their ideas, proposals, new product prototypes, and presentations. Increased emphasis in this course will be given to innovation, ergonomics, sustainability, universal design, usability, manufacturability, materials, and aesthetic appeal. Students will improve their skills in hand sketching and sculpting in various materials in order to fabricate prototypes. They will also prepare detailed drawings and illustrations using computer aided design techniques. Grading will be based on teamwork skills, the design process outcomes, presentations, and critiques.
PRQ

PROFESSIONAL INTERNSHIP
ENGINEERING DESIGN
2 Semesters
This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.
PRQ. INT

PROFESSIONAL INTERNSHIP
PRODUCT INNOVATION & DESIGN
2 Semesters
This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.
PRQ. INT

SOLIDWORKS CERTIFICATION PREP
1 Semester
Students will review SolidWorks topics in order to prepare for the Certified SolidWorks Associate (CSWA) certification exam. They will apply their knowledge of fundamental engineering and design principles and practices to review Solidworks concepts. These concepts will cover basic parts, assemblies and drawings. The SolidWorks CSWA certification is an industry standard and recognized certification. Through successful completion of this class, students will be prepared to take the certification exam; however, the exam is not given as part of this course.
PRQ

CCR: College Credits Available   /   INT: Course Includes Internship   /   PRQ: Must Complete Prerequisites   /   UC/CSU: Meets “a-g” University Entrance Requirements
Section 7

FASHION & INTERIOR DESIGN

PATHWAY OPTIONS

FASHION DESIGN & MERCHANDISING PATHWAY
FASHION & INTERIOR DESIGN

“There is no virtue whatsoever in creating clothing or accessories that are not practical.” - Giorgio Armani
Section 8

HEALTH SCIENCE & MEDICAL TECHNOLOGY

PATHWAY OPTIONS

BIOTECHNOLOGY PATHWAY
PATIENT CARE PATHWAY
HEALTH CARE ADMINISTRATIVE SERVICES PATHWAY
HEALTH SCIENCE & MEDICAL TECHNOLOGY

“No amount of experimentation can ever prove me right; a single experiment can prove me wrong.” - Albert Einstein

BIOTECHNOLOGY PATHWAY

BIOMEDICAL INNOVATION (PLTW)
2 Semesters
In this course, students apply their knowledge and skills to answer questions or solve problems related to the biomedical sciences. Students design innovative solutions for the health challenges of the 21st Century as they work through progressively challenging open-ended problems. Students will be asked to solve unique problems in science, medicine, and healthcare. This course meets the UC “g” requirements.
PRQ: UC/CSU

HUMAN BODY SYSTEMS (PLTW)
2 Semesters
In this course, students examine the interactions of body systems as they explore identity, communication, power, movement, protection, and homeostasis. Students design experiments, investigate the structures and functions of the human body, and use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary action, and respiration. This course is a concentrator course that follows the course Principles of Biomedical Science.
PRQ: UC/CSU

MEDICAL INTERVENTIONS (PLTW)
2 Semesters
Medical Interventions (MI) allows students to investigate the variety of interventions involved in the prevention, diagnosis, and treatment of disease as they follow the lives of a fictitious family. The course will explore how to prevent and fight infection, how to screen and evaluate the code in our DNA, how to prevent, diagnose, and treat cancer, and how to prevail when the organs of the body begin to fail. Students will be exposed to the wide range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics.

PRINCIPLES OF BIOMEDICAL SCIENCE (PLTW)
2 Semesters
The Principles of Biomedical Science (PBS) course provides an introduction to biomedical science through hands-on projects and problems. Students investigate concepts of biology and medicine as they explore health conditions and infectious diseases. This course is designed to provide an overview of all the courses in the biomedical science program and lay the scientific foundation for subsequent courses. This course meets the UC requirements for lab science “d.”
UC/CSU

PROFESSIONAL INTERNSHIP BIOTECHNOLOGY
2 Semesters
This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.
PRQ, INT

PATIENT CARE PATHWAY

ADVANCED DENTAL ASSISTANT (UC)
2 Semesters
In this course, students will prepare to be certified in Dental Radiation Safety and to meet the Dental Board of California requirements for all unlicensed dental assistants (entry-level dental assistants). Students will practice using bisection and paralleling x-ray techniques in preparation for their certification. In addition, students will learn the necessary soft skills for employment, including proper dress (scrubs). In addition, there is a required 120-hour internship where students work alongside a dentist and his/her patients. This course meets the UC “g” requirement.
PRQ: UC/CSU

ADVANCED MEDICAL ASSISTANT - CLINICAL (UC)
2 Semesters
In this course, students will practice and perform clinical duties that include taking and recording vital signs and medical histories, preparing patients for examination, drawing blood, and administering medications as directed by physician. Students will research and discuss ethical, legal, and professional behavior in a medical office and will adhere to those findings throughout the year. The community classroom internship provides the student with actual supervised experience in a medical office, or clinic, to enhance those competencies acquired during classroom theory and laboratory training. This course meets the UC “g” requirement.
PRQ, UC/CSU

BODY SYSTEMS AND DISORDERS (UC)
2 Semesters
In this course, students will learn the anatomy, physiology, and function of the major body systems. Students will gain a deep understanding of signs, symptoms, and causes of common diseases and disorders. This course is part of the sequence of courses in the medical pathway. This course meets the UC “g” requirement.
UC/CSU, PRQ

CAREER FOCUS: MEDICAL
2 Semesters
This course is an exploration of the various careers in the medical field. Students will learn the requirements and opportunities for post-secondary education and develop a personal career/college plan.

