

Division of Student Programs and Services Career Technical Education



# Pathways and Course Segmences

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



# **Table of Contents**

	ide County Office of Education Pledge, Mission areer Technical Education Dream	1
Defini	ng Career Technical Education	2
	Agriculture and Natural Resources	3-4
<b>%</b>	Arts, Media, and Entertainment	5–11
	Building and Construction Trades	12–13
# <sub>%</sub> E	Business and Finance	14–17
CH	Education, Child Development, and Family Services	18
考	Engineering and Architecture	19-20
Hik	Fashion and Interior Design	21
	Health Science and Medical Technology	22–30
8	Hospitality, Tourism, and Recreation	31–32
0	Information and Communication Technologies	33–35
(S)(S)	Manufacturing and Product Development	36–37
IST	Marketing, Sales, and Services	38–41
	Public Services	42–45
-Or	Transportation	46-50

# Riverside County Office of Education Career Technical Education

## Our Pledge

Every student in Riverside County will graduate from high school academically and socially prepared for college, the workforce, and civic responsibility.

## Our Mission

The mission of the Riverside County Office of Education (RCOE) is to ensure the success of all students through extraordinary service, support, and partnerships.



# Career Technical Education | Pream

Upon completing high school, students will enter into employment that pays a living wage, and/or attend a post-secondary institution that will lead to employment that pays a living wage.

#### **Mailing Address**

Riverside County Office of Education | Career Technical Education P.O. Box 868 | Riverside, CA 92502-0868

# **Defining** Career Technical Education (CTE)

A-G: refers to courses that a student must complete (with a grade of C or better) to be minimally eligible for admission to the University of California (UC) and California State University (CSU).

#### **UCOP Search Portal:**

https://hs-articulation.ucop.edu/agcourselist **UCOP School Name**: Riverside County Office of Ed. ROP

**Articulation:** courses that satisfy postsecondary course requirements and afford students course credit at the postsecondary level. The instructor and student must register with Career and Technology Education Management Application (CATEMA) as part of the process.

Current List of Articulated RCOE Courses: www.bit.ly/2Bg67N5

**Certification:** an industry specific credential related to the student's demonstration of mastery. The availability of certification varies by course and industry.

**Completer:** a student who has successfully passed both a concentrator and capstone course offered within the same pathway. As a result, the student will have completed a minimum of 300 hours of training.

**Costing:** refers to the financial requirements associated with launching a course or set of courses. There are three categories of costing:

**Start-Up:** refers to the initial investment (i.e., textbooks, equipment, and facilities).

**Annual**: refers to the annual consumables (i.e., certification, licenses).

**5 Year:** refers to the cost of updating equipment and facilities in step with industry standards (i.e., textbooks, equipment, etc.).



**Course Level:** refers to the level of content presented in a course.

**Introductory**: a preliminary level course containing foundational concepts in the industry pathway. Introductory courses are only offered in a four-year pathway.

**Concentrator:** an intermediate level course providing in-depth instruction and learning opportunities related to the industry pathway. **Capstone:** an advanced level course offering that culminates a program of study.

Applied Concentrator: For three (3) year pathway offerings, the capstone level course will be followed by a second concentrator level course that will emphasis additional enrichment and practicum concepts that will enhance the student's learning experience. These secondary concentrator courses will contain "Applied" in their course title.

Pathway: a sequence of related courses that lead to industry relevant skills, proficiency, and/or certification as defined by the CTE Model Curriculum Standards. A pathway results from a minimum of a concentrator and capstone course offered within the same pathway designation as defined by the California Longitudinal Pupil Achievement Data System (CALPADS). The prescribed pathways found in this document are sequenced according to the guidelines of CALPADS (2019–2020).

#### **CTE Standards:**

www.cde.ca.gov/ci/ct/sf/ctemcstandards.asp

CALPADS: www.cde.ca.gov/ds/sp/cl/

Work-Based Learning: a method of education for individuals who, through written cooperative arrangements between a school and employers, receive related career and technical education instruction by alternation of study in school with a job in an occupational field. Planned and supervised by the school and employer, each contributes to the education and employability. Examples include:

**Job Shadow:** observational and/or interview only activities conducted at a jobsite.

Community Classroom (CC): an unpaid internship in which students are placed at a jobsite to receive industry specific training and mentorship.

Cooperative Vocational Education (CVE): a paid internship between the student, parent, and business.

# Agriculture and Natural Resources Sector



The Agriculture and Natural Resources sector is designed to provide a foundation in agriculture for all agriculture students in California. Students engage in an instructional program that integrates academic and technical preparation and focuses on career awareness, career exploration, and skill preparation. Integral components of classroom and laboratory instruction, supervised agricultural experience projects, and leadership and interpersonal skills development, prepare students for continued training, advanced educational opportunities, or entry to a career.

#### **Agricultural Mechanics (Pathway 101)**

#### 2 Year Pathway

#### Concentrator RCOE Intermediate Agricultural Mechanics (ID)

**CALPADS Code 7121** 

Proposed Course Title: RCOE Intermediate Agricultural Mechanics (ID)

**Course Description:** This course in agriculture mechanics focuses on specialized skill development in welding, fabrication, equipment operation and repair.

A-G: No Grade Levels: 10, 11, 12 Prerequisites: None

Hours: 180 Articulated: No Institution: -

College Course: -

#### Capstone

#### **RCOE Agricultural Mechanics**

**CALPADS Code 7122** 

Proposed Course Title: RCOE Advanced Agricultural Mechanics

**Course Description:** This course will take place in an agricultural mechanics shop with a focus on mastering skills such as measurements, project planning, electricity and electronics, plumbing and water use, concrete and masonry, and power mechanics. This course may include advanced skill development which will also include: welding, fabrication, equipment operation, and repair.

A-G: G Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Agricultural

Mechanics (ID)

Hours: 180 Articulated: N/A Institution: -

## **Agriculture and Natural Resources Sector**



#### Plant and Soil Science (Pathway 106)

#### 2 Year Pathway

#### Concentrator

**Plant and Soil Science** 

**CALPADS Code 7171** 

Proposed Course Title: RCOE Intermediate Plant and Soil Science

**Course Description:** This course provides the theory and principals involved with preparing students for careers related to the field of plans and soil science. This course will focus on areas of plant science such as soil science, viticulture, vegetables, grains, specialty crops, irrigation, and weed and pest control. This will include a laboratory setting where students will complete projects propagating plants.

A-G: No Grade Levels: 10, 11, 12 Prerequisites: None

Hours: 180 Articulated: No Institution: -

College Course: -

#### Capstone

#### **RCOE Advanced Plant and Soil Science (ID)**

**CALPADS Code 7172** 

Proposed Course Title: RCOE Advanced Plant and Soil Science (ID)

**Course Description:** This course will continue to focus on more specific areas such as soil science, viticulture, vegetables, grains specialty crops, irrigation, weed and pest control. Additionally, the marketing, sales, economics, cash flow and management of crops and related enterprises will be addressed.

A-G: No Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Plant and Soil

Science

Hours: 180 Articulated: N/A Institution: -









Of all the career industries, the Arts, Media, and Entertainment sector requires perhaps the greatest cross-disciplinary interaction because the work in this sector has a propensity to be largely project-based, requiring both independent work and interdependent management skills for career success. New technologies are also constantly reshaping the boundaries and skill sets of many arts career pathways. Consequently, core arts-sector occupations demand constantly varying combinations of artistic imagination, metaphoric representation, symbolic connections, and technical skills. Successful career preparation involves both broad and in-depth academic and technical preparation, as well as the cultivation of twenty-first-century skill assets, such as flexibility, problem-solving abilities, and interpersonal skills.

#### Design, Visual, and Media Arts (Pathway 111)

#### Graphic Design (Sub-Pathway 111A) | Digital Imaging

#### 2 Year Pathway

#### Concentrator

#### **RCOE Digital Imaging**

**CALPADS Code 7211** 

Proposed Course Title: RCOE Intermediate Digital Imaging

**Course Description:** This course provides students with an in-depth experience with digital design tools, processes and systems common to careers in graphic arts and digital production. Career examination and skill building include printing enterprise, art and copy preparation, graphic design, image generation and assembly, production photography, graphic reproduction operations, binding and/or finishing related to digital imaging, printing, and digital production.

#### **Capstone**

#### **RCOE Advanced Digital Imaging (ID)**

**CALPADS Code 7212** 

Proposed Course Title: RCOE Advanced Digital Imaging (ID)

**Course Description:** This capstone course provides students with an in-depth understanding of digital design tools, processes and systems common to careers in graphic arts and digital production. Close examination of topics includes printing enterprise, art and copy preparation, graphic design, image generation and assembly, production photography, graphic reproduction operations, binding and/or finishing related to digital imaging, printing, and digital production. This course serves as the Capstone course to Graphic Design.

A-G: No Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Digital Imaging

Hours: 180 Articulated: N/A Institution: -



#### Design, Visual, and Media Arts (Pathway 111)

#### Graphic Design (Sub-Pathway 111A) | Graphic Design

#### 2 Year Pathway —

#### Concentrator

#### **RCOE Intermediate Graphic Design**

**CALPADS Code 7211** 

Proposed Course Title: RCOE Intermediate Graphic Design

**Course Description:** This course provides students with in-depth experience with digital design tools, processes, and systems typical to careers in graphic arts and digital production. Career examination and skill building include printing enterprise, creativity and copy preparation, graphic design, image generation and assembly, production photography, graphic reproduction operations, binding and finishing related to digital imaging, printing, and digital production.

