

**Section V**  
**CURRICULAR PATTERNS**

## WORKSHOP COURSES

Each discipline of the college has the option of developing workshop courses that are specifically designated to be experimental courses. (They are developed by faculty members in the discipline and receive curriculum committee approval prior to being offered.) Workshop courses cannot be used to satisfy specific graduation requirements; however, they may be used as elective credit for the Associate degree. Courses with this designation may be periodically found in the semester schedule of classes.

## AUTOMOTIVE INTERNSHIP

Auto 99 is an internship designed to allow students to work in automotive dealerships in conjunction with an experienced technician. This class reinforces theories, concepts and practical applications taught in manufacturer specific automotive classes at Riverside City College.

## COOPERATIVE WORK EXPERIENCE EDUCATION

The purpose of the Cooperative Work Experience Education Program is to provide students with an opportunity to increase their overall knowledge of their jobs by relating classroom theory with the world of work, while exposing them to the concepts of human relations in their business and personal lives. There are two work experience programs: general and occupational.

## GENERAL WORK EXPERIENCE EDUCATION

This program provides career guidance, job information, human relations, and other similar services for employed students. These jobs do not have to be related to the student's major. The job may be salaried or volunteer, but students must have a job before the beginning of the third week of class. The student earns 3 units per semester for 180-225 hours of volunteer or paid work experience, respectively, plus weekly attendance at a one hour lecture class. Students can take two (2) semesters of general work experience for a maximum of six (6) units. Veterans wishing to earn units and VA benefits must take occupational work experience.

## OCCUPATIONAL WORK EXPERIENCE EDUCATION

Work Experience is a one hour per week class which allows students to earn up to 4 units per semester for experience gained through employment or volunteer service. Enroll in a general Work Experience section and you will be placed in your choice of one of the disciplines below.

### Units Determination:

General Work Experience (not related to one of the occupational disciplines listed below) is 3 units only.

Occupational Work Experience (one of the disciplines shown below) varies from 1-4 units. For every one (1) unit of work experience credit students must complete 75 hours of paid work or 60 hours of volunteer work during the college semester. No more than 20 hours per week may be applied toward this work requirement. Below is a general guide to help students enroll in the appropriate number of units of work experience.

Hours Worked Per Week Students should enroll in:

20-40 (paid)	15-40 (volunteer)	up to 4 units
14-19 (paid)	11-14 (volunteer)	up to 3 units
9-13 (paid)	7-10 (volunteer)	up to 2 units
5-8 (paid)	4-6 (volunteer)	1 unit

Accounting	Electronics
Administration of Justice	Engineering
Air Conditioning and Refrigeration	Film, Television and Video
Applied Digital Media and Printing	Fire Technology
Architecture	Game Development
Art	Human Services
Automotive Body	Journalism
Automotive Technology	Kinesiology
Biotechnology	Management
Business Administration	Manufacturing
Community Interpretation	Marketing
Computer Applications and Office Technology	Medical Assisting
Computer Information Systems	Music
Construction Technology	Music Industry Studies
Cosmetology	Nursing
Dance	Paralegal Studies
Dental Hygiene	Photography
Early Childhood Education	Real Estate
Education	Supply Chain Technology
	Theater Arts
	Welding

## HIGHSCHOOL COURSES

### Foreign Languages

Two years of high school language with a C or better are equivalent to the first semester of the same language at RCCD. For subsequent semesters, one year of high school language with a C or better is equivalent to one semester of the same language at RCCD. (For example, two years of high school Spanish are equivalent to Spanish 1 at RCCD; three years of high school Spanish are equivalent to Spanish 2; four years of high school Spanish are equivalent to Spanish 3.)

### Chemistry

Information regarding validation of high school chemistry courses for prerequisites can be found on the web at [www.rcc.edu/services/assessment/Pages/Chemistry.aspx](http://www.rcc.edu/services/assessment/Pages/Chemistry.aspx).

### Articulated Courses

The Riverside Community College District (RCCD) colleges (Moreno Valley, Norco, and Riverside City) have articulation agreements with partnering secondary education districts. Secondary to post-secondary articulation provides a method by which college credit is awarded for the successful completion of equivalent high school and/or regional occupational programs (ROP) coursework. Articulation reduces the need for students to repeat coursework in college and facilitates a smooth transition from secondary to post-secondary education. It allows students to more efficiently reach their educational and career goals. The articulated credit is transcribed as a letter grade on a student's RCCD college transcript. The minimum grade required for articulated credit is a "B". Not all courses are articulated. Students can find the most up-to-date listing of articulated courses, and instructions on how to apply for articulated credit, by visiting <http://explorecte.com/articulation>. For further information or assistance, please contact the Career and Technical Education Projects office, [cte-info@rccd.edu](mailto:cte-info@rccd.edu).

**MORENO VALLEY COLLEGE****Colton-Redlands-Yucaipa Regional Occupational Program**

Criminal Investigation (ADJ-13)  
 Virtual Enterprise (BUS-30)  
 Creating an Online Business (BUS-51)

Video Game Design (CIS-36)  
 Mind Matters: A Study of Mental Health  
 and Illness (HMS-17)  
 Ethics in Health Care (PHI-15)

**Jurupa Unified School District**

Allied Health (HET-79)

**Moreno Valley Unified School District**

Accounting 1 (ACC-55)  
 BA Empowering Entrepreneurs (BUS-10)  
 Virtual Business (BUS-30)  
 Computer Applications I and II (CAT-50)  
 Office Suite I and II (CAT-80)  
 Introduction to Health Care (HET-79)  
 Body Systems and Disorders (MDA-1A)

**NuView Union School District**

Anatomy/Physiology (AMY-10)

**Riverside County Office of Education**

Professional Business Communications ROP (BUS-22 and BUS-47)  
 Introduction to Health Careers (HET-79)  
 Introduction to Medical Professions (HET-79)

**Riverside Unified School District**

Intro to Health Careers (HET-79)  
 Medical Terminology (MDA-1A)

**Val Verde Unified School District**

Introduction to Business (BUS-10)  
 Photography II (PHO-20)

**NORCO COLLEGE****Alvord Unified School District**

Accounting Principles (ACC-55)  
 Anatomy/Physiology (AMY-10)  
 CADD 1/Introduction and CADD 3/Architectural Design (ARE-24)  
 CADD 1/Introduction and CADD 2 Engineering Graphics and Design (ENE-21)  
 CADD 1/Introduction, CADD 2/Engineering Graphics and Design and CADD 4/Animation (ENE-30)

**Baldy View Regional Occupational Program**

Digital Arts (ART-36A)

**Chaffey Joint Union High School District**

Art 3D Design I 1 and 2 (ART-20)  
 Digital Arts I 1 and 2 (ART-36A)  
 Computer Graphic Design I 1 and 2 (CIS-78A)

**Colton-Redlands-Yucaipa Regional Occupational Program**

Construction Technology (CON-60)  
 Advanced Manufacturing I (MAN-38 and MAN-56)

**Corona-Norco Unified School District**

Applied Accounting A/B (ACC-55)  
 Computerized Accounting 1A and 1B (ACC-65)  
 Anatomy and Physiology 1A and 1B (AMY-10)  
 Architectural Design 1A and 1B (ARE-24 and ARE-25) Introduction to Business (BUS-10)  
 Business Law (BUS-18A)  
 Introduction to PowerPoint (CAT-65)  
 Advanced Microsoft Word (CAT-80)  
 Introduction to Excel (CAT-98A)  
 Technology Applications 1A and 1B (CIS-1A)  
 Intro to Engineering & Architectural Design 1A and 1B (ENE-21 and ENE-30)  
 Computer Aided Drafting 2A and 2B (ENE-42)  
 History of Video Games (GAM-21)  
 Game Design Principles (GAM-22)  
 Digital Game Design A/B (GAM-23)  
 Video Game Prototyping A/B (GAM-24)  
 Intro to Simulation and Game Development (GAM-35)  
 Intro to Game Programming (GAM-50)  
 Digital Drawing for Game Art (GAM-80)  
 Business Management and Leadership (MAG-44)

**Fontana Unified School District**

Construction Technology (CON-60)

**Lake Elsinore Unified School District**

Introduction to Engineering  
 Design (ENE-42)

**Moreno Valley Unified School District**

Digital Electronics (ELE-25)  
 Principles of Engineering (ENE-10)

**Murrieta Valley Unified School District**

Video Gaming 1/Computer Programming & Game Design (GAM-22 and GAM-35)  
 Video Gaming 2 – Game Design and Development (GAM-50 and GAM-80)

**Riverside County Office of Education ROP**

CIS Microsoft Tools Comprehensive (CAT-3)

**Riverside Unified School District**

Anatomy and Physiology (AMY-10)  
 Global Business Info/Tech Acad 2 (BUS-30)  
 Digital Electronics (ELE-25)  
 Principles of Engineering (ENE-10 and ENE-60)  
 Game Design Principles (GAM-22) Digital Game Design (GAM-50)

**Val Verde Unified School District**

Anatomy and Physiology  
 (AMY-10)

**RIVERSIDE CITY COLLEGE****Alvord Unified School District**

American Sign Language 2 (AML-1)  
American Sign Language 3 (AML-2)

**California School for the Deaf,  
Riverside**

Intro to Graphic Arts, Int. Graphics  
Tech, and Adv Graphic Prod (ADM-  
77A)  
Intro to Auto, Auto Service, and Auto  
Mechanics Comp (AUT-50)

**Chaffey Joint Union High School District**

Computer Graphic Design III 1 and 2 (ADM-63A)  
Computer Graphic Design II 1 and 2 (ADM-77A)

**Colton-Redlands-Yucaipa Regional Occupational Program**

Introduction to Criminal Justice (ADJ-1)  
Graphic Communications (ADM-1)  
The Art of Animation (ADM-67)  
Fundamental Web Page Design (ADM-74)  
Automotive General Service Technician (AUT-50)  
Cybersecurity I (CIS-21)  
CISCO Internetworking, Level 1 (CIS-26A)  
CISCO Internetworking, Level 2 (CIS-26B)  
Cybersecurity II (CIS-27)

Microsoft Office (CIS-93)  
Digital Video Production I (FTV-67)  
Careers in Nutrition and Wellness (KIN-4)  
Sports Medicine & Therapy (KIN-16)  
Personal Fitness Trainer (KIN-43)  
Welding (WEL-15)

**Corona-Norco Unified School District**

Introduction to Word (CAT-34A)  
Introduction to PowerPoint (CAT-65)  
Advanced Microsoft Word (CAT-80)  
Introduction to Excel (CAT-98A)  
Photography 1A and Photography 1B (PHO-8)

**Fontana Unified School District**

Dance 3 (DAN-7, DAN-D21, DAN-D32 and DAN-D37)

**Jurupa Unified School District**

Video Production and Television Production (FTV-45A)  
Video Production (FTV-67)

**Lake Elsinore Unified School District**

Design 2 (ADM-71A)  
Digital Video Production (FTV-64A)  
Welding and Materials Joining 2 (WEL-15)  
Welding and Materials Joining 1 (WEL-34)

**Moreno Valley Unified School District**

Web Page Design (ADM-74)  
Automotive Technology I and II (AUT-50)  
Photography (PHO-8 and PHO-9)

**Murrieta Valley Unified School District**

Intro to Design (Project Lead the Way) (ENE-4)

**Riverside County Office of Education ROP**

Graphics Technology I and II (ADM-1)  
Digital Imaging (ADM-71A and ADM-77A)  
CIS Microsoft Tools I: Introduction of Word/Excel/PowerPoint  
(CIS-34A)  
CIS Microsoft Tools II: Intermediate-Advanced Word/  
Excel/ PowerPoint (CIS-98A)  
Digital Film Production (FTV-67)

**Riverside Unified School District**

Web Design 2 (ADM-74)  
CISCO – IT Essentials (CIS-25)  
CISCO Networking 1 (CIS-26A)  
CISCO Networking 2 (CIS-26B)  
Introduction to Engineering Design (ENE-4)  
Advanced Digital Video Production (FTV-67)  
Media/Arts Acad 3 (FTV-67)  
Music Technology/Comp 1 (FTV-73)

**San Bernardino City Unified School District**

Adobe Prep 1A/1B (ADM-71A)

**Temecula Valley Unified School District**

American Sign Language 1 and 2 (AML-1)

## **CAREER AND TECHNICAL EDUCATION PROGRAMS**

Riverside City College offers Associate of Science Degrees and Certificate Programs with an occupational emphasis. Both provide instruction in skills and knowledge needed to enter a skilled or professional occupation. Associate of Science Degree programs require completion of at least 60 units of credit, which normally takes four semesters. Certificate programs, leading to an associate in science degree, require a minimum of 18 units, but vary in number of units required; most can be completed in two semesters. Certificates can lead to employment. Each course required for a certificate must be completed with a "C" grade or better. All certificate courses can be counted toward the degree as well as the major.

### **Need for Specialized Training**

Many find it difficult to secure employment or to advance in current positions and better-paying jobs without specialized training. General education coursework has its value, but in the early stages of a career it is specific, technical skills employers seek. A certificate is the best evidence specialized training has been secured. At times employers actually require certificates as a condition of employment or reclassification for higher pay.

### **Who Can Enroll in the Career and Technical Education Programs?**

Individuals wishing to enroll at Riverside City College must file an official application. Admission to Riverside City College is regulated by state law as prescribed in the California Education Code.

### **Certificate Course Requirements**

Students should plan to enroll in the specific courses listed under the certificate desired. If a required course for a certificate program is no longer offered, please see the department chair to ascertain an acceptable course substitute. Fifty percent of the coursework required for any certificate pattern must be completed at Riverside Community College District.

## **ASSOCIATE OF SCIENCE DEGREE**

The Associate of Science Degree consists of course work totaling 60 units or more. This includes coursework in a specific college certificate pattern plus general education and elective courses.

## **STATE-APPROVED CERTIFICATE**

### **(Certificate of Achievement)**

The state-approved certificate consists of coursework totaling 18 units or more completed in a specific occupational college certificate pattern. State-approved certificates may lead to employment competency and may lead to an associate degree.

## **LOCALLY-APPROVED CERTIFICATE**

### **(Certificate of Career Preparation)**


The locally-approved certificate consists of coursework totaling between 4 to 17 units completed in a specific occupational certificate pattern. Locally-approved certificates may lead to employment competency, but do not necessarily lead to an associate degree.



Location	Program & Program Code	Locally Approved Certificate	State Approved Certificate	Associate Degree
<b>MORENO VALLEY COLLEGE</b>				
Ben Clark Training Center				
	Administration of Justice MAS504/MAS504B/MAS504C/MCE504		•	•
	AOJ/Basic Correctional Deputy Academy MCE783	•		
	AOJ/Basic Public Safety Dispatch Course MCE784	•		
	Law Enforcement MAS563/MAS563B/MAS563C/MCE563		•	•
	Emergency Medical Technician MCE801	•		
	Paramedic MAS585/MAS585B/MAS585C/MCE585		•	•
	Fire Technology MAS555/MAS555B/MAS555C/MCE555		•	•
	Chief Officer MAS826/MAS826B/MAS826C/MCE826		•	•
	Fire Officer MAS827/MAS827B/MAS827C/MCE827		•	•
	Firefighter Academy MAS669/MAS669B/MAS669C/MCE669		•	•
<b>NORCO COLLEGE</b>				
International Rectifier Temecula	Digital Electronics NAS656/NAS656B/NAS656C/NCE656		•	•

Program	Locally Approved Certificate	State Approved Certificate	Associate Degree	Moreno Valley	Norco	Riverside
<b>AREA OF EMPHASIS</b>						
Administration & Information Systems			•	MAA494*/MAA494B*/MAA494C*	NAA494*/NAA494B*/NAA494C*	AA494*/AA494B*/AA494C*
American Studies			•	MAA492*/MAA492B*/MAA492C*		AA492*/AA492B*/AA492C*
Communications, Media & Languages			•	MAA495*/MAA495B*/MAA495C*	NAA495*/NAA495B*/NAA495C*	AA495*/AA495B*/AA495C*
Fine & Applied Arts			•	MAA496*/MAA496B*/MAA496C*	NAA496*/NAA496B*/NAA496C*	AA496*/AA496B*/AA496C*
Humanities, Philosophy & Arts			•	MAA497*/MAA497B*/MAA497C*	NAA497*/NAA497B*/NAA497C*	AA497*/AA497B*/AA497C*
Kinesiology, Health and Wellness			•	MAA498*/MAA498B*/MAA498C*	NAA498*/NAA498B*/NAA498C*	AA498*/AA498B*/AA498C*
Social & Behavioral Studies			•	MAA499*/MAA499B*/MAA499C*	NAA499*/NAA499B*/NAA499C*	AA499*/AA499B*/AA499C*
Math and Science			•	MAS493*/MAS493B*/MAS493C*	NAS493*/NAS493B*/NAS493C*	AS493*/AS493B*/AS493C*



 Associate Degree for Transfer™	Locally Approved Certificate	State Approved Certificate	Associate Degree	Moreno Valley	Norco	Riverside
Administration of Justice						
With CSUGE pattern			•			AS642*
With IGETC pattern			•			AS643*
Anthropology						
With CSUGE pattern			•	MAA616*	NAA616*	AA616*
With IGETC pattern			•	MAA618*	NAA618*	AA618*
Art History						
With CSUGE pattern			•			AA742*
With IGETC pattern			•			AA743*
Biology						
With CSUGE pattern			•	MAS767	NAS767	
With IGETC pattern			•	MAS768	NAS768	
Business Administration						
With CSUGE pattern			•	MAS626*	NAS626*	AS626*
With IGETC pattern			•	MAS628*	NAS628*	AS628*
Chemistry						
With IGETC pattern			•		NAS769	
Communication Studies						
With CSUGE pattern			•	MAA587*	NAA587*	AA587*
With IGETC pattern			•	MAA588*	NAA588*	AA588*
Computer Science						
With IGETC pattern			•	MAS650*	NAS650*	AS650*
Early Childhood Education						
With CSUGE pattern			•	MAS529*	NAS529*	AS529*
With IGETC pattern			•	MAS530*	NAS530*	AS530*
Economics						
With CSUGE pattern			•			AA756*
With IGETC pattern			•			AA757*
English						
With CSUGE pattern			•	MAA648*	NAA648*	AA648*
With IGETC pattern			•	MAA649*	NAA649*	AA649*
Geography						
With CSUGE pattern			•			AA758*
With IGETC pattern			•			AA759*
History						
With CSUGE pattern			•	MAA744*	NAA744*	AA744*
With IGETC pattern			•	MAA745*	NAA745*	AA745*
Journalism						
With CSUGE pattern			•			AA670*
With IGETC pattern			•			AA671*
Mathematics						
With CSUGE pattern			•	MAS719*	NAS719*	AS719*
With IGETC pattern			•	MAS720*	NAS720*	AS720*

Music						
With CSUGE pattern			•	MAA704		AA704
With IGETC pattern			•	MAA705		AA705
Philosophy						
With CSUGE pattern			•	MAA715*	NAA715*	AA715*
With IGETC pattern			•	MAA717*	NAA717*	AA717*
Physics						
With CSUGE pattern			•		NAS638*	AS638
With IGETC pattern			•		NAS640*	AS640
Political Science						
With CSUGE pattern			•	MAA754*	NAA754*	AA754*
With IGETC pattern			•	MAA755*	NAA755*	AA755*
Psychology						
With CSUGE pattern			•	MAA566*	NAA566*	AA566*
With IGETC pattern			•	MAA568*	NAA568*	AA568*
Sociology						
With CSUGE pattern			•	MAA695*	NAA695*	AA695*
With IGETC pattern			•	MAA696*	NAA696*	AA696*
Spanish						
With CSUGE pattern			•	MAA707*	NAA707*	AA707*
With IGETC pattern			•	MAA708*	NAA708*	AA708*
Studio Arts						
With CSUGE pattern			•	MAA693*	NAA693*	AA693*
With IGETC pattern			•	MAA694*	NAA694*	AA694*
Theatre Arts						
With CSUGE pattern			•			AA747*
With IGETC pattern			•			AA748*

\*50% or more of the certificate/degree may be completed online



For information about our graduation rates, the median debt of students who complete programs, and other important information, please visit our website at <http://academic.rccd.edu/gainfulemployment/>