CPR CERTIFICATION FOR PROFESSIONALS
1 Semester
This course provides health care professionals/providers with instruction in responding to cardiovascular and respiratory emergencies, preparing them for American Heart Association and/or Red Cross certification. Classroom and laboratory instruction will cover safety and rescue basics, adult and child CPR and automated external defibrillation.
DENTAL ASSISTANT (UC)
2 Semesters
The competency-based Dental Assistant course is designed to give the student the knowledge and practice in all areas relating to the field of dental assisting. The challenging, largely project-based curriculum is designed to prepare students for possible entry level employment and expose them to academic rigor that will prepare them for pursuing advanced Health-Science related courses at the post-secondary level. This course provides learning in the fundamentals of assisting the dentist such as dental materials and instruments, dental procedure preparation, management of medical emergencies and patient communication. This course meets the UC “g” requirement. PRQ, UC/CSU

DENTAL ASSISTANT / CHAIRSIDE I
2 Semesters
This course introduces students to a career as a dental assistant. Instruction will include an overview of the anatomy of teeth and surrounding structures, infection control, preparing patients for examinations, sterilizing instruments and setting up trays. Theory and clinical application in dental radiography is included. Students will practice theory and clinical applications in dental radiography in compliance with the guidelines set forth by the California Board of Dental Examiners.

DENTAL ASSISTANT/CHAIRSIDE II
2 Semesters
This course combines classroom instruction with internship in a local dental office. Students will assist the dentist during dental procedures, prepare patients for exams, sterilize and disinfect instruments and prepare materials and instrument trays.
PRQ, INT

HEALTH SCIENCE & MEDICAL TECHNOLOGY – PATIENT CARE PROFESSIONAL INTERNSHIP (UC)
2 Semesters
In this course, students will deepen their understanding of the Health Science and Medical Technology—Patient Care Industry through application and study of actual cases, through critical examination of the ethics and procedures involved in a clinical setting, and through an internship at a local medical facility (preferably a laboratory facility). Students will meet at least 20% of the time in the classroom where they will complete major projects each quarter, including a Personal Career Plan portfolio that will help them choose their next steps in the Health Science and Medical Technology—Patient Care Industry. This course meets the UC “g” requirement. PRQ, UC/CSU

HOSPITAL OCCUPATIONS INTERNSHIP
2 Semesters
This is an internship-based class with rotation through support services hospital departments such as radiology, cardiology, emergency room, operating room, lab, dietary, sterile services, physical therapy, occupational therapy and pathology and materials management. PRQ, INT

HOSPITAL OCCUPATIONS INTERNSHIP (UC)
2 Semesters
In this course, students review the essential knowledge and skills that they mastered in Medical Core I and II and then expand and focus on these for application within the hospital environment. Students will be given the opportunity to serve an internship at a community site where they will receive training that prepares them to work with patients and support staff within various hospital departments. This course meets the UC “g” requirement. PRQ, UC/CSU

MEDICAL ASSISTANT CLINICAL (UC)
2 Semesters
This course is designed to teach necessary clinical skills for initial point of contact patient care in clinical, medical offices and hospital settings. Through integrated and core academic curriculum, students will learn the competencies and necessary skills of currently accepted practices and technological standards. Students will learn and practice skills required of medical assistants in simulated laboratory exercises, including the ability to prepare patients for consultation, examination and treatment and manage patient charts and records. This course meets the UC “g” requirement. PRQ, INT, UC/CSU

MEDICAL CORE (UC)
2 Semesters
This course introduces students to diverse occupations in the medical/health field and to standards required of workers in the field. Medical Core includes instruction in the ethical and legal responsibilities of the health care worker, safety, medical terminology, human anatomy and physiology, body systems and mechanics, standard precautions and health and fitness. Also included are health care delivery systems, regulatory agencies, research, current technology, and socio-economic issues affecting health care. Students explore career opportunities in therapeutic, diagnostic, and supportive areas. Students gain practical hands-on experience in Vital Signs, Emergency Medical Care, and First Aid and will be certified in CPR. This course includes National Healthcare Foundation Standards.

MEDICAL INTERVENTIONS (PLTW)
2 Semesters
Medical Interventions (MI) allows students to investigate the variety of interventions involved in the prevention, diagnosis, and treatment of disease as they follow the lives of a fictitious family. The course will explore how to prevent and fight infection, how to screen and evaluate the code in our DNA, how to prevent, diagnose, and treat cancer, and how to prevail when the organs of the body begin to fail. Students will be exposed to the wide range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics.

OCCUPATIONAL & PHYSICAL THERAPY AIDE
2 Semesters
In this course, students will learn the differences and similarities between Occupational Therapy and Physical Therapy. Through classroom and lab experiences, students will learn to evaluate patient needs, and they will practice techniques for improving function and/or quality of life for the patients. Students will practice effective communication and become cognizant of the ethical, religious, and cultural differences that guide healthcare decisions. Students will learn the history and purpose for OSHA and use safe work-environment practices.
PRQ
PROFESSIONAL INTERNSHIP
PATIENT CARE
2 Semesters
This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.
PRQ, INT

SPORTS MEDICINE (UC)
2 Semesters
This course prepares students for the field of Sports Medicine. Students study anatomy, physiology and body systems and apply their knowledge within the area of Sports Medicine. This course meets the UC “g” requirement.
PRQ, UC/CSU

SPORTS MEDICINE I
1 Semester
This introductory course prepares students for a career in the sports medicine field. Instruction includes the care, prevention and rehabilitation of athletic injuries.