A-G: F Grade Levels: 9, 10, 11, 12 Prerequisites: None

Hours: 180 Articulated: No Institution: -

College Course: -

#### Capstone

#### **RCOE Advanced Graphic Design**

**CALPADS Code 7212** 

Proposed Course Title: RCOE Advanced Graphic Design

Course Description: In this course, students review and build on what they learned in the intermediate course regarding composition, layout, digital art, illustration, typography, photo manipulation, and collaborative project creation and management that incorporate these and other elements. Using a variety of software tools, students create and print products for a variety of projects including real-world applications such as school related events and activities. This class is intended for students who wish to continue their education in graphic design, digital illustration, and/or multimedia art by building a design portfolio and providing design work for the school community.

A-G: F Grade Levels: 10, 11, 12 Prerequisites: RCOE Intermediate Graphic Design

Hours: 180 Articulated: No Institution: -





#### Design, Visual, and Media Arts (Pathway 111)

#### Visual/Commercial Art (Sub-Pathway 111C) | Contemporary Media

2 Year Pathway

#### Concentrator

#### **RCOE Contemporary Media**

**CALPADS Code 7217** 

Proposed Course Title: RCOE Intermediate Contemporary Media

**Course Description:** This course will emphasize the manipulation of artistic elements, media, and competencies in and beyond the two-dimensional plane. Students will use a variety of media to create industry-relevant, two and three-dimensional works, that are personally and culturally expressive. Courses will cover client relations, the aesthetic and practical applications of design principles in art across disciplines, such as architecture, fashion, and other creative industries.

A-G: F Grade Levels: 10, 11, 12 Prerequisites: None

Hours: 180 Articulated: No Institution: -

College Course: -

#### Capstone

#### **RCOE Advanced Contemporary Media (ID)**

**CALPADS Code 7218** 

Proposed Course Title: RCOE Advanced Contemporary Media (ID)

**Course Description:** This capstone course will focus on two-dimensional (2D) and three-dimensional (3D) artistic products and their application to an industry/commercial environment. Skills and knowledge will be demonstrated in both the educational and workbased setting.

A-G: No Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Contemporary

Media

Hours: 180 Articulated: N/A Institution: -





#### Design, Visual, and Media Arts (Pathway 111)

#### Visual/Commercial Art (Sub-Pathway 111C) | Digital Photography

2 Year Pathway

#### Concentrator RCOE Digital Photography I

**CALPADS Code 7217** 

Proposed Course Title: RCOE Intermediate Digital Photography

**Course Description:** This course includes topics in fine art photography and studio production lighting principles and theory. Topics will also explore client relations, the aesthetic and practical applications of design principles in art across disciplines, in architecture, fashion, and other creative industries.

A-G: F Grade Levels: 10, 11, 12 Prerequisites: None
Hours: 180 Articulated: Yes Institution: RCCD

**College Course: PHO 20 Introduction to Digital Photography** 

#### Capstone

#### **RCOE Digital Photography II**

**CALPADS Code 7218** 

Proposed Course Title: RCOE Advanced Digital Photography

**Course Description:** Instruction in this course will focus on applying student knowledge of drawing, painting, graphic design, photo, and three-dimensional (3D) forms in industry environments. Students will create artistic products that demonstrate entry level workforce skills and comprehensive knowledge of industry practices.

A-G: F Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Digital

**Photography** 

Hours: 180 Articulated: N/A Institution: -





#### **Production and Managerial Arts (Pathway 113)**

#### Stage Technology (Sub-Pathway 113A)

#### 2 Year Pathway

#### Concentrator

#### **RCOE Technical Theatre 1-2**

**CALPADS Code 7241** 

Proposed Course Title: RCOE Intermediate Technical Theatre

**Course Description:** This course will train students in the use and management of the various elements of technical production during a dance, music, or theatrical performance. These elements include the rigging and movement of sets, scenery, and lighting equipment, the use of computerized switching systems for lighting and sound, and the management and distribution of stage properties. Students will also be taught to manage the complex support tasks that are involved in a performance.

A-G: F Grade Levels: 10, 11, 12 Prerequisites: None

Hours: 180 Articulated: No Institution: -

College Course: -

#### Capstone

#### **RCOE Technical Theatre 3 - Production Staff**

**CALPADS Code 7242** 

Proposed Course Title: RCOE Advanced Technical Theatre

**Course Description:** In this course, students will use analytical skills to interpret literary material to create a design concept. Students will be familiar with design elements, drafting techniques, computer software, and modeling skills necessary to prepare designs and models of theatrical sets. They will be trained to interpret mechanical drawings to safely use appropriate power equipment to construct sets based on artist's designs. They will also become familiar with the diverse array of production materials and techniques used to augment live theatrical productions.

A-G: F Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Technical

Theatre

Hours: 180 Articulated: No Institution: -





#### **Production and Managerial Arts (Pathway 113)**

#### Film/Video Production (Sub-Pathway 113B)

#### 2 Year Pathway

#### Concentrator

#### **RCOE Digital Film Production I**

**CALPADS Code 7244** 

Proposed Course Title: RCOE Intermediate Digital Film Production

**Course Description:** This course covers the history and development of cinema, documentaries, and other new media and film technologies. Students learn skills and practices in various aspects of cinema and video production by applying the elements of art, principles of design, integration of technology for the effective visual communication of their ideas, feelings, and values.

A-G: F Grade Levels: 10, 11, 12 Prerequisites: None
Hours: 180 Articulated: Yes Institution: RCCD

**College Course: FTV 67 Introduction to Video Production** 

#### Capstone

#### **RCOE Digital Film Production II**

**CALPADS Code 7245** 

Proposed Course Title: RCOE Advanced Digital Film Production

**Course Description:** This course will examine specific uses of film and video technology in various entertainment and industry sectors. Students receive advanced training in pre- and post-production jobs and competencies, current and emerging technologies, and the collaborative nature of the creative process involved in video production.

A-G: F, G Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Digital Film

Production

Hours: 180 Articulated: Yes Institution: RCCD

College Course: FTV 65 Director's Art in Filmmaking

#### 3 Year Pathway

# Applied Concentrator

#### **RCOE Digital Film Production III**

**CALPADS Code 7244** 

Proposed Course Title: RCOE Applied Digital Film Production

**Course Description:** In this course, students will develop digital film production skills, including camera/recording operation, framing and composition, manipulations of space and time, idea development and communication, the mechanics and psychology of editing, script writing or text creation, light and sound, and impact.

A-G: F, G Grade Levels: 12 Prerequisites: RCOE Intermediate Digital Film

Production, RCOE Advanced Digital Film Production

Hours: 180 Articulated: Yes Institution: RCCD

College Course: FTV 52 Film, Television, and Video Laboratory



#### **Production and Managerial Arts (Pathway 113)**

#### Multimedia Production (Sub-Pathway 113C) | Audio

#### 2 Year Pathway

#### Concentrator

#### **RCOE Audio Technology I**

**CALPADS Code 7247** 

Proposed Course Title: RCOE Intermediate Audio Technology

**Course Description:** This course provides students skills and competencies in broadcast media including television, radio, web/pod casting, and emerging broadcasting technologies. Students will become familiar with current and emerging technology and practices and the variety of career opportunities that present themselves in the live broadcasting pathways.

A-G: F Grade Levels: 10, 11, 12 Prerequisites: None

Hours: 180 Articulated: No Institution: -

College Course: -

#### **Capstone**

#### **RCOE Audio Technology II**

CALPADS Code 7248

Proposed Course Title: RCOE Advanced Audio Technology

**Course Description:** This course will allow students to examine the multiple uses of radio as a broadcast medium in various entertainment and industry sectors. They will receive task-oriented training in pre-, post-, and "on air" production jobs and competencies, current and emerging technologies, and the collaborative nature of the creative process involved in radio production.

A-G: G Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Audio

**Technology** 

Hours: 180 Articulated: No Institution: -

College Course: -

#### **3 Year Pathway**

# Applied Concentrator

#### **RCOE Audio Technology III**

**CALPADS Code 7247** 

Proposed Course Title: RCOE Applied Audio Technology

**Course Description**: This course will focus on the aesthetic qualities of sound production in both the recording studio and live entertainment environments. Students will show creative expression and develop ideas individually and within groups, write compositions, proposals, budgets, and design and deploy the layout of commercial grade sound reinforcement systems.

A-G: G Grade Levels: 12 Prerequisites: RCOE Intermediate Audio Technology

**RCOE Advanced Audio Technology** 

Hours: 180 Articulated: No Institution: -

# Building and Construction Trades Sector



This sector provides a foundation in the Building and Construction Trades industry for secondary students in California. Students engage in an instructional program that integrates academic and technical preparation and focuses on career awareness, career exploration, and skill preparation in the Building and Construction Trades industry. The pathway offerings emphasize processes, systems, and the way in which structures are built.

#### **Residential and Commercial Construction (Pathway 123)**

#### **Carpentry**

2 Year Pathway

#### Concentrator

#### **RCOE Carpentry I**

**CALPADS Code 7341** 

Proposed Course Title: RCOE Intermediate Carpentry

**Course Description:** In this course, students will gain competence in carpentry skills that prepare them to lay out, fabricate, erect, install and repair wooden structures and fixtures. Topics covered will include framing, installing drywall and interior/exterior finishes, building walls and partitions, and installing roof systems, floors and floor coverings, and electrical wiring. Students will learn to integrate and employ sustainable construction practices.

A-G: G Grade Levels: 10, 11, 12 Prerequisites: None

Hours: 180 Articulated: No Institution: -

College Course: -

#### Capstone

#### **RCOE Carpentry II**

**CALPADS Code 7342** 

Proposed Course Title: RCOE Advanced Carpentry

**Course Description:** Students will demonstrate carpentry techniques for the construction of a single-family residence, proper installation techniques of internal and external materials and finishes, employ sustainable construction practices, and install plumbing and electrical systems that adhere to industry standards.