Certificates and Degrees	Locally Approved Certificate	State Approved Certificate	Associate Degree	Moreno Valley	Norco	Riverside
<b>ADMINISTRATION OF JUSTICE</b>		•	•	MAS504*/MAS504B*/ MAS504C*/MCE504*		AS504*/AS504B*/ AS504C*/CE504*
AOJ/Basic Correctional Deputy Academy	•			MCE783		
AOJ/Basic Public Safety Dispatch Course	•			MCE784		
Crime Scene Investigation	•				NCE619	CE619
Investigative Assistant	•					CE785*
Law Enforcement		•	•	MAS563*/MAS563B*/ MAS563C*/MCE563*		
Victim Services Aide	•					CE679*
<b>AIR CONDITIONING AND REFRIGERATION</b>		•	•			AS596/AS596B/ AS596C/CE596
<b>APPLIED DIGITAL MEDIA AND PRINTING</b>		•	•			
Basic Graphic Communication	•					CE822
Basic Graphic Design	•					CE823
Graphic Design and Printing		•	•			AS653/AS653B/ AS653C/CE653
Electronic Publishing and Design	•					CE862
Motion Graphics and 3D Animation	•					CE821
<b>ARCHITECTURE</b>						
Architectural Graphics	•				NCE787	
<b>ART</b>						
Visual Communications-Animation	•					CE774
Visual Communications-Illustration	•					CE825
<b>AUTOMOTIVE TECHNOLOGY</b>						
Automotive Collision Repair-Refinishing and Paint		•	•			AS511/AS511B/ AS511C/CE511
Automotive Trim and Upholstery		•	•			AS516/AS516B AS516C/CE516
Electrical		•	•			AS513/AS513B/ AS513C/CE513
Ford Specialty		•	•			AS519/AS519B/ AS519C
General Motors Specialty			•			AS583/AS583B/ AS583C
Mechanical		•	•			AS515/AS515B/ AS515C/CE515
<b>BANK OPERATIONS</b>	•					CE625*
<b>BUSINESS ADMINISTRATION</b>						
Accounting Concentration		•	•	MAS523*/MAS523B*/ MAS523C*/MCE523*	NAS523*/NAS523B*/ NAS523C*/NCE523*	AS523*/AS523B*/ AS523C*/CE523*
Banking and Finance Concentration		•	•			AS631*/AS631B*/ AS631C*/CE631*
Business Information Worker		•				CE522/NCE522
General Business Concentration		•	•	MAS524*/MAS524B*/ MAS524C*/MCE524*	NAS524*/NAS524B*/ NAS524C*/NCE524*	AS524*/AS524B*/ AS524C*/CE524*
Human Resources Concentration		•	•			AS623*/AS623B*/ AS623C*/CE623*

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Certificates and Degrees	Locally Approved Certificate	State Approved Certificate	Associate Degree	Moreno Valley	Norco	Riverside
Logistics Management Concentration		•	•		NAS580*/NAS580B*/ NAS580C*/NCE580*	
Management Concentration		•	•	MAS521*/MAS521B*/ MAS521C*/MCE521*	NAS521*/NAS521B*/ NAS521C*/NCE521*	AS521*/AS521B*/ AS521C*/CE521*
Marketing Concentration		•	•	MAS525*/MAS525B*/ MAS525C*/MCE525*		AS525*/AS525B*/ AS525C*/CE525*
Real Estate Concentration		•	•	MAS527*/MAS527B*/ MAS527C*/MCE527*	NAS527*/NAS527B*/ NAS527C*/NCE527*	AS527*/AS527B*/ AS527C*/CE527*
Entrepreneurship		•	•			AS531*/AS531B*/ AS531C*/CE531*
Entrepreneurship: Getting Started	•				NCE861	
Entrepreneurship: Legal and Finance	•				NCE864*	
Insurance		•	•			AS629*/AS629B*/ AS629C*/CE629*
International Business	•					CE627*
Operations and Production Mgmt	•					CE833*
Real Estate Salesperson and Transaction	•				NCE854*	
Registered and Small Business Income Tax Preparer	•				NCE858	
Small Business Accounting	•			MCE859*	NCE859*	CE859*
Small Business Payroll Accounting	•			MCE860*	NCE860*	CE860*
<b>COMMUNITY INTERPRETATION</b>		•	•	MAS557*/MAS557B/ MAS557C*/MCE557		
<b>COMPUTER APPLICATIONS &amp; OFFICE TECHNOLOGY</b>						
Administrative Office Professional	•					CE637*
Executive Office Management		•	•			AS639*/AS639B*/ AS639C*/CE639*
Executive Office Professional	•					CE635*
Legal Administrative Professional	•					CE611*
Office Assistant	•					CE633*
Office Fast-Track	•					CE812*
Virtual Assistant	•					CE677*
<b>COMPUTER INFORMATION SYSTEMS</b>						
C++ Programming	•				NCE803*	CE803*
CISCO Networking	•					CE810*
Computer Applications		•	•	MAS726*/MAS726B*/ MAS726C*/MCE726*		AS726*/AS726B*/ AS726C*/CE726*
Computer Programming		•	•	MAS728*/MAS728B*/ MAS728C*/MCE728*	NAS728*/NAS728B*/ NAS728C*/NCE728*	AS728*/AS728B*/ AS728C*/CE728*
E-Commerce	•					CE807*
Graphic Design		•	•		NAS647*/NAS647B*/ NAS647C*/NCE647*	
Information Security and Cyber Defense		•				CE740
Java Programming	•				NCE809*	CE809*
Mobile Application Development		•	•		NAS725*/NAS725B*/ NAS725C*/NCE725	

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Relational Database Management Technician	•					CE816*
Simulation and Gaming		•	•	MAS739*/MAS739B*/ MAS739C*/MCE739		
Systems Development	•					CE806*
Web Master-Web Designer	•			MCE820*		CE820*
Web Master-Web Developer	•			MCE843*		CE843*
<b>CONSTRUCTION TECHNOLOGY</b>		•	•		NAS532/NAS532B/ NAS532C/NCE532	
<b>COSMETOLOGY</b>		•	•			AS534/AS534B/ AS534C/CE534
Cosmetology Business Admin – Entrepreneurial Concentration		•	•			AS537*/AS537B*/ AS537C*/CE537*
Cosmetology Business Admin – Mgmt and Supervision Concentration		•	•			AS535*/AS535B*/ AS535C*/CE535*
Cosmetology, Instructor Training	•					CE675
<b>CULINARY ARTS</b>		•	•			AS561/AS561B/ AS561C/CE561
<b>DANCE</b>						
Pilates Dance/Conditioning Instructor	•					CE857
<b>DENTAL ASSISTANT</b>		•	•	MAS621/MAS621B/ MAS621C/MCE621		
<b>DENTAL HYGIENE</b>			•	MAS724/MAS724B/ MAS724C		
<b>DRAFTING TECHNOLOGY</b>		•	•		NAS539/NAS539B/ NAS539C/NCE539	
<b>EARLY CHILDHOOD EDUCATION</b>		•	•	MAS544*/MAS544B*/ MAS544C*/MCE544*	NAS544*/NAS544B*/ NAS544C*/NCE544*	AS544*/AS544B*/ AS544C*/CE544*
ECE/Assistant Teacher	•			MCE795*	NCE795*	CE795*
ECE/Twelve Core Units	•			MCE797*	NCE797*	CE797*
Early Childhood Intervention Assistant		•	•	MAS601*/MAS601B*/ MAS601C*/MCE601*	NAS601*/NAS601B*/ NAS601C*/NCE601*	AS601*/AS601B*/ AS601C*/CE601*
Infant and Toddler Specialization	•			MCE681*	NCE681*	CE681*
<b>EDUCATION PARAPROFESSIONAL</b>		•	•	MAS603*/MAS603B*/ MAS603C*/MCE603*		AS603*/AS603B*/ AS603C*/CE603*
<b>ELECTRICIAN/ELECTRONICS</b>						
Digital Electronics		•	•		NAS656/NAS656B/ NAS656C/NCE656	
Electrician		•	•		NAS766/NAS766B/ NAS766C/NCE766	
Electrician Apprenticeship		•	•		NAS485/NAS485B/ NAS485C/NCE485	
Green Technician	•				NCE856	
<b>EMERGENCY MEDICAL SERVICES</b>						
Emergency Medical Technician	•			MCE801		
Paramedic		•	•	MAS585/MAS585B/ MAS585C/MCE585		

\*50% or more of the certificate/degree may be completed online

Certificates and Degrees	Locally Approved Certificate	State Approved Certificate	Associate Degree	Moreno Valley	Norco	Riverside
<b>ENGINEERING</b>						
3-D Mechanical Drafting	•				NCE863	
Engineering Graphics	•				NCE796	
Pre-Engineering			•		NAS763	
With CSUGE pattern			•		NAS764	
With IGETC pattern			•		NAS765	
<b>ENGLISH AS A SECOND LANGUAGE</b>	•			MCE866		
<b>FILM, TELEVISION AND VIDEO</b>						
Basic Television Production	•					CE842
Production Specialist		•	•			AS641*/AS641B*/ AS641C*/CE641
<b>FIRE TECHNOLOGY</b>		•	•	MAS555*/MAS555B*/ MAS555C*/MCE555		
Chief Officer		•	•	MAS826/MAS826B/ MAS826C/MCE826		
Fire Officer		•	•	MAS827/MAS827B/ MAS827C/MCE827		
Firefighter Academy		•	•	MAS669/MAS669B/ MAS669C/MCE669		
<b>GAME DEVELOPMENT</b>						
Game Art: Character Modeling		•	•		NAS687/NAS687B/ NAS687C/NCE687	
Game Art: Environments and Vehicles		•	•		NAS688/NAS688B/ NAS688C/NCE688	
Game Design		•	•		NAS685*/NAS685B*/ NAS685C*/NCE685	
Game Programming		•	•		NAS691*/NAS691B*/ NAS691C*/NCE691	
<b>HUMAN SERVICES</b>		•	•	MAS663/MAS663B/ MAS663C/MCE663		AS663/AS663B/ AS663C/CE663
Employment Support Specialization	•			MCE802		CE802
<b>KINESIOLOGY/EXERCISE, SPORT &amp; WELLNESS</b>						
Athletic Training Emphasis		•	•			AS597*/AS597B*/ AS597C*/CE597
Coaching Emphasis		•	•			AS599*/AS599B*/ AS599C*/CE599
Fitness Professions Emphasis		•	•			AS595*/AS595B*/ AS595C*/CE595
<b>LOGISTICS MANAGEMENT</b>		•	•		NAS579*/NAS579B*/ NAS579C*/NCE579*	
<b>MANUFACTURING TECHNOLOGY</b>						
Industrial Automation		•	•		NAS737/NAS737B/ NAS737C/NCE737	
Computer Numerical Control Programming		•	•		NAS655/NAS655B/ NAS655C/NCE655	
Computerized Numerical Control (CNC) Operator	•				NCE799	
Conventional Machine Operator	•				NCE865	
Quality Assurance						

\*50% or more of the certificate/degree may be completed online

Certificates and Degrees	Locally Approved Certificate	State Approved Certificate	Associate Degree	Moreno Valley	Norco	Riverside
<b>MEDICAL ASSISTING</b>						
Admin/Clinical Medical Assisting		•	•	MAS718*/MAS718B*/ MAS718C*/MCE718		
Medical Transcription		•	•	MAS701*/MAS701B*/ MAS701C*/MCE701		
<b>MUSIC</b>			•	MAA564*/MAA564B*/ /MAA564C*		AA680/AA680B/ AA680C
Jazz Performance	•					CE852
Music Performance	•					CE851
Music Technology	•					CE850
Piano Performance	•					CE853
<b>MUSIC INDUSTRY STUDIES</b>						
Audio Production		•	•		NAS684*/NAS684B*/ NAS684C*/NCE684	
Performance		•	•		NAA645/NAA645B/ NAA645C/NCE645	
<b>NURSING</b>						
Critical Care Nurse	•					CE581
Nursing Assistant	•					CE584
Registered Nursing			•			AS586/AS586B/ AS586C
Vocational Nursing		•	•			AS588/AS588B/ AS588C/CE588
<b>PARALEGAL STUDIES</b>			•			AS591*/AS591B*/ AS591C*
<b>PHOTOGRAPHY</b>		•	•			AS592/AS592B/ AS592C/CE592
<b>PHYSICIAN ASSISTANT</b>		•	•	MAS501/MAS501B/ MAS501C/MCE501		
<b>RETAIL MANAGEMENT/WAFC</b>		•	•		NAS536*/NAS536B*/ NAS536C*/NCE536*	AS536*/AS536B*/ AS536C*/CE536*
<b>SIGN LANGUAGE INTERPRETING</b>		•	•			AS505*/AS505B*/ AS505C*/CE505
<b>SUPPLY CHAIN TECHNOLOGY</b>		•	•		NAS408/NAS408B/ NAS408C/NCE408	
<b>WELDING TECHNOLOGY</b>		•	•			AS606/AS606B/ AS606C/CE606
Stick Welding (SMAW)	•					CE824
TIG Welding (GTAW)	•					CE819
Wire Welding (FCAW, GMAW)	•					CE818

\*50% or more of the certificate/degree may be completed online



**PROGRAMS AND CERTIFICATES**  
**R=Riverside; M=Moreno Valley; N=Norco**

**ACCOUNTING**

See [BUSINESS ADMINISTRATION](#)

**ADMINISTRATION OF JUSTICE**

**ADMINISTRATION OF JUSTICE (MR)**

**AS504/AS504B/AS504C/CE504**

This program focuses on the criminal justice system, its organizational components and processes, as well as its legal and public policy contexts. This includes instruction in criminal law and policy, police and correction systems organization, the administration of justice and the judiciary, and public attitudes regarding criminal justice issues.

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Demonstrate knowledge of the breadth, scope and interconnectivity of the criminal justice system.
- Demonstrate an understanding of the theories and research in the area of crime, criminality and criminal justice.
- Demonstrate a basic knowledge of criminal law.
- Demonstrate a knowledge of the implications of legal evidence in the processing of criminal cases.
- Demonstrate a knowledge of the role of policing and the maintenance of favorable community relations.

Required Courses (27 units)	Units
ADJ/JUS-1 Introduction to the Administration of Justice	3
ADJ/JUS-2 Principles and Procedures of the Justice System	3
ADJ/JUS-3 Concepts of Criminal Law	3
ADJ/JUS-4 Legal Aspects of Evidence	3
ADJ/JUS-5 Community Relations	3
Electives Choose from elective courses in the discipline	12

**Associate of Science Degree**

The Associate of Science Degree in Administration of Justice will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

*The following certificates may lead to employment competency, but do not lead to an Associate of Science Degree:*

**CRIME SCENE INVESTIGATION (NR)**

**CE619**

This certificate is designed to offer a basic pattern of course work that will prepare the participant to enter the professional field of crime scene investigation and forensic science at the assistant level. The successful participant will gain sufficient skills and understanding of the criminal investigative procedure to assist professional Forensic Identification Technicians, within the criminal justice system, to properly gather, analyze, prepare, and present crime scene evidence.

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Demonstrate an advanced knowledge of the principle components of criminal law and the criminal justice system.
- Demonstrate an advanced knowledge of the procedures and process of collecting, preserving, and cataloging physical evidence from a crime scene.
- Demonstrate an advanced ability to use computer technology to report the collection, preservation, and presentation of crime scene evidence.

Required Courses (15 units)	Units
ADJ/JUS-2 Principles and Procedures of the Justice System	3
ADJ/JUS-3 Concepts of Criminal Law	3
ADJ/JUS-13 Criminal Investigation	3
ADJ/JUS-14 Advanced Criminal Investigation	3
ANT-10 Forensic Anthropology	3

**INVESTIGATIVE ASSISTANT (R)**

**CE785**

This certificate is designed to offer a basic pattern of course work that will prepare the participant to enter the professional field of criminal investigation and forensic science at the assistant level. The successful participant will gain sufficient skills and understanding of the criminal investigative procedure to assist professionals in all areas of the criminal justice system to properly gather, analyze, prepare, and present evidence in criminal matters, e.g., Police, District Attorneys, and courts.

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Demonstrate a basic knowledge of the principle components of criminal law and the criminal justice system.
- Demonstrate a basic knowledge of the procedures and process of collecting, preserving, and cataloging physical evidence from a crime scene.
- Demonstrate the ability to properly write official reports related to the collection, preservation, and presentation of crime scene evidence.
- Demonstrate the ability to employ computer technology to facilitate student learning outcomes 1 through 3 above.

Required Courses (15 units)	Units
ADJ/JUS-3 Concepts of Criminal Law	3
ADJ/JUS-4 Legal Aspects of Evidence	3
ADJ/JUS-13 Criminal Investigation	3
ADJ-23 Criminal Justice Report Writing <sup>1</sup>	3
CIS-1A Introduction to Computer Information Systems	3

<sup>1</sup> Successful completion of ENG-1A may substitute for this course.

#### **VICTIM SERVICES AIDE (R) CE679**

This certificate is designed to offer a basic pattern of course work that will prepare the participant to enter the professional field of Victim Services Advocacy within the contemporary Criminal Justice System as an assistant. The successful participant will gain sufficient skills and understanding of the Victim Services arena to interview, counsel, refer, case-manage, and otherwise assist crime victims with the myriad problems associated with such victimization.

#### **Certificate Program**

##### **Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Demonstrate a knowledge of the breadth, scope and interconnectivity of the criminal justice system.
- Demonstrate an understanding of the theories and research in the area of crime, criminality and criminal justice.
- Demonstrate the ability to conduct interpersonal interviews and counseling generally applicable to the helping professions.
- Demonstrate the ability to read and write at the college freshman level.
- Demonstrate an overall ability to enter Victim-Witness Advocacy programs at a level of trainee, intern, or other novice position.

Required Courses (16 units)	Units
ADJ/JUS-1 Introduction to the Administration of Justice	3
ADJ/JUS-2 Principles and Procedures of the Justice System	3
ENG-1A/1AH English Composition	4
SOC-20 Introduction to Criminology	3
COM-9/9H Interpersonal Communication	3

#### **AIR CONDITIONING AND REFRIGERATION**

##### **AIR CONDITIONING AND REFRIGERATION (R)**

**AS596/AS596B/AS596C/CE596**

This program prepares individuals to apply technical knowledge and skills to repair, install, service, and maintain the operating condition of air conditioning, and refrigeration systems. This includes instruction in diagnostic techniques, the use of testing equipment, the principles of mechanics, electricity, and electronics as they relate to the repair of air conditioning and refrigeration systems.

#### **Certificate Program**

##### **Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Demonstrate technical knowledge and skills needed to repair, install, service, and maintain air conditioning and refrigeration systems in operating condition.
- Utilize diagnostic techniques and testing equipment in the repair of air conditioning and refrigeration systems.
- Apply principles of mechanics, electricity, and electronics to the repair of air conditioning and refrigeration systems.

Required Courses (26-27 units)	Units
AIR-50A Air Conditioning and Refrigeration	5
AIR-50B Advanced Refrigeration	5
AIR-51A Environmental Control	5
AIR-51B Industrial Commercial Refrigeration	5
AIR-53 Basic Electricity for Air Conditioning and Refrigeration	4
Electives (Choose from list below)	2-3

#### **Electives (2-3 units)**

CON-62 Blueprint Reading	3
WEL-34 Metals Joining Processes	2

#### **Associate of Science Degree**

The Associate of Science Degree in Air Conditioning and Refrigeration will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

**APPLIED DIGITAL MEDIA AND PRINTING**

**GRAPHIC DESIGN AND PRINTING (R)**

**AS653/AS653B/AS653C/CE653**

This program prepares students for a wide variety of careers in graphic communication and new media. This includes instruction in graphic design, illustration, photo manipulation, web design, animation, electronic prepress, press operation, bindery, and management, using the latest equipment and software available within a live, production facility. Classes are structured to give strong academic and hands-on experience for entry into the graphic communication/new media industries.

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Demonstrate the ability to communicate effectively with clients and co-workers.
- Demonstrate ethical, economic, civic, and moral responsibility.
- Create graphics projects that demonstrate competent formal design skills including typography, composition and effective imagery.
- Create graphics projects from concept to completion considering target market, color model, resolution, and media specifications for offset, digital and multimedia publication, and if applicable, assign substrates and inks for its publication.
- Demonstrate proofing and pre-flighting techniques, portable document format (PDF) creation, and troubleshooting of a digital file in preparation for imaging a project.
- Demonstrate proper set-up, safe operation, and clean-up of printing press equipment.
- Demonstrate the ability to estimate costs, document materials and time spent on production, and an ability to meet deadlines.
- Produce a portfolio and networking skills to promote talents in preparation for work in the graphics industry.

The ADM program prepares students for the following careers in graphic communications: production artist, graphic designer, web designer, illustrator, advertising designer, animator, prepress technician, press operator, bindery/finishing technician and production manager.

<u>Required Courses (36units)</u>		<u>Units</u>
ADM-1	Introduction to Applied Digital Media	3
ADM-2A	Color Systems and File Management	1
ADM-2B	Prepress, Paper and Ink	1
ADM-2C	Ethics and Legalities for Graphic Designers	1
ADM-55	Business Management for Graphic Communications	3
ADM-62	Typography and Graphic Design	3
ADM-63A	Adobe InDesign	3
ADM-70	Project Production and Portfolio	3
ADM-71A	Adobe Photoshop for Image Manipulation	3
ADM-77A	Adobe Illustrator for Graphic Art	3
ADM-85A	Commercial Printing	3

Electives (Choose from list below) 9

Electives (9 units)

ADM-63B	Advanced Adobe InDesign	3
ADM-67	Multimedia Animation	3
ADM-68A	3D Animation with Maya I	3
ADM-68B	3D Animation with Maya II	3
ADM-69	Motion Graphics and Special Effects with After Effects	3
ADM-71B	Adobe Photoshop, Advanced	3
ADM-74	Dreamweaver for Graphic Designers	3
ADM-77B	Adobe Illustrator, Advanced	3
ADM-80	Electronic Pre-press	3
ADM-85B	Commercial Printing, Advanced	3
ADM-200	Applied Digital Media and Printing Work Experience	1-2-3-4
ART-22	Basic Design	3
ART-23	Color Theory and Design	3
ART-36A	Computer Art- Introduction	3
ART-36B	Computer Art-Intermediate	3
ART-39	Design and Graphics	3
FTV-64A	Beginning Digital Editing Principles and Techniques	3
MKT-40	Advertising	3
PHO-20	Introduction to Digital Photography	3

**Associate of Science Degree**

The Associate of Science Degree in Graphic Design and Printing will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

*The following certificates may lead to employment competency, but do not lead to an Associate of Science Degree:*

**BASIC GRAPHIC COMMUNICATION (R) CE822**

This program prepares students for basic careers in Graphic Communication. This includes instruction in all phases of project creation and production, using the latest equipment and software available. Classes are structured to give strong academic and hands-on experience into print design, production, and finishing.