SPORTS MEDICINE II
1 Semester
Students will continue to build on the skills acquired in Sports Medicine I. Classroom instruction will be combined with placement in a sports medicine internship site. Students will learn advanced anatomy and physiology and will study the care, prevention and rehabilitation of athletic injuries.
PRQ, INT

SPORTS MEDICINE & ATHLETIC TRAINING (UC)
2 Semesters
In this course, students will learn about the anatomy and physiology of the human body, the interaction of body systems, theories and methods of prevention, evaluation, management and rehabilitation of sports and exercise related injuries. The body’s chemical response to pharmaceutical agents, disease, injury and stress will be addressed. Students are provided opportunities to practice and apply learned theories and techniques working with school athletes, athletic trainers and other practicing professionals in the field after school hours. This course meets the UC “d” requirement.
PRQ, UC/CSU

HEALTH CARE ADMINISTRATIVE SERVICES
PATHWAY

MEDICAL ADMINISTRATIVE ASSISTANT
2 Semesters
Students will further the medical education and training attained in the Medical Core I and II courses and apply their knowledge in the field of Medical Administration. This course will teach students the skills and attributes necessary for entry-level employment as Medical Assistants in front office, clerical, health unit and related positions within the health care field. Instruction includes office operations, communications, patient reception, scheduling, medical coding, bookkeeping and insurance billing.
PRQ

MEDICAL BACK OFFICE/CLINICAL ASSISTANT I
2 Semesters
This course provides students with classroom instruction and practical experience in medical ethics, medical terminology and anatomy. Students will learn how to perform basic lab tests, give injections and assist with EKG exams. Disease process, medical emergencies, pharmacology, instrument sterilization and inventory control will be covered.
PRQ

MEDICAL BACK OFFICE/CLINICAL ASSISTANT II
2 Semesters
This advanced course combines classroom instruction with internship in a local medical office or clinic. Students will continue to develop the skills acquired in the classroom as they assist with patient exams, tests and procedures, conduct screening tests, prepare medications and set up sterile environments.
PRQ, INT

MEDICAL TERMINOLOGY & HUMAN ANATOMY
2 Semesters
This course is an introduction to medical terminology, human anatomy and body systems, providing the foundation for advanced study college courses or a career in the health professions. A review of medical ethics and laws is included.
CCR
Section 9

HOSPITALITY, TOURISM & RECREATION

PATHWAY OPTIONS

FOOD SERVICE & HOSPITALITY PATHWAY
HOSPITALITY, TOURISM & RECREATION PATHWAY
HOSPITALITY, TOURISM & RECREATION

“Tourism is our second biggest industry in terms of the people it employs.”
- Ed Rendell

FOOD SERVICE AND HOSPITALITY PATHWAY

A BAKER’S DOZEN:
THE PROFESSIONAL BAKER (UC)
2 Semesters
This course will cover topics such as safety and sanitation, use of commercial kitchen, essential baking skills, the production of yeast and quick breads, creation and use of icing and decorating. Students will use basic math skills to calculate formulas for baking and pastry making, as well as learn the basic principles of science methodology and best practices in the culinary arts field. Through guided practice and various lab procedures, students will also learn the importance of customer service, food handling, and proper food preparation. This course meets the UC “g” requirement.
UC/CSU

ADVANCED CULINARY AND RESTAURANT MANAGEMENT (UC)
2 Semesters
This is the third course in the Food Service and Hospitality Industry; the diverse segments of travel and tourism; and recreation. Topics include hospitality development and trends; food service operations and management; the hotel and lodging industry; the diverse segments of travel and tourism; and careers in leisure, recreation and entertainment. The course also covers aspects of hospitality management, such as business structures and operations; human resources; accounting practices; legal and safety issues; and marketing, sales and service.

CULINARY AND RESTAURANT MANAGEMENT I (UC)
2 Semesters
This is the second course in a Food Service and Hospitality Industry; the diverse segments of travel and tourism; and recreation. Students will experience all aspects of operating and managing a foodservice establishment. Through hands-on learning, they will understand safe food handling and practices, basic food preparation, accounting and cost control, sanitation and workplace safety. Students will prepare for the ServSafe® Manager certification. During the first year of this two-year program, students will also begin their “on-the-job” training experience. Upon successful completion of Advanced Culinary and Restaurant Management, which includes two certification exams, and a 400 hour internship experience, students qualify for receipt of the National Restaurant Association sponsored ProStart Certification. This course meets the UC “g” requirement.
PRQ, UC/CSU

CULINARY ARTS (UC)
2 Semesters
This is the foundation course for the Culinary Arts pathway. Students will develop basic food preparation, customer service, and restaurant skills. Nutrition, food safety, and sanitation will be mastered. Students will prepare for the ServSafe® Food Handler and ServSafe® Manager certification. Students will learn about the Food Service and Hospitality Industry and explore a variety careers.

CULINARY ARTS I (UC)
1 Semester
This course is designed for students who are interested in understanding the principles of food and nutrition and maintaining a healthy life. The study and application of food preparation, planning, service and nutrition is also addressed. Students use small and large equipment, supplies, products and procedures in an interdisciplinary approach. Safety and sanitation is paramount and applied in a classroom laboratory setting. Students will prepare for the ServSafe® Food Handler and ServSafe® Manager certification. This course meets the UC “g” requirement.
UC/CSU

CULINARY ARTS II (UC)
1 Semester
In this course, students will plan, prepare and present cold foods while studying quality food preparation techniques. Instruction includes seasoning, time, temperature, sanitation, fruit/vegetable carving, safe food handling and expert presentation techniques. With an emphasis on design, students will create foods such as canapés, hors d’oeuvres, garnishes, decorated dishes, sauces, dressings and salads.

