

CUYAMACA COLLEGE
ACADEMIC PROGRAM CHANGES
November 2021
for the
2021-2022 and 2022-2023 CATALOGS

COURSE ADDITIONS

CENTER FOR WATER STUDIES 116 – ADVANCED WATER TREATMENT I

3 UNITS

Prerequisite: Any one of the following will satisfy the prerequisite for CWS 116:

- 1) Proof of a passing grade for the SWRCB T2 Water Treatment certification exam
- 2) Possession of a valid SWRCB T2 (or Higher) Water Treatment certification
- 3) Proof of a passing grade for the SWRCB Grade 2 Wastewater Treatment certification exam
- 4) Possession of a valid SWRCB Grade 2 (or higher) Wastewater Treatment certification

3 hours lecture

This course is a study of the basic principles involved in the theory, components, and operations of an Advanced Water Treatment Facility where reclaimed water is treated to augment potable water supplies and teach recycled water standards. Overview of treatment theory, design, operation, and monitoring, of components that complete an Advanced Water Treatment, multi barrier treatment facility.

CENTER FOR WATER STUDIES 216 – ADVANCED WATER TREATMENT II

3 UNITS

Prerequisite: "C" grade or higher or "Pass" in CWS 116 or equivalent

3 hours lecture

This course is an advanced study of the principals involved in the theory, components, and operations of an Advanced Water Treatment Facility where reclaimed water is treated to augment potable water supplies and teach recycled water standards. Overview of treatment theory, design, operation, and monitoring, of components that complete an Advanced Water Treatment, multi barrier treatment facility.

GRAPHIC DESIGN 120 – USER EXPERIENCE DESIGN

3 UNITS

Prerequisite: "C" grade or higher or "Pass" in GD 105 or equivalent

Recommended Preparation: "C" grade or higher or "Pass" in GD 110 or equivalent

2 hours lecture, 3 hours laboratory

This introductory course is designed to equip you with a broad understanding of user experience (UX) and covers the foundations of User Experience Design and process including; user journeys, prototypes, information architecture, wireframes and prototypes. We will also be considering the critical role user experience plays in allowing businesses to access their target audience and how organizations can use user experience to increase customer engagement and revenue as well as reducing costs.

COURSE MODIFICATIONS

The following reflect changes in subject designator, course number and/or title, prerequisite/corequisite/recommended preparation, units, hours, and/or course description. Other areas (e.g., course objectives, course content, student learning outcomes, etc.) may also have been modified to meet Title 5 standards (reflected as “*Review and update of course outline*”). These modifications have been carefully reviewed by the Curriculum, General Education and Academic Policies and Procedures Committee.