A-G: G Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Carpentry

Hours: 180 Articulated: No Institution: -

## **Building and Construction Trades Sector**



#### **Residential and Commercial Construction (Pathway 123)**

#### Construction

#### 2 Year Pathway

#### Concentrator

#### **RCOE Construction Technology I**

**CALPADS Code 7341** 

Proposed Course Title: RCOE Intermediate Construction Technology

**Course Description:** In this course, students will learn the impact of financial, technical, environmental, and labor trends on the construction industry. They will gain competence in mathematical calculations that are used in the trades and interpret technical drawings and schedules. The course will cover techniques for proper site preparation and foundation layout.

A-G: G Grade Levels: 10, 11, 12 Prerequisites: None
Hours: 180 Articulated: Yes Institution: RCCD

**College Course: CON 60 Introduction to Construction** 

#### Capstone

#### **RCOE Construction Technology II**

**CALPADS Code 7342** 

Proposed Course Title: RCOE Advanced Construction

Course Description: This course allows students to demonstrate mastery in skills attained in concentrator courses. Students will apply appropriate mathematical calculations, interpret technical drawings, and demonstrate techniques for proper site preparation and foundation layout. They will demonstrate techniques for the construction of a single-family residence, proper installation techniques of internal and external materials and finishes, employ sustainable construction practices, and install plumbing and electrical systems that adhere to industry standards.

A-G: G Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Construction

Technology

Hours: 180 Articulated: No Institution: -





Persons trained in fields such as business management, international trade, and various financial services specialties (e.g., accounting, banking, and investing) will find that their skills are highly marketable. Students master basic business principles and procedures before proceeding to the career path specializations. The specializations emphasize concepts of accounting and finance, including computer applications, taxes, investments, and asset management, as well as pathways in international business and business management.

#### Financial Services (Pathway 180)

#### 2 Year Pathway

#### **Concentrator**

**RCOE Introduction to Commerce and Finance** 

**CALPADS Code 7420** 

Proposed Course Title: RCOE Intermediate Commerce and Finance

**Course Description:** This course will examine income and wealth, as well as how to make good personal financial decisions. Topics within this course include financial planning, saving, credit, debt, loans, investing, and taxes.

A-G: G Grade Levels: 10, 11, 12 Prerequisites: None

Hours: 180 Articulated: No Institution: -

College Course: -

#### **Capstone**

#### **RCOE Intermediate Commerce and Finance**

**CALPADS Code 7422** 

Proposed Course Title: RCOE Advanced Commerce and Finance

**Course Description:** This course explores the financial world through the study of financial institutions, how businesses raise capital, and key investment-related terms and concepts. Students learn the history of how banking practices evolved and how businesses operate, grow, and thrive as well as major functions of financial institutions.

A-G: G Grade Levels: 11, 12 Prerequisites: RCOE Intermediate to Commerce

and Finance

Hours: 180 Articulated: No Institution: -



#### **Financial Services (Pathway 180)**

#### 3 Year Pathway

# Applied Concentrator

**RCOE Advanced Commerce and Finance** 

**CALPADS Code 7420** 

Proposed Course Title: RCOE Applied Commerce and Finance

Course Description: This course provides students with an understanding of how accounting processes are used to provide important financial information to internal and external stakeholders. Students apply the accounting cycle for both a service and merchandising business through closing the books for a sole proprietorship, partnership, and corporation; select and use appropriate computer hardware and software to develop, process, and maintain accounting records and create reports. Students complete accounting simulations and business case studies and analyze revenue streams and revenue forecasting.

A-G: G Grade Levels: 12 Prerequisites: RCOE Intermediate Commerce

and Finance

**RCOE Advanced Commerce and Finance** 

Hours: 180 Articulated: Yes Institution: MVC

College Course: ACC 1A Principles of Accounting I





#### **Business Management (Pathway 182)**

#### **Business Communications**

#### 2 Year Pathway -

#### Concentrator

#### **RCOE Business Computer Fundamentals**

**CALPADS Code 7410** 

Proposed Course Title: RCOE Intermediate Business

**Course Description:** This course presents software topics in Microsoft Windows, Microsoft Office, Google Drive Office Suite (G Suite), LibreOffice/OpenOffice, Internet, World Wide Web, electronic mail, file management, and data communications. Hardware topics include PC system components and troubleshooting issues. Students will also explore topics including computer-based careers and trends, electronic computing issues, terminology, electronic communication skills, ethics, security, and etiquette in today's business computing environment.

A-G: G Grade Levels: 10, 11, 12 Prerequisites: None

Hours: 180 Articulated: Yes Institution: MSJC

College Course: OTEC 090 Keyboarding & Document Formatting

#### Capstone

#### **RCOE Administrative Specialist**

**CALPADS Code 7412** 

**Proposed Course Title:** RCOE Advanced Business

**Course Description:** This course prepares students for careers in business support services: Receptionist, Administrative Office Assistant, Data Entry Clerk, and Business Records Management. It is also designed to train students for Windows, Microsoft Word, Excel, PowerPoint, Access, Internet, World Wide Web, electronic mail, file management, data communications and to perform a variety of clerical tasks involving decision-making, accepting responsibility and managing an office. Other topics include business communication, records keeping, and processing business documents.

A-G: G Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Business

Hours: 180 Articulated: No Institution: -

College Course: -

#### **3 Year Pathway**

# Applied Concentrator

#### **RCOE Business Ethics in Marketing**

**CALPADS Code 7410** 

Proposed Course Title: RCOE Applied Business

**Course Description:** This course prepares students to perform marketing and management functions and tasks associated with starting, owning, and operating a business. Students learn the principles and methods of organizing a business firm and combining resources to produce goods and services, taking account of costs, profits, and the nature and extent of competition in markets. This course describes management functions and project management skills, project life cycle and project triangle, as they are used to accomplish organizational goals.

A-G: G Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Business

**RCOE Advanced Business** 

Hours: 180 Articulated: No Institution: -



#### **Business Management (Pathway 182)**

#### **Media Publications**

#### 2 Year Pathway

#### Concentrator

#### **RCOE Media Productions I**

**CALPADS Code 7410** 

Proposed Course Title: RCOE Intermediate Media Publications

**Course Description:** This course provides an in-depth, hands-on introduction to business technologies used for business communication. Topics include communication through digital documents, presentations, data computation and presentation, as well as how to represent themselves through digital media to society.

A-G: G Grade Levels: 10, 11, 12 Prerequisites: None

Hours: 180 Articulated: No Institution: -

College Course: -

#### Capstone

#### **RCOE Media Publications II**

**CALPADS Code 7412** 

Proposed Course Title: RCOE Advanced Media Publications

**Course Description:** This course prepares students to perform marketing and management functions and tasks associated with starting, owning, and operating a business. Students learn the principles and methods of organizing a business firm and combining resources to produce goods and services, taking account of costs, profits, and the nature and extent of competition in markets.

A-G: G Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Publications

Hours: 180 Articulated: No Institution: -

College Course: -

#### 3 Year Pathway

# Applied Concentrator

#### **RCOE Media Publications III**

**CALPADS Code 7410** 

**Proposed Course Title:** RCOE Applied Media Publications

**Course Description:** This course applies the principles of ethical and effective communication in the creation of business letters, memos, emails, as well as written and oral reports for a variety of business situations. Concepts taught in this course will satisfy local computer literacy requirements and prepares individuals to create business correspondence, reports, publications, and forms by using computer operating systems; word processing; database, spreadsheet, and desktop publishing software; hardware and peripherals.

A-G: G Grade Levels: 12 Prerequisites: RCOE Intermediate Publications

**RCOE Advanced Media Publications** 

Hours: 180 Articulated: No Institution: -

# Education, Child Development, and Family Services Sector



The Education, Child Development, and Family Services sector provides students with the academic and technical preparation to pursue high-skill, high-demand careers in these related and growing industries. The sector encompasses four distinct, yet interrelated, career pathways: Child Development, Consumer Services, Education, and Family and Human Services. The Child Development pathway provides students with the skills and knowledge they need to pursue careers in childcare and related fields, and the Education pathway emphasizes the preparation of students to become teachers. The Consumer Services pathway gives students the employment and management skills needed in careers that involve helping consumers. The Family and Human Services pathway provides students with skills needed for careers related to family and social services.

#### **Education (Pathway 132)**

#### 2 Year Pathway

#### Concentrator

#### **RCOE Developmental Psychology of Children**

**CALPADS Code 7530** 

Proposed Course Title: RCOE Intermediate Education

**Course Description:** This concentration course prepares students for professional or learning support positions in education, prekindergarten through grade twelve. Students study human development; standards, regulations, and codes; positive guidance and counseling techniques; age appropriate and grade appropriate learning strategies; learning theories; and standards-based curriculum and instructional design.

A-G: G Grade Levels: 10, 11, 12 Prerequisites: None

Hours: 180 Articulated: No Institution: -

College Course: -

#### **Capstone**

#### **RCOE Principles and Practices of Teaching Young Children**

**CALPADS Code 7531** 

Proposed Course Title: RCOE Advanced Education

**Course Description:** In this course, students will learn how to work with infants, toddlers, preschool, and school-age children utilizing principles of child growth and development, and following appropriate practices in the areas of health, safety, and guidance. Students will plan and present learning activities for children at local childcare facilities or public schools.

A-G: G Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Education

Hours: 360 Articulated: Yes Institution: MSJC, UCRX

College Course: CDE 101 Principles of Early Childhood Education (MSJC)
X321.13 Role of Home School & Community in Early Childhood Education (UCRX)

X321.23 Developmentally Appropriate Curriculum in Early Childhood Education (UCRX)

X321.61 Health Safety & Nutrition in Early Childhood Education (UCRX)

X321.67 Strategies for Reporting Child Abuse in Early Childhood Education (UCRX)

X385.B Fundamentals of Early Childhood Education Training: Pediatric First Aid/CPR (UCRX)

# **Engineering and Architecture Sector**



This sector is designed to provide a foundation in engineering and architecture sector pathways and occupations for students in California. Students are engaged in an instructional program that integrates academic and technical preparation and focuses on career awareness, career exploration, and career preparation in pathways that emphasize real-world, occupationally relevant experiences of significant scope and depth.