EVENT CATERING I
2 Semesters
This is the second Course in the Culinary Arts Pathway. Students will continue their exploration of the Food Service and Hospitality Industry, reinforce their knowledge of safe food handling and practices, and increase their skills in the selection and preparation of a variety of foods. Students will learn all aspects of event catering, a growing segment of the food service industry. They will plan menus, prepare room environments using appropriate service equipment/supplies, prepare food for various catered events and conduct cost and pricing analyses.
PRQ

GARDE MANGER
1 Semester
This course will cover topics such as safety and sanitation, use of commercial kitchen, essential baking skills, the production of yeast and quick breads, creation and use of icing and decorating. Students will use basic math skills to calculate formulas for baking and pastry making, as well as learn the basic principles of science methodology and best practices in the culinary arts field. Through guided practice and various lab procedures, students will also learn the importance of customer service, food handling, and proper food preparation. This course meets the UC “g” requirement.

HOSPITALITY & RESTAURANT CAREERS
2 Semesters
Classroom instruction and internship are combined to prepare students for a career in the hospitality and restaurant field. Students will be introduced to basic food preparation and presentation, table and counter service, food safety/sanitation, guest service and cash handling techniques.
INT

PRINCIPLES OF BAKING I
1 Semester
Students will be introduced to basic baking skills, principles and techniques. They will learn safe food handling practices and develop skills in culinary science and math. The course will focus on breads, pastries, sauces, pies, cookies and cakes as well as decoration and presentation.
Section 9

PROFESSIONAL INTERNSHIP

FOOD SERVICES
2 Semesters
This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.

PRQ, INT

SERVSAFE CERTIFICATION PREP
1 Semester
This is the third Course in the Culinary Arts Pathway. Students who take this course will be prepared to take the ServSafe Certification Exam; however, the exam is not given as part of this course. This certification is widely recognized as a professional certification in the Food Service industry, administered by the National Restaurant Association Educational Foundation. If a student receives an A or B in this course and elects to take the ServSafe Exam, they are eligible to receive articulation credit at local community colleges in their Culinary Arts programs. PRQ

HOTEL AND TOURISM MANAGEMENT

(UC)
2 Semesters
In this course, students will apply 21st Century skills (Critical Thinking, Collaboration, Communication, Creative Thinking) as they dive deeper into the duties and responsibilities of management positions found throughout the hospitality industry. Students will learn to manage departments according to the expectations of the “Production Team” or Production Handbook. They will solve problems, use innovative ideas, and practice multiple forms of communication as they create customer-based solutions to real-world scenarios found in various branches of the Hospitality and Tourism Industry from Airlines to Bed and Breakfast establishments; students will be able to focus on the industry that most interests them. This course meets the UC “g” requirement.

PRQ, UC/CSU

SPECIALTY FOODS
1 Semester
Specialty Foods introduces students to various ethnic and international foods. Students will become familiar with the geography, food history, customs, ingredients and preparation techniques of both US and world-wide regions. Kitchen organization, equipment skills, safe food handling, culinary science and math will be taught.

HOSPITALITY, TOURISM & RECREATION PATHWAY

HOTEL AND RESTAURANT OCCUPATIONS
2 Semesters
Students study the hospitality industry and the various careers in the field. The course includes hotel and restaurant operations, customer service, sales and catering. Classroom instruction is combined with internship at local businesses. INT
Section 10

INFORMATION & COMMUNICATION TECHNOLOGIES

PATHWAY OPTIONS

INFORMATION SUPPORT & SERVICES PATHWAY
NETWORKING PATHWAY
SOFTWARE & SYSTEMS DEVELOPMENT PATHWAY
GAMES & SIMULATION PATHWAY
“The science of today is the technology of tomorrow.” — Edward Teller

## INFORMATION & COMMUNICATION TECHNOLOGIES

### C-STEM MATH ROBOTICS & PROGRAMMING

**2 Semesters**

This course provides a formal development of the algebraic skills and concepts using interactive computing, computer programming in C/C++, and hands-on robotics. This integrated math curriculum meets both Algebra 1 course requirements and CTE standards. This course is meant to be an engaging support class for students concurrently taking Algebra 1 or Integrated Mathematics 1. Integrating robotics into the Algebra curriculum helps make abstract ideas concrete and allows students to apply mathematical concepts to real world problems. Students will study, analyze, and modify existing C/C++ programs and develop their own programs that will integrate computing and robotics with major Algebra 1 concepts including operations with real numbers, linear equations and inequalities, relations and functions, polynomials, quadratic equations, system of linear equations with two variables, algebraic fractions, and nonlinear equations.

### APPLICATION OF BUSINESS TECHNOLOGY (UC)

**2 Semesters**

In this course, students will develop expertise in Microsoft Office applications. As students learn the different tasks involved in the daily operation of a business, and use the appropriate software and systems to complete these tasks, they also learn business theories that deal with management, entrepreneurship, and job creation. Application of Business Technology concentrates on Microsoft Office PowerPoint, Excel, and Word. Instruction includes those areas and skills included on the Microsoft Office Specialist (MOS) Certification exam. This course meets the UC-“g” requirement.

UC/CSU

### ICT ESSENTIALS I

**2 Semesters**

This course introduces students to the basic essentials of computer technology. Instruction includes the essentials of computer hardware and software including architecture, central processing units, memory systems, operating system basics, introduction to network cards as well as basic maintenance, upgrading, troubleshooting protocols and techniques.

CCR

### ICT ESSENTIALS II

**2 Semesters**

Students will continue to develop the skills acquired in ICT Essentials I. Instruction includes the review of basic electronics, current operating system platforms, networking, installations, security and troubleshooting. Topics covered in ICT Essentials I & II include those necessary for A+ Certification.