PRESENT	PROPOSED CHANGES TO AREAS AS INDICATED
ARAMAIC 120 – ARAMAIC I	<i>Review and update of course outline</i>
ARAMAIC 121 – ARAMAIC II	<i>Review and update of course outline</i>
ARAMAIC 220 – ARAMAIC III	<i>Review and update of course outline</i>
ART 143 – MODERN ART	<i>Review and update of course outline</i>
ASTRONOMY 112 – GENERAL ASTRONOMY LABORATORY	<i>Review and update of course outline</i>
AUTOMOTIVE TECHNOLOGY 162 – ELECTRONICS DIAGNOSIS AND REPAIR Prerequisite: Students must have a signed Ford dealership sponsorship agreement.	Prerequisite: None
BIOLOGY 122 – THE SECRET LIFE OF PLANTS	<i>Review and update of course outline</i>
BIOLOGY 134 – ETHNOBOTANY	<i>Review and update of course outline</i>
BIOLOGY 135 – ETHNOBOTANY/ETHNOECOLOGY LAB	<i>Review and update of course outline</i>
BIOLOGY 140 – HUMAN ANATOMY	<i>Review and update of course outline</i>
COMPUTER AND INFORMATION SCIENCE 213 – WEB DEVELOPMENT II	<i>Review and update of course outline</i>
COMPUTER AND INFORMATION SCIENCE 215 – JAVASCRIPT WEB PROGRAMMING	<i>Review and update of course outline</i>
COMPUTER SCIENCE 119 – PROGRAM DESIGN AND DEVELOPMENT	<i>Review and update of course outline</i>
COMPUTER SCIENCE 119L – PROGRAM DESIGN AND DEVELOPMENT LAB	<i>Review and update of course outline</i>
COMPUTER SCIENCE 182 – INTRODUCTION TO JAVA PROGRAMMING	<i>Review and update of course outline</i>
COMPUTER SCIENCE 281 – INTERMEDIATE C++ PROGRAMMING AND FUNDAMENTAL DATA STRUCTURES	<i>Review and update of course outline</i>
ENGINEERING 210 – ELECTRIC CIRCUITS	<i>Review and update of course outline</i>
ENGLISH 271 – WORLD LITERATURE II Survey and comparison of major works in translation and in English from various continents and cultures from 1650 A.D. to the present. Focuses on the historical, social, philosophical, and cultural aspects of literature and the roles of women and men. Minority perspectives will be included. Reading selections include works from Asia, the Middle East, Africa, Europe, the Americas, Australia and New Zealand.	This class is a survey and comparison of major works from various continents and cultures from 1650 A.D. to the present. Students examine literature as a reflection of multiple and diverse experiences across the world. Focuses on the historical, social, philosophical, aesthetic, and cultural aspects of world literature. Reading selections may consist of poetry, short stories, plays, novels, and nonfiction prose, including essays, letter, political tracts, autobiographies, speeches, and sermons from the ancient Mediterranean world, South and East Asia, Middle East, Africa, and the early Americas.
ENGLISH AS A SECOND LANGUAGE 099A – ESL FOR THE WORKPLACE I	<i>Review and update of course outline</i>
ENGLISH AS A SECOND LANGUAGE 099B – ESL FOR THE WORKPLACE II	<i>Review and update of course outline</i>
EXERCISE SCIENCE 250 – INTRODUCTION TO KINESIOLOGY	<i>Review and update of course outline</i>
EXERCISE SCIENCE 271 – FITNESS WALKING WITH CHILDREN	<i>Review and update of course outline</i>
EXERCISE SCIENCE 272 – ISSUES IN CHILDHOOD OBESITY	<i>Review and update of course outline</i>
GRAPHIC DESIGN 126 – ADOBE PHOTOSHOP DIGITAL IMAGING	<i>Review and update of course outline</i>
GRAPHIC DESIGN 130 – PROFESSIONAL BUSINESS PRACTICES	<i>Review and update of course outline</i>
GRAPHIC DESIGN 210 – PROFESSIONAL DIGITAL PHOTOGRAPHY I	<i>Review and update of course outline</i>
GRAPHIC DESIGN 211 – PROFESSIONAL DIGITAL PHOTOGRAPHY II	<i>Review and update of course outline</i>