#### **Engineering Design (Pathway 152)**

#### 2 Year Pathway

#### **Concentrator**

#### **RCOE Introduction to Engineering and Design**

**CALPADS Code 7730** 

Proposed Course Title: RCOE Intermediate Engineering Design

Course Description: This course will allow students to express themselves visually and be able to showcase their creativity. Instruction will be given in the following areas of architecture: elements of design, architectural history, technical sketching including orthographic projection, dimensioning, perspective drawing, 2-point perspective drawing, and hand-drawn two-dimensional (2D) and three-dimensional (3D) representations. Students will experience architectural problems related to the vocational fields of interior design and engineering, examine trade-related occupations, and global human impact.

A-G: F Grade Levels: 10, 11, 12 Prerequisites: None

Hours: 180 Articulated: No Institution: -

College Course: -

#### **Capstone**

#### **RCOE Mechanical Engineering and Robotics Technology**

**CALPADS Code 7731** 

Proposed Course Title: RCOE Advanced Engineering Design

Course Description: In this course, students will gain proficiency in the setup, programming, and operation of computer numerically controlled (CNC) manufacturing equipment. Students will learn foundational skills necessary for manufacturing, such as machine shop safety, applied mathematics, precision measurements, calculation of feeds and speeds, and print reading. Students will utilize the design process to select an object for design and continue to reflect upon and revise their proposal as new learning occurs.

A-G: G Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Engineering

Design

Hours: 180 Articulated: No Institution: -

## **Engineering and Architecture Sector**



#### **Engineering Design (Pathway 152)**

#### 3 Year Pathway

# Applied Concentrator

**RCOE Applied Engineering Design (ID)** 

**CALPADS Code 7730** 

Proposed Course Title: RCOE Applied Engineering Design (ID)

**Course Description:** This course offers students a way to integrate the learning of physics with the application of their knowledge using robots. Students will learn the traditional topics of physics: kinematics, electricity and magnetism, heat, light, and waves. They will apply their knowledge by designing and experimenting with robots and other product making products. Student experiences will enhance their knowledge of physics by requiring them to solve engineering problems, evaluate their results and learn from the success of others.

A-G: D Grade Levels: 12 Prerequisites: RCOE Intermediate Engineering Design

**RCOE Advanced Engineering Design** 

Hours: 180 Articulated: No Institution: -



# Fashion and Interior Design Sector



The Fashion and Interior Design sector provides students with the academic and technical preparation necessary to pursue high-skill, high-demand careers in these related and growing industries. The sector encompasses three distinct career pathways: Fashion Design and Merchandising, Interior Design, and Personal Services.

#### Fashion Design and Merchandising (Pathway 160)

#### 2 Year Pathway

#### Concentrator

#### **RCOE Fashion Merchandising**

**CALPADS Code 7810** 

Proposed Course Title: RCOE Intermediate Fashion

**Course Description:** This course expands on the comprehensive core and prepares students to understand the social, psychological, physiological and design aspects of fashion, textiles, and apparel. Instruction includes apparel and behavior; elements and principles of design; color theory, wardrobe planning, history of apparel, specialized clothing, wardrobe budgets, retail options, textiles, garment care, alterations, personal and family clothing selection and purchase; design and construction of clothing, utilizing advanced construction techniques; couture design elements; and modification of clothing to meet the special needs of individuals.

A-G: G Grade Levels: 10, 11, 12 Prerequisites: None

Hours: 180 Articulated: No Institution: -

College Course: -

#### **Capstone**

#### **RCOE Art of Fashion**

**CALPADS Code 7811** 

Proposed Course Title: RCOE Advanced Fashion

**Course Description:** This course provides an in-depth study of advanced apparel design. Instruction includes personal and family clothing selection and purchase; design and construction of clothing, utilizing advanced construction techniques; couture design elements; and modification of clothing to meet the special needs of individuals. Emphasis is given to fashion design techniques.

A-G: F Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Fashion

Hours: 180 Articulated: No Institution: -



This sector represents the academic and technical skills and knowledge students need to pursue a full range of career opportunities in health science and medical technology, from entry level to management, as well as technical and professional career specialties. The standards describe what workers need to know and be able to do to contribute to the delivery of safe and effective health care.

#### Patient Care (Pathway 198)

#### **Allied Health**

#### 2 Year Pathway

#### Concentrator

#### **RCOE Introduction to Medical Professions**

**CALPADS Code 7921** 

Proposed Course Title: RCOE Intermediate Medical Professions

**Course Description:** This course provides students with an overview of the medical profession including vital signs, medical terminology, medical abbreviations, health and safety in healthcare, professionalism in healthcare, legal and ethical responsibilities of a medical professional, measurements and mathematics applied in healthcare careers, body systems along with anatomy and physiology.

A-G: G Grade Levels: 10, 11, 12 Prerequisites: None

Hours: 180 Articulated: No Institution: -

**College Course: -**

#### Capstone

#### **RCOE Allied Health Occupations**

**CALPADS Code 7922** 

Proposed Course Title: RCOE Advanced Allied Health

**Course Description:** This course will explore all domains of health including psychosocial, physical, and environmental elements and their impact on a person's wellness. Students will examine how one's culture, socioeconomic status, behaviors, attitudes, and heredity play a role in a person's well-being. While working within the Allied Health Medical field and community health organizations, students will better understand health care needs and the importance of health education and promotion.

A-G: G Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Medical

Professionals

Hours: 180 Articulated: No Institution: -



#### **Patient Care (Pathway 198)**

#### **Allied Health**

#### 3 Year Pathway

# Applied Concentrator

**RCOE Applied Allied Health (ID)** 

**CALPADS Code 7921** 

Proposed Course Title: RCOE Applied Allied Health (ID)

**Course Description:** This course provides knowledge necessary to learn and recognize word roots, prefixes, and suffixes used in medical language. Students will learn and understand the prevention, wellness, and disease process, and the associated skill application consistent with the Patient Care pathways scope and practice in either direct or indirect client/patient services.

A-G: No Grade Levels: 12 Prerequisites: RCOE Intermediate Medical

**Professionals** 

**RCOE Advanced Allied Health** 

Hours: 180 Articulated: No Institution: -





#### **Patient Care (Pathway 198)**

#### Anatomy, Physiology, and Sports Medicine

#### 2 Year Pathway —

#### Concentrator

#### **RCOE Anatomy and Physiology for Sports Medicine**

**CALPADS Code 7921** 

Proposed Course Title: RCOE Intermediate Anatomy, Physiology, and Sports Medicine

**Course Description:** This course helps students to understand the relationship between structure and function, so that they can better assess and treat patients in the medical field. Without the essential building blocks of anatomy and physiology, students would be lacking the skills necessary to make a proper diagnosis and assessment of the patient, which would lead to improper care and treatment.

A-G: G Grade Levels: 10, 11, 12 Prerequisites: None

Hours: 180 Articulated: No Institution: -

College Course: -

#### Capstone

#### **RCOE Sports Medicine Advanced**

**CALPADS Code 7922** 

Proposed Course Title: RCOE Advanced Anatomy, Physiology, and Sports Medicine

**Course Description:** In this course, students will develop skills as a physical therapy aide, athletic trainer assistant, fitness instructor, medical, and sports equipment salesperson. The students have been trained at community locations to practice and develop the skills they have learned in the classroom.

A-G: G Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Anatomy,

Physiology, and Sports Medicine

Hours: 360 Articulated: No Institution: -





#### Patient Care (Pathway 198)

#### **Kinesiology/Sports Medicine**

#### 2 Year Pathway -

#### Concentrator

#### **RCOE Sports Medicine Fundamentals**

**CALPADS Code 7921** 

Proposed Course Title: RCOE Intermediate Kinesiology

**Course Description:** This course is designed to provide students with an overall introduction to allied health professions, including vital signs, medical terminology, medical abbreviations, health and safety in healthcare, professionalism in healthcare, legal and ethical responsibilities of a medical professional, measurements and mathematics applied in healthcare careers, body systems along with anatomy and physiology.

A-G: G Grade Levels: 10, 11, 12 Prerequisites: None
Hours: 180 Articulated: Yes Institution: RCCD

**College Course: KIN 16 Introduction to Athletic Training** 

#### **Capstone**

#### **RCOE Kinesiology: Sports Medicine**

**CALPADS Code 7922** 

Proposed Course Title: RCOE Advanced Kinesiology

**Course Description:** This course will provide overview of medical terminology, human anatomy and physiology, and the causes, symptoms, and management of common athletic injuries. Students will acquire practical hands-on experience in the recognition and assessment, prevention, treatment, and rehabilitation of sports injuries to the head and spine, upper extremities, chest and abdomen, the pelvis, and lower extremities.

A-G: G Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Kinesiology

Hours: 360 Articulated: No Institution: -

College Course: -

#### **3 Year Pathway**

# Applied Concentrator

**RCOE Sports Medicine: Clinical Practicum** 

**CALPADS Code 7921** 

Proposed Course Title: RCOE Applied Kinesiology

Course Description: This course will emphasize areas of athletic training, physical therapy, personal fitness training, medical and sports equipment sales, massage therapy, emergency medicine, and other sports medicine related occupations. Subject matter will also include such items as ethics, legal concerns and insurance policies, administration in healthcare, pharmacology in athletics, sports psychology, and importance of strength and conditioning specialists/certifications.