PRQ, CCR

### PROFESSIONAL INTERNSHIP INFORMATION SUPPORT & SERVICES

**2 Semesters**

This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.

PRQ, INT

### TECH SQUAD

**1 Semester**

In this course, students will develop expertise in help desk operations and technology troubleshooting. Through participation in the nationally recognized program, Mouse Squad, and successful completion of this course, students will receive Mouse Squad certification. Mouse Squad provides students with opportunities to develop 21st century skills and apply them as they solve technical problems faced by their schools. The program, modeled on industry-standard help desks in business and industry, prepares and supports participants in the cultivation of technical and leadership skills needed for success in all work environments.

### TECHNOLOGY CERTIFICATION FOR BUSINESS

**2 Semesters**

In this course, students will develop expertise in Microsoft Office applications. As students learn the different tasks involved in the daily operation of a business, and use the appropriate software and systems to complete these tasks, they also learn business theories that deal with management, entrepreneurship, and job creation. Application of Business Technology concentrates on Microsoft Office PowerPoint, Excel, and Word. Instruction includes those areas and skills included on the Microsoft Office Specialist (MOS) Certification exam. This course meets the UC-“g” requirement.

UC/CSU
**NETWORKING PATHWAY**

**INFORMATION & COMMUNICATION TECHNOLOGY - NETWORKING/ PROFESSIONAL INTERNSHIP (UC)**  
2 Semesters  
This capstone course builds on the networking skills that students have learned in previous classes. In this course, students review binary number system, routers and switches, and networking protocols. Students will learn to troubleshoot and expand networks as they deepen their knowledge of the competencies required for Network Certification. Students will practice real-world application of their skills both in the classroom setting and in an internship at local ICT companies. Students will complete major projects with the help of an industry partner/mentor. This course will further prepare students for industry certification. This course meets the UC “g” requirement.  
PRQ, UC/CSU

**NETWORK+**  
1 Semester  
This course is designed to prepare students for the Network+ and Server+ exams. Students will learn to install, configure and troubleshoot networking hardware, protocols and services with a broad vendor neutral foundation, proactive maintenance, diagnostic troubleshooting and disaster recovery of server hardware and software.  
PRQ

**PROFESSIONAL INTERNSHIP NETWORKING**  
2 Semesters  
This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.  
PRQ, INT

**SOFTWARE & SYSTEMS DEVELOPMENT PATHWAY**

**AP COMPUTER SCIENCE PRINCIPALS (UC)**  
2 Semesters  
The course provides students with a foundation in computer science concepts and practices so that students learn to reason using computational and critical thinking skills. Students engage in problem-solving and creative aspects of the computer science field by creating products that involve computational processes the way real-world professionals do. By applying the content and skills emphasized in this course, students will engage in rigorous instruction so that they become active and informed citizens in a global and technologically-driven society. All activities will be mapped to the College Board curriculum framework. This course meets the UC “g” requirement.  
PRQ, UC/CSU

**APPLICATION OF BUSINESS TECHNOLOGY (UC)**  
2 Semesters  
In this course, students will develop expertise in Microsoft Office applications. As students learn the different tasks involved in the daily operation of a business, and use the appropriate software and systems to complete these tasks, they also learn business theories that deal with management, entrepreneurship, and job creation. Application of Business Technology concentrates on Microsoft Office PowerPoint, Excel, and Word. Instruction includes those areas and skills included on the Microsoft Office Specialist (MOS) Certification exam. This course meets the UC “g” requirement.  
UC/CSU

**COMPUTER SCIENCE AND SOFTWARE ENGINEERING (PLTW)**  
2 Semesters  
Computer Science and Software Engineering (PLTW) is designed to help students develop computational thinking and introduce computational tools that foster creativity. Each unit of study focuses on a computationally intensive career path. The course includes open-ended projects that require students to develop planning, documentation, communication and other professional skills. This course meets the UC “g” requirement.  
UC/CSU

**EXPLORING COMPUTER SCIENCE (UC)**  
2 Semesters  
This is the first course in the Information and Computer Technology (ICT) Sector Pathway. Students are introduced to the foundations of Computer Science using an inquiry-based, hands-on approach to understand and solving real world computing problems. Instruction includes the areas of human computer interaction, problem solving, web design, programming, data analysis and robotics. Emphasis is placed on the creative, collaborative, interdisciplinary and problem-solving nature of computing. This course follows the National Course outline developed by UCLA and LAUSD. This course meets the UC “g” requirement.  
PRQ, UC/CSU

**FOUNDATIONS OF TECHNOLOGY & ENGINEERING (UC)**  
2 Semesters  
Foundations of Technology and Engineering is a one-year course designed to expose high school students to a wide range of science, engineering, and technology content. The integrated units of study provide a concept-driven mastery system of learning where students are engaged in hands-on projects. The course is part of the Paxton Patterson educational system. This course meets the UC “g” requirement.  
UC/CSU

**INFORMATION & COMMUNICATION TECHNOLOGY - SOFTWARE & SYSTEMS DEVELOPMENT PROFESSIONAL INTERNSHIP (UC)**  
2 Semesters  
In this course, students will create apps, develop a webpage, and create a project from the ground up. Throughout the course, students will be researching their “customers” and their needs. Students will practice real-world application of their skills both in the classroom setting and in 90 hours of internship at local companies. Each quarter contains a major project that the students should complete and share with the industry partner where they are doing their internship. This course will further prepare students for industry certifications. This course meets the UC “g” requirements.  
PRQ, UC/CSU, INT
INTRODUCTION TO COMPUTER PROGRAMMING
2 Semesters
This course introduces students to the fundamentals of computer programming. They will learn scripting and the basics of a variety of industry-standard object-oriented programming languages. Using programming skills, they will write, test, and debug code to solve simple problems. In addition, they will learn to develop apps for android devices and code for video games.