PRESENT	PROPOSED CHANGES TO AREAS AS INDICATED
GRAPHIC DESIGN 212 – PROFESSIONAL DIGITAL PHOTOGRAPHY III	<i>Review and update of course outline</i>
GRAPHIC DESIGN 222 – WEB ANIMATION	<i>Review and update of course outline</i>
GRAPHIC DESIGN 223 – ADVANCED WEB ANIMATION	<i>Review and update of course outline</i>
HISTORY 100 – EARLY WORLD HISTORY	<i>Review and update of course outline</i>
HISTORY 101 – MODERN WORLD HISTORY	<i>Review and update of course outline</i>
HISTORY 105 – EARLY WESTERN CIVILIZATION	<i>Review and update of course outline</i>
HISTORY 106 – MODERN WESTERN CIVILIZATION	<i>Review and update of course outline</i>
HISTORY 108 – EARLY AMERICAN HISTORY	<i>Review and update of course outline</i>
HISTORY 109 – MODERN AMERICAN HISTORY	<i>Review and update of course outline</i>
HISTORY 114 – COMPARATIVE HISTORY OF THE EARLY AMERICAS	<i>Review and update of course outline</i>
HISTORY 115-COMPARTIVE HISTORY OF THE MODERN AMERICAS	<i>Review and update of course outline</i>
HISTORY 122 – WOMEN IN EARLY AMERICAN HISTORY	<i>Review and update of course outline</i>
HISTORY 123 – WOMEN IN MODERN AMERICAN HISTORY	<i>Review and update of course outline</i>
HISTORY 124 – HISTORY OF CALIFORNIA	<i>Review and update of course outline</i>
HISTORY 148 - EMERGENCE OF THE MODERN MIDDLE EAST	<i>Review and update of course outline</i>
HISTORY 275 – HISTORICAL PERIOD	<i>Review and update of course outline</i>
HISTORY 276 – GEOGRAPHICAL AREA	<i>Review and update of course outline</i>
HISTORY 277 – HISTORICAL THEME	<i>Review and update of course outline</i>
HUMANITIES 140 –HUMANITIES OF THE AMERICAS	<i>Review and update of course outline</i>
HUMANITIES 155 – WORLD MYTHOLOGY THROUGH THE HUMANITIES	<i>Review and update of course outline</i>
MATHEMATICS 020 – FOUNDATIONS FOR QUANTITATIVE REASONING	<i>Review and update of course outline</i>
MATHEMATICS 076 – FOUNDATIONS FOR PRECALCULUS	<i>Review and update of course outline</i>
MATHEMATICS 078 – FOUNDATIONS FOR CALCULUS FOR BUSINESS SOCIAL & BEHAVIORAL SCIENCES	<i>Review and update of course outline</i>
MATHEMATICS 120 – QUANTITATIVE REASONING	<i>Review and update of course outline</i>
MATHEMATICS 121 – QUANTITATIVE REASONING FOR CAREER EDUCATION	<i>Review and update of course outline</i>
MATHEMATICS 126 – STRUCTURE AND CONCEPTS OF ELEMENTARY MATHEMATICS II	<i>Review and update of course outline</i>
MATHEMATICS 178 – CALCULUS FOR BUSINESS, SOCIAL AND BEHAVIORAL SCIENCES	<i>Review and update of course outline</i>
MATHEMATICS 280 – ANALYTIC GEOMETRY AND CALCULUS II	<i>Review and update of course outline</i>
MATHEMATICS 281 – MULTIVARIABLE CALCULUS	<i>Review and update of course outline</i>
MATHEMATICS 285 – DIFFERENTIAL EQUATIONS	<i>Review and update of course outline</i>
MUSIC 106 – MUSIC THEORY AND PRACTICE II Continuation of MUS 105 including both written and aural aspects of music theory. Four-part writing, 7th chords, cadences and non-chord tones. Rhythmic and melodic dictation and harmonic ear training. Sight singing. Analysis of Bach chorales and binary and ternary forms.	Continuation of Music Theory I (MUS 105) including both written and aural aspects of music theory. Additionally, the course will include diatonic harmony, two-part counterpoint, four-part voice leading and an introduction to secondary function and modulation. The written aspects of the course will be approached via composition and analysis while the aural aspects of the course will include rhythmic, melodic and harmonic dictation as well as sight singing.
ORNAMENTAL HORTICULTURE 221 – LANDSCAPE CONSTRUCTION: IRRIGATION AND CARPENTRY	<i>Review and update of course outline</i>
ORNAMENTAL HORTICULTURE 238 – IRRIGATION SYSTEM DESIGN	<i>Review and update of course outline</i>

PRESENT	PROPOSED CHANGES TO AREAS AS INDICATED
PARALEGAL STUDIES 110 – CIVIL LITIGATION PRACTICE AND PROCEDURES	<i>Review and update of course outline</i>
PHYSICS 201 – MECHANICS AND WAVES	<i>Review and update of course outline</i>
PHYSICS 202 – ELECTRICITY, MAGNETISM, AND HEAT	<i>Review and update of course outline</i>
PHYSICS 203 – LIGHT, OPTICS, AND MODERN PHYSICS	<i>Review and update of course outline</i>
PSYCHOLOGY 120 – INTRODUCTORY PSYCHOLOGY	<i>Review and update of course outline</i>
SPANISH 120 – SPANISH I	<i>Review and update of course outline</i>
SPANISH 121 – SPANISH II	<i>Review and update of course outline</i>
SPANISH 220 – SPANISH III	<i>Review and update of course outline</i>