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Demonstrate ethical, economic, civic, and moral responsibility regarding digital media and print.
- Create a graphics project from concept to prepared artwork considering color model, resolution, and target market.
- Demonstrate proofing and pre-flighting techniques, portable document format (PDF) creation, and troubleshooting of a digital file in preparation for imaging a project.
- Demonstrate proper set-up, safe operation, and clean-up of printing press.
- Demonstrate an ability to meet deadlines.

Required Courses (17 units)		Units
ADM-1	Introduction to Applied Digital Media	3
ADM-2B	Prepress, Paper and Ink	1
ADM-2C	Ethics and Legalities for Graphic Designers	1
ADM-63A	Adobe InDesign	3
ADM-71A	Adobe Photoshop for Image Manipulation	3
ADM-85A	Commercial Printing	3
ADM-85B	Commercial Printing, Advanced	3

### **BASIC GRAPHIC DESIGN (R) CE823**

This certificate prepares students for a career in 2-dimensional graphic design, emphasizing layout, typography, and correct color models. Students produce real-world projects in an environment of a live, production facility with strong emphasis on deadlines and intended market, using the latest equipment and software available.

#### **Certificate Program**

##### **Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Demonstrate ethical, economic, civic, and moral responsibility regarding digital media and print.
- Create a graphics project from concept to prepared artwork considering color model, resolution, target market, and, if applicable, assign substrates and inks for its production.
- Create graphics projects that demonstrate basic formal design skills including typography, composition and effective imagery.
- Demonstrate proofing and pre-flighting techniques, portable document format (PDF) creation, and troubleshooting of a digital file in preparation for imaging a project.
- Demonstrate knowledge of the print production process from concept to production.
- Demonstrate an ability to meet deadlines.

Required Courses (17 units)		Units
ADM-1	Introduction to Applied Digital Media	3
ADM-2A	Color Systems and File Management	1
ADM-2C	Ethics and Legalities for Graphic Designers	1
ADM-62	Typography and Graphic Design	3
ADM-63A	Adobe InDesign	3
ADM-71A	Adobe Photoshop for Image Manipulation	3
ADM-77A	Adobe Illustrator for Graphic Art	3

### **ELECTRONIC PUBLISHING AND DESIGN (R) CE862**

This certificate prepares students for careers in electronic publishing and web design. This includes instruction in basic web design, page layout, vector graphics, photo manipulation, file preparation, e-publishing and interactive design, using the latest equipment and software available.

#### **Certificate Program**

##### **Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Compare and contrast legal, social and commercial policies regarding new media piracy
- Define intellectual property and describe the basic principles

of copyright legalities

- Create and export multimedia and interactive documents using Adobe InDesign
- Prepare, design and publish documents for specific digital devices using Adobe InDesign
- Design and utilize proper vector graphics using Adobe Illustrator
- Prepare images with correct resolution appropriate for video and animation using Adobe Photoshop
- Design and create functional web pages and websites with a professional appearance using Adobe Dreamweaver

Required Courses (17 units)		Units
ADM-2A	Colors Systems and File Management	1
ADM-2C	Ethics and Legalities for Graphic Designers	1
ADM-63A	Adobe InDesign	3
ADM-63B	Advanced Adobe InDesign	3
ADM-71A	Adobe Photoshop for Image Manipulation	3
ADM-74	Dreamweaver for Graphic Designers	3
ADM-77A	Adobe Illustrator for Graphic Art	3

### **MOTION GRAPHICS AND 3D ANIMATION (R) CE821**

This certificate prepares students for careers in multimedia graphics and computer animation. This includes instruction in photo manipulation, web animation, motion graphics, compositing, basic modeling and 3D animation using the latest equipment and software available.

#### **Certificate Program**

##### **Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Compare and contrast legal, social and commercial policies regarding new media piracy
- Define intellectual property and describe the basic principles of copyright legalities
- Use Adobe Flash to create animated shorts for web/TV distribution
- Prepare images with correct resolution appropriate for video and animation using Adobe Photoshop
- Combine and edit 2D animated sequences, and create motion graphics in video and film using Adobe AfterEffects
- Create 3D models and environments using various techniques with Autodesk Maya
- Describe and demonstrate advanced 3D animation and keyframing

Required Courses (17 units)		Units
ADM-2A	Color Systems and File Management	1
ADM-2C	Ethics and Legalities for Graphic Designers	1
ADM-67	Multimedia Animation	3
ADM-68A	3D Animation with Maya I	3
ADM-68B	3D Animation with Maya II	3
ADM-69	Motion Graphics and Special Effects with After Effects	3
ADM-71A	Adobe Photoshop for Image Manipulation	3

**ART**

The following certificates may lead to employment competency, but do not lead to an Associate of Science Degree:

**Visual Communications - Animation (R) CE774**

This program prepares individuals to communicate information, entertainment and ideas through animation and cinematic arts. This includes practical, hands-on instruction in how to plan and produce a variety of animated works seeing the project through from concept to practice including but not limited to storyboarding, directing, editing, and all aspects of animation film production.

**Certificate Program****Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Demonstrate the ability to apply the principles of animation and storytelling, in conceptual and visual form, to the creation of motion pictures that entertain audiences.
- Discuss the history of film animation and identify examples that consider a variety of the fundamental approaches to the art of animation.
- Assume the roles of writer, director, producer, animator, editor, storyboard artist, and production manager in the creation of animated works.
- Acquire skills that facilitate their ability to adapt themselves to the professional world, and have long-lasting and enriched careers.
- Demonstrate various experimental animation techniques in appreciation of animation as fine arts.

<u>Required Courses (15 units)</u>		<u>Units</u>
ART-40A	Figure Drawing-Introduction	3
or		
ART-41A	Figure Painting-Introduction	3
ART-44A	Beginning Animation Principles	3
ART-50A	Beginning Storyboarding	3
ART-51A	Beginning Animation Production	3
Digital Media Electives (Choose from list below)		3

Digital Media Electives (3 units)

ART-22	Basic Design	3
ART-24	Three Dimensional Design	3
ART-36A	Computer Art-Introduction	3
ADM-67	Web Animation with Flash	3
ADM-68A	3D Animation with Maya I	3
ADM-68B	3D Animation with Maya II	3
ADM-69	Motion Graphics and Special Effects with After Effects	3
FTV-48	Short Film Production	3
FTV-74	Production Planning and Management	3
PHO-20	Introduction to Digital Photography	3

**VISUAL COMMUNICATIONS - ILLUSTRATION (R) CE825**

This program prepares individuals to visually communicate information and ideas through personal expression that features figurative work. This includes practical, hands-on instruction in how to plan and produce a variety of illustrated works integrating communication goals with a visual message.

**Certificate Program****Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Acquire skills to fuse the creative thinking and technical communication skills with a personal vision.
- Discuss verbally and illustrate visually a basic understanding of commercial illustration techniques.
- Develop skills to visually solve problems and communicate their ideas in order to prepare an operational portfolio of their creative and successful works.
- Hone artistic skills and technical expertise in order to effectively convey complex ideas in a variety of media.

<u>Required Courses (17 units)</u>		<u>Units</u>
ART-17	Beginning Drawing	3
ART-22	Basic Design	3
ART-26	Beginning Painting	3
ART-35	Illustration	3
ADM-2A	Color Systems and File Management	1
ADM-64	Ethics and Legalities of Digital Manipulation	1
Digital Media Electives (Choose from list below)		3

Digital Media Electives (3 units)

ART-36A	Computer Art-Introduction	3
ADM-1	Introduction to Applied Digital Media	3
ADM-71A	Adobe Photoshop for Image Manipulation	3
ADM-77A	Adobe Illustrator for Graphic Art	3



**AUTOMOTIVE TECHNOLOGY**

**AUTOMOTIVE TECHNOLOGY - AUTOMOTIVE COLLISION REPAIR-REFINISHING AND PAINT (R) AS511/AS511B/AS511C/CE511**

This program prepares individuals to apply technical knowledge and skills to repair, reconstruct and finish automobile bodies, fenders, and external features. This includes instruction in structure analysis, damage repair, non-structural analysis, mechanical and electrical components, plastics and adhesives, painting and refinishing techniques, damage analysis, and estimating

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Develop entry-level skills and knowledge for employment in the automotive industry. i.e. employment in an auto body repair facility, automotive paint shop.
- Acquire the skills and knowledge to work safely in the lab/shop environment.
- Demonstrate the ability to become part of the Inter-Industry Conference on Auto Collision Repair (I-CAR).

Required Courses (20 units)	Units
AUB-50 Introduction to Automotive Collision Repair	4
AUB-51 Automotive Non-Structural Collision Repair and Estimating	4
Choose from an emphasis below:	12

**Collision Repair Emphasis**

AUB-54 Automotive Structural Collision Repair and Frame	4
AUB-56 Automotive Technology for the Automotive Collision Specialist	4
Electives Choose from the list below	4

**Electives (4 units)**

AUB-53 Automotive Collision Repair Special Projects	4
AUB-57 Antique and Classic Auto Restoration and Fabrication	4
AUB-59A Automotive Collision Service and Repair	2
WEL-34 Metal Joining Processes	2

**Refinishing and Paint Emphasis**

**Required Courses**

AUB-52 Automotive Refinishing and Paint	4
AUB-60 Automotive trim and Upholstery I	4
Electives Choose from the list below	4

**Electives (4 units)**

AUB-53 Automotive Collision Special Projects	4
AUB-59B Automotive Refinishing Service and Repair	2
AUB-61 Automotive Trim and Upholstery II	4

**Associate of Science Degree**

The Associate of Science Degree in Automotive Technology-Automotive Collision Repair-Refinishing and Paint will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

**AUTOMOTIVE TECHNOLOGY - AUTOMOTIVE TRIM AND UPHOLSTERY (R) AS516/AS516B/AS516C/CE516**

This program prepares individuals to apply technical knowledge and skills to install springs, filling, padding, covering, and finishing (trim) on automobile related products.

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Demonstrate their proficiency by the use of upholstery tools and techniques while removing, stripping, reupholstering, and reinstalling an automotive seat or bench.
- Calculate the adequate amount of material and time required to reupholster an automotive seat or bench.

Required Courses (20 units)	Units
AUB-50 Introduction to Automotive Collision Repair	4
AUB-51 Automotive Non-Structural Collision Repair and Estimating	4
AUB-60 Automotive Trim and Upholstery, I	4
AUB-61 Automotive Trim and Upholstery, II	4
Electives Choose from the list below	4

**Electives (4 units)**

AUB-53 Automotive Collision Repair Special Projects	4
AUB-59A Automotive Collision Service and Repair	2
AUB-59B Automotive Refinishing Service and Repair	2
WEL-34 Metal Joining Processes	2

**Associate of Science Degree**

The Associate of Science Degree in Automotive Technology-Automotive Trim and Upholstery will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

**AUTOMOTIVE TECHNOLOGY - ELECTRICAL (R)**

**AS513/AS513B/AS513C/CE513**

This program prepares individuals to apply technical knowledge and skills to operate, maintain, and repair electrical and electronic equipment within an automobile. This includes instruction in electrical circuitry, simple gearing, linkages, and the use of test equipment.

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Pass the Bureau of Automotive Repair (BAR) smog licensing certification exam.
- Pass the Automotive Service Excellence (ASE) national certification exam.
- Pass the International Mobile Air Conditioning Association (IMAC) certification exam.

Required Courses (23 units)		Units
AUT-50	Automotive Principles	4
AUT-52A	Automotive Tune-up and Electrical Systems	4
AUT-52B	Automotive Tune-up and Emission Controls	4
AUT-54	Automotive Electrical Systems	4
AUT-56	Automotive Computer Controls	3
AUT-57	Automotive Heating and Air Conditioning	4

**Associate of Science Degree**

The Associate of Science Degree in Automotive Technology-Electrical will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

**AUTOMOTIVE TECHNOLOGY - FORD SPECIALTY (R)**

**AS519/AS519B/AS519C**

The program is a joint effort of Riverside Community College, Ford Motor Company, and area Ford, Lincoln-Mercury and Mazda dealers. Students will participate in 9 to 12 weeks of classroom instruction, alternated with an additional 9 weeks of full-time paid work experience at a sponsoring Ford, Lincoln-Mercury or Mazda dealership. The system allows students to become familiar with the dealership environment, while applying and reinforcing the on-campus learning.

**Associate Degree Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Acquire the skills and knowledge to work safely in the lab/shop environment.
- Develop entry level skills and knowledge for employment in the automotive industry.
- Utilize common shop equipment to diagnose and repair automobiles.
- Demonstrate the ability to diagnose and repair automotive electrical systems using industry approved diagnostic equipment.
- Write repair estimates using Consumer Protection guide lines

as prescribed by the BAR.

- Access service information, printed or electronic, and comprehend the diagnostic and repair procedures.
- Prepare student to pass the Bureau of Automotive Repair (BAR) smog licensing certification exam.
- Demonstrate the ability to pass the Automotive Service Excellence (ASE) national certification exams.
- Practically apply knowledge acquired in class to diagnose and repair automobiles.
- Prepare students to pass the Mobile Air Conditioning Society (MACS) certification exam.

Required Courses (44 units)		Units
AUT-71	Ford Electrical and Electronics Systems	4
AUT-72	Ford Applied Electronics	4
AUT-73	Ford Engine Performance	8
AUT-74	Ford Brakes, Steering and Suspension Systems	4
AUT-75	Ford Engine Repair	4
AUT-76	Ford Advanced Chassis Systems	4
AUT-78	Ford Manual Transmissions and Drive-Train Systems	4
AUT-79	Ford Automatic Transmissions and Transaxles	4
AUT-200	Automotive Technology Work Experience (must be taken fourtimes)	2-2-2-2

**Associate of Science Degree**

The Associate of Science Degree in Automotive Technology-Ford Specialty will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

**AUTOMOTIVE TECHNOLOGY - GENERAL MOTORS SPECIALTY (R)**

**AS583/AS583B/AS583C**

This program is a joint effort of Riverside Community College, General Motors Corporation and local GM dealers. Students will participate in 9 weeks of classroom instruction, alternated with an additional 9 weeks of full-time paid work experience at a sponsoring GM dealership. The system allows students to become familiar with the dealership environment, while applying and reinforcing the on-campus learning.

**Associate Degree Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Acquire the skills and knowledge to work safely in the lab/shop environment.
- Develop entry level skills and knowledge for employment in the automotive industry.
- Utilize common shop equipment to diagnose and repair automobiles.
- Demonstrate the ability to diagnose and repair automotive electrical systems using industry approved diagnostic equipment.
- Write repair estimates using Consumer Protection guide lines as prescribed by the BAR.
- Access service information, printed or electronic, and

- comprehend the diagnostic and repair procedures.
- Prepare student to pass the Bureau of Automotive Repair (BAR) smog licensing certification exam.
- Demonstrate the ability to pass the Automotive Service Excellence (ASE) national certification exams.
- Practically apply knowledge acquired in class to diagnose and repair automobiles.
- Prepare students to pass the Mobile Air Conditioning Society (MACS) certification exam.

Required Courses (44 units)		Units
AUT-81	GM Electrical and Electronics Systems	4
AUT-82	GM Applied Electronics	4
AUT-83	GM Engine Performance	8
AUT-84	GM Brakes, Steering and Suspension Systems	4
AUT-85	GM Gasoline Engine and Repair	4
AUT-86	GM Advanced Chassis Systems	4
AUT-88	GM Manual Transmissions and Drive Trains	4
AUT-89	GM Automatic Transmissions and Transaxles	4
AUT-200	Automotive Technology Work Experience (must be taken four times)	2-2-2-2

**Associate of Science Degree**

The Associate of Science Degree in Automotive Technology-General Motors Specialty will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

**AUTOMOTIVE TECHNOLOGY - MECHANICAL (R)**

**AS515/AS515B/AS515C/CE515**

This program prepares individuals to apply technical knowledge and skills to repair, service, and maintain all types of automobiles. This includes instruction in brake systems, engine repair, suspension and steering, automatic and manual transmissions, and drive trains.

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Acquire the skills and knowledge to work safely in the lab/shop environment.
- Develop entry level skills and knowledge for employment in the automotive industry.
- Utilize common shop equipment to diagnose and repair automobiles.
- Demonstrate the ability to diagnose and repair automotive electrical systems using industry approved diagnostic equipment.
- Write repair estimates using Consumer Protection guide lines as prescribed by the BAR.
- Access service information, printed or electronic, and comprehend the diagnostic and repair procedures.
- Prepare student to pass the Bureau of Automotive Repair (BAR) smog licensing certification exam.
- Demonstrate the ability to pass the Automotive Service

- Excellence (ASE) national certification exams.
- Practically apply knowledge acquired in class to diagnose and repair automobiles.
- Prepare students to pass the Mobile Air Conditioning Society (MACS) certification exam.

Required Courses (28 units)		Units
AUT-50	Automotive Principles	4
AUT-51A	Internal Combustion Engines Rebuilding, Gas and Diesel-Upper End	4
AUT-51B	Internal Combustion Engines Rebuilding, Gas and Diesel-Lower End	4
AUT-53A	Automotive Chassis and Alignment	4
AUT-53B	Automotive Brakes	4
AUT-55A	Automotive Automatic Transmissions/Transaxles	4
AUT-55B	Automotive Manual Drivetrain Systems	4

**Associate of Science Degree**

The Associate of Science Degree in Automotive Technology-Mechanical will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

**BANKING AND FINANCE**

*The following certificate may lead to employment competency, but does not lead to an Associate of Science Degree.*

**BANK OPERATIONS (R)**

**CE625**

This program prepares individuals to perform a wide variety of customer services in banks, insurance agencies, savings and loan companies, and related enterprises. This includes instruction in communications and public relation skills, business equipment operation, and technical skills applicable to the methods and operations of specific financial services.

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Describe and analyze the roles of financial institutions in our economy and the services they provide.
- Compose business letters and memorandums common to the banking industry.
- Explain banking regulations and describe their impact on the banking industry.
- Research and analyze consumer decision parameters.

Required Courses (13 units)		Units
BAN-51	Principles of Banking	3
CAT-1A	Business Etiquette	1
CAT-30	Business English	3
CAT-31	Business Communications	3
MKT-41	Techniques of Selling	3

**BUSINESS ADMINISTRATION**

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Use technology to analyze business decisions and to enhance business communications.
- Apply basic business and accounting calculations and analyses.
- Have an understanding of legal practices relating to business.
- Apply sound management practices.

Major Core Requirements:

Required Courses (18 units)		Units
ACC-1A	Principles of Accounting I	3
BUS-10	Introduction to Business	3
BUS-18A	Business Law I	3
BUS-20	Business Mathematics	3
BUS-22	Management Communications	3
or BUS-24	Business Communication	3
CIS-1A	Introduction to Computer Information Systems	3
or		
BUS/CIS/CAT-3	Computer Applications for Business	3

**Major Concentration Requirements (12 units)**

(In addition to Business Administration Major Core Requirements of 18 units noted above choose another 12 units selected from list below.)

Accounting	12
Banking And Finance	12
General Business	12
Human Resources	12
Management	12
Marketing	12
Real Estate	12

**NOTE:** Students must complete all Business Administration Major Core Requirements and must complete Major Concentration Requirements (total of 30 units) in order to receive the certificate in the concentration area of their choice.

**Associate of Science Degree**

The Associate of Science Degree in Business Administration with a Major Concentration will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

**ACCOUNTING CONCENTRATION (MNR)**

**AS523/AS523B/AS523C/CE523**

This program prepares individuals to practice the profession of accounting and to perform related business functions. This includes instruction in accounting principles and theory, financial accounting, managerial accounting, cost accounting, budget control, tax accounting, legal aspects of accounting, reporting procedures, statement analysis, planning and consulting, business information systems, accounting research methods, professional standards and ethics, and applications to specific for-profit, public, and non-profit organizations.

**Program Learning Outcomes**

In addition to outcomes for the Businesses Administration certificate, on successful completion of the Accounting concentration, students should be able to accomplish at least three of the following eight tasks:

- Apply accounting principles related to a variety of accounting specialties, such as payroll accounting, cost accounting, income tax accounting, and computerized accounting.
- Analyze and solve accounting issues and problems for a variety of business entities.
- Analyze and interpret data and reports for a variety of business entities.
- Develop and apply principles of moral judgment and ethical behavior to business situations.