MOBILE APPLICATION DEVELOPMENT (UC)
2 Semesters
This course is designed to reinforce fundamental computer programming constructs and deepen student understanding of foundational computer science concepts such as variables and data structures, conditional and iterative logic and algorithms, and object oriented programming (OOP). Students will develop a series of engaging software applications for the iOS platform, and be able to test them in the Xcode Integrated Development Environment (IDE) simulator as well as on actual iPad and iPhones. This course meets the UC “g” requirement.

PROFESSIONAL INTERNSHIP SOFTWARE & SYSTEMS DEVELOPMENT
2 Semesters
This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.

ROBOTICS I
2 Semesters
Students will explore the interaction of science and technology and learn how these concepts are applied in engineering, control systems and automation. Students will use inquiry, research, and design methods to solve problems, and construct robotic devices using industry-standard systems software and technology.

ROBOTICS II
2 Semesters
Students will continue to explore the interaction of science and technology and learn how more advanced concepts are applied in engineering, control systems and automation. Students will use inquiry, research, and design methods to solve problems, and construct robotic devices using industry-standard systems software and technology.

TECH ACTION LABS
2 Semesters
Tech Action Labs is a one-year course designed to expose middle school students to a wide range of science, engineering, and technology content. The integrated units of student provide a concept driven mastery system of learning where students are engaged in hands-on projects. This course is part of the Paxton Patterson educational system.

VIDEO GAME DESIGN I
2 Semesters
This is an introductory course into the growing field of Video Game Design. Students will learn the basic concepts of game design, together with a study of the technologies, tools and languages. Instruction will include hands-on experiences with 2D & 3D modeling and animation.

VIDEO GAME DESIGN II
2 Semesters
This is the second course in the Video Game Design program. Instruction includes the study of 2D & 3D game design concepts, technologies and programming, including 3D modeling, animation, scripting and production. Students will create a professional portfolio while developing intermediate skills and knowledge in game design, concept development, storyboarding, character development, and user interfaces.

GAMES & SIMULATION PATHWAY

PROFESSIONAL INTERNSHIP GAMES & SIMULATION
2 Semesters
This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.
Section 11

MARKETING, SALES & SERVICE

PATHWAY OPTIONS

ENTREPRENEURSHIP / SELF EMPLOYMENT PATHWAY

PROFESSIONAL SALES PATHWAY

MARKETING PATHWAY
ENTREPRENEURSHIP / SELF-EMPLOYMENT PATHWAY

ENTREPRENEURSHIP I
2 Semesters
In Entrepreneurship I, students will study the strategies and techniques of successful business ownership. They will learn how to identify and evaluate a prospective business opportunity, understand various business legal structures, small business budgeting, record keeping methods, staffing, marketing and promotion. Instruction will include an introduction to the elements of a business plan including marketing and technology.
CCR

VIRTUAL ENTERPRISE (UC)
2 Semesters
This course is a simulated business that is set up and run by students to prepare them for working in a real business environment. The students determine the nature of their business, its products and services, its management and structure, and learn the daily operations of a business. They use current business software and the Internet for business transactions. The focus is on business operations, basic economic principles, communications, and computation and employability skills. This course meets the UC “g” requirement.
PRQ, UC/CSU

MARKETING, SALES & SERVICE

PROFESSIONAL SALES PATHWAY

E-COMMERCE
2 Semesters
This course provides instruction in the fundamental principles of E-Commerce systems/technology as it relates to business and marketing. Students will study product, buyer behavior and customer service issues, develop marketing, merchant services and promotional strategies and create an E-Commerce website.

PROFESSIONAL INTERNSHIP PROFESSIONAL SALES
2 Semesters
This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.
PRQ, INT

MARKETING PATHWAY

PROFESSIONAL INTERNSHIP MARKETING
2 Semesters
This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.
PRQ, INT

“Many a small thing has been made large by the right kind of advertising.”
- Mark Twain
Section 12

PUBLIC SERVICES

PATHWAY OPTIONS

LEGAL PRACTICES PATHWAY
PUBLIC SAFETY PATHWAY
EMERGENCY RESPONSE PATHWAY
“Act as if what you do makes a difference. It does.”
- William James

LEGAL PRACTICES PATHWAY

BUSINESS LAW (UC)
2 Semesters
Students will review the fundamental structure and operation of the American Legal system. They will overview the history of the legal system and learn the basic principles of law relevant to business operations. Topics include sources of law and ethics, contracts, torts, agency, business organization, and judicial and administrative processes. Students deepen their understanding of civil law through actual cases and mock trials. This course meets the UC "g" requirement.
PRQ, UC/CSU

CRIMINAL JUSTICE (UC)
2 Semesters
Students will investigate the qualifications and requirements for various law enforcement occupations and learn the nature, history, and philosophy of law enforcement. Other areas of study include constitutional law, policing issues and trends, court systems, trials, corrections and general aspects of law enforcement. This course meets the UC "g" requirement.
PRQ, UC/CSU

FOUNDATIONS OF LAW (UC)
2 Semesters
This course guides students in the examination of the diverse areas of law, including criminal, civil, constitutional and international. Students will study the rule of law and how laws are created, enforced, interpreted and changed. Instruction includes exploration of civil rights issues and the role of advocacy, civics, and the media in our legal system. This course meets the UC "g" requirement.
UC/CSU