DEACTIVATIONS

Course	Reason For Deletion per Department Faculty and/or Advisory Committee Recommendations
AUTO 120 – Engine Performance I: Mechanical & Ignition Systems	Recommendation of the department faculty as part of the curriculum project.
AUTO 122 – Automotive Electrical Systems	Recommendation of the department faculty as part of the curriculum project.
AUTO 123 – Engine Performance II: Emission Systems	Recommendation of the department faculty as part of the curriculum project.
AUTO 124 – Engine Performance III: Drivability	Recommendation of the department faculty as part of the curriculum project.
AUTO 127 – Advanced Automotive Electrical Systems	Recommendation of the department faculty as part of the curriculum project.
AUTO 130 – Automotive Brakes & Brake License	Recommendation of the department faculty as part of the curriculum project.
AUTO 135 – Advanced Brakes	Recommendation of the department faculty as part of the curriculum project.
AUTO 140 – Four Wheel Alignment	Recommendation of the department faculty as part of the curriculum project.
AUTO 145 – Advanced Four Wheel Alignment	Recommendation of the department faculty as part of the curriculum project.
AUTO 152 – Drive Train Systems	Recommendation of the department faculty as part of the curriculum project.
AUTO 155 – Advanced Drive Train Systems	Recommendation of the department faculty as part of the curriculum project.
AUTO 160 – Air Conditioning & Heating Systems	Recommendation of the department faculty as part of the curriculum project.
AUTO 165 – Advanced Air Conditioning & Heating Systems	Recommendation of the department faculty as part of the curriculum project.
AUTO 170 – Engine Overhaul	Recommendation of the department faculty as part of the curriculum project.
AUTO 175 – Advanced Engine Overhaul	Recommendation of the department faculty as part of the curriculum project.
AUTO 190 – ASSET-Orientation, PDI, and Lubrication	Recommendation of the department faculty as part of the curriculum project.
AUTO 191 – ASSET-Brakes, Advanced Brakes, Suspension & NVH	Recommendation of the department faculty as part of the curriculum project.
AUTO 192 – ASSET-Drive Train	Recommendation of the department faculty as part of the curriculum project.
AUTO 193 – ASSET-Engine Repair	Recommendation of the department faculty as part of the curriculum project.
AUTO 195 - ASSET-Electronic Engine Controls	Recommendation of the department faculty as part of the curriculum project.
AUTO 196 – ASSET-Electrical, Accessories and Air Conditioning	Recommendation of the department faculty as part of the curriculum project.
AUTO 200 – ASEP-Orientation	Recommendation of the department faculty as part of the curriculum project.
AUTO 201 – ASEP-Electrical	Recommendation of the department faculty as part of the curriculum project.
AUTO 202 – ASEP-Brakes and Alignment	Recommendation of the department faculty as part of the curriculum project.

AUTO 203 – ASEP-Engine Repair	Recommendation of the department faculty as part of the curriculum project.
AUTO 204 – ASEP-Power Train	Recommendation of the department faculty as part of the curriculum project.
AUTO 205 – ASEP-Engine Performance and Air Conditioning	Recommendation of the department faculty as part of the curriculum project.
AUTO 206 – ASEP-Work Experience	Recommendation of the department faculty as part of the curriculum project.
CIS 204 – Cisco Academy IV	Recommendation of the department faculty. Course is no longer applicable due to Cisco reorganization.
ENGL 099 – Accelerated Preparation for College Reading, Reasoning, and Writing	Recommendation of the department faculty. The English department no longer offers below transfer level courses.
ESL 021 – Support for Math	Recommendation of the department faculty. Not planned on offering as a MATH cohort in the near future.
ESL 025 – ESL Workplace Skills	Recommendation of the department faculty. Not planned to be offered in the near future.
ESL 090 – American English Pronunciation 1	Recommendation of the department faculty. Not planned to be offered in the near future.
ESL 109 – American English Pronunciation	Recommendation of the department faculty. Not planned to be offered in the near future.

DELETIONS

Course, Program, Certificate	Reason For Deletion per Department Faculty and/or Advisory Committee Recommendations
BOT 096 – Computer Basics for the Office	Recommendation of the department faculty, as sub 100 courses are no longer accepted for degrees and certificates.
COMM 130 – Fundamentals of Human Communication	Recommendation of the department faculty. Course has never been offered.