A-G: G Grade Levels: 12 Prerequisites: RCOE Intermediate Kinesiology

**RCOE Advanced Kinesiology** 

Hours: 180 Articulated: No Institution: -



#### Patient Care (Pathway 198)

#### **Medical Assisting Clinical**

#### 2 Year Pathway

#### Concentrator

#### **RCOE Introduction to Medical Professions**

**CALPADS Code 7921** 

Proposed Course Title: RCOE Intermediate Medical Professions

**Course Description:** This course provides students with an overview of the medical profession including vital signs, medical terminology, medical abbreviations, health and safety in healthcare, professionalism in healthcare, legal and ethical responsibilities of a medical professional, measurements and mathematics applied in healthcare careers, body systems along with anatomy and physiology.

A-G: G Grade Levels: 10, 11, 12 Prerequisites: None

Hours: 180 Articulated: Yes Institution: -

College Course: -

#### Capstone

#### **RCOE Advanced Medical Assisting Clinical**

**CALPADS Code 7922** 

Proposed Course Title: RCOE Advanced Medical Assisting Clinical

**Course Description:** The focus of this class is to prepare students for work in a back-office setting or other related positions through the medical field. Students will be exposed to both employment skills and critical thinking skills to develop the ability to adapt to the rapidly changing technological and social components of the workplace. Students will learn and sharpen skills on topics related to the patient intake process through a patient's check out, especially the clinical elements that are involved.

A-G: G Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Medical

**Professionals** 

Hours: 180, 540 Articulated: No Institution: -

College Course: -

#### 3 Year Pathway

# Applied Concentrator

#### **RCOE Body Systems and Disorders**

**CALPADS Code 7921** 

Proposed Course Title: RCOE Applied Medical Assisting Clinical

**Course Description:** This course focuses on human anatomy and physiology, normal function of body systems, associated pathologies, and medical interventions. Emphasis is placed on providing students with a thorough understanding of body systems and their interrelationships. The course includes advanced medical terminology as applied to diseases, disorders, and medical interventions.

A-G: G Grade Levels: - Prerequisites: RCOE Intermediate Kinesiology

**RCOE Advanced Kinesiology** 

Hours: 180 Articulated: No Institution: -



#### Patient Care (Pathway 198)

#### **Public Safety Personnel/First Aid**

#### 2 Year Pathway

#### Concentrator

#### **RCOE Introduction to Medical Professions**

**CALPADS Code 7921** 

Proposed Course Title: RCOE Intermediate Medical Professions

**Course Description:** This course provides students with an overview of the medical profession including vital signs, medical terminology, medical abbreviations, health and safety in healthcare, professionalism in healthcare, legal and ethical responsibilities of a medical professional, measurements and mathematics applied in healthcare careers, body systems along with anatomy and physiology.

A-G: G Grade Levels: 10, 11, 12 Prerequisites: None

Hours: 180 Articulated: No Institution: -

College Course: -

#### **Capstone**

#### **RCOE Public Safety Personnel/First Aid (HLT)**

**CALPADS Code 7922** 

Proposed Course Title: RCOE Public Safety Personnel/First Aid (HLT)

**Course Description:** The course provides students with a comprehensive understanding of anatomy, physiology, and pathophysiology of the human body. These concepts are solidifying the foundational knowledge and skills aptitudes for specific medical emergencies and traumas. The course also affords students a genuine context for the application of the knowledge used to help patients in the field.

A-G: G Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Medical

Professionals

Hours: 180 Articulated: Yes Institution: MVC

College Course: EMS 41 Emergency Medical Responder





#### Patient Care (Pathway 198)

#### **Sports Medicine**

#### 2 Year Pathway

#### Concentrator

**RCOE Sports Medicine and Therapeutic Services, Level 1** 

**CALPADS Code 7921** 

Proposed Course Title: RCOE Intermediate Sports Medicine

**Course Description:** This course will explore and examine medical terminology, human anatomy and physiology, emergency medical procedures, soft tissue and bone injuries, sports medicine, physical fitness, and the causes, symptoms, and management of common athletic injuries. This course will also provide an environment where students acquire and demonstrate practical, hands-on experience in the prevention, assessment, treatment, taping, wrapping, and rehabilitation of common sports injuries.

A-G: G Grade Levels: 10, 11, 12 Prerequisites: Anatomy and Physiology

Biology

Hours: 180 Articulated: Yes Institution: RCCD, MSJC

**College Course: KIN 16 Introduction to Athletic Training (RCCD)** 

PE 110 Prevention and Care of Athletic Injuries (MSJC)

#### **Capstone**

**RCOE Sports Medicine and Therapeutic Services, Level 2** 

**CALPADS Code 7922** 

Proposed Course Title: RCOE Advanced Sports Medicine

**Course Description:** In this course, students will acquire practical hands-on experience in the recognition and assessment, prevention, treatment, and rehabilitation of sports injuries to the head and spine, upper extremities, chest and abdomen, the pelvis, and lower extremities. Students will be able to evaluate their patient and design a treatment and rehabilitation plan including various therapeutic exercises and modalities.

A-G: G Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Medical

**Professionals** 

Hours: 180 Articulated: No Institution: -







### **Healthcare Administrative Services (Pathway 250)**

#### **Healthcare Administrative Services**

#### 2 Year Pathway —

#### **Concentrator**

#### **RCOE Exploring Health Care and Medical Careers**

**CALPADS Code 7931** 

Proposed Course Title: RCOE Intermediate Healthcare Administrative Services

**Course Description:** This course is a comprehensive study of the skills needed toward becoming competent and productive healthcare workers, with an emphasis on employable skills, such as teamwork, effective communication, professionalism, and medical ethics. Additionally, students will explore the lifesaving techniques, body systems, effects of disease and research and data collection skills necessary for medical professionals.

A-G: G Grade Levels: 10, 11, 12 Prerequisites:
Hours: 180 Articulated: No Institution: -

College Course: -

#### **Capstone**

#### **RCOE Medical Assisting Administrative**

**CALPADS Code 7932** 

Proposed Course Title: RCOE Advanced Health Care Administrative Services

**Course Description:** This course presents all necessary administrative skills of the initial point of contact patient care in clinical, medical office, and hospital settings. Students will learn the competencies and necessary skills of practices and technological standards for administrative medical assisting. Students will learn and practice skills required of medical assistants in simulated laboratory exercises while learning and understanding the scope and necessity to manage patient communication, specific tasks, charts, and records.

A-G: G Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Healthcare

**Administrative Services** 

Hours: 180 Articulated: Yes Institution: MSJC

**College Course: MA 772 Administrative Medical Assisting** 

#### 3 Year Pathway

# Applied Concentrator

#### **RCOE Applied Medical Billing and Coding**

**CALPADS Code 7931** 

Proposed Course Title: RCOE Applied Health Care Administrative Services

**Course Description:** In this course, students will become familiar with common medical billing practices, the health insurance industry, medical billing submission, payment processing, and the follow-up process. Specifically, students will learn and exercise the skills of regulatory compliance, claims processing, front end duties, payment adjudication, and coding process and applications.

A-G: G Grade Levels: 12 Prerequisites: RCOE Intermediate Healthcare

**Administrative Services** 

**RCOE Advanced Health Care Administrative Services** 

Hours: 180 Articulated: No Institution: -



### **Healthcare Administrative Services (Pathway 250)**

#### **Pharmacy**

#### 2 Year Pathway

#### Concentrator

#### **Pharmacy Assistant Clerk**

**CALPADS Code 7931** 

Proposed Course Title: RCOE Intermediate Pharmacy (ID)

**Course Description:** This course provides students with skills necessary to perform in a pharmaceutical setting. Subjects to be presented include clerical skills, customer service, insurance billing, and retail skills. Students will further explore standards and ethics, pharmacy and medical terminology, drug dosages, and identification of drugs.

A-G: No Grade Levels: 10, 11, 12 Prerequisites: None

Hours: 180 Articulated: No Institution: -

College Course: -

#### **Capstone**

#### **RCOE Pharmacy Technician Advanced**

**CALPADS Code 7932** 

Proposed Course Title: RCOE Advanced Pharmacy

**Course Description:** This course is designed to provide students with the skills necessary in the pharmacy industry. Units of instruction include basic clerical skills, customer service, insurance, billing, and retail skills. Students will learn drug brand names and generic names, drugs that are used in health and diseases, various categories of drugs, proper dispensing and counting of medication or liquid, and knowledge of drug therapeutic effects.

A-G: G Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Pharmacy (ID)

Hours: 180 Articulated: No Institution: -



# Hospitality, Tourism, and Recreation Sector



The Hospitality, Tourism, and Recreation sector provides students with the academic and technical preparation necessary to pursue high-skill, high-demand careers in these related and growing industries. The sector encompasses three distinct, yet interrelated, career pathways: Food Science, Dietetics, and Nutrition; Food Service and Hospitality; and Hospitality, Tourism, and Recreation. The anchor standards include Consumer and Family Studies, comprehensive technical knowledge and skills that prepare students for learning in the pathways.

#### Food Service and Hospitality (Pathway 201)

#### **Culinary Arts**

#### 2 Year Pathway

#### Concentrator

#### **RCOE Culinology**

Proposed Course Title: RCOE Intermediate Culinary

**CALPADS Code 8020** 

**Course Description:** This course prepares students to understand the scientific principles of nutrition, the relationship of nutrition to health and well-being, and prepares students with food production, preparation, and service skills. Instruction includes topics such as finding nutritive food values; planning, selecting, storing, purchasing, preparing, testing, serving and selling of quality food and food products; nutrition and health; safety and emergencies; food safety and sanitation; meal management; food preparation; food purchasing; food in culture; the science of food and nutrition; food costs and production; and food technology.