LAW AND ORDER (UC)
2 Semesters
Students will study due process and the principles of our judicial system. Students learn the step-by-step process of initiating or defending a lawsuit and will undertake the analyses, preparation and presentation of both civil and criminal trial proceedings. Students participate in the presentation of cases as counsel, court officers, witnesses, judges, attorneys and jury. Instruction will include the contents and preparation of a variety of legal documents and statutory filing procedures. This course meets the UC "g" requirement.
UC/CSU

LAW AND ORDER II
2 Semesters
Students expand their knowledge of due process and the principles of our judicial system. Instruction will include legal research techniques and the investigation of case law and legal precedents. Students participate in the presentation of cases as counsel, court officers, witnesses, judges, attorneys and jury. Instruction will also include the history of the U.S. Judicial System and the statutes and regulations that form the basis of the legal system.
PRQ

LEGAL CAREERS I
2 Semesters
The Legal Careers I course is designed to introduce students to the legal field and the employment possibilities for office support personnel. Students will become familiar with the court system, legal terminology, information resources and the elements of legal procedure. They will identify various legal documents and learn how to create, format and file briefs and pleadings.
PRQ

LEGAL CAREERS II
2 Semesters
In Legal Careers II, students will continue to build upon their acquired skills while using integrated legal software programs. Instruction will include elements of civil procedure, legal research, citations, calendar management, legal calculations including judgment interest and attorney billings, discovery concepts, appellate briefs, deposition summaries, current case law briefing and oral presentation skills.
PRQ

PROFESSIONAL INTERNSHIP
LEGAL PRACTICES
2 Semesters
This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.
PRQ, INT

PROFESSIONAL INTERNSHIP
PUBLIC SERVICES/
LEGAL PRACTICES
2 Semesters
This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.
PRQ, INT

PROFESSIONAL INTERNSHIP
PUBLIC SERVICES/
LEGAL PRACTICES (UC)
2 Semesters
In this capstone course, students will expand their understanding of the civil and criminal justice systems through application and study of actual cases, through critical and professional writing, and through an internship at a local legal office or law firm. Students will complete major projects each quarter, and students will complete a Personal Career Plan portfolio that will help them choose their next steps in the Public Services Industry. This course meets the UC "g" requirement.
PRQ, UC/CSU
PUBLIC SAFETY PATHWAY

CAREER FOCUS: PROTECTIVE SERVICES
2 Semesters
Students will explore various careers in Protective Services to prepare for advanced study and/or employment in this field. Instruction includes an introduction to first responder, EMT, fire service and police/criminal justice. At the conclusion of the course, students will be able to demonstrate CPR and patient care techniques for common traumatic injuries.

CRIMINAL JUSTICE (UC)
2 Semesters
Students will investigate the qualifications and requirements for various law enforcement occupations and learn the nature, history and philosophy of law enforcement. Other areas of study include constitutional law, policing issues and trends, court systems, trials, corrections and general aspects of law enforcement. Students who successfully complete this course will emerge with a realistic understanding of the opportunities for a career in criminal justice as well as an understanding of the educational paths for these careers. This course meets the UC-“g” requirement. UC/CSU

CRIMINAL JUSTICE / CRIMINAL PROCEDURES
2 Semesters
Students will investigate the qualifications and requirements for various law enforcement occupations and learn the nature, history and philosophy of law enforcement. Other content area skills include constitutional law, policing issues and trends, court systems, trials, corrections and general aspects of law enforcement. Students who successfully complete this course will emerge with a realistic understanding of the opportunities for a career in criminal justice. CCR

CRIME SCENE INVESTIGATION (CSI) I
1 Semester
This course introduces students to the theory and practical application of forensic science. Instruction will emphasize the methods and protocol for the collection, preservation and analysis of evidence. Students will investigate latent fingerprints, fibers and textile evidence and biological evidence. Communication skills, report writing, presentation skills and the application of the scientific concepts are emphasized throughout this course. PRQ

CRIME SCENE INVESTIGATION (CSI) II
1 Semester
Students further their study of the forensic concepts taught in Crime Scene Investigation I. Included will be an introduction to crime scene photography and the securing and analysis of DNA, impression, ballistics and computer evidence in a criminal investigation. Students will be introduced to case studies in order to understand how crime scene investigators use evidence to solve crimes and will have the opportunity to present their analysis and evidence in mock courtroom experiences. PRQ

PROFESSIONAL INTERNSHIP
PUBLIC SAFETY
2 Semesters
This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate. PRQ, INT

EMERGENCY MEDICAL TECHNICIAN (EMT)
The emergency medical technician training program meets California Department of Health Regulations and follows the National Standard Curriculum for certification as an EMT. It has been approved by the Orange County Emergency Medical Services Agency (OCEMS) and meets the prerequisites for their Accreditation requirements. The course includes medical theory, physical skills training and supervised clinical experience, and prepares students to provide pre-hospital care and basic life support in emergency situations. After successful completion of the program, a student qualifies to sit for the EMT National Registry exam. INT

EMERGENCY MEDICAL RESPONDER (EMR)
1 Semester
This course will prepare students to provide immediate care to an ill or injured person and assist emergency medical service (EMS) providers. Instruction will include EMS overview, CPR and First Aid, patient assessment, legal/ethical issues and triage.

EMERGENCY RESPONSE PATHWAY

CAREER FOCUS: MEDICAL
2 Semesters
This course explores various careers in the Medical and Health Industry Sector and prepares students for entry level jobs in the field. Students learn the requirements and opportunities for post-secondary education and develop a personal career/life plan while learning valuable foundation skills that will benefit them throughout their school and working life. Instruction includes Foundations in Health together with hands-on experience in the specific areas of Health Informatics, Patient Care and Sports Medicine.