DISTANCE EDUCATION

Course	Title
<i>(Effective Spring 2022)</i>	
Fully Online unless otherwise noted	
ASTR 112	General Astronomy Laboratory
BIO 122	The Secret Life of Plants
BIO 134	Ethnobotany <i>(Partially Online)</i>
BIO 135	Ethnobotany/Ethnoecology Lab <i>(Partially Online)</i>
BIO 140	Human Anatomy <i>(Partially Online)</i>
ENGR 210	Electric Circuits
GD 120	User Experience Design
GD 210	Professional Digital Photography I
GD 211	Professional Digital Photography II
GD 212	Professional Digital Photography III
MATH 020	Foundations for Quantitative Reasoning
MATH 076	Foundations for Precalculus

Distance Education continued	
MATH 078	Foundations for Calculus for Business
MATH 120	Quantitative Reasoning
MATH 121	Quantitative Reasoning for Career Education
MATH 126	Structure and Concepts of Elementary Mathematics II
MATH 178	Calculus for Business, Social and Behavioral Sciences
MATH 280	Analytic Geometry and Calculus II
MATH 281	Multivariable Calculus
MATH 285	Differential Equations
PARA 110	Civil Litigation Practice and Procedures
PHYC 201	Mechanics and Waves
PHYC 202	Electricity, Magnetism, and Heat
PHYC 203	Light, Optics, and Modern Physics

DEGREE AND CERTIFICATE ADDITIONS

CENTER FOR WATER STUDIES

ADVANCED WATER TREATMENT

The most advanced and current wastewater treatment technology involves processing wastewater into purified drinking water. Wastewater Treatment Operators at these new treatment facilities will be required to have the new CWEA/AWWA Advanced Water Treatment certifications, AWTO 3-5. Students who complete the required courses for this certificate and/or degree program will be prepared to take and pass the CWEA AWTO 3 and AWTO 4 certification exams.

Program Learning Outcomes

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

- Perform advanced water treatment work functions in accordance with accepted water and wastewater industry standards and practices.
- Assess and resolve advanced water treatment process issues and problems using current water and wastewater industry-specific methods, tools, and resources.
- Communicate effectively, orally and in writing, to managers, peers, subordinates, and the public.
- Abide by water and wastewater industry codes and regulations regarding occupational health, safety, and environmental standards.

Associate in Science Degree Requirements:

<i>Course</i>	<i>Title</i>	<i>Units</i>
CWS 102	Calculations in Water & Wastewater	3
CWS 107	Safety in Water & Wastewater	3
CWS 110	Laboratory Analysis for Water & Wastewater	3
CWS 112	Water Treatment Plant Operations	3
CWS 114	Wastewater Treatment Operations	3
CWS 115	Wastewater Reclamation and Reuse	3
CWS 116	Advanced Water Treatment (AWT) I	3
CWS 134	Pumps, Motors & Valves	3
CWS 216	Advanced Water Treatment (AWT) II	3
CWS 268	Membrane Plant Operation	3
		30

Select at least Six units from the following:

CWS 100	Career Pathways in Water & Wastewater	3
CWS 101	Fundamentals in Water and Wastewater	3
CWS 103	Water Resources Management	3
CWS 106	Electrical & Instrumentation Processes	3
CWS 130	Water Distribution Systems	3
CWS 132	Wastewater Collection Systems	3
CWS 204	Applied Hydraulics	3
CWS 206	Advanced Electrical and Instrumentation Processes	3
CWS 207	Field Operations Skills	3
CWS 210	Advanced Laboratory Analysis for Water & Wastewater	3
CWS 212	Advanced Water Treatment Plant Operations	3
CWS 214	Advanced Wastewater Treatment Operations	3
CWS 232	Advanced Wastewater Collection Systems	3
CWS 280	Backflow Tester Training	3
CWS 282	Cross Connection Control Specialist	3
CWS 284	Cross Connection Control Specialist Reclaimed Water	3
CWS 290	Cooperative Work Experience	3
		6
	Total Required	36
	Plus General Education Requirements	

Certificate of Achievement

Students who complete only the major requirements above qualify for a Certificate in Advanced Water Treatment. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

DEGREE AND CERTIFICATE MODIFICATIONS

ARABIC STUDIES

The Associate in Arts in Arabic Studies is designed to provide a greater understanding of Arabic language, history, culture and heritage, with particular emphasis on reading, writing and speaking the Arabic language. The Arabic Studies degree prepares students for career opportunities that require competency in the Arabic language. Through specific coursework for this degree, students will have a deeper appreciation and understanding of Arabic heritage and civilization.