A-G: G Grade Levels: 10, 11, 12 Prerequisites: None

Hours: 180 Articulated: No Institution: -

College Course: -

#### **Capstone**

#### **RCOE Advanced Culinary Arts**

CALPADS Code 8021

Proposed Course Title: RCOE Advanced Culinary Arts

**Course Description:** This capstone course prepares students with food production, preparation, and service skills for employment institutional, commercial, or independently owned food establishments or other food and hospitality industry occupations. Instruction includes topics such as planning, selecting, storing, purchasing, preparing, testing, serving and selling of quality food and food products; nutritive values; safety and sanitation; use and care of commercial equipment; management of food establishments; cost and profitability analysis; side work and customer orders; and handling cash and credit transactions.

A-G: G Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Culinary

Hours: 180 Articulated: No Institution: -

## Hospitality, Tourism, and Recreation Sector



#### Food Service and Hospitality (Pathway 201)

#### **Culinary Management**

2 Year Pathway

#### **Concentrator**

#### **RCOE Culinology**

**CALPADS Code 8020** 

Proposed Course Title: RCOE Intermediate Culinary

**Course Description:** This course prepares students to understand the scientific principles of nutrition, the relationship of nutrition to health and well-being, and prepares students with food production, preparation, and service skills. Instruction includes topics such as finding nutritive food values; planning, selecting, storing, purchasing, preparing, testing, serving and selling of quality food and food products; nutrition and health; safety and emergencies; food safety and sanitation; meal management; food preparation; food purchasing; food in culture; the science of food and nutrition; food costs and production; and food technology.

A-G: G Grade Levels: 10, 11, 12 Prerequisites: None

Hours: 180 Articulated: No Institution: -

College Course: -

#### Capstone

#### **RCOE Culinary Management**

**CALPADS Code 8021** 

Proposed Course Title: RCOE Advanced Culinary Management

**Course Description:** This course offers a unique blend of hospitality management and advanced culinary arts training. Students with previous culinary arts experience will take part in developing management techniques used in work-based learning events such as dinner services, catering opportunities, and internships. Students will gain an understanding of the importance of professional ethics and the legal responsibilities while solving a variety of problems using critical thinking skills.

A-G: G Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Culinary

Hours: 180 Articulated: No Institution: -



# Information and Communication Technologies Sector



Information and Communication Technologies have expanded the need for employees who can understand, manage, and support all rapidly emerging, evolving, and converging computer, software, networking, telecommunications, internet, programming, and information systems. Essential skills for careers in the Information and Communication Technology sector include understanding systems that support the management and flow of data, the ability to work well and communicate clearly with people, and the ability to manage projects efficiently.

#### **Networking (Pathway 172)**

#### 2 Year Pathway

#### Concentrator RCOE

**RCOE Computer Operating System Security** 

**CALPADS Code 8121** 

Proposed Course Title: RCOE Intermediate Cyber Security

**Course Description:** This course allows students to perform hands-on tasking and planning for implementing network systems and/or subsystems after receiving safety training handling network hardware and power supplies. Students will evaluate networking tasks and select network components, media, and protocols to solve networking challenges.

A-G: G Grade Levels: 10, 11, 12 Prerequisites: None

Hours: 180 Articulated: No Institution: -

College Course: -

#### **Capstone**

#### **RCOE Cyber Security I**

**CALPADS Code 8122** 

Proposed Course Title: RCOE Advanced Cyber Security

**Course Description:** This course allows students to demonstrate network administration and management skills in various networking projects. Possible projects include implementing network security tools to identify network vulnerabilities and performing network security penetration testing, assessment, proposing resolutions, and forming security plans for implementation.

A-G: G Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Cyber Security

Hours: 180 Articulated: Yes Institution: RCCD

College Course: CIS 25 Information and Communication Technology Essentials

# Information and Communication Technologies Sector



#### **Networking (Pathway 172)**

#### 3 Year Pathway

# Applied Concentrator

**RCOE Cyber Security II** 

**CALPADS Code 8121** 

Proposed Course Title: RCOE Applied Cyber Security

**Course Description:** The course includes a series of technical modules that provide hands-on knowledge and skills development in computer hardware, operating systems, networking, coding, and security infrastructures. Students research and address ethical and legal standards, information security, and mitigate cyber vulnerabilities through intricate problem-solving scenarios mandating critical thinking, incident response and analysis, and collaboration.

A-G: G Grade Levels: 12 Prerequisites: RCOE Intermediate Cyber Security

**RCOE Advanced Cyber Security** 

Hours: 180 Articulated: Yes Institution: MVC

College Course: CIS 40D Systems and Network Administrative



# Information and Communication Technologies Sector



# Software and Systems Development (Pathway 174)

# Systems Programming (Sub-Pathway 174A)

2 Year Pathway

# Concentrator

# **RCOE Technology Fundamentals**

**CALPADS Code 8131** 

Proposed Course Title: RCOE Intermediate Technological Concepts

**Course Description:** This course provides students with the fundamental knowledge of computer programming for solving applied problems. Topics covered include using various programming languages, protocols, language syntax, data structures, object-oriented concepts, interfaces, sorting and searching algorithms, and developing reports.

A-G: G Grade Levels: 10, 11, 12 Prerequisites: None

Hours: 180 Articulated: No Institution: -

College Course: -

# Capstone

# **RCOE Technology and Industrial Automation**

**CALPADS Code 8132** 

**Proposed Course Title:** RCOE Advanced Technological Concepts

**Course Description**: This course emphasizes object-oriented programming methodology with a concentration on problem solving and algorithm development. Students apply discrete programming skills to make a video game, a virtual pet, a sound editor, etc. and will explore careers in programming. It also includes the study of data structures, design, and abstraction. Other topics might include developing databases and data modeling.

A-G: G Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Technological

Concepts

Hours: 180 Articulated: No Institution: -



# Manufacturing and Product Development Sector



The Manufacturing and Product Development sector provides a foundation for secondary students,in California in manufacturing processes and systems, including graphic design production, machine tooling and forming, welding and materials joining, and product innovation and design. The pathways emphasize real-world, occupationally relevant experiences, of significant scope and depth in manufacturing.

# Welding and Materials Joining (Pathway 213)

# 2 Year Pathway

# Concentrator RCOE Welding Technology I

**CALPADS Code 8230** 

Proposed Course Title: RCOE Intermediate Welding

**Course Description:** This course presents students with Oxy-Acetylene Gas Welding and Cutting (OFC-A) processes, Shielded Metal Arc Welding (SMAW), and Gas Metal Arc Welding. Students will acquire knowledge and skills relating to the transfer of matter and energy through electrical and thermal systems. Students also study advanced fundamentals of mechanical and structural systems and facilities.

A-G: G Grade Levels: 10, 11, 12 Prerequisites: Algebra I

Hours: 180 Articulated: No Institution: -

College Course: -

#### Capstone

#### **RCOE Welding Technology II**

**CALPADS Code 8231** 

Proposed Course Title: RCOE Advanced Welding

**Course Description**: This course exposes students to deeper and more complex welding theories, technologies, and processes. In addition to blueprint reading, students are introduced to Tungsten Inert Gas (TIG) and Metal Inert Gas (MIG) processes.

A-G: G Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Welding

Hours: 180 Articulated: No Institution: -

# Manufacturing and Product Development Sector



# **Product Innovation and Design (Pathway 216)**

# 2 Year Pathway

# Concentrator R

**RCOE Intermediate Product Innovation and Distribution (ID)** 

**CALPADS Code 8240** 

Proposed Course Title: RCOE Intermediate Product Innovation and Distribution (ID)

**Course Description:** This course presents concepts and experiences required for career readiness and pursuing further education in Product Innovation and Design career pathway.

A-G: No Grade Levels: 10, 11, 12 Prerequisites: None

Hours: 180 Articulated: No Institution: -

College Course: -

# Capstone

**RCOE Advanced Product Innovation and Distribution (ID)** 

**CALPADS Code 8241** 

Proposed Course Title: RCOE Advanced Product Innovation and Distribution (ID)

**Course Description:** This course further expands upon the concepts and experiences required for career readiness and pursuing further education in Product Innovation and Design

career pathway.

A-G: No Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Product

Innovation and Distribution (ID)

Hours: 180 Articulated: No Institution: -





The Marketing, Sales, and Services sector is designed to align career-path course work with current and projected employment opportunities. There is a basic business foundation in this sector: marketing and innovation are two major competitive issues for business today. Marketing includes the processes and techniques of identifying, promoting, and transferring products or services to consumers and is a function of almost every business. It exists within an environment of rapidly changing technology, interdependent nations and economies, and increasing demands for ethical and social responsibility

# **Entrepreneurship/Self-Employment (Pathway 241)**

# 2 Year Pathway

# Concentrator

## **RCOE Entrepreneurship**

**CALPADS Code 8330** 

Proposed Course Title: RCOE Intermediate Entrepreneurship

**Course Description:** This course provides students with an opportunity to explore and integrate the basic principles of business management, marketing, sales, small business start-up, and operations. Students will apply these principles to the development of a business plan document appropriate for an entrepreneur. The course will incorporate all aspects, personally and professionally, of the scope, functions, and strategies for comprehensive business planning.

A-G: G Grade Levels: 10, 11, 12 Prerequisites: Algebra I

Hours: 180 Articulated: Yes Institution: RCCD

College Course: ENP 50 Introduction to Entrepreneurship

# **Capstone**

### **RCOE Entrepreneurial TNT (Traits and Trends)**

**CALPADS Code 8331** 

Proposed Course Title: RCOE Advanced Entrepreneurship

**Course Description:** This course is designed to give students an opportunity to investigate the concept of entrepreneurship focusing on two main dimensions: the economic role of entrepreneurship in the United States free market economy and the defining characteristics of entrepreneurs in general, and specifically, how those traits are congruent with those necessary for self-employment. These two dimensions will be explored from a historical perspective, analyzing past trends and traits, and using these analyses to evaluate future trends.