Business Administration Major Core Requirements 18

Required for this concentration 3

ACC-1B Principles of Accounting II 3  
and

Select another 9 units from the following: 9

ACC-61	Cost Accounting	3
ACC-62	Payroll Accounting	3
ACC-63	Income Tax Accounting	3
ACC-65	Computerized Accounting	3
ACC-66	Non-Profit and Governmental Accounting	3
ACC-200	Accounting Work Experience	1-2-3-4
BUS/MAG-47	Applied Business and Management Ethics	3

**BANKING AND FINANCE CONCENTRATION (R)**

**AS631/AS631B/AS631C/CE631**

**Program Learning Outcomes**

In addition to outcomes for the Businesses Administration certificate, on successful completion of the Banking and Finance concentration, students should be able to:

- Describe and analyze the roles of financial institutions in our economy.
- Describe and analyze the services provided by banking institutions.
- Compose business letters and memorandums common to the banking industry.
- Explain banking regulations and describe their impact on the banking industry.

Business Administration Major Core Requirements	18
Select another 6 units from the following:	6
<hr/>	
BAN-51 Principles of Banking	3
BAN-52 Consumer Lending	3
and	
Select another 6 units from the following:	6
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ACC-1B Principles of Accounting II	3
BUS-18B Business Law II	3
ECO-4 Introduction to Economics	3
MAG-44 Principles of Management	3
MAG-51 Elements of Supervision	3
MAG-53 Human Relations	3
MKT-20 Principles of Marketing	3
MKT-41 Techniques of Selling	3
RLE-83 Real Estate Finance	3

**GENERAL BUSINESS CONCENTRATION (MNR)**

**AS524/AS524B/AS524C/CE524**

This program focuses on the general study of business, including domestic, international and electronic, and the important ways in which business impacts our daily lives. The program will prepare individuals to apply business principles and techniques in various career settings and to gain an understanding of business situations that affect their personal and working lives. This includes the buying, selling and production of goods and services, understanding business organizations, general management, and employee motivation strategies, basic accounting principles, the economy, and marketing.

**Program Learning Outcomes**

In addition to outcomes for the Business Administration certificate, on successful completion of the General Business concentration, students should be able to accomplish four of the following seven tasks:

- Explain the managerial applications of accounting reports and ratios to the business enterprise.
- Analyze the law as it pertains to business organizations and to determine the legal management of the various forms of law.
- Analyze the business elements that comprise the logistics function.
- Develop and apply principles of moral judgment and ethical behavior to business situations.
- Anticipate and pose problems relative to understanding and supervising personnel.
- Identify and analyze human relations techniques appropriate to a managerial role.
- Explain and develop the marketing mix, including an analysis of the marketing mix variables—product, place, price, and promotion.

Business Administration Major Core Requirements	18
Select another 12 units from the following:	12
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ACC-1B Principles of Accounting II	3
or	
ACC-38 Managerial Accounting	3
BUS-18B Business Law II	3
BUS-40 International Business-Principles	3

BUS/MAG-47 Applied Business and Management Ethics	3
BUS-80 Principles of Logistics	3
BUS-200 Business Administration Work Experience1-2-3-4	
MAG-51 Elements of Supervision	3
MAG-53 Human Relations	3
MKT-20 Principles of Marketing	3

**HUMAN RESOURCES CONCENTRATION (R)**

**AS623/AS623B/AS623C/CE623**

This program prepares individuals to manage the development of human capital in an organization, and to provide related services to individuals and groups. This includes instruction in personnel and organization policy, human resources dynamics and flows, labor relations, sex roles, civil rights, human resources law and regulations, motivation and compensation systems, work systems, career management, employee testing and assessment, recruitment and selection, managing employee and job training programs, and the management of human resources programs and operations.

**Program Learning Outcomes**

In addition to outcomes for the Business Administration certificate, on successful completion of the Human Resources Management concentration, students should be able to:

- Apply sound human resources management practices.
- Identify, describe and analyze the role of training and development, along with key influences that impact this function within human resources management.
- Describe and analyze the role of employee labor relations in human resources management, along with key influences impacting labor relations today.
- Understand the role that Human Resources Management plays in the successful operations of a business or organization.
- Analyze and explain various human resources laws and policies required for a professional in the field to know and understand.

Business Administration Major Core Requirements	18
Required for this concentration	3
<hr/>	
MAG-56 Human Resources Management	3
and	
Select another 9 units from the following:	9
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MAG-51 Elements of Supervision	3
MAG-52 Employee Training and Development	3
MAG-54 Employee Labor Relations	3
MAG/BUS-70 Introduction to Organizational Behavior	3



**MANAGEMENT CONCENTRATION (MNR)**

**AS521/AS521B/AS521C/CE521**

This program generally prepares individuals to plan, organize, direct, and control the functions and processes of a firm or organization with an emphasis on people as the most important asset of a business. This program will prepare individuals seeking management positions to be better candidates for promotion, and those already in management positions to improve their management skills and effectiveness. This includes instruction in management practice and theory, human resources management and behavior, interpersonal communications in a business setting, marketing management, and business decision making.

**Program Learning Outcomes**

In addition to outcomes for the Businesses Administration certificate, on successful completion of the Management concentration, students should be able to:

- Apply sound management practices.
- Analyze and apply appropriate managerial practices in one or more areas of ethics, human resources, quality management, operations, motivation, etc.

Business Administration Major Core Requirements	18
Required for this concentration	3
<hr/>	
MAG-44 Principles of Management	3
and	
Select another 9 units from the following:	9
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MAG-46 Contemporary Quality Systems Management	3
MAG/BUS-47 Applied Business and Management Ethics	3
MAG-53 Human Relations	3
MAG-56 Human Resources Management	3
MAG-60 Introduction to Hospitality Management	3
MAG-200 Management Work Experience	1-2-3-4
BUS-48 International Management	3

**MARKETING CONCENTRATION (MR)**

**AS525/AS525B/AS525C/CE525**

This program prepares individuals to undertake and manage the process of developing both consumer and business markets, and communicating product benefits to targeted market segments. This includes instruction in buyer behavior and dynamics, sales promotions, building customer relationships, effective pricing, marketing campaigns, principles of marketing research, strategic market planning, advertising methods, customer service, retailing, and applications for specific products and markets.

**Program Learning Outcomes**

In addition to outcomes for the Businesses Administration certificate, on successful completion of the Marketing concentration, students should be able to:

- Develop and implement marketing strategies.
- Develop a comprehensive marketing plan.
- Construct and implement a promotional program.
- Research and analyze consumer decision parameters.

Business Administration Major Core Requirements	18
Required for this concentration	3
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MKT-20 Principles of Marketing	3
and	
Select another 9 units from the following:	9
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MKT-40 Advertising	3
MKT-41 Techniques of Selling	3
MKT-42 Retail Management	3
MKT-200 Marketing Work Experience	1-2-3-4
BUS-43 International Business-Marketing	3
BUS-51 Principles of Electronic-Commerce	3
BUS-80 Principles of Logistics	3

**REAL ESTATE CONCENTRATION (MNR)**

**AS527/AS527B/AS527C/CE527**

This program prepares individuals to develop, buy, sell, appraise, and manage real property. This includes instruction in land use development policy, real estate law, real estate marketing procedures, agency management, brokerage, property inspection and appraisal, real estate investing, leased and rental properties, commercial real estate, and property management.

**Program Learning Outcomes**

In addition to outcomes for the Businesses Administration certificate, on successful completion of the Real Estate concentration, the student should be able to do the following:

- Demonstrate the ability to analyze ethical and procedural problems that arise in residential real estate sales transactions from the perspective of buyers, sellers, brokers, appraisers, lenders, and escrow officers.
- Discuss and evaluate real estate marketing and sales techniques.
- Discuss and calculate real estate taxes and solve basic real estate mathematics problems.
- Explain and evaluate methods of financing real estate purchases and securing loans with real estate.
- Demonstrate the ability to analyze the factors that affect real estate values.
- Discuss and evaluate real estate markets and trends.

Business Administration Major Core Requirements	18
Select another 12 units from the following:	12
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RLE-80 Real Estate Principles	3
RLE-81 Real Estate Practices	3
RLE-82 Legal Aspects of Real Estate	3
RLE-83 Real Estate Finance	3
RLE-84 Real Estate Appraisal	3
RLE-85 Real Estate Economics	3
RLE-86 Escrow Procedures I	3
RLE-200 Real Estate Work Experience	1-2-3-4

**ENTREPRENEURSHIP (R) AS531/AS531B/AS531C/CE531**

This program prepares individuals to start and successfully operate their own businesses. The program focuses on the assessment of the market need, and the necessary skills for successful entry, operation and exit. It prepares individuals to develop an original business plan, a marketing plan and to evaluate their competitiveness in the market, and includes the initial analysis of a business idea to determine feasibility and start-up requirements. The program prepares individuals to perform the duties of planning, overseeing and directing business operations and employees as well as collecting, and analyzing data / information to identify potential product or service demand. Potential occupations include small business or franchise owner, economic developer, small business development specialist, or independent artist, trades worker, consultant, professional and contract outsource labor.

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Develop a working business plan
- Develop a working marketing plan
- Perform pricing calculations and determine profit margins
- Identify market niches.

Required Courses (24 units)		Units
BUS/CAT/CIS-3	Computer Applications for Business	3
BUS-10	Introduction to Business	3
BUS-30	Entrepreneurship and Small Business Management	3
MKT-20	Principles of Marketing	3
Electives	One course from each cluster is required	12
<b>Cluster 1</b>		
ACC/CAT-55	Applied Accounting/Bookkeeping	3
ACC-62	Payroll Accounting	3
ACC-65	Computerized Accounting	3
BUS-20	Business Mathematics	3
<b>Cluster 2</b>		
BUS-18A	Business Law I	3
CAT-31	Business Communications	3
MAG/BUS-47	Applied Business and Management Ethics	3
MAG-51	Elements of Supervision	3
MAG-53	Human Relations	3
MAG/BUS-70	Introduction to Organization Development	3
<b>Cluster 3</b>		
BUS-51	Principles of Electronic-Commerce	3
MKT-40	Advertising	3
MKT-41	Techniques of Selling	3
MKT-42	Retail Management	3

**Associate of Science Degree**

The Associate of Science Degree in Entrepreneurship will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

**THE FOLLOWING PROGRAM IS IN THE PROCESS OF BEING DISCONTINUED. THE COURSES INDICATED WITH AN \* ARE NO LONGER BEING OFFERED.**

**INSURANCE (R) AS629/CE629**

This program prepares individuals to manage risk in both personal and organizational settings to provide insurance and risk-aversion services to businesses, individuals, and other organizations. This includes instruction in casualty insurance and general liability, property insurance, employee benefits, social and health insurance, loss adjustment, underwriting, risk theory, and pension planning.

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Analyze the needs of clients and match those needs to specific insurance products.
- Evaluate the insurance needs of a client and propose appropriate insurance products to fit those needs.
- Apply ethical principles when matching product features to client needs.
- Effectively select needs assessment instruments and appropriately advise clients on adequate coverage.

Required Courses (30 units)		Units
ACC-1A	Principles of Accounting, I	3
BUS-10	Introduction to Business	3
BUS-18B	Business Law, II	3
BUS-22	Management Communications	3
BUS-61*	Introduction to Insurance	1
BUS-62*	Personal Insurance Principles	3
BUS-63*	Principles of Property and Liability Insurance	3
BUS-64*	Commercial Insurance Principles	3
BUS-65*	Insurance Codes and Ethics	1
BUS-66*	Insurance Internship	1
CAT/CIS-98A	Introduction to Excel	1.5
CAT/CIS-98B	Advanced Excel	1.5
CIS-1A	Introduction to Computer Information Systems	3
or		
BUS/CAT/CIS-3	Computer Applications for Business	3

**Associate of Science Degree**

The Associate of Science Degree in Insurance will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

The following certificates may lead to employment competency, but do not lead to an Associate of Science Degree:

**INTERNATIONAL BUSINESS (R) CE627**

This program prepares individuals to manage international business and/or business operations. This includes instruction in the principles and processes of international business policies, business environments, foreign currency issues, foreign operations and management, foreign direct investment as well as other modes of entry, and applications for doing business in specific countries and markets.

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Explain the key elements of international business.
- Analyze the essential factors that determine the success of each element of international business.
- Explain the inter-relationship of each elements of international business that are required for a successful international business operation.
- Develop the framework of an international business plan, incorporating understanding of general business concepts, international marketing mix, international cultures, international economics, and international politics.

Required Courses (15 units)		Units
BUS-10	Introduction to Business	3
BUS-40	International Business-Principles	3
BUS-43	International Business-Marketing	3
Electives (Choose from list below)		6
Electives		
BUS-46	International Business-Intro to Import/ Exporting	3
BUS-48	International Management	3
BUS-90	International Logistics	3
CHI-11	Chinese Culture and Civilization	3
COM-12	Intercultural Communication	3
ECO/POL-6	Introduction to Political Economy	3
ECO-7/7H	Principles of Macroeconomics	3
FRE-11	French Culture and Civilization	3
GER-11	German Culture and Civilization	3
ITA-11	Italian Culture and Civilization	3
JPN-11	Japanese Culture and Civilization	3
KOR-11	Korean Culture and Civilization	3
RUS-11	Russian Culture and Civilization	3
SPA-11	Spanish Culture and Civilization	3
SPA-12	Latin American Culture and Civilization	3

**OPERATIONS AND PRODUCTION MANAGEMENT (R) CE833**

This program prepares individuals to manage and direct the physical and/or technical functions of a firm or organization, particularly those relating to development, productions, and manufacturing. This includes instruction in principles of general management, manufacturing and production systems, plant management, equipment maintenance management, production control, industrial labor regulations and skilled trades supervision, strategic manufacturing policy, systems analysis, productivity analysis and cost control, and materials planning.

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Analyze organizational effectiveness and establish productivity ratios.
- Evaluate a business environment and select an appropriate business improvement intervention to increase business effectiveness.
- Apply appropriate diagnostic tools to determine current business effectiveness and establish a plan for improvement.
- Analyze current business processes and develop a statistically valid graphical representation of performance and be able to predict future performance.
- Effectively select process improvement tools to analyze current business practices, determine problem areas and establish a plan to improve business performance.

Required Courses (15 units)		Units
MAG-70	Introduction to Organization Development	3
BUS/MAG-71	Introduction to Productivity Management	3
BUS/MAG-72	Introduction to Quantitative Methods for Business	3
Electives (Choose from list below)		6
Electives (6 units)		
BUS-20	Business Mathematics	3
BUS/MAG-47	Applied Business and Management Ethics	3
BUS-80	Principles of Logistics	3
MAG-44	Principles of Management	3
MAG-51	Elements of Supervision	3

**Small Business Accounting(MNR) CE859**

Upon completion of this certificate, students will be trained and able to perform the basic duties and responsibilities required of an entry level accounting clerk or bookkeeper utilizing accounting software.

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Perform a variety of accounting skills such as journalizing, posting, double entry accounting, record adjusting and closing entries and prepare financial statements.
- Use accounting software to prepare financial statements and to analyze and solve problems.
- Recognize the role of ethics in accounting.

Required Courses (6 units)		Units
ACC-65	Computerized Accounting	3
and one of the following:		
ACC-1A	Principles of Accounting	3
ACC/CAT-55	Applied Accounting/Bookkeeping	3

**SMALL BUSINESS PAYROLL ACCOUNTING (MNR) CE860**

Upon completion of this certificate, students will be trained and able to perform the basic duties and responsibilities required of an entry level payroll accounting clerk.

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Analyze, synthesize, and evaluate payroll principles as defined by Social Security Act and understand laws relating to the payment of wages and salaries.
- Analyze and solve problems associated with the calculation and reporting of payroll.
- Accurately apply accounting principles to computerized and manual payroll systems.

Required Courses (6 units)		Units
ACC-62	Payroll Accounting	3
and one of the following:		
ACC-1A	Principles of Accounting	3
ACC/CAT-55	Applied Accounting/Bookkeeping	3

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**COMPUTER APPLICATIONS AND OFFICE TECHNOLOGY**

This program prepares individuals to support business operations by using computer equipment to enter, process, and retrieve data for a wide variety of administrative purposes. This includes instruction in using basic business software and hardware; business computer networking; principles of desktop publishing; preparing mass mailings; compiling and editing spread sheets; list maintenance; preparing tables and graphs; receipt control; and preparing business performance reports.

**EXECUTIVE OFFICE MANAGEMENT (R)**

**AS639/AS639B/AS639C/CE639**

This program prepares individuals to supervise and manage operations and personnel of business offices, including supervision, budget preparation, scheduling, office systems, and records.

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Prepare, proofread, and process correspondence memorandums, bills, statements, receipts, and copy information from one record to another.
- Outline and explain administrative procedures and policies to personnel.
- Coordinate and direct records and budget preparation to aid executives.
- Schedule and document appointments, meetings, and travel arrangements.
- Index, code, sort, file, retrieve and maintain office/corporation documents, records, and reports.
- Compile and create basic statistical reports.
- Create properly formatted and grammatically correct business documents.
- Demonstrate an understanding of the planning, organizing, leading, and controlling function of management and apply these concepts and their underlying approaches and principles in the analysis of case studies.

Required Courses (34 units)		Units
CAT-1A	Business Etiquette	1
CAT/CIS/BUS-3	Computer Applications for Business	3
CAT-30	Business English	3
CAT-31	Business Communications	3
CAT-51	Intermediate Typewriting/Document Formatting	3
CAT/ACC-55	Applied Accounting/Bookkeeping	3
CAT-61	Professional Office Procedures	3
CAT-62	Records Management	3
CAT/CIS-80	Word Processing: Microsoft Word for Windows	3

or

CAT/CIS-84	Word Processing: WordPerfect for Windows	3
CAT/CIS-90	Microsoft Outlook	3
CAT/CIS-98A	Introduction to Excel	1.5
CAT/CIS-98B	Advanced Excel	1.5
MAG-44	Principles of Management	3

### Associate of Science Degree

The Associate of Science Degree in Executive Office Management will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

*The following certificates may lead to employment competency, but do not lead to an Associate of Science Degree:*

#### ADMINISTRATIVE OFFICE PROFESSIONAL (R) CE637

This certificate provides students with the knowledge and skills to perform intermediate administrative clerical duties including providing administrative and clerical support to administrative staff and assisting with coordinating and implementing office procedures.

#### Certificate Program

##### Program Learning Outcomes

Upon successful completion of this program, students should be able to:

- Compose, key, and properly format various types of business correspondence and reports using a computer terminal.
- Compose, key, and properly format spreadsheets, databases, and presentations using a computer terminal.
- Index, code, sort, and file correspondence and other business records.
- Compile and create simple statistical reports.
- Schedule appointments, meetings, and travel arrangements.

Required Courses (13.5 units)		Units
BUS/CAT/CIS-3	Computer Applications for Business	3
CAT-31	Business Communications	3
CAT-61	Professional Office Procedures	3
CAT-62	Records Management	3
CAT/CIS-98A	Introduction to Excel	1.5

#### EXECUTIVE OFFICE PROFESSIONAL (R) CE635

This certificate provides students with knowledge and skills to perform advanced administrative clerical duties related to assisting executives including coordinating and managing personnel and operations in business offices, as well as budget preparation, scheduling, and report preparation.

#### Certificate Program

##### Program Learning Outcomes

Upon successful completion of this program, students should be able to:

- Prepare memorandums outlining and explaining administrative procedures and policies to supervisory workers.
- Coordinate and direct budget preparation to aid executives.
- Schedule appointments, plan meetings and conferences.
- Create, file, retrieve, and maintain office/corporation documents, records, and reports.

- Demonstrate an understanding of the planning, organizing, and leading controlling functions of management and apply these concepts and their underlying approaches and principles in the analysis of case studies.

Required Courses (13.5 units)		Units
CAT/ACC-55	Applied Accounting/Bookkeeping	3
CAT/CIS-80	Word Processing: Microsoft Word for Windows	3
CAT/CIS-90	Microsoft Outlook	3
CAT/CIS-98B	Advanced Excel	1.5
MAG-44	Principles of Management	3

#### LEGAL ADMINISTRATIVE PROFESSIONAL (R) CE611

Completion of this certificate provides students with the ability to prepare legal papers and correspondence, such as summonses, complaints, motions, and subpoenas. Students should be able to apply legal terminology and procedure to documents and legal research.

#### Certificate Program

##### Program Learning Outcomes

Upon successful completion of this program, students should be able to:

- Compose, key, and properly format various types of business and legal correspondence and reports using computer software.
- Prepares and processes legal documents and papers, such as summonses, subpoenas, complaints, appeals, motions, and pretrial agreements. Mails, faxes, or arranges for delivery of legal correspondence to clients, witnesses, and court officials.
- Reviews legal publications and performs database searches to identify laws and court decisions relevant to pending cases.
- Submits articles and information from searches to attorneys for review and approval for use.
- Completes various forms, such as accident reports, trial and courtroom requests, and applications for clients.