Program Outcomes

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

- ~~Communicate in the Arabic language at the intermediate level in a variety of settings.~~
- ~~Acquire an understanding of Arabic civilization and heritage.~~
- ~~Gain sensitivity, globalism and cultural competence.~~
- Communicate clearly and effectively in a variety of media and/or contexts (speech, writing, and/or sign language).
- Apply discipline-specific theories about language and communication to students' own practice or work.
- Navigate norms related to communicating in diverse environments, including professional, intercultural, and/or specialized settings.

Associate in Arts Degree Requirements:

<i>Course</i>	<i>Title</i>	<i>Units</i>
ARBC 120	Arabic I	5
ARBC 121	Arabic II	5
ARBC 130	Arabic Literature and Culture	3
ARBC 145	Arabic Civilizations	3
ARBC 122	Arabic for the Native Speaker I	5
or		
ARBC 220	Arabic III	5
ARBC/BOT 180	Basic Computer Skills for Arabic Learners	1
ARBC 123	Arabic for the Native Speaker II	5
or		
ARBC 221	Arabic IV	5
ARBC 250	Conversational Arabic I	3
or		
ARBC 254	Conversational Iraqi Dialect	3
ARBC 251	Conversational Arabic II	<u>3</u>
	Total Required	33
	Plus General Education Requirements	

Certificate of Achievement

Students who complete only the major requirements above qualify for a Certificate in Arabic Studies. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

ART AND DESIGN

This degree program emphasizes aesthetics, design and craft using manual and digital mediums. Students will develop their ability to think spatially in two and three dimensions and to use creative problem-solving techniques using images and letter forms. Students will develop a professional portfolio for placement at a four-year university. Designed for students interested in pursuing a bachelor's degree in Graphic Design; please consult the catalog of the transfer institution for specific requirements. Students interested in pursuing the entry level, two-year associate degree or certificate in graphic design should refer to the Graphic Design program.

Program Learning Outcomes

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

- Use the vocabulary of the visual arts to express their observations as they perceive and respond to works of art, objects in nature, events, and the environment;
- Apply artistic processes and skills, using a variety of media to communicate meaning and intent in original works of art;
- Analyze the role and development of the visual arts in past and present cultures throughout the world, noting human diversity as it relates to the visual arts and artists;
- Analyze, assess, and derive meaning from works of art, including their own, according to the elements of art, the principles of design, and aesthetic qualities;
- Apply what they learn in the visual arts across subject areas; develop competencies and creative skills in problem solving, communication, and management of time and resources that contribute to lifelong learning and career skills; and identify careers in and related to the visual arts.

CAREER OPPORTUNITIES

- * Advertising Director
Advertising
- * Art Director
Desktop Publishing
Display Designer
Graphic Designer
Illustrator
- * Marketing Director
Multimedia
Package Designer
Web Page Designer

* Bachelor Degree or higher required

Associate in Arts Degree Requirements:

<i>Course</i>	<i>Title</i>	<i>Units</i>
ART 120	Two-Dimensional Design	3
ART 121	Painting I	3
ART 124	Drawing I	3
ART 129	Three-Dimensional Design	3
ART 140	History of Western Art I: Prehistoric to 1250 A.D.	3
ART 141	History of Western Art II: Circa 1250 A.D. to Present Time	3
ART 149	History of Graphic Design	3
ART 177	Digital Drawing and Painting	3
ART 230	Figure Drawing I	3
ART 241	Illustration I	3
GD 105	Fundamentals of Digital Media	3
GD 110	Graphic Design Principles	3
GD 125	Typography	3
GD 126	Adobe Photoshop Digital Imaging	3
		<u>39</u> <u>18</u>

Select twelve units from the following:

ART 149	History of Graphic Design	3
ART 177	Digital Drawing and Painting	3
ART 230	Figure Drawing I	3
ART 241	Illustration I	3
GD 105	Fundamentals of Digital Media	3
GD 110	Graphic Design Principles	3
GD 125	Typography	3
GD 126	Adobe Photoshop Digital Imaging	3
		<u>12</u>

Select one of the following:

Recommended Electives:

ART 121	Painting I	3
ART 135	Watercolor I	3
ART 242	Illustration II	3

(Art and Design continued)

BUS 110	Introduction to Business	3
GD 130	Professional Business Practices	3
GD 210	Professional Digital Photography I	3
GD 217	WEB Graphics	3
GD 222	WEB Animation	3
GD 225	Digital Illustration	<u>3</u>
GD 230	Graphic Design Work Experience	<u>3</u>
	Total Required	42 <u>30</u>
	Plus General Education Requirements	

~~Recommended Electives:~~ ART 135, BUS 110, GD 230

ART HISTORY FOR TRANSFER (AA-T)

The Associate in Arts in Art History for Transfer degree is designed to provide students with an understanding and an appreciation of the arts in a variety of cultures and civilizations throughout history. This degree prepares students to transfer to a California State University where a baccalaureate degree may be earned in art, art history, or a related field.