EMERGENCY MEDICAL REFRESHER
The EMT refresher course satisfies NHTSA requirements for the periodic review of the National Standard Curriculum (NSC) for Emergency Medical Technicians. Course content is in accordance with NSC standards, offering classroom instruction and testing in six modules: Preparatory, airway management, patient assessment, critical care and basic life support in emergency situations.

EMT BASIC REFRESHER
The EMT refresher course satisfies NHTSA requirements for the periodic review of the National Standard Curriculum (NSC) for Emergency Medical Technicians. Course content is in accordance with NSC standards, offering classroom instruction and testing in six modules: Preparatory, airway management, patient assessment, critical care and basic life support in emergency situations. After successful completion of the program, a student qualifies to sit for the EMT National Registry exam. INT

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FIRE SCIENCE I
2 Semesters
Students will learn the elements of fire chemistry, firefighting tactics, arson detection and rescue procedures. They will develop manipulative skills including using ladders, self contained breathing apparatus, high angle rescue, ropes, knots and hose evaluations.

FIRE SCIENCE II
2 Semesters
Fire Science II focuses on the scientific principles of fire behavior, combustion and extinguishment. Students will learn the key stages of fire development, understand properties of materials that contribute to ignition and the methods to prevent, control and extinguish fires.
PRQ

FIRE TECHNOLOGY
2 Semesters
In this course, students will develop an understanding of all aspects of the fire service field. They will be introduced to the chemistry and physics of fire, fire detection and protection systems, hazardous materials and regulatory codes. Students will practice and learn manipulative skills such as hose evaluation, ventilation, rescue techniques, ropes and ladders. They will investigate how to obtain employment in fire suppression and prevention as well as prepare for oral interviews, written and manipulative tests. College credit is awarded for successful completion of the Fire Service course.
PRQ, CCR

FOUNDATIONS IN HEALTH SCIENCE
(UC)
2 Semesters
In this course, students will explore 17 healthcare areas where they demonstrate competency as they do the “work” of healthcare professionals. This course is designed to be a career survey and lab in order for students to find the health career where they have the most interest and aptitude. Students will use digitized video, text references, written references, experiments, electronic journal, open-ended design briefs, and student guidebooks to enhance their understanding of each of the 17 areas of study. Each of the 17 units will include integrated career explorations, labs, and work-related experience. This course meets the UC-“g” requirement.
UC/CSU

MEDICAL CORE (UC)
2 Semesters
This course builds on basic principles of medical science, terminology and vocabulary needed to work in the healthcare field. Students will focus on ethical and legal responsibilities of the health care worker, safety, medical terminology, human anatomy and physiology, body systems and mechanics, standard precautions and health and fitness. Also included are health care delivery systems, regulatory agencies, research, current technology, and socio-economic issues affecting health care. Students explore career opportunities in therapeutic, diagnostic, and supportive areas. Students gain practical hands-on experience in Vital Signs, Emergency Medical Care, and First Aid and will be certified in CPR. This course meets the UC-“g” requirement.
PRQ, UC/CSU

PROFESSIONAL INTERNSHIP EMERGENCY RESPONSE
2 Semesters
This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.
PRQ, INT
Section 13

TRANSPORTATION

PATHWAY OPTIONS

SYSTEMS DIAGNOSTICS, SERVICE & REPAIR PATHWAY
OPERATIONS PATHWAY
"If GM had kept up with technology like the computer industry has, we would all be driving $25 cars that got 1000 MPG.”
- Bill Gates
AVIATION SCIENCE (UC)

2 Semesters

Aviation Science is designed to provide students a rigorous college prep in the field of aviation. Each unit is designed to provide an integrated approach blending core science with career technical education. Students will develop a deeper understanding of physical science principles by conducting experiments in a real-world context. Aviation Science is a UC approved “g” science elective. This course meets the UC “g” requirement.

PRQ, UC/CSU

CAREER FOCUS: AVIATION AND AEROSPACE TRANSPORTATION

2 Semesters

The course explores various careers in the aviation and aeronautical industries and prepares students for upper level courses in this pathway. Instruction includes a study of the development of aircraft and the aviation/aeronautical industries. Through a project-based learning approach, students will learn about the scientific and mathematics principles of flight and aerodynamics. Students will learn the requirements and opportunities for careers and post-secondary education in aviation and aeronautics. They will develop a personal career/life plan while also practicing valuable foundation skills in technical reading and writing, public speaking and technology.

PROFESSIONAL INTERNSHIP OPERATIONS

2 Semesters

This practicum and internship course allows the students to apply academic and career readiness skills in a workplace environment. Instruction will combine standards-based classroom instruction with extended on-site industry experience. Students will learn all aspects of Professionalism, and apply 21st Century Skills of Communication, Collaboration, Critical Thinking, Creativity and Problem Solving in a real world setting. Interested students can prepare to take the WorkKeys National Career Readiness Certificate.

PRQ, INT
About the ocMaker Challenge:

The ocMaker Challenge delivers an authentic experience and creative environment that combines STEM technologies, Art and Design in a culture of inquiry, problem solving, and active engagement. The project culminates in a final exhibit and competition with CASH AWARDS sponsored by industry partners.

**Why participate:**

- FREE county-wide participation to any interested 7th - 12th grade or post-secondary instructors!
- FREE targeted professional development opportunities offered this year to support the integration of this project in your classroom next year! (PLUS in-class support for Design Thinking!)
- Expose students to hands-on, student-driven, project based learning.
- Provide exciting learning options for students

Creating innovators across curriculum!

Join our Interest List Today!

www.ocmakerchallenge.com

Meeting your CTEIG Program Requirements

- Requirement (2)
- Requirement (6)
- Requirement (7)