Required Courses (12 units)		Units
CAT-36A	Legal Office Procedures I	3
CAT-36B	Legal Office Procedures II	3
CAT-37	Legal Terminology	3
CAT-38	Legal Word Processing and Forms	3

**OFFICE ASSISTANT (R) CE633**

This certificate provides students with the skills to perform routine clerical duties requiring limited knowledge of office systems or procedures.

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Compose, key, and enter data into computer using keyboard.
- Prepare correspondence (including labels and envelopes), bills, statements, receipts, and copy information from one record to another.
- Proofread records or forms.
- Create properly formatted and grammatically correct business documents.
- Answer telephones, and convey messages.
- Demonstrate familiarity with fundamental aspects of computer technology.

Required Courses (10 units)		Units
CAT-1A	Business Etiquette	1
CAT-30	Business English	3
CAT-51	Intermediate Typewriting/Document Formatting	3
CAT/CIS-93	Computers for Beginners	3

**OFFICE FAST-TRACK (R) CE812**

This certificate prepares individuals to provide professional, entry-level skills, using basic business software, vocabulary and grammar fundamentals, and standards of behavior and etiquette in the workplace.

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Apply business standards of acceptable behavior, communication, and etiquette to project a professional image.
- Apply grammar fundamentals, including proper sentence structure, punctuation, vocabulary, and spelling to all written documents.
- Apply introductory character, paragraph, and document formatting techniques to business documents using word processing software.
- Develop basic alpha/numeric keyboarding/touch typewriting skills at a minimum rate of 20 gross words a minute.
- Develop, create, and edit electronic presentations using industry-standard software.
- Apply the fundamental organizational concepts of digital filing to manage programs and files.
- Apply fundamental concepts of Internet browser software to navigate, search, retrieve, and send/receive information.
- Design and format, modify, query, and manipulate spreadsheets, charts and graphics, and lists (databases) using spreadsheet software.

Required Courses (12 units)		Units
CAT-1A	Business Etiquette	1
CAT-30A	Business English 30A	1
CAT/CIS-34A	Introduction to Microsoft Word for Windows	1.5
CAT-53	Keyboarding/Typing Fundamentals	1
CAT/CIS-65	Introduction to Microsoft PowerPoint	1.5
CAT/CIS-93	Computers for Beginners	3
CAT/CIS-95A	Introduction to the Internet	1.5
CAT/CIS-98A	Introduction to Excel	1.5

**VIRTUAL ASSISTANT (R) CE677**

This program prepares individuals to support business operations through on-line processes such as developing a business plan for an on-line web presence, creating a virtual office space on-line and marketing this office space.

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Develop and implement a sole-proprietorship virtual office.
- Develop and use a business plan for a virtual office.
- Create and use a marketing plan for a virtual office.

Required Courses (16.5 units)		Units
ACC/CAT-55	Applied Accounting/Bookkeeping	3
BUS-30	Entrepreneurship and Small Business Management	3
CAT-30	Business English	3
CAT-57	Creating and Managing the Virtual Office	3
BUS-58	Marketing the Virtual Office	3
CAT/CIS-98A	Introduction to Excel	1.5

It is recommended that individuals interested in this field acquire office experience before deciding to work on their own as a virtual assistant.

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**COMPUTER INFORMATION SYSTEMS**

This program focuses on computers, computing problems and solutions, and design of computers systems and user interfaces from a scientific perspective. This includes instruction in their principles of computation science, and computing theory; computer hardware design; computer development and programming; and application to a variety of end-use situations.

**COMPUTER APPLICATIONS (MR)****AS726/AS726B/AS726C/CE726**

This program prepares individuals to perform basic data and text entry using standard and customized software products. This includes instruction in keyboarding skills, personal computer and work station operation, reading draft texts and raw data forms, and various interactive software programs used for tasks such as word processing, spreadsheets, databases, and others.

**Certificate Program****Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Describe and use operating system software.
- Describe and use Word processing software.
- Write structured programs using C++, or Java.
- Describe and use graphics software to manipulate digital images.
- Describe and use database software to construct 3NF databases.
- Construct a visually appealing web site including database structures within the design.
- Design and use spreadsheets that have embedded equations/formulas utilizing different data types.

Required Courses (31.5-32.5 units)		Units
CIS-1A	Introduction to Computer Information Systems	3
CIS-1B	Advanced Concepts in Computer Information Systems	3
CIS/CSC-5	Programming Concepts and Methodology I: C++	4
or		
CIS/CSC-28A	MS Access Programming	3
CIS/CSC-21	Introduction to Operating Systems	3
CIS-95A	Introduction to the Internet	1.5
CAT-31	Business Communications	3
or		
BUS-22	Management Communications	3
or		
BUS-24	Business Communication	3
Electives 1	(Choose from list below)	7.5
Electives 2	(Choose from list below)	7.5

**Electives 1 (7.5 units)**

CIS/CSC-2	Fundamentals of Systems Analysis	3
CIS-23	Software and End User Support	3
CIS/CSC-25	Information and Communication Technology Essentials	3
CIS/CSC-61	Introduction to Database Theory	3
CIS/CAT-80	Word Processing: Microsoft Word for Windows	3
CIS/CAT-84	Word Processing: WordPerfect for Windows	3
CIS/CAT-98B	Advanced Excel	1.5

**Electives 2 (7.5 units)**

CIS/CSC-12	PHP Dynamic Web Site Programming	3
CIS/CSC-14A	Web Programming: JavaScript	3
CIS-14B	Web Programming: Active Server Pages	3
CIS/CAT-54A	Introduction to Flash	3
CIS-56A	Designing Web Graphics	3
CIS-72A	Introduction to Web Page Creation	1.5
CIS-72B	Intermediate Web Page Creation using Cascading Style Sheets (CSS)	1.5
CIS-76A	Introduction to Microsoft Expression Web	3
CIS-76B	Introduction to DreamWeaver	3
CIS/CAT-78A	Introduction to Adobe PhotoShop	3
CIS/CAT-79	Introduction to Adobe Illustrator	3
CIS/CAT-81	Introduction to Desktop Publishing using Adobe InDesign	3

**Associate of Science Degree**

The Associate of Science Degree in Computer Applications will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

**COMPUTER PROGRAMMING (MNR)****AS728/AS728B/AS728C/CE728**

This program focuses on the general writing and implementation of generic and customized programs to drive operating systems that generally prepare individuals to apply the methods and procedures of software design and programming to software installation and maintenance. This includes instruction in software design; low and high level languages and program writing; program customization and linking; prototype testing; troubleshooting; and related aspects of operating systems and networks.

**Certificate Program****Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Design structured programs using C++, Javascript, or Java.
- Design and use object oriented programs in one of these languages C++, Java or PHP.
- Design and use advanced programming techniques in C++ or Java.

Required Courses (26.5 units)		Units
CIS-1A	Introduction to Computer Information Systems	3
CIS/CSC-2	Fundamentals of Systems Analysis	3
CIS/CSC-5	Programming Concepts and Methodology I: C++	4
CIS/CSC-21	Introduction to Operating Systems	3
CIS-72A	Introduction to Web Page Creation	1.5
Electives	From Group 1	6
Electives	From Group 2	6

**Electives - Group 1 (6 units)**

CIS/CSC-12	PHP Dynamic Web Site Programming	3
CIS/CSC-14A	Web Programming: JavaScript	3
CIS-14B	Web Programming: Active Server Pages	3
CIS/CSC-17A	Programming Concepts and Methodology II: C++	3
CIS/CSC-18A	Java Programming: Objects	3

**Electives - Group 2 (6 units)**

CIS/CSC-11	Computer Architecture and Organization: Assembly	3
CIS/CSC-17B	C++ Programming: Advanced Objects	3
CIS/CSC-17C	C++ Programming: Data Structures	3
CIS/CSC-18B	Java Programming: Advanced Objects	3
CIS/CSC-18C	Java Programming: Data Structures	3

**Associate of Science Degree**

The Associate of Science Degree in Computer Programming will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

*The following certificates may lead to employment competency, but do not lead to an Associate of Science Degree:*

**C++ PROGRAMMING****CE803**

Completion of this certificate provides the student with a minimum entry level skill set employed in creating C++ applications.

**Certificate Program****Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Create structured and Object Oriented Programs in in C++ for business, gaming, and STEM projects by identifying the information input requirements, synthesizing the algorithmic steps needed to transform the data into the required output format, then organize the results to facilitate user communication.
- Using C++ libraries create and projects that incorporate the following:
  - Multiprocessors
  - Multimedia
  - ODBC
  - SQL
  - Establish client/server relationship
- Using C++ libraries to create projects that incorporate STL, GUI, and user defined data structures.

**Required Courses (13 units)****Units**

CIS/CSC-5	Programming Concepts and Methodology I: C++	4
CIS/CSC-17A	Programming Concepts and Methodology II: C++	3
CIS/CSC-17B	C++ Programming: Advanced Objects	3
CIS/CSC-17C	C++ Programming: Data Structures	3

**CISCO NETWORKING (R)****CE810**

Cisco Certified Network Associate (CCNA) certificate validates the ability to install, configure, operate, and troubleshoot medium-size router and switched networks, including implementation and verification of connections to remote sites in a WAN. CCNA curriculum includes basic mitigation of security threats, introduction to wireless networking concepts and terminology, and performance-based skills. This includes (but is not limited to) the use of these protocols: IP, Enhanced Interior Gateway Routing Protocol (EIGRP), Serial Line Interface Protocol Frame Relay, Routing Information Protocol Version 2 (RIPv2), VLANs, Ethernet, access control lists (ACLs). This certificate is designed for students with advanced problem solving and analytical skills. The curriculum offers a comprehensive and theoretical learning experience for analytical students, and uses language that aligns well with engineering concepts. Interactive activities are embedded in the curriculum, along with detailed, theoretical labs.



**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Demonstrate an understanding of routing fundamentals, subnets and IP addressing schemes.
- Explain the command and steps required to configure router host tables, and interfaces within the RIP, EIGRP and OSPF protocols.
- Demonstrate an understanding of switching concepts and LAN design to include the use of Virtual LANs with LAN trunking configured by the Spanning Tree Protocol.
- Define and demonstrate the concepts of Cisco’s implementation of ISDN networking including WAN link options.

Required Courses (16 units)		Units
CIS-26A	Cisco Networking Academy 1A	4
CIS-26B	Cisco Networking Academy 1B	4
CIS-26C	Cisco Networking Academy 1C	4
CIS-26D	Cisco Networking Academy 1D	4

**E-COMMERCE (R) CE807**

The e-commerce certificate pattern readies the completer with the skills to design, market and implement an on-line business.

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Design, develop and implement a sound business plan that readily translates into an on-line business.
- Devise the web-presence to enhance the business as a well laid out web site using eye catching graphics including animation as necessary.
- Develop and implement sound business practices for the web-site addressing the technological, social, and ethical issues of an on-line business.

Required Courses (16.5 units)		Units
BUS-10	Introduction to Business	3
BUS-30	Entrepreneurship and Small Business Management	3
BUS-51	Principles of Electronic-Commerce	3
CIS-95A	Introduction to the Internet	1.5
Electives	From Group 1	3
Electives	From Group 2	3

Electives - Group 1 (3 units)		Units
ADM-71A	Adobe Photoshop for Image Manipulation	3
CIS-56A	Designing Web Graphics	3
CAT/CIS-78A	Introduction to Adobe Photoshop	3

Electives - Group 2 (3 units)		Units
ADM-74	Dreamweaver for Graphic Designers	3
CIS-76A	Introduction to Microsoft Expression Web	3
CIS-76B	Introduction to Dreamweaver	3

**JAVA PROGRAMMING (NR)**

**CE809**

Completion of this certificate provides the student with a minimum entry level skill set employed in creating Java applications.

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Create structured and Object Oriented Programs in Java for business, gaming, and STEM projects by identifying the information input requirements, synthesizing the algorithmic steps needed to transform the data into the required output format, then organize the results to facilitate user communication.
- Use Java libraries to create applications that incorporate the following:
  - Multiprocessors
  - Multimedia
  - JDBC
  - SQL
  - Establish client/server relationship.
- Use Java libraries to create projects that incorporate Collections, GUI, and user defined data structures.

**Required Courses (13 units)**

Required Courses (13 units)	Units
CIS/CSC-5 Programming Concepts and Methodology I: C++	4
CIS/CSC-18A Java Programming: Objects	3
CIS/CSC-18B Java Programming: Advanced Objects	3
CIS/CSC-18C Java Programming: Data Structures	3

**RELATIONAL DATABASE MANAGEMENT TECHNOLOGY (R) CE816**

Provides the skills necessary to present a view of data as a collection of rows and columns and manage these relational databases based on a variety of data models.

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Present the data to the user as a set of relations.
- Provide relational operators to manipulate the data in tabular form.
- Use a modeling language to define the schema of each database hosted in the DBMS, according to the DBMS data model.
- Optimize data structures (fields, records, files and objects) to deal with very large amounts of data stored on a permanent data storage device.
- Create a database query language and report writer to allow users to interactively interrogate the database, analyze its data and update it according to the users privileges on data.
- Develop a transaction mechanism, that would guarantee the ACID properties, in order to ensure data integrity, despite concurrent user accesses and faults.

Required Courses (12 units)	Units
CIS/CSC-28A MS Access Programming	3
CIS/CSC-61 Introduction to Database Theory	3
CIS/CSC-62 Microsoft Access DBMS: Comprehensive	3
CIS/CSC-63 Introduction to Structured Query Language (SQL)	3

**SYSTEMS DEVELOPMENT (R) CE806**

The Systems Development mini certificate gives students the skills necessary to analyze, design, and develop an information system in any business environment that is involved in keeping data about various entities up-to-date and/or processing daily transactions.

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Demonstrate an understanding of systems analysis as applied to the effective use of computers in business operations.
- Analyze user requirements in business operations applying structured analysis tools like Data Flow Diagrams, Data Dictionary and Process Description.
- Design various system components like output, input and user interface screens, reports, and normalized files.
- Demonstrate an understanding of various developmental methodologies including the use of CASE tools.
- Design relational database tables, queries, forms, reports, macros, validation rules in MS Access.
- Demonstrate how to document a database and how MS Access can interface with the Web, demonstrate error trapping, database security, and automating ActiveX Controls with VBA.
- Demonstrate an understanding of System Architecture, Implementation, Operations, Support and Security plus various tools for cost benefit analysis and project management.

Required Courses (12 units)	Units
CIS/CSC-2 Fundamentals of System Analysis	3
CIS/CSC-20 Systems Analysis and Design	3
CIS/CAT-91 MicroSoft Project and	3
CIS/CSC-28A MS Access Programming or	3
CIS/CSC-62 MicroSoft Access DBMS: Comprehensive	3

**WEB MASTER (MR)**

The Web Master certificate program prepares a student to be a valuable member of a professional web design or development team. The successful student will become a competent HTML and CSS coder, and be proficient enough in Dreamweaver to streamline the development cycle and effectively integrate all the typical technologies within a web site. Depending on the chosen emphasis, the student will also become more skilled at designing sites with web graphics and animation or more skilled at developing web applications with programming in Javascript and PHP.

**Certificate Program**

**Core Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Create valid, properly structured web pages using a variety of HTML features to form a typical 5-10 page site.
- Create external style sheets that effectively control an entire web site's formatting and layout.
- Use a variety of Dreamweaver features to design, create, test, upload and manage an accessible and standards compliant interactive web site that includes the use of text, graphics, and multimedia.

Required Courses (17 units)	Units
Core Requirements (6 units)	
CIS-72A Introduction to Web Page Creation	1.5
CIS-72B Intermediate Web Page Creation using Cascading Style Sheets(CSS)	1.5
CIS-76B Introduction to DreamWeaver	3
or	
ADM-74 Dreamweaver for Graphic Designers	3
In addition, choose one of the concentrations below	11

**WEB DESIGNER CONCENTRATION CE820**

**Concentration Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Apply design and visual communication principles to website, page, and interface design.
- Use Photoshop to create and edit images for use on the web, including photographs, logos, navigation buttons, background images, image maps, and web page design mockups (tracing images).
- Use Flash to create web animations and interactive web sites.

Concentration Required Courses (11 units)	Units
CIS/CAT-54A Introduction to Flash	3
or	
ADM-67 Multimedia Animation	3
and	
CIS-56A Designing Web Graphics	3
or	
CIS-CAT-78A Introduction to Adobe Photoshop	3
or	

ADM-71A	Adobe Photoshop for Image Manipulation	3
Electives	Choose from the list below	5

#### Concentration Electives (5 units)

CIS/CAT-81	Introduction to Desktop Publishing using Adobe InDesign	3
or		
ADM-63A	Adobe InDesign	3
CIS/CAT-79	Introduction to Adobe Illustrator	3
or		
ADM-77A	Adobe Illustrator for Graphic Art	3
ADM-2A	Color Systems and File Management	1
ADM-64	Ethics and Legalities of Digital Manipulation	1

#### WEB DEVELOPER CONCENTRATION CE843

##### Concentration Program Learning Outcomes

Upon successful completion of this program, students should be able to:

- Apply programming principles to develop a fully functioning and customized web site experience for both the site user and site administrator.
- Use JavaScript to enhance a web site's interactivity using the DOM.
- Use PHP to enhance a web site's capabilities by creating data driven web page content, custom form validation and processing, and database manipulation.

Concentration Required Courses (11 units)		Units
CIS/CSC-12	PHP Dynamic Web Site Programming	3
CIS/CSC-14A	Web Programming: Java Script	3
Electives	(Choose from the list below)	5

#### Concentration Electives (5 units)

CIS-56A	Designing Web Graphics	3
or		
CIS/CAT-78A	Introduction to Adobe Photoshop	3
or		
ADM-71A	Adobe Photoshop for Image Manipulation	3
CIS/CAT-54A	Introduction to Flash	3
or		
ADM-67	Multimedia Animation	3
CIS-54B	Flash Scripting	3
CIS-72C	Introduction to XML	1.5
ADM-2A	Color Systems and File Management	1
ADM-64	Ethics and Legalities of Digital Manipulation	1

#### COSMETOLOGY

This program prepares individuals to provide professional cosmetic services in salons, resorts, casinos, dermatologist's offices and other related industry establishments. This includes courses in hair design, hair sculpting, chemical, esthetic and other cosmetic services, safety and sanitation, management, customer service, and preparation for practicing as licensed cosmetologist in the state of California. Courses in applicable professional labor laws and regulations in the cosmetology industry, physiology, anatomy, electricity and ergonomics are also covered in depth. Emphasis is placed on passing state licensing exam and industry entry skills.

#### COSMETOLOGY (R) AS534/AS534B/AS534C/CE534 Certificate Program

##### Program Learning Outcomes

Upon successful completion of this program, students should be able to:

- Deduce valid conclusions, compare and contrast viable techniques and apply principles in preparation of the California State Board of Barbering and Cosmetology practical and written exam.
- Identify and analyze concepts leading to synthesis of theory for the state board written exam.
- Produce a business plan and portfolio.
- Demonstrate entry-level industry skills in a clinic laboratory setting.
- Demonstrate workplace behaviors ("soft skills") necessary for success in the cosmetology industry.

Required Courses (47.5 units)		Units
COS-60A	Beginning Cosmetology Concepts	11
COS-60B	Level II Cosmetology Concepts	10.5
COS-60C	Level III Cosmetology Concepts	10
COS-60D	Level IV Cosmetology Concepts	8
COS-60E	Level V Cosmetology Concepts	8

Evening students may take the following courses to meet the requirements for COS-60E

COS-60E1	Level V Cosmetology Concepts	4
COS-60E2	Level V Cosmetology Concepts	4

**NOTE:** Completion of cosmetology courses (each with a grade of "C" or better) entitles the student to the Cosmetology Certificate and eligibility for the State Board of Cosmetology licensing examination.

**NOTE:** Transfer students possessing eligible cosmetology hours of applied effort will be placed in the appropriate section with the approval of the department chair.

**Associate of Science Degree**

The Associate of Science Degree in Cosmetology will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

**COSMETOLOGY BUSINESS ADMINISTRATION**

Major Core Requirements

**Certificate Program**

<u>Required Courses (21 units)</u>		<u>Units</u>
BUS-10	Introduction to Business	3
BUS-20	Business Mathematics	3
BUS-30	Entrepreneurship and Small Business Management	3
Major Concentration Requirements see below		12

**NOTE:** The Cosmetology Business Administration Certificate will be awarded to graduates of the Cosmetology Program, or Cosmetology License holders upon successful completion of all Cosmetology Business Administration Major Core Requirements and 12 units selected from the Major Concentration Requirements (total of 21 units) in order to receive the certificate in the concentration area of their choice.

In addition to the Cosmetology Business Administration Major Core Requirements of 9 units noted above, choose another 12 units from one of the following concentrations:

Entrepreneurial Concentration

Management and Supervision Concentration

**ENTREPRENEURIAL CONCENTRATION (R)****AS537/AS537B/AS537C/CE537**

This program prepares the skilled cosmetologist to develop and operate their own cosmetology business. It will enable them to understand the market needs and how to adapt their business to the current trends. The program will enable students to establish pricing and marketing strategies to improve likelihood of business success. The student will be prepared to own and run an independent business in any of the fields related to cosmetology.