A-G: G Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Entrepreneurship

Hours: 180 Articulated: Yes Institution: MSJC, RCCD

College Course: BADM 530 Small Business Entrepreneurship (MSJC)

ENP 51 Entrepreneurship Basics (RCCD)



# **Entrepreneurship/Self-Employment (Pathway 241)**

# 3 Year Pathway

# Applied Concentrator

**RCOE Virtual Enterprise** 

**CALPADS Code 8330** 

Proposed Course Title: RCOE Applied Entrepreneurship

**Course Description:** This course functions as a simulated business, established and run by students through an instructional program designed to prepare them for working in a global business environment. The students determine the nature of the business, its products and services, and its management and structure. Students conduct the daily operations of a business under the guidance of a consultant (teacher) and with the support of community business partners. Students use current business software packages and the Internet for virtual business transactions, research, and resources.

A-G: G Grade Levels: 12 Prerequisites: RCOE Intermediate Entrepreneurship

**RCOE Advanced Entrepreneurship** 

Hours: 180 Articulated: Yes Institution: MSJC

**College Course: BADM 103 Intro to Business** 





# **Professional Sales (Pathway 243)**

# 2 Year Pathway

# Concentrator

## **RCOE Retail Sales and Marketing**

**CALPADS Code 8320** 

Proposed Course Title: RCOE Intermediate Retail Sales

**Course Description:** This course content presents theory and practice of sales designed to provide a professional foundation to those involved in personal selling careers, including the fundamentals of personal selling with an emphasis on customer behavior, persuasive presentation of ideas, products and services, and developing sales goals.

A-G: G Grade Levels: 10, 11, 12 Prerequisites: None

Hours: 180 Articulated: No Institution: -

College Course: -

# Capstone

# **RCOE Advanced Retail Operations**

**CALPADS Code 8321** 

Proposed Course Title: RCOE Advanced Marketing and Sales

**Course Description:** This course prepares students to perform marketing and management functions and tasks associated with operating a retail business in a variety of on-site, student enterprises, such as a student store. The skills students will develop include pricing strategies, marketing sales, promotional planning, inventory control, balancing registers, customer service techniques, handling complaints and other various management and scheduling operations.

A-G: G Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Retail Sales

Hours: 180 Articulated: No Institution: -





# Marketing (Pathway 244)

# 2 Year Pathway

# Concentrator

**RCOE Retail Merchandising & Principles of Marketing** 

**CALPADS Code 8310** 

Proposed Course Title: RCOE Intermediate Marketing

**Course Description:** This course curriculum prepares students to master marketing and sales foundations and apply these principles. Students will learn to analyze products, consumers, marketing research, target marketing, and global perspective, cashiering, cash handling, sales events and promotion, inventory control, and strategic market planning.

A-G: G Grade Levels: 10, 11, 12 Prerequisites: None

Hours: 180 Articulated: No Institution: -

College Course: -

# Capstone

# **RCOE Advanced Retail Operations**

**CALPADS Code 8311** 

Proposed Course Title: RCOE Advanced Marketing and Sales

**Course Description:** This course prepares students to perform marketing and management functions and tasks associated with operating a retail business in a variety of on-site, student enterprises, such as a student store. The skills students will develop include pricing strategies, marketing sales, promotional planning, inventory control, balancing registers, customer service techniques, handling complaints and other various management and scheduling operations.

A-G: G Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Marketing

Hours: 180 Articulated: No Institution: -





A public service is one that is provided by government to its citizens, either directly or through the financing of another entity to provide that service. Careers in public service are unique because they center on challenging issues that define the public agenda and involve the provision of vital services to the public from local to international levels. Public service professions offer many career opportunities, including the following career pathways: Public Safety, Emergency Response, and Legal Practices.

# **Legal Practices (Pathway 231)**

# 2 Year Pathway

# Concentrator

#### **RCOE Principles and Practices of Corrections**

**CALPADS Code 8431** 

Proposed Course Title: RCOE Intermediate Criminal Justice

**Course Description:** This course is designed to provide an understating and application of laws that affect everyday life; families, business, social decision making and the relationship to policies. Course could include content knowledge within historical, philosophical, and institutional contexts of social and economic justice and human rights.

A-G: G Grade Levels: 11, 12 Prerequisites: None
Hours: 180 Articulated: Yes Institution: MSJC

College Course: CORR 101 Introduction to Correctional Science

#### Capstone

### **RCOE Exploring U.S. Criminal Justice System**

**CALPADS Code 8432** 

Proposed Course Title: RCOE Advanced Criminal Justice

**Course Description:** This course allows students to examine how statutes and policies are developed to safeguard society throughout history and the relationship to today legal practices. Students will understand the analysis of civil rights and liberties, and the ways courts and legislators deal with constitutional questions.

A-G: G Grade Levels: 10, 11, 12 Prerequisites: RCOE Intermediate Criminal Justice

Hours: 180 Articulated: Yes Institution: MSJC

**College Course: AJ 111 Criminal Procedures** 



# **Public Safety (Pathway 232)**

# 2 Year Pathway

# Concentrator

## **RCOE Law Enforcement Principles and Practices**

**CALPADS Code 8411** 

Proposed Course Title: RCOE Intermediate Law Enforcement

**Course Description:** This course includes intermediate academic and skill development courses that describe the role of specific careers in Public Safety, including of science in solving crimes using an evidence-based system. Topics could include the history and role of the agency, laboratory and scientific evidence, processing evidence, establishing hypotheses, and drawing conclusions.

A-G: G Grade Levels: 10, 11, 12 Prerequisites: None
Hours: 180 Articulated: Yes Institution: MSJC

College Course: AJ 102 Introduction to Law Enforcement

# **Capstone**

### **RCOE Forensics and Crime Scene Investigation**

**CALPADS Code 8412** 

Proposed Course Title: RCOE Advanced Law Enforcement

**Course Description:** Students will learn about the specific organizational structure of the oversite agency, laws regulations and policy for specific agencies, state laws and guidelines for career entry as well as certification hours, skill proficiency and employment requirement for the specific career in Public Safety. Students develop the skills both academically and physically to meet the demands of the specific career, the understanding of the importance of having a clean background check and the understanding of ethic, morals, and service to the community.

A-G: G Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Law Enforcement

Hours: 180 Articulated: Yes Institution: MSJC

**College Course: AJ 108 Criminal Investigations** 





# **Emergency Response (Pathway 233)**

# **Emergency Medical Technician**

# 2 Year Pathway -

# Concentrator

#### **RCOE Public Safety Personnel/First Aid (PUB)**

**CALPADS Code 8421** 

Proposed Course Title: RCOE Public Safety Personnel/First Aid (PUB)

**Course Description**: The course provides students with a comprehensive understanding of anatomy, physiology, and pathophysiology of the human body. These concepts are solidifying the foundational knowledge and skills aptitudes for specific medical emergencies and traumas. The course also affords students a genuine context for the application of the knowledge used to help patients in the field.

A-G: G Grade Levels: 10, 11, 12 Prerequisites: None
Hours: 180 Articulated: Yes Institution: MVC

College Course: EMS 41 Emergency Medical Responder

# Capstone

# **RCOE Emergency Medical Technician**

**CALPADS Code 8422** 

Proposed Course Title: RCOE Emergency Medical Technician

**Course Description:** This course discusses the components of the emergency system, the well-being of the EMT, legal and ethical issues, and medical terminology. This course provides students with a comprehensive understanding of anatomy, physiology, and pathophysiology of the human body. These concepts also provide the foundational knowledge for specific medical emergencies.

A-G: G Grade Levels: 11, 12 Prerequisites: RCOE Public Safety Personnel/First

Aid (PUB)

Hours: 180 Articulated: Yes Institution: MVC, MSJC

College Course: EMS 50 Emergency Medical Technician (MVC) EMS 51 Emergency Medical Services - Basic Clinical/Field (MVC)

**EMS 501 Emergency Medical Technician (MSJC)** 





# Emergency Response (Pathway 233)

# **Fire Science Technology**

# 2 Year Pathway

# Concentrator

# **RCOE Fire Science Technology 1**

**CALPADS Code 8421** 

Proposed Course Title: RCOE Intermediate Fire Science

**Course Description:** This course provides students with the knowledge and skills necessary to be an entry-level firefighting candidate. Topics include forestry service, firefighter safety, communication protocol, personal protective equipment (PPE), tools, and utilities specific to the industry needed when pursuing a career as a firefighter. As such, this course will present many theoretical principles as well as offer many hands-on activities to prepare students for the firefighting industry.

A-G: G Grade Levels: 10, 11, 12 Prerequisites:

Hours: 180 Articulated: Yes Institution: MSJC

**College Course: FIRE 101 Introduction to Fire Technology** 

**FIRE 102 Fundamentals of Fire Prevention** 

# Capstone

#### **RCOE Fire Science Technology 2**

**CALPADS Code 8422** 

Proposed Course Title: RCOE Advanced Fire Science

**Course Description:** This course reinforces the knowledge and skills necessary to be an entry-level firefighting candidate. Topics include fire dynamics, ground ladders, structural search and rescue, tactical ventilation, fire suppression, and conservation. The learning experience will be highlighting the presentation of theoretical principles reinforced through industry-specific practices to demonstrate student mastery.

A-G: G Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Fire Science

Hours: 180 Articulated: Yes Institution: MSJC

College Course: FIRE 106 Fundamentals of Fire Behavior and Combustion FIRE 122 Principles of Fire and Emergency Services Safety and Survival

# 3 Year Pathway

# Applied Concentrator

#### **RCOE Applied Fire Science (ID)**

**CALPADS Code 8421** 

Proposed Course Title: RCOE Applied Fire Science (ID)

**Course Description:** This course provides students with an outline of the Emergency Medical Services (EMS) system, state, and community emergency systems, introduces students to environment citizen emergency assessment, skill development, as well as provides pathophysiology and immediate action and care for various emergencies. It covers techniques of emergency environmental, community action and medical care.