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Develop a working business plan.
- Develop a working marketing plan.
- Perform pricing calculations and determine profit margins.
- Identify market niche.

Select another 12 units from the following:

ACC/CAT-55	Applied Accounting/Bookkeeping	3
ACC-62	Payroll Accounting	3
ACC-65	Computerized Accounting	3
ART-39	Design and Graphics	3
BUS/CAT/CIS-3	Computer Applications for Business	3
CAT-30	Business English	3
MKT-20	Principles of Marketing	3
MKT-40	Advertising	3
MKT-41	Techniques of Selling	3

**MANAGEMENT AND SUPERVISION CONCENTRATION (R)****AS535/AS535B/AS535C/CE535**

This program prepares the student to supervise or manage a cosmetology salon with multiple employees. They will also be capable of hiring, training and motivating employees of a cosmetology business. They will also have the skills to evaluate customer needs and provide services to meet customer needs and expectations. They will be capable of operating their own business or manage the business for a salon owner.

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Anticipate and solve problems relative to supervising personnel.
- Apply human resource management principles in the successful operation of a business.
- Effectively describe customer needs and expectations.
- Effectively communicate in small work groups.

Select another 12 units from the following:

<u>Select another 12 units from the following:</u>		<u>Units</u>
BUS/CAT/CIS-3	Computer Applications for Business	3
BUS-22	Management Communications	3
or BUS-24	Business Communication	3
BUS/MAG-47	Applied Business and Management Ethics	3
BUS/MAG-70	Introduction to Organization Development	3
MAG-44	Principles of Management	3
or		
MAG-51	Elements of Supervision	3
MAG-53	Human Relations	3
MAG-56	Human Resources Management	3
MKT-42	Retail Management	3

**Associate of Science Degree**

The Associate of Science Degree in Cosmetology Business Administration will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

The following certificates may lead to employment competency, but do not lead to an Associate of Science Degree.

**COSMETOLOGY INSTRUCTOR TRAINING (R) CE675**

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Create and demonstrate lesson planning, oral presentations, use methods of evaluations, test construction and use of audio/visual aids.
- Synthesize information and apply principles to solve instructional and classroom issues.
- Construct exams using multiple choice, true or false, identification, matching, essay, research and performance methods and identify the methodology of each test mechanism.
- Demonstrate methodologies required for student success used in the classroom environment.

Required Courses (15 units)		Units
COS-61A	Level I Cosmetology Instructor Concepts	7.5
COS-61B	Level I Cosmetology Instructor Concepts	7.5

**NOTE:** The Cosmetology Instructor Training Certificate will be awarded only to holders of Cosmetology licenses issued by the State of California.

**THIS CERTIFICATE HAS BEEN TEMPORARILY SUSPENDED UNTIL APPROVED BY THE STATE CHANCELLOR'S OFFICE**

**ESTHETICIAN (R) CE673**

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Deduce valid conclusions, compare and contrast viable techniques and apply principles in preparation of the California State Board of Barbering and Cosmetology practical and written exam.
- Identify and analyze concepts leading to synthesis of theory for the state board written exam.
- Produce a business plan and portfolio.
- Demonstrate entry-level industry skills in a clinic laboratory setting.
- Demonstrate workplace behaviors ("soft skills") necessary for success in the cosmetology industry.

Required Courses (17 units)		Units
COS-62A	Level I Esthetician Concepts	8.5
COS-62B	Level II Esthetician Concepts	8.5

Completion of esthetician courses (each with a grade of "C" or better) entitles the student to the Esthetician certificate and eligibility for the State Board of Barbering and Cosmetology licensing exam. Transfer students possessing eligible esthetician hours of applied effort will be placed in the appropriate section with the approval of the department chair.

**CULINARY ARTS**

This program prepares individuals to provide professional chef and related hospitality services in restaurants and other commercial food establishments. This includes instruction in recipe and menu planning, preparing and cooking of foods, supervising and training kitchen assistants, the management of food supplies and kitchen resources, including cost and inventory controls, aesthetics of food preparation and presentation, as well as training in a wide variety of cuisines and culinary techniques.

**CULINARY ARTS (R) AS561/AS561B/AS561C/CE561**

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this certificate program, students should be able to:

- Demonstrate learned customer service, wait staffing and point-of-sale system knowledge in a working dining room setting.
- Employ proper safety and sanitation principles to the receiving, storage, preparation, and service of food.
- Formulate menus utilizing menu design techniques, conversions of written recipes, and calculations of food costing and menu pricing.
- Demonstrate practical and theoretical knowledge of classical and contemporary cooking methods for both hot food and baking/pastry arts.
- Demonstrate practical knowledge of classical knife cuts.
- Apply learned cooking methods to international cuisines.
- Demonstrate proficiency in piping skills, mold usage, plate presentation, and other artistic techniques used in the garde manger kitchen as well as hot food, cold food and pastry presentations.

Required Courses (26 units)		Units
CUL-36	Introduction to Culinary Arts	8
CUL-37	Intermediate Culinary Arts	8
CUL-38	Advanced Culinary Arts	8
Electives	(Choose from list below)	2

**Electives (2 units)**

CUL-20	Fundamentals of Baking	2
CUL-22	Cake Decorating I	2

**Associate of Science Degree**

The Associate of Science Degree in Culinary Arts will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

**DANCE**

*The following certificate may lead to employment competency, but do not lead to an Associate of Science Degree.*

**PILATES DANCE/CONDITIONING INSTRUCTOR (R) CE857**

The Pilates/Dance Conditioning Instructor certificate is designed to prepare individuals to teach the Pilates Method of body conditioning using the full-range of Pilates apparatus as well as the mat work repertoire, the foundation of the Pilates Method. Individuals will be trained to work with beginning to advanced level students as well as with special populations including dancers and athletes.

Emphasis is on both academic and practical experience. Taught by certified Pilates instructors, students completing the certificate will be trained to teach at privately-owned Pilates and dance studios, fitness/health clubs as well as physical therapy settings where Pilates is offered.

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this certificate program, students should be able to:

- Demonstrate and/or identify beginning to advance Pilates exercises for mat and apparatus.
- Describe the principles as developed by Joseph H. Pilates and their relevance to a Pilates program.
- Design a lesson plan for mat work and apparatus.
- Teach a properly constructed Pilates class using appropriate cueing and demonstration.
- Identify common alignment problems and teach proper modifications and/or solutions.
- Identify kinesiological principles of correct biomechanics for all Pilates exercises.

Required Courses (17 units)		Units
	DAN-12	
	Kinesiology for Pilates Instructors/Dancers	3
DAN-13	Pilates Methodology	2
DAN-14	Internship in Pilates Education and Teaching	4
DAN-D46	Pilates Mat Work	1
DAN-D48	Reformer Technique	1
DAN-D49	Intermediate Pilates	1
DAN-D50	Pilates for Dancers	1
DAN-D51	Advanced Pilates	1
Electives (Select 3 units from one of the emphases below)		3

**Dance/Athletes Emphasis (3 units)**

DAN-D21	Ballet, Beginning	1
DAN-D22	Ballet, Intermediate	1
DAN-D32	Jazz, Beginning	1
DAN-D33	Jazz, Intermediate	1
DAN-D37	Modern Dance, Beginning	1
DAN-D38	Modern Dance, Intermediate	1
KIN-16	Introduction to Athletic Training	3
KIN-43	Personal Training	3

**General Lifestyle Management Emphasis (3 units)**

KIN-4	Nutrition	3
KIN-35	Foundation for Fitness and Wellness	3
KIN-36	Wellness: Lifestyle Choices	3
KIN-38	Stress Management	3

**EARLY CHILDHOOD EDUCATION**

**EARLY CHILDHOOD EDUCATION (MNR)**

**AS544/AS544B/AS544C/CE544**

The Early Childhood Education program provides an educational and practical foundation for students interested in working with children from infancy through third grade. In addition to theoretical principles, the curriculum offers practical skills and on-site training that will prepare students for employment in the field of Early Childhood Education. The program leads to certificates in Early Childhood Education and/or an Associate of Science Degree. The EAR courses will also fulfill the required child development coursework for the state issued Child Development Permit. Information regarding this permit and/or the Early Childhood Education Certificates are available from the Early Childhood Education Department.

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Develop, implement, and evaluate developmentally appropriate thematic and emergent curriculum for children who are typical and atypical in the areas of physical, cognitive, language, creative and social/emotional growth.
- Develop and apply appropriate practices and effective techniques that respect the cultural diversity of young children and their families.
- Integrate an educational philosophy into classroom practices that reflects a personal belief supportive of theoretical principles regarding how and why young children should receive early educational experiences.
- Develop and implement a system of ongoing observational practices that contributes toward the creation of learning environments conducive to the emergence of curriculum that adapts to the evolving needs of children.

Required Courses (28 units)		Units
EAR-19	Observation and Assessment in Early Childhood Education	3
EAR-20	Child Growth and Development	3
EAR-24	Introduction to Curriculum	3
EAR-25	Teaching in a Diverse Society	3
EAR-26	Health, Safety and Nutrition	3
EAR-28	Principles and Practices of Teaching Young Children	3
EAR-30	Practicum in Early Childhood Education	4
EAR-42	Child, Family, and Community	3
Electives	(Choose from list below)	6

## Electives (6 units)

EAR-23	Family Home Child Care Program	3
EAR-33	Infant and Toddler Development	3
EAR-34	Infant and Toddler Care and Education	3
EAR-37	School Age Child Care	3
EAR-38	Adult Supervision and Mentoring in ECE	3
EAR-40	Introduction to Children with Special Needs	3
EAR-41	Internship in Early Intervention/Special Education	4
EAR-43	Children with Challenging Behaviors	3
EAR-44	Administration I: Programs in Early Childhood Education	3
EAR-45	Administration II: Personnel and Leadership in Early Childhood Education	3
EAR-46	Curriculum and Strategies for Children with Special Needs	3
EAR-47	Childhood Stress and Trauma	3
EAR-52	Parenting: Parents as Teachers	1
EAR-53	Parenting: Guiding Young Children-Approaches to Discipline	2
EAR-54	Parenting: Contemporary Parenting Issues	1
EAR-55	Parenting: Common Problems in Infancy and Childhood	1
ART-3	Art for Teachers	3
EDU-1	Introduction to Elementary Classroom Teaching	4
ENG-30	Children's Literature	3
KIN-6	Introduction to Physical Education for Preschool and Elementary Children	3
KIN-30	First Aid and CPR	3
MUS-1	Teaching Music to Young Children	3

**Child Development Permit**

Upon completion of the requirements for the certificate program and 16 units of special courses in general education, the student has fulfilled the course requirements for the Child Development Permit, teacher level. See the State guidelines for experience qualifications and additional levels. For child development interactive video information, see

<http://www.rcc.edu/departments/earlychildhoodstudies/Pages/Child-Development-Permit.aspx>

For students interested in transferring to a California State University, please see the requirements for the Associate in Science in Early Childhood Education for Transfer degree in Section IV of this catalog.

**Associate of Science Degree**

The Associate of Science Degree in Early Childhood Education will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

**EARLY CHILDHOOD INTERVENTION ASSISTANT (MNR)****AS601/AS601B/AS601C/CE601**

This certificate is appropriate for students interested in working as an assistant or a paraprofessional in early intervention, early childhood special education, and community child development programs serving children with special needs. In addition to theoretical principles, the curriculum offers practical skills and on-site training that will prepare students for employment in the field of Early Childhood Intervention. The program leads to a certificate in Early Childhood Intervention and/or an Associate of Science Degree. The program will also fulfill the required child development coursework for the state issued Child Development Permit. Information regarding this permit and/or the Early Childhood Intervention Certificate is available from the Early Childhood Education Department.

Upon completion of the requirements for the certificate program and 16 units of special courses in general education, the student has fulfilled the course requirements for the Child Development Permit, Teacher Level. See the state guidelines for experience qualifications and additional levels. For interactive video information about the Child Development Permit, see [www.rcc.edu/departments/earlychildhoodstudies/Pages/Child-Development-Permit.aspx](http://www.rcc.edu/departments/earlychildhoodstudies/Pages/Child-Development-Permit.aspx)

**Certificate Program****Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Demonstrate an understanding of family function and structure, along with familial need for information and support that respects and values diverse cultures, values, beliefs and behaviors.
- Demonstrate basic knowledge of laws and regulations pertaining to and protecting children with disabilities and their families. Understand and identify the process of accessing community agencies, referral systems and procedures for specialized support, specialized documents, resources and placement options.
- Describe the typical child development milestones of children birth to adolescence and identify the strengths and special needs of the child in the context of his/her family, early childhood classroom, or early intervention setting.
- Describe the developmental assessment process and outline its role in identifying, planning and intervening for a child with special needs and his/her family, including the process of curriculum development.
- Demonstrate an understanding of the purpose and intent of an inclusive environment that supports the whole child while meeting the individual needs of children with disabilities.

Required Courses (34units)		Units
EAR-19	Observation and Assessment in Early Childhood Education	3
EAR-20	Child Growth and Development	3
EAR-24	Introduction to Curriculum	3
EAR-28	Principles and Practices of Teaching Young Children	3
EAR-40	Introduction to Children with Special Needs	3
EAR-41	Internship in Early Intervention/Special Education	4
EAR-42	Child, Family, and Community	3
EAR-43	Children with Challenging Behaviors	3
EAR-46	Curriculum and Strategies for Children with Special Needs	3
Electives	(Choose from list below)	6

Electives (6 units)

EAR-26	Health, Safety and Nutrition	3
EAR-33	Infant and Toddler Development	3
EAR-34	Infant and Toddler Care and Education	3
EAR-38	Adult Supervision and Mentoring in ECE	3
EAR-44	Administration I: Programs in Early Childhood Education	3
EAR-47	Childhood Stress and Trauma	3

**Associate of Science Degree**

The Associate of Science Degree in Early Childhood Intervention Assistant will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

*The following certificates may lead to employment competency, but do not lead to an Associate of Science Degree:*

**EARLY CHILDHOOD EDUCATION ASSISTANT TEACHER (MNR)**

**CE795**

This certificate enables the holder to care for and assist in the development and the instruction of children in a child development program while under supervision. Students select two classes out of EAR 20, 24, 28, and 42 to meet the requirements for this certificate.

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Demonstrate an understanding of the theoretical perspectives in human development and education.
- Appraise the role of the child as an active learner.
- Integrate child growth and development into practical and meaningful applications.

Required Courses (6units)		Units
Complete two courses from the list below:		
EAR-20	Child Growth and Development	3
EAR-24	Introduction to Curriculum	3
EAR-28	Principles and Practices of Teaching Young Children	3
EAR-42	Child, Family, and Community	3

**EARLY CHILDHOOD EDUCATION / TWELVE CORE UNITS (MNR)**

**CE797**

This certificate prepares the holder to provide service in the care, development, and instruction of children in a child development program. The twelve core units include EAR 20, 24, 28, and 42 and form the foundation upon which further early childhood coursework is built.

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Demonstrate an understanding of the theoretical perspectives in human development and education.
- Appraise the role of the child as an active learner.
- Integrate child growth and development into practical and meaningful applications.

Required Courses (12 units)		Units
EAR-20	Child Growth and Development	3
EAR-24	Introduction to Curriculum	3
EAR-28	Principles and Practices of Teaching Young Children	3
EAR-42	Child, Family, and Community	3

**INFANT AND TODDLER SPECIALIZATION (MNR)**

**CE681**

The Infant and Toddler Specialization certificate represents a composite of child development knowledge, skills, and responsibilities integral to working with children ages zero to three. Specific courses emphasize a responsive approach to the care and education of infants and toddlers in center-based programs and family child care homes.

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Identify the patterns of development for children ages zero to three in the areas of the physical, cognitive and psychosocial domains.
- Understand and implement health and safety practices in environmental concerns and in individual child cleansing and feeding routines.
- Create and maintain an environment of care and learning specific to young infants and newly mobile children.
- Select equipment and materials conducive to the physical, cognitive and psychosocial needs of infants and toddlers.
- Plan and implement a curriculum based on a blend of routine and play activities.



- Use observation to assess child development, curriculum success, and environmental standards of quality, and then implement program adjustments based on assessment outcomes.

Required Courses (12 units)		Units
EAR-20	Child Development	3
EAR-33	Infant and Toddler Development	3
EAR-34	Infant and Toddler Care and Education	3
EAR-35	Practicum in Infant and Toddler Care	3

**EDUCATION PARAPROFESSIONAL**

This program prepares individuals to assist a teacher in regular classroom settings or in providing instruction and supervision to special student populations, such as bilingual/bicultural students, special education students, adult learners, and students learning English. This includes instruction in techniques of general classroom supervision, maintaining order, assisting with lessons, and carrying out related assignments.

**EDUCATION PARAPROFESSIONAL (MR)  
AS603/AS603B/AS603C/CE603**

**Certificate Program**

Required Courses (25-27 units)		Units
EDU-1	Introduction to Elementary Classroom Teaching	4
COM-1/1H	Public Speaking	3
or		
COM-9/9H	Interpersonal Communication	3
EAR-20	Child Growth and Development	3
ENG-1A/1AH	English Composition	4
or		
ENG-50	Basic English Composition	4
HIS-6/6H	Political and Social History of the United States	3
or		
HIS-7/7H	Political and Social History of the United States	3
Electives	(Choose from the list below)	8-10

**Recommended Electives (8-10units)**

EAR-26	Health, Safety and Nutrition	3
ENG-30	Children's Literature	3
KIN-30	First Aid and CPR	3
SPA-3N	Spanish for Spanish Speakers	5

**Associate of Science Degree**

The Associate of Science Degree in Education Paraprofessional will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

**ASSOCIATE IN ARTS IN ENGLISH FOR  
TRANSFER DEGREE  
CSUGE) AA648 (GETC) AA649**

The Associate in Arts in English for Transfer degree is a curricular pattern designed specifically to transfer students as English majors with junior status to the CSU system. Though the Associate in Arts in English for Transfer also provides broad general preparation for English majors entering any four-year university, students must consult the specific requirements of any non-CSU campus to which they are applying. Students earning the Associate in Arts in English for Transfer will analyze, interpret, and synthesize diverse texts in order to construct well-supported academic arguments and literary analyses, and they will encounter interpretive questions to which there are multiple plausible answers. Students earning this degree will also have exposure to a variety of literary genres and periods and will be able to illustrate a basic understanding of the ways that literature can embody cultural, intellectual, and artistic trends.

**Program Learning Outcomes**

- Think critically about and interpret literature, employing language and methods of literary analysis to construct interpretive arguments and to address the ways that literature invites multiple interpretive possibilities.
- Write essays of literary analysis effectively supported by effectively integrated, interpreted, and relevant textual evidence.
- Demonstrate an understanding of how cultural history informs and is informed by literature.

Required Courses	Units
ENG-1B* or 1BH* Critical Thinking and Writing	4
LIST A Choose from the list below	6
LIST B Choose from the list below	6
LIST C Choose from the list below	3

List A Choose two courses from the following (6 units):

ENG-6* British Literature I: Anglo-Saxon through Eighteenth Century	3
ENG-7* British Literature II: Romanticism through Modernism/Post-Modernism	3
ENG-14* American Literature I: Pre-Contact through Civil War	3
ENG-15* American Literature II: 1860 to the Present	3
ENG-40* World Literature I: From Ancient Literatures to the Seventeenth Century	3
ENG-41* World Literature II: Seventeenth Century Through the Present	3

LIST B Choose two courses from the following (6 units)

Any course from List A not already used	
ENG-8* Introduction to Mythology (same as Hum 8)	3
ENG-11* Creative Writing	3
ENG-16* Introduction to Language	3
ENG-44* Poetry from the Twentieth Century to the Present	3

LIST C Choose one course from the following (3 units)

Any course from List A and List B not already used	
ENG-9* Introduction to Shakespeare	3
ENG-10 Special Studies in Literature	3
ENG-12* Special Studies in Creative Writing	3
ENG-17A* Literary Magazine Production: Beginning	3
ENG-18* Survey of Native American Literature	3
ENG-20* Survey of African American Literature	3
ENG-23* The Bible as Literature (same as HUM 23)	3
ENG-25* Latino Literature of the United States	3
ENG-30* Children's Literature	3
ENG-34* Literature by Women	3
ENG-35* Images of Women in Literature	3
ENG-38 Introduction to Screenwriting	3
ENG-39 Screenwriting II	3
ENG-45* Modern Drama	3

ENG-47	Inlandia: Regional Writing about the Inland Empire	3
ENG-48*	Short Story and Novel from the Twentieth Century to the Present	3

\*courses may be double counted

**FILM, TELEVISION AND VIDEO**

The program prepares individuals to communicate information, entertainment and ideas through film, television and video. This includes practical, hands-on instruction in how to plan and produce a variety of genre in film, television and video; crew responsibilities and production techniques for film, television, video and audio; equipment operation including film and video cameras, editing equipment, switchers, character generators, lighting instruments, and microphones; techniques for making specific types of film, television and video programming; use of digital technology and computer applications to record, edit or enhance images, audio, graphics or effects; and how to manage film and video operations.

**FILM, TELEVISION AND VIDEO PRODUCTION SPECIALIST (R)  
AS641/AS641B/AS641C/CE641**

**Certificate Program Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Plan and produce film, television, video and audio productions from concept to finished product.
- Operate a variety of electronic media production equipment and facilities including but not limited to film and video cameras, character generators, microphones, lighting instruments, teleprompters, editing software, sound recorders and control room test equipment.
- Create film and video productions that have a focused, coherent message with a clear beginning, middle and end and that meet industry technical standards for composition, lighting, sound and editing.
- Demonstrate workplace behaviors necessary for industry success including reliability, persistence, ability to adhere to deadlines and ability to communicate and work cooperatively in a team production environment.

Required Courses (32-33 units)	Units
FTV-41 Introduction to Telecommunications	3
FTV-43 Television Studio and Equipment	3
FTV-44A Beginning Television Production	3.5
FTV-45A Beginning Television News Production	3.5
FTV-48 Short Film Production	3
FTV-51A Film, Television and Video Laboratory I	1
FTV-64A Beginning Digital Editing Principles and Techniques	3

Choose 3-4 units from the following:

FTV-38A Beginning Film, Television and Video Production Project

FTV-200 Film, Television and Video Work Experience 1-2-3-4

In addition, choose and complete courses from one emphasis below:

**FILM AND TELEVISION PRODUCTION EMPHASIS**

Core Requirements 23-24  
Select another 9 units from the following:

FTV-12	History of Film	3
FTV-38B	Advanced Film, Television and Video Production Project	3
FTV-42	Writing for Broadcast Television	3
FTV-44B	Intermediate Television Production	3.5
FTV-44C	Advanced-Intermediate Television Production	3.5
FTV-44D	Advanced Television Production	3.5
FTV-45B	Intermediate Television News Production	3.5
FTV-45C	Advanced Intermediate Television News Production	3.5
FTV-45D	Advanced Television News Production	3.5
FTV-51B	Film, Television and Video Laboratory II	1
FTV-51C	Film, Television and Video Laboratory III	1
FTV-51D	Film, Television and Video Laboratory IV	1
FTV-52	Film, Television and Video Laboratory	2
FTV-53	Film, Television and Video Laboratory	3
FTV-65	The Director's Art in Filmmaking	3
FTV-68	Story Development Process in the Entertainment Industry	3
FTV-72	Introduction to Lighting Design for Film and Television	3
FTV-73	Introduction to Pro Tools Digital Audio Recording	3
FTV-74	Production Planning and Management	3
ADM-69	Motion Graphics and Special Effects with After Effects	3
ADM-71A	Adobe Photoshop for Image Manipulation	3
ENG-38	Introduction to Screenwriting	3
PHO-8	Introduction to Photography	3

**SOUND ENGINEERING EMPHASIS**

Core Requirements 23-24  
Select another 9 units from the following:

FTV-52	Film, Television and Video Laboratory	2
FTV-53	Film, Television and Video Laboratory	3
FTV-71A	Beginning Sound Engineering for Audio in Media	3
FTV-73	Introduction to Pro Tools Digital Audio Recording	3
FTV-75	Intermediate Digital Audio Recording Pro Tools 110	3
FTV-76	Advanced Digital Audio Recording Pro Tools 201	3
MUS-8A	Music Technology I	3

**Associate of Science Degree**

The Associate of Science Degree in Film, Television and Video, Production Specialist will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

The following certificate may lead to employment competency, but does not lead to an Associate of Science Degree:

**BASIC TELEVISION PRODUCTION (R) CE842**  
**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Plan and produce film, television, video and audio productions from concept to finished product.
- Operate a variety of electronic media production equipment and facilities including but not limited to film and video cameras, character generators, microphones, lighting instruments, teleprompters, editing software, sound recorders and control room test equipment.
- Create film and video productions
- that have a focused, coherent message with a clear beginning, middle and end and that meet industry technical standards for composition, lighting, sound and editing.
- Demonstrate workplace behaviors necessary for industry success including reliability, persistence, ability to adhere to deadlines and ability to communicate and work cooperatively in a team production environment.

Required Courses (17 units)		Units
FTV-38A	Beginning Film, Television and Video Production Project	3
FTV-43	Television Studio and Equipment	3
FTV-44A	Beginning Television Production	3.5
FTV-45A	Beginning Television News Production	3.5
FTV-51A	Film, Television and Video Laboratory I	1
FTV-64A	Beginning Digital Editing Principles and Techniques	3

**GENERAL BUSINESS**

See [BUSINESS ADMINISTRATION](#)

**GRAPHICS TECHNOLOGY**

See [APPLIED DIGITAL MEDIA AND PRINTING](#)

**THE FOLLOWING PROGRAM IS IN THE PROCESS OF BEING DISCONTINUED.**

**HUMAN SERVICES**

The Human Services Program prepares students for various paraprofessional positions in human services, such as mental health case manager, job coach/employment specialist, social service intake specialist, or community health worker. Graduates of the program will be prepared to work as entry-level employees in a variety of settings such as group homes, halfway houses, mental health and correctional facilities, family, child and service agencies under the direct supervision of social workers and other human services professionals in public and non-profit social service agencies.

**HUMAN SERVICES (MR) AS663/AS663B/AS663C/CE663**  
**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Demonstrate knowledge and skills needed to prepare for an entry-level paraprofessional position in human services.
- Develop a thoughtful, genuine, and empathetic attitude toward human beings.
- Increase the capacity for self-awareness and personal growth.
- Assist consumers and family members in matching needs with available community resources.
- Expand knowledge, skills, and attitudes necessary to help people better understand and help themselves.

Required Courses (20 units)		Units
HMS-4		
	Introduction to Human Services	3
HMS-5	Introduction to Evaluation and Counseling	3
HMS-6	Introduction to Case Management	3
HMS-8	Introduction to Group Process	3
HMS-16	Public Assistance and Benefits	1
HMS-200	Human Services Work Experience	1-2-3-4
Electives	(Choose from list below)	6

Electives (6 units)

The following certificate may lead to employment competency, but does not lead to an Associate of Science Degree:

**EMPLOYMENT SUPPORT SPECIALIZATION (MR) CE802**

This program prepares students to apply technical knowledge and skills to provide employment support for individuals with disabilities and their family members.

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of the program, students will be able to:

- Demonstrate ability to help individuals become employable and self-sufficient.
- Provide follow-up services to help individuals maintain employment.
- Demonstrate ability to assist individuals with knowledge about benefits, eligibility requirements and available services and resources.

Required Courses (4 units)		Units
HMS-13	Employment Support Strategies	3
HMS-16	Public Assistance and Benefits	1
HMS-7	Introduction to Psychosocial Rehabilitation	3
HMS-13	Employment Support Strategies	3
HMS-14	Job Development	3
HMS-18	Introduction to Social Work	3
HMS-19	Generalist Practices of Social Work	3

**Associate of Science Degree**

The Associate of Science Degree in Human Services will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

**Information Security Certificate and Cyber Defense (R) CE740**

The Information Systems: Information Security Certificate will give the students the basic skills needed in the field of Computer and information Security. The focus on Cyber Security will provide students with the basic skills needed for an entry-level career in Cyber Security. The courses provide an overview of the entire field. Topics covered will include Cisco Networking, Windows Operating System security, Linux security, Firewalls, Intrusion Prevention systems, Security policies and procedures, Web security, and building a secure computer network. This program also maps to the California Community Colleges IT Technician pathway and C-ID state approved model curriculum.

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Analyze fundamental principles and topics of Information Technology Security and Risk Management at the organizational level.
- Introduce the concepts, principles, and techniques, supplemented by hands-on exercises, for attacking and disabling a network with the context of properly securing a network.
- Describe the architecture, components, and operations of routers and switches basic functionality.

- Configure and troubleshoot routers and switches, resolve common issues dealing with security points of failure in a medium size LAN.
- Validate essential knowledge of Linux and open source for employment in IT/technical support mobile application support and network operations security.
- Identify environmental issues, understand and comply with disaster recovery, and physical software security policies and procedures.
- Securing Information Management systems including identifying risks, configuring devices, protocols, attack methods, cryptography implementation and practice, and security of ICS networks.

Required Courses (17 Uni		Units
CIS-21A / CSC-21A	Linux Operating Systems Administration	3
CIS-25 / CSC-25	Information and Communication Technology Essentials	3
CIS-26A	Cisco Networking Academy 1A	4
CIS-26B	Cisco Networking Academy 1B	
CIS-27 / CSC-27	Information and Network Security	3
Select another 3 units from the following:		
CIS-1A	Introduction to Computer Information	3
CIS-5 / CSC-5	Programming Concepts and Methodology	4
CIS-21 / CSC-21	Introduction to Operating Systems	3
CIS-26F	Cisco Networking Security	4
CIS-27A / CSC-27A	Computer Forensics Fundamentals	3

**KINESIOLOGY**

This program prepares individuals to apply business, coaching, and physical education principles to the organization, administration, and management of athletic programs and teams, fitness/rehabilitation facilities and health clubs, sport recreation services, and athletic training programs. This includes instruction in program planning and development; business and financial management principles; sales, marketing and recruitment; event promotion, scheduling and management; facilities management; public relations; legal aspects of sports; and applicable health and safety standards.

**EXERCISE, SPORT, AND WELLNESS**

**Certificate Program**

Major Core Requirements:

Required Courses (21 units)		Units
KIN-4	Nutrition	3
KIN-10	Introduction to Kinesiology	3
KIN-12	Sport Psychology	3
KIN-14	Athletic and Fitness Organization and Admin	3
KIN-16	Introduction to Athletic Training	3
KIN-30	First Aid and CPR	3
KIN-35	Foundations for Fitness and Wellness	3
In addition, choose and complete courses from one emphasis below:		3-10

**FITNESS PROFESSIONS EMPHASIS (R)**

**AS595/AS595B/AS595C/CE595**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Demonstrate an acceptable level of health-related fitness.
- Demonstrate appropriate knowledge of fitness testing and of issues specific to different populations.
- Identify physiological principles of human movement in exercise and sport settings.
- Identify, explain, and apply appropriate principles of physical activity and nutrition for physical well-being and lifelong learning.

(Total of 24-25 units) Units

Core Requirements		21
Take <u>one</u> of the following:		
KIN-42	Lifeguarding/Title 22 First Aid/ Water Safety Instructor	4
KIN-43	Personal Training	3
KIN-44	Yoga Instructor Training	3
KIN-45	Group Fitness Instructor	3

**Associate of Science Degree**

The Associate of Science Degree in Exercise, Sport and Wellness: Fitness Professions will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

**ATHLETIC TRAINING EMPHASIS (R)**

**AS597/AS597B/AS597C/CE597**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Construct an injury prevention program for an athletic team based on knowledge of strength/conditioning, nutrition, health and safety, and protective equipment.
- Utilize appropriate knowledge and strategies to create an emergency action plan for an athletic team or teams.
- Apply the technical skills of taping and wrapping techniques.
- Demonstrate an appropriate and organized approach to event management.
- Identify and evaluate appropriate strategies for rehabilitation of athletic injuries.
- Demonstrate appropriate communication and behavioral skills and social attitudes necessary in an athletic training environment.

(Total of 29 units)

Core Requirements		21
Take <u>two</u> from the following:		
KIN-21A	Athletic Training Applications A	2
KIN-21B	Athletic Training Applications B	2
KIN-21C	Athletic Training Applications C	2
KIN-21D	Athletic Training Applications D	2
and		
Take <u>two</u> from the following:		
KIN-17	Athletic Training, Fall Sports, Lower Extremity	2

KIN-18	Athletic Training, Spring Sports, Upper Extremity	2
KIN-19	Athletic Training, Fall Sports, Head, Neck, Spine, Torso, and Hip	2
KIN-20	Athletic Training, Spring Sports, General Medical	2

**Associate of Science Degree**

The Associate of Science Degree in Exercise, Sport and Wellness: Athletic Training will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

**COACHING EMPHASIS (R) AS599/AS599B/AS599C/CE599**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Identify and apply appropriate principles of coaching and an advanced level of knowledge and skill in at least one sport or physical activity.
- Demonstrate appropriate decisions relative to legal liability in coaching situations and circumstances.
- Apply appropriate strategies, tactics, and conditioning activities for the age and skill level of their athletes.
- Demonstrate an understanding of administrative practices in sports management.
- Identify, explain, and apply appropriate principles of problem solving for one or more problem, challenge, or difficulty associated with a sport.
- Recognize the principles of health care and safety for student athletes in relation to athletic training and sports medicine issues.

(Total of 30-31 units)

Core Requirements		21
Elective from Group 1 Electives		3
Elective from Group 2 Electives		3-4
Elective from Group 3 Electives		1
Elective from Group 4 Electives		1
Elective from Group 5 Electives		1

**Group 1 Electives (3 units)**

KIN-24	Sports Officiating, Fall Sports	3
KIN-25	Sports Officiating, Spring Sports	3

**Group 2 Electives (3-4 units)**

KIN-26	Foundations of Coaching	3
KIN-27	Football Theory	3
KIN-28	Basketball Theory	3
KIN-29	Soccer Theory	3
KIN-33	Baseball Theory	3
KIN-34	Softball Theory	3
KIN-42	Lifeguarding/Title 22 First Aid/Water Safety Instructor	4

**Group 3 Electives - Individual Activity Courses (1 unit)**

KIN-A11	Tennis, Beginning	1
KIN-A12	Tennis, Intermediate	1
KIN-A13	Tennis Advanced	1

KIN-A20	Golf, Beginning	1
KIN-A21	Golf, Intermediate	1
KIN-A28	Swimming, Basic Skills and Aquatic Exercise	1
KIN-A29	Swimming, Intermediate Skills	1
KIN-A30	Swimming, Advanced Skills and Conditioning	1
KIN-V33	Track and Field: Running Event Techniques	1
KIN-V34	Track and Field: Field Event Techniques	1

Group 4 Electives - Team Activity Courses (1 unit)

KIN-A54	Fast Pitch Softball Fundamentals	1
KIN-A57	Basketball	1
KIN-A62	Flag Football	1
KIN-A67	Soccer	1
KIN-A68	Volleyball, Beginning	1
KIN-69	Volleyball, Intermediate	1
KIN-V50	Baseball Fundamentals, Defensive	1
KIN-V51	Baseball Fundamentals, Offensive	1
KIN-V52	Fast Pitch Fundamentals, Offensive	1
KIN-V53	Fast Pitch Fundamentals, Defensive	1
KIN-V60	Football Fundamentals, Defense	1
KIN-V61	Football Fundamentals, Offensive	1

Group 5 Electives - Fitness Activity Courses (1 unit)

KIN-A31A	Water Aerobics and Deep Water Exercise	1
KIN-A74	Hiking and Backpacking	1
KIN-A75A	Walking for Fitness: Beginning	1
KIN-A75B	Walking for Fitness: Intermediate	1
KIN-A77A	Jogging for Fitness, Beginning	1
KIN-A77B	Jogging for Fitness, Intermediate	1
KIN-A77C	Jogging for Fitness, Advanced	1
KIN-A80	Triathlon Techniques	1
KIN-A81A	Physical Fitness, Beginning	1
KIN-A81B	Physical Fitness, Intermediate	1

**Associate of Science Degree**

The Associate of Science Degree in Exercise, Sport and Wellness: Coaching will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

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**MANAGEMENT**

See [BUSINESS ADMINISTRATION](#)

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**MARKETING**

See [BUSINESS ADMINISTRATION](#)

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**MUSIC**  
**Music (R)**

**AA680/AA680B/A680C**

A systematic course of study that fosters meaningful cultural experiences in the performance, understanding, and appreciation of the art and discipline of music.

**Associate of Arts Degree**

**Program Learning**

**Outcomes**

Upon completion of this program, students will be able to perform the following:

- Demonstrate the ability to hear, identify and work conceptually with all elements of music through dictation, sight-reading, musical analysis and basic keyboard proficiency.
- Perform standard repertoire appropriate to their performance area as individuals or members of ensembles.
- Create derivative or original music in both extemporaneous and written form.

Required Courses (32-36) Units

**Applied Music\* (12 units selected from the following):**

MUS-39	Applied Music I	3
MUS-79	Applied Music II	3
MUS-P12	Applied Piano I	3
MUS-12	Applied Piano II	3

**Music Theory (16 units):**

MUS-3**	Music Fundamentals	4
MUS-4	Music Theory I	4
MUS-5	Music Theory II	4
MUS-6	Music Theory III	4

**Performing Ensembles\* (4 semesters selected from the following):**

MUS-28	Riverside Community Symphony	2
MUS-33	Vocal Jazz Ensemble	2
MUS-41	Chamber Singers	2
MUS-42	Wind Ensemble	2
MUS-44	Jazz Ensemble	2
MUS-68	Community Symphony	2
MUS-73	Vocal Jazz Singers	2
MUS-77	Guitar Ensemble	2
MUS-81	Consort Singers	2
MUS-82	Wind Symphony	2
MUS-84	Jazz Orchestra	2
MUS-P28	Symphony Strings	2
MUS-P36	Piano Ensemble	1
MUS-P77	Advanced Guitar Ensemble	2

Additional Courses Recommended for Transfer Units

**Keyboard Skills:**

MUS-32A	Class Piano I	1
MUS-32B	Class Piano II	1
MUS-32C	Class Piano III	1
MUS-32D	Class Piano IV	1
MUS-53	Keyboard Proficiency	1

**Music History:**

MUS-22\*\* Survey of Music Literature 3

\*Applied Music and Performing Ensemble courses may each be taken four times for credit.

\*\*Courses may also be used to fulfill general education requirements for the CSUGE or IGETC pattern, please confer with a counselor.

**Associate in Arts Degree**

The Associate of Science Degree in Music will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

*The following certificates may lead to employment competency, but do not lead to an Associate of Science Degree:*

**JAZZ PERFORMANCE(R)****CE852**

Prepares individuals for a career in music as jazz performers. Fulfills a portion of the Associate of Arts degree in Music

**Certificate Program****Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Analyze, practice and interpret jazz and popular music chord symbols.
- Demonstrate the ability to analyze, learn, and perform standard jazz literature.
- Prepare a program, program notes or other materials related to the coordinator. recital repertoire in cooperation with the instructor or recital

**Required Courses (17 units) Units**

MUS-25 Jazz Appreciation	3
MUS-36 Instrumental Chamber Ensembles (1 semester)	1.5
MUS-39 Applied Music I (2 semester)	6
MUS-52 Recital Performance	.5
MUS-74 Jazz Proficiency	1

Jazz Improvisation and Theory (Choose from the list below)	1
Performing Ensemble (Choose from list below)	4

**Jazz Improvisation and Theory**

MUS-43A Jazz Improvisation and Theory I	1
MUS-43B Jazz Improvisation and Theory II	1
MUS-43C Jazz Improvisation and Theory III	1

**Performing Ensembles**

MUS-33	4
Or	
MUS-44	4

**MUSIC TECHNOLOGY(R)****CE850**

Prepares individuals for careers in music recording, music composition and music production using state-of-the-art music technology. Fulfills a portion of the Associate of Arts degree in Music.

**Certificate Program****Program Learning Outcomes**

Upon successful completion of this program, students will be able to:

- Assemble, mix and master complete MIDI/Digital Audio compositions and filmscores.
- Utilize MIDI/Digital audio software and hardware including computers, controllers, synthesizers, sequencers, samplers, effects processors, microphones and mixers.
- Communicate effectively and work cooperatively with film directors and music producers.

**Required Courses (17 units) Units**

MUS-3	Fundamentals of Music	4
MUS-8A	Music Technology I	3
MUS-8B	Music Technology II	3
MUS-9	MIDI/Digital Audio Composition and Film Scoring	3
MUS-10	MIDI/Digital Audio Music Production	3

**Keyboard Skills Select 1 unit from the following**

MUS-32A	Class Piano I	1
MUS-32B	Class Piano II	1
MUS-32C	Class Piano III	1
MUS-32D	Class Piano IV	1

**MUSIC PERFORMANCE(R)****CE851**

Prepares individuals for a career in music as performers. Fulfills a portion of the Associate of Arts degree in Music.

**Certificate Program****Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Prepare and coordinate a recital with piano accompaniment, and/or chamber ensemble. This will include, but is not limited to, literature selection and preparation, collaboration with other musicians and written program development.
- Demonstrate practice and preparation skills required for music transfer students and or the professional musician. Skills will include, but are not limited to, successfully performing scales, arpeggios, exercises and etudes.
- Communicate effectively and work cooperatively within an ensemble setting.

**Required Courses (17.5 units) Units**

MUS-39	Applied Music I (3 semesters)	9
MUS-52	Recital Performance (25 minute solo program)	.5
	Performing Ensemble (Choose from list below)	8

**Performing Ensembles (8 units—4 semesters)**

MUS-28	Riverside Community Symphony	2
MUS-33	Vocal Jazz Ensemble	2
MUS-41	Chamber Singers	2
MUS-42	Wind Ensemble	2
MUS-44	Jazz Ensemble	2
MUS-48	Marching Band	3
MUS-77	Guitar Ensemble	2

**PIANO PERFORMANCE (R) CE853**

Prepares individuals for a career in music as piano performers. Fulfills a portion of the Associate of Arts degree in Music.