A-G: No Grade Levels: 12 Prerequisites: RCOE Intermediate Fire Science

**RCOE Advanced Fire Science** 

Hours: 180 Articulated: No Institution: -



This sector is designed to provide a foundation in transportation services for all industrial technology education students in California. There are eight focus areas that fall under the Transportation sector, each with different career opportunities. The focus areas are: On-Road; Off-Road; Stationary; Rail; Water/Sea; Air; Space; and Small Engines and Specialty Equipment. The pathways in the Transportation sector emphasize real-world, occupationally relevant experiences of significant scope and depth in three areas: Operations, Structural Repair and Refinishing, and Systems Diagnostics, Service, and Repair.

# Structural Repair and Refinishing (Pathway 220)

# 2 Year Pathway

# Concentrator

# **RCOE Auto Collision and Refinishing Essentials**

**CALPADS Code 8521** 

Proposed Course Title: RCOE Intermediate Automotive Collision

**Course Description:** This course focuses on in spot and MIG welding, full panel replacement and preparation as well as painting and refinishing. The student will also become familiar with the entire repair process from estimation through to final fit and finish. Students will also become familiar with interior, upholstery, and detailing work.

A-G: G Grade Levels: 10, 11, 12 Prerequisites: None
Hours: 180 Articulated: Yes Institution: RCCD

College Course: AUB 50 Introduction to Automotive Body Collision Repair

# **Capstone**

#### **RCOE Automotive Paint and Refinishing**

**CALPADS Code 8522** 

Proposed Course Title: RCOE Advanced Automotive Collision

**Course Description:** This course provides knowledge in automotive refinishing techniques. The course is designed to build upon concentrator content on automotive refinishing techniques. The course includes advanced refinishing procedures, and materials including multicolored schemes, airbrush, pinstripes, candy colors, and translucent finishes.

A-G: G Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Automotive

Collision

Hours: 180 Articulated: No Institution: -



# Systems Diagnostics, Service, and Repair (Pathway 221)

# **Automotive Service Technician**

# 2 Year Pathway

#### **Concentrator**

#### **RCOE Automotive Service Technician I**

**CALPADS Code 8531** 

Proposed Course Title: RCOE Intermediate Automotive Service

**Course Description:** This course offers knowledge and practice in the systems diagnostics, service, and repair of vehicles. The instruction will concentrate on but will not limited to the fundamentals of shop safety, tool identification and proper use along with basic repairs and maintenance of modern vehicles.

A-G: G Grade Levels: 10, 11, 12 Prerequisites: None
Hours: 180 Articulated: Yes Institution: MSJC

**College Course: AUME 100 Basic Auto Mechanics** 

**AUME 126 Automotive Electrical** 

# **Capstone**

#### **RCOE Automotive Service Technician II**

**CALPADS Code 8532** 

Proposed Course Title: RCOE Advanced Automotive Service

**Course Description:** This course presents automotive brakes, suspension-steering, alignment service, diagnosis, and repair. This course will also provide students with the opportunity to apply and extend concepts studied in their science and math classes; such as Pascal's Law, Ohm's Law, Boyles Law, and Newton's laws of motion (related to physics, geometry, arithmetic, algebra, electrical, computer, and chemical sciences) to the automotive technology industry.

A-G: G Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Automotive

Service

Hours: 180 Articulated: Yes Institution: MSJC

College Course: AUME 119 Automotive Brake Technology AUME 120 Automotive Suspension, Steering, and Alignment Systems

**AUME 771 Automotive Brake Systems** 

# **3 Year Pathway**

# Applied Concentrator

### **RCOE Applied Automotive Service (ID)**

**CALPADS Code 8531** 

Proposed Course Title: RCOE Applied Automotive Service (ID)

**Course Description:** This course provides learning in automotive general electrical systems, starting and charging systems, batteries, lighting, and electrical accessories.

A-G: G Grade Levels: 12 Prerequisites: RCOE Intermediate Automotive Service

**RCOE Advanced Automotive Service** 

Hours: 180 Articulated: No Institution: -



# Systems Diagnostics, Service, and Repair (Pathway 221)

# **Maintenance and Light Repair**

# 2 Year Pathway

# Concentrator

**RCOE Automotive - Maintenance and Light Repair I** 

**CALPADS Code 8531** 

Proposed Course Title: RCOE Intermediate Maintenance and Light Repair

**Course Description:** In this course, students will develop skills in automobile service and repair, including shop safety, handling hazardous materials and legal and ethical responsibilities related to automotive repair. Students will learn the basic functions of engine repair, use of tools, automotive transmission and transaxle systems, manual drivetrain and axles systems, suspension and steering systems. Students will also learn about wheels and tires, brake systems, electrical and electronic systems, heating and air conditioning and engine performance systems.

A-G: G Grade Levels: 10, 11, 12 Prerequisites: None

Hours: 180 Articulated: Yes Institution: MSJC, RCCD

College Course: AUME 100 Basic Auto Mechanics (MSJC)

**AUT 50 Automotive Principles (RCCD)** 

# Capstone

RCOE Auto MLR II (Maintenance and Light Repair II)

**CALPADS Code 8532** 

Proposed Course Title: RCOE Advanced Maintenance and Light Repair

**Course Description:** In addition to the concentrator course content, students will also about wheels and tires, brake systems, electrical and electronic systems, heating and air conditioning and engine performance systems. Student will also learn to use diagnostic equipment to find operational faults and document the faults.

A-G: G Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Maintenance

and Light Repair

Hours: 180 Articulated: No Institution: -

College Course: -

# 3 Year Pathway

# Applied Concentrator

RCOE Automotive Maintenance and Light Repair III (MLR III)

**CALPADS Code 8531** 

Proposed Course Title: RCOE Applied Maintenance and Light Repair

**Course Description:** This course will offer students the skills necessary to perform engine repair, evaluate automatic transmissions and transaxle systems, study and diagnose manual drive train and axles, suspension and steering, brakes, electrical and electronic systems, heating and air conditioning, and explain engine performance.

A-G: G Grade Levels: 12 Prerequisites: RCOE Intermediate Maintenance and

**Light Repair** 

**RCOE Advanced Maintenance and Light Repair** 

Hours: 180 Articulated: No Institution: -



# **Operations (Pathway 223)**

## **Aviation**

# 2 Year Pathway

## Concentrator

# **RCOE History and Careers in Aviation**

**CALPADS Code 8511** 

Proposed Course Title: RCOE Intermediate Aviation

**Course Description**: This course provides the foundation for advanced exploration in the areas of flying, aerospace engineering, and unmanned aircraft systems. Students will learn about the engineering process, problem-solving, and the innovations and technological developments that have made today's aviation and aerospace industries possible. Students will also learn about the wide variety of exciting and rewarding careers available to them.

A-G: G Grade Levels: 10, 11, 12 Prerequisites: None

Hours: 180 Articulated: No Institution: -

College Course: -

## Capstone

#### **RCOE Aviation I**

**CALPADS Code 8512** 

Proposed Course Title: RCOE Advanced Aviation

**Course Description:** This course emphasizes safety and ground and flight operations. Students will further their competency with a flight computer/simulator, learn to read weather reports (METAR and TAF), learn the components and operation of the powerplant (engine and propeller), and learn to integrate the aeromedical conditions and physiology pilots need to avoid hazardous situations.

A-G: G Grade Levels: 11, 12 Prerequisites: RCOE Intermediate Aviation

Hours: 180 Articulated: No Institution: -

College Course: -

# **3 Year Pathway**

# Applied Concentrator

# **RCOE Aviation II**

**CALPADS Code 8511** 

Proposed Course Title: RCOE Applied Aviation

**Course Description:** The concepts learned in this course will include both manned aircraft and unmanned aircraft systems, aerodynamic principles, aircraft systems, rules and laws governing manned and unmanned operations, FAA airspace system, and airport operations. Students will also learn about weather and its effect on all types of aircraft, performance, weight and balance, navigation, emergency procedures, radio communication, aeronautical decision making and physiological factors affecting pilot performance, maintenance, and preflight procedures.

A-G: G Grade Levels: 12 Prerequisites: RCOE Intermediate Aviation

**RCOE Advanced Aviation** 

Hours: 180 Articulated: No Institution: -



# **Operations (Pathway 223)**

# **Distribution and Logistics**

# 2 Year Pathway

# Concentrator

# **RCOE Introduction to Distribution and Logistics**

**CALPADS Code 8511** 

**Proposed Course Title:** RCOE Distribution and Logistics

**Course Description:** This course provides more specific areas of focus such as planning, management, and the infrastructure required for the distribution and logistics of materials and products. The instruction will also concentrate on operating and managing facilities designed for the movement of goods, materials, and mass transit.

A-G: G Grade Levels: 10, 11, 12 Prerequisites: None

Hours: 180 Articulated: No Institution: -

College Course: -

# Capstone

#### **RCOE Distribution Management (ID)**

CALPADS Code 8512

Proposed Course Title: RCOE Distribution Management (ID)

**Course Description:** This course will provide students with the opportunity to function in a variety of roles within this pathway. Students will demonstrate competency in the knowledge and skills in this industry sector. Students will participate in work-based learning opportunities which can lead to internships.

A-G: No Grade Levels: 11, 12 Prerequisites: RCOE Distribution and Logistics

Hours: 180 Articulated: No Institution: -





# Premier Post-Secondary Choice for High School Graduates















Riverside (951) 826-4723 Indio (760) 863-3333

Visit our website for more courses



riversidesce.org