**Certificate Program  
Program Learning Outcomes**

Upon successful completion of this program, students will be able to:

- Prepare and perform in a solo piano recital and/or chamber ensemble performance. This will include, but is not limited to, literature selection and preparation, collaboration with other musicians and written program development.
- Demonstrate practice and preparation skills required for music transfer students and/or the professional musician. Skills will include, but are not limited to, successfully performing scales, arpeggios, exercises and etudes.
- Communicate effectively and work cooperatively within an ensemble setting.

Required Courses (16.5-17.5 units)	Units
MUS-P12 Applied Piano I (4 semesters)	12
MUS-52 Recital Performance (25 minute solo program)	.5
Performing Ensembles (Choose from list below)	4-5

**Performing Ensembles**

MUS-P36	Piano Chamber Ensemble	1
MUS-36	Instrumental Chamber Ensemble	1.5

**NURSING**

**REGISTERED NURSING PROGRAM (R) AS586/AS586B/AS586C**

The School of Nursing is a vital component of Riverside City College (RCC) and embraces the mission, values, and traditions of both the RCC District and the College. The School of Nursing prepares quality nursing healthcare providers using a student-centered approach through teaching excellence in an environment conducive to learning. The Associate Degree Nursing (ADN) program prepares individuals for professional generalist nursing roles and for collaboration with other professionals and consumers in the delivery of holistic healthcare.

**Associate of Science Degree in Registered Nursing**

**Program Learning Outcomes**

- Provide quality, safe, patient-centered nursing care using evidence-based practices.
- Function as a professional and competent nurse generalist while assimilating all ethical and legal principles.
- Provide leadership in a variety of healthcare settings for diverse patient populations.
- Integrate caring relationships into nursing interventions that positively influence health outcomes and demonstrate sensitivity to the values of others.
- Participate in collaborative relationships through communication with members of the interprofessional healthcare team for the purpose of providing and improving patient care.
- Incorporate critical thinking principles using reasoning and adaptability to make sound clinical judgments necessary for the provision of quality patient care and continuous quality improvement.
- Employ technology to effectively communicate, manage knowledge, prevent errors, and support decision-making.

The Associate of Science Degree in Registered Nursing will be awarded upon successful completion of the following courses:

Required Courses (74 units)	Units
AMY-2A Anatomy and Physiology I	4
AMY-2B Anatomy and Physiology II	4
(If the Anatomy and Physiology is a combined course, it must be completed at one institution. The total number of units must be equivalent to 8 semester units. Students with a baccalaureate degree are waived from the unit stipulation.)	
MIC-1 Microbiology	4
PSY-9 Developmental Psychology	3
SOC-1/1H Introduction to Sociology	3
or	
ANT-2 Cultural Anthropology	3
ENG-1A/1AH English Composition	4
American Institutions	3
Analytical Thinking	3
COM-1/1H Public Speaking	3
Or	
COM-9/9H Interpersonal Communication	3
Elective Humanities	3



NRN-11	Foundations of Nursing Practice Across the Lifespan	9.5
NRN-11A	Nursing Learning Laboratory	.5
NRN-12	Chronic Illness/Acute Maternal-Child Specialty	8
NRN-12A	Nursing Learning Laboratory	.5
NRN-13	Acute and Chronic Illness I	2.5
NRN-21	Acute and Chronic Care II/Mental Illness	9
NRN-21A	Nursing Learning Laboratory	.5
NRN-22	Integrated Care Across the Lifespan	9
NRN-22A	Nursing Learning Laboratory	.5

The following courses are prerequisites for two of the above required courses (8 units):

BIO-1	General Biology	4
(BIO-1 is the prerequisite for AMY-2A, but NOT a prerequisite for the RCC ADN program. If an A & P series has been completed previously at RCCD or at another college then BIO-1 is not required to enter the program.)		
CHE-2A	Introductory Chemistry, I	4
Or		
CHE-3	Fundamentals of Chemistry	4
(Chemistry is a required prerequisite for the Microbiology 1 (MIC-1) course offered at RCC. To meet the RCC ADN Program's requirement for eligibility, Chemistry may be satisfied by any of the following methods: completion of CHE-2A or CHE-3; a grade of "3" or higher on the Chemistry AP test; completion of 1 year of high school Chemistry with a "C" or better the last semester and pass the RCC Chemistry Diagnostic test.)		

Completion of the following course is required prior to enrollment for all advanced placement (AP/LVN-to RN)/transfer students:  
(2.5 units)

NRN-18	Transition Course for Advanced Placement (AP) Students	2.5
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#### **VOCATIONAL NURSING (R) AS588/AS588B/AS588C/CE588**

This program prepares individuals to assist in providing general nursing care under the direction of a registered nurse, physician or dentist. This includes instruction in taking patient vital signs, applying sterile dressings, patient health education, and assistance with examinations and treatment.

#### **Certificate Program**

##### **Program Learning Outcomes**

- Provide quality, safe, patient-centered nursing care using evidence-based practices.
- Function as a professional and competent entry level health care provider while assimilating all ethical and legal principles.
- Provide leadership in a variety of healthcare settings for diverse patient populations.
- Integrate caring relationships into nursing interventions that positively influence health outcomes and demonstrate sensitivity to the values of others.
- Participate in collaborative relationships through communication with members of the interprofessional healthcare team for the purpose of providing and improving patient care.

- Incorporate critical thinking principles using reasoning and adaptability to make sound clinical judgments necessary for the provision of quality patient care and continuous quality improvement.
- Employ technology to effectively communicate, manage knowledge, prevent errors, and support decision-making.

Required Courses (51 units)		Units
AMY-10	Survey of Human Anatomy and Physiology	3
NVN-52	Introductory Concepts of Vocational Nursing-Nursing Fundamentals	9.5
NVN-55	An Introductory Course to Contemporary Vocational Nursing Practice	5
NVN-60	Intermediate Vocational Nursing Foundations-Nursing Process/Communication	1
NVN-61	Intermediate Concepts of Vocational Nursing-Care of the Family	6
NVN-62	Intermediate Concepts of Vocational Nursing-Medical/Surgical	12
NVN-63	Intermediate Concepts of Vocational Nursing-Mental Health	3
NVN-70	Advanced Vocational Nursing Foundations-Role Transition	1
NVN-71	Advanced Concepts of Vocational Nursing-Medical/Surgical	7.5
PSY-9	Developmental Psychology	3

#### **Associate of Science Degree**

The Associate of Science Degree in Vocational Nursing will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

*The following certificates may lead to employment competency, but do not lead to an Associate of Science Degree:*

#### **CRITICAL CARE NURSE (R) CE581 Certificate Program**

##### **Program Learning Outcomes**

Upon successful completion of the program, students should be able to:

- Identify environmental factors influencing the role of the critical care nurse.
- Develop constructive personal coping behaviors to be utilized when functioning as a critical area nurse.
- Identify ethical dilemmas and legal issues related to critical care nursing.
- Demonstrate the management of technical equipment commonly used.
- Identify methods for data collection utilized in patient assessment.
- Analyze pathophysiological behaviors of the major body systems.
- Incorporate assessment findings and patient responses into the delivery of patient care.
- Recognize signs and symptoms related to patient diagnosis frequently treated in critical care.
- Prioritize and organize care of the critically ill patient.
- Apply treatment protocols based on critical care policies,

procedures, and professional standards.

- Implement interventions to meet the psychosocial needs of the critical care patient/family.
- Develop a collaborative and collegial working relationship with other healthcare team members.

Prerequisite: Completion of the RN program is required prior to enrolling in this course.

Required Courses (5 units)		Units
NXN-81	Critical Care Nursing	5

**NURSING ASSISTANT (R) CE584**

This program prepares individuals to perform routine nursing related services to patients in hospitals or long-term care facilities, under the training and supervision of a registered nurse or licensed practical nurse.

The certificate program noted below is incorporated into the VN programs. For a stand-alone CNA course, please see HET-80 under Healthcare Technician or call 951-571-6135 for more information.

**Certificate Program  
Program Learning Outcomes**

- Classify the basic human needs according to Maslow's hierarchy and apply the knowledge of these needs to the care of Level I patients (Middle, Older, and Very Old Adults).
- Describe the following eleven developmental psychosocial stages in the life cycle, according to Erikson/Newman and Newman.
- Assess the position of the patient from maximum health to death, according to the health-illness continuum.
- Demonstrate beginning critical thinking in using the nursing process with Level I patients' chronic health problems in various settings.
- Identify the three roles of the Associate Degree Nurse inherent within the outcome objectives of the nursing program.
- Demonstrate math/medication competency in calculations and drug dosages.
- Identify the competencies needed for a new graduate nurse in the current healthcare delivery system.
- Refer to the School of Nursing Associate Degree Nursing Program Level Objectives.

Required Courses (9.5-10units)		Units
NRN-11	Foundations of Nursing Practice Across the Lifespan	9.5
and		
NRN-11A	Nursing Learning Laboratory	.5
or		
NVN-52	Introductory Concepts of Vocational Nursing-Nursing Fundamentals	9.5

**PARALEGAL STUDIES**

This program prepares individuals to perform research, drafting, investigatory activities, record-keeping and related Paralegal administrative functions under the supervision of an attorney in a law firm, public or private entity, and/or within a courtroom setting. This includes instruction in legal research, drafting legal documents, appraising, pleading, courthouse procedures, and legal specializations.

**PARALEGAL STUDIES (R) AS591/AS591B/AS591C**

**Associate of Science Degree**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Produce written legal documents involved in litigation.
- Utilize electronic resources to research law and apply it to a given set of facts.
- Utilize appropriate judicial council pleading forms to produce documents required for pursuing and defending a lawsuit.
- Demonstrate a working knowledge of discovery tools and their functions as they relate to trial.
- Demonstrate ethical behavior of paralegals relevant to the attorney/client relationship.

Required Courses (37.5 units)		Units
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Level I Courses:

BUS-18A	Business Law I	3
PAL-10	Introduction to Paralegal Studies	3
PAL-64	Legal Research and Computer Applications	3
PAL-68	Civil Litigation and Procedures I	3
CAT/CIS-80	Word Processing: Microsoft Word for Windows	3
or		
CAT/CIS-84	Word Processing: WordPerfect for Windows	3

Level II Courses:

BUS-18B	Business Law II	3
PAL-14	Legal Ethics	3
PAL-70	Law Office Policies, Procedures and Ethics	1.5
PAL-72	Legal Analysis and Writing	3
PAL-78	Civil Litigation and Procedures II	3

Specialty Courses (Select 9 units from the following)

ACC-1A	Principles of Accounting I	3
PAL-80	Internship Project	1.5
PAL-81	Bankruptcy Law and Procedures	3
PAL-83	Estate Planning and Probate Procedures	3
PAL-85	Family Law and Procedures	3
PAL-87	Trial Practice Preparation and Procedures	3
RLE-82	Legal Aspects of Real Estate	3

**Associate of Science Degree**

The Associate of Science Degree in Paralegal Studies will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

**PHOTOGRAPHY**

This program focuses on the principles and techniques of communicating information, ideas and emotion through digital and film photography. The goal is to prepare individuals for careers in photographic and photography-related fields. This includes instruction in: camera operation and maintenance, use and maintenance of all photographically-related equipment, selection of camera equipment, digital and film media, printing media, film developing, light and composition, color and special effects, photography as art, the history of photography, and the use of computer applications to refine and organize photographic images.

**PHOTOGRAPHY (R) AS592/AS592B/AS592C/CE592**

This program focuses on the principles and techniques of communicating information, ideas and emotion through digital and film photography. The goal is to prepare individuals for careers in photographic and photography-related fields. This includes instruction in: camera operation and maintenance, use and maintenance of all photographically-related equipment, selection of camera equipment, digital and film media, printing media, film developing, light and composition, color and special effects, photography as art, the history of photography, and the use of computer applications to refine and organize photographic images.

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Demonstrate competency in manipulating aperture, shutter and focal length to create a proper exposure as well as control action and depth of field for use in specialized situations.
- Identify, describe and demonstrate formal concepts of photographic composition.
- Define and demonstrate elements of lighting for still life and portraiture.
- Modify images through the use of digital manipulation of pixels using channels, color adjustments and layer blend modes.
- Produce a portfolio of work demonstrating technical competencies and aesthetic merit.

<u>Required Courses (18 units)</u>		<u>Units</u>
PHO-8	Introduction to Photography	3
or		
PHO-20	Introduction to Digital Photography	3
and		
PHO-9	Intermediate Photography	3
PHO-10	Advanced Photography	3
PHO-12	Photojournalism	3
PHO-14	Lighting for Portraiture	3
PHO-17	Introduction to Color Photography	3

**Associate of Science Degree**

The Associate of Science Degree in Photography will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

**REAL ESTATE**

See [BUSINESS ADMINISTRATION](#)

**RETAIL MANAGEMENT/WAFC**

This program prepares individuals to perform operations associated with retail sales in a variety of settings. This includes instruction in over-the counter and other direct sales operations in business settings, basic bookkeeping principles, customer service, team/staff leadership and supervision, floor management, and applicable technical skills.

**RETAIL MANAGEMENT/WAFC (NR)  
(WESTERN ASSOCIATION OF FOOD CHAINS)**

**AS536/AS536B/AS536C/CE536**

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Use Generally Accepted Accounting Principles or International Accounting Standards guidelines to review and interpret financial documents.
- Calculate pricing models for mark-ups, profit margins for perishable and lost goods, discounts, and sinking funds.
- Prepare and deliver effective oral and written communications through multiple modes in multiple situations.
- Create and use basic word processing documents, spread sheets and visual (power point) presentations.
- Create and present a research paper on selected topics.
- Effectively apply basic management principles to actual and role-played work situations.
- Analyze and assess the legal and productivity implications of work conflicts.
- Effectively communicate in small groups.
- Analyze the effectiveness of marketing decisions and use marketing principles to assess market potential.

<u>Required Courses (30 units)</u>		<u>Units</u>
ACC-1A	Principles of Accounting I	3
or		
ACC/CAT-55	Applied Accounting/Bookkeeping	3
BUS-20	Business Mathematics	3
BUS-22	Management Communications	3
or BUS-24	Business Communication	3
CIS-1A	Introduction to Computer Information Systems	3
or		
CIS/CAT/BUS-3	Computer Applications for Business	3
COM-1/1H	Public Speaking	3
or		
COM-9/9H	Interpersonal Communication	3

or		
MAG-57	Oral Communications	3
MAG-56	Human Resources Management	3
MAG-44	Principles of Management	3
or		
MAG-51	Elements of Supervision	3
MAG-53	Human Relations	3
MKT-20	Principles of Marketing	3
MKT-42	Retail Management	3

**Associate of Science Degree**

The Associate of Science Degree in Retail Management/WAFC will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

**SIGN LANGUAGE INTERPRETING**

This program prepares individuals to function as simultaneous and consecutive interpreters as well as transliterators of American Sign Language (ASL) and other signing systems employed to assist deaf and hard-of-hearing people, both voice-to-sign and sign-to-voice interpretation. This includes instruction in American Sign Language (ASL), alternative sign systems, fingerspelling, vocabulary and expressive nuances, oral and text translation skills, cross-cultural communications, slang and colloquialisms, and technical interpretation.

**SIGN LANGUAGE INTERPRETING (R) AS505/AS505B/AS505C/CE505**

**Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Produce documented completion of a total of 54 observation hours, 27 mentorship hours, and 92 practicum hours.
- Provide a completed portfolio, including, but not limited to, a resume, an introductory letter, business cards, intake form, invoice form, and Interpreter Kit.
- Demonstrate entry-level interpreting skills before an exiting panel at the end of the 4<sup>th</sup> interpreting skills class.

Required Courses (28.5 units)		Units
AML-5	Sign Language for Interpreters	4
AML-10	Introduction to Sign Language Interpreting	3
AML-11	Interpreting I	4.5
AML-12	Interpreting II	4.5
AML-13	Interpreting III	4.5
AML-14	Interpreting IV/Practicum	2
AML-20	Ethics and Professional Standards of Interpreting	3
AML/SOC-22	American Deaf Culture	3

**Associate of Science Degree**

The Associate of Science Degree in Sign Language Interpreting will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

**TELECOMMUNICATIONS**

See [FILM, TELEVISION, AND VIDEO PRODUCTION](#)

**WELDING TECHNOLOGY**

This program prepares individuals to apply technical knowledge and skills for joining and cutting metallic materials. This includes instruction in SMAW, FCAW, GMAW, GTAW welding processes; oxyacetylene and plasma cutting of ferrous and non-ferrous materials. Includes, welding metallurgy, structural welding safety, and applicable codes and standards. These skills prepare students for the following careers: iron worker trade, steel worker trade, construction trades, pile driver trades, and glazing trades.

**WELDING TECHNOLOGY (R) AS606/AS606B/AS606C/CE606 Certificate Program**

**Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Display the ability to work safely within the welding industry.
- Obtain skills necessary to obtain an entry-level job within the welding/construction industry.
- Demonstrate knowledge of SMAW, FCAW, GMAW, and GTAW welding processes.
- Obtain skills necessary to properly set up equipment used in the various welding processes.
- Obtain skills needed to pass AWS skills test to become a certified welder.

Required Courses (27 units)		Units
WEL-15	Intro. to Basic Shielded Metal Arc Welding	3
WEL-16	Advanced Shielded Metal Arc Welding	3
WEL-35	Semi-Automatic Welding	3
WEL-55A	Introduction to Gas Tungsten Arc Welding	3
WEL-55B	Advanced Gas Tungsten Arc Welding (GTAW)	3
WEL-61A	American Welding Society/Los Angeles City Welding I	3
WEL-61B	American Welding Society/Los Angeles City Welding II	3
WEL-62	Blueprint Reading for Welders	2
Electives	(Choose from list below)	4

**Electives (4 units)**

ENE-21	Drafting	3
WEL-34	Metal Joining Processes	2
WEL-60	Advanced Pipe and Plate Laboratory	2
WEL-200	Welding Work Experience	1-2-3-4

**Associate of Science Degree**

The Associate of Science Degree in Welding Technology will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.

*The following certificates may lead to employment competency, but do not lead to an Associate of Science Degree:*

**STICK WELDING (SMAW) (R) CE824**

This certificate provides students with the technical knowledge and skill in oxyacetylene cutting, and SMAW welding to be able to enter into the welding career of either a structured steel field or shop environment. With these new skills, students will be able to obtain entry level employment as a welder's helper in the field or in welding shops welding structural steel.

**Certificate Program****Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Demonstrate knowledge and ability of SMAW process, safety, and oxyacetylene cutting.
- Demonstrate advanced knowledge and ability of SMAW, welding symbols, and safety.
- Differentiate between each of the welding process used in the welding industry.
- Demonstrate knowledge of AWS welding codes.

Required Courses (11 units)		Units
WEL-15	Introduction to Basic Shielded Metal Arc Welding	3
WEL-16	Advanced Shielded Metal Arc Welding	3
WEL-34	Metal Joining Processes	2
WEL-61A	American Welding Society/Los Angeles City Welding I	3
or		
WEL-61B	American Welding Society/Los Angeles City Welding II	3

**TIG WELDING (GTAW)(R) CE819**

This certificate provides students with the technical knowledge and skill, in the oxyacetylene cutting and GTAW welding, to be able to enter into a welding career either in the field or shop environment. With these new skills, students will be able obtain entry level employment as a welder's helper in the field or as a beginning welder in a production setting welding thin materials.

**Certificate Program****Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Demonstrate knowledge and ability in oxyacetylene cutting, beginning SMAW welding process, and safety.
- Demonstrate knowledge and ability in the GTAW welding process, welding symbols, and safety.
- Differentiate between each of the welding processes used in the welding industry.
- Demonstrate knowledge of AWS welding codes.

Required Courses (11 units)		Units
WEL-15	Introduction to Basic Shielded Metal Arc Welding	3
WEL-34	Metal Joining Processes	2
WEL-55A	Introduction to Gas Tungsten Arc Welding	3
WEL-61A	American Welding Society/Los Angeles City Welding I	3
or		
WEL-61B	American Welding Society/Los Angeles City Welding II	3

**WIRE WELDING (FCAW, GMAW) (R) CE818**

This certificate provides students with the technical knowledge and skill, in the oxyacetylene cutting and FCAW/GMAW welding, to be able to enter into a welding career either in the field or shop environment. With these new skills, students will be able to obtain entry level employment as a welder's helper or in a shop production welding setting welding structural steel, parts of medium thickness, or sheet steel.

**Certificate Program****Program Learning Outcomes**

Upon successful completion of this program, students should be able to:

- Demonstrate knowledge and ability of beginning level of SMAW welding process, safety, and oxyacetylene cutting.
- Demonstrate knowledge and ability of the FCAW and GMAW welding processes, welding symbols, and safety.
- Differentiate between each of the welding processes used in the welding industry.
- Demonstrate knowledge of AWS welding codes.

Required Courses (11 units)		Units
WEL-15	Introduction to Basic Shielded Metal Arc Welding	3
WEL-34	Metal Joining Processes	2
WEL-35	Semi-Automatic Welding	3
WEL-61A	American Welding Society/Los Angeles City Welding I	3
or		
WEL-61B	American Welding Society/Los Angeles City Welding II	3