The following is required for the Associate in Arts in Art History for Transfer degree:

1. Minimum of 60 semester or 90 quarter CSU-transferable units.
 2. Minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework.
 3. Minimum of 18 semester or 27 quarter units in the major.
 4. A grade of "C" or better in all courses required for the major.
 5. Certified completion of the California State University General Education (CSU GE) Breadth pattern OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern; see Degree Requirements and Transfer Information section for more information.
- Note: If following IGETC, IGETC-CSU must be followed for admission to a CSU.

Program Learning Outcomes

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

- Analyze the role and development of the visual arts in past and present cultures throughout the world, noting human diversity as it relates to the visual arts and the artists.
- Analyze and derive meaning from works of art according to the elements of art, the principles of design and aesthetic qualities.
- Demonstrate how the arts help to understand the past.
- Define artistic historical periods and transitions.

Associate in Arts Degree Requirements:

Core Curriculum:

<i>Course</i>	<i>Title</i>	<i>Units</i>
ART 140	Survey of Western Art I: Prehistoric through Middle Ages	3
ART 141	Survey of Western Art II: Renaissance through Modern	3
ART 124	Drawing I	<u>3</u>
		9

List A: Select one:

ART 146	Asian Art	3
ART 149	History of Graphic Design	<u>3</u>
		3

List B: Select one:

ART 120	Two-Dimensional Design	3
ART 121	Painting I	3
ART 129	Three-Dimensional Design	3
ART 135	Watercolor I	3
ART 230	Figure Drawing I	3
GD 110	Graphic Design Principles	<u>3</u>
		3

List C: Select one:

Any List B course not already used		3
ART 143	Modern Art	3
ART 144	Architecture of the 20th Century	3
ART 145	Contemporary Art	3
HUM 110	Principles of the Humanities	3
HUM 115	Arts and Culture in Local Context - San Diego	3
HUM 116	Kumeyaay Arts and Culture	<u>3</u>
		3

Total Units for Major (6-9 units may be double-counted with GE)	18
Total Units for CSU GE or IGETC-CSU	37 <u>39/37</u>
Total Transferable Elective Units	<u>9</u> <u>12-14</u>
Total Units for Degree	60

COMMUNICATION

This degree program is designed to provide students with a broad base of communication classes that provide training for entry into occupations in which verbal skills are important. Major requirements for the four-year degree in Communication vary from institution to institution. It is recommended that students check with transfer institutions for specific requirements.

Program Learning Outcomes

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

- Research, write and deliver an effective public speech.
- ~~Analyze, critique, and improve interpersonal relationships in both personal and professional contexts.~~
- ~~Describe and apply specific skills to the communication process, including perception, emotion, listening and conflict management.~~
- ~~Describe and interpret communication similarities and differences between people from varying cultural backgrounds.~~
- ~~Interact with others in group settings to collect, analyze, and synthesize information.~~
- ~~Interact respectfully with others who hold divergent perspectives.~~
- Critically analyze, critique and synthesize arguments and information.
 - Communicate clearly and effectively in a variety of media and/or contexts.
 - Apply discipline-specific theories about language and communication to students' own practice or work.
 - Navigate norms related to communicating in diverse environments, including professional, intercultural, and/or specialized settings.

CAREER OPPORTUNITIES

Advertising Assistant
 Announcer
 Arts Administrator
 Communication Consultant
 Journalist
 Lawyer
 Lobbyist
 Narrator
 Politician
 Public Information Officer
 Public Relations Assistant
 Teacher/Instructor/College Professor

Associate in Arts Degree Requirements:

<i>Course</i>	<i>Title</i>	<i>Units</i>
COMM 120	Interpersonal Communication	3
COMM 122	Public Speaking	3
COMM 123	Advanced Public Speaking	3
COMM 145	Argumentation	<u>3</u>
		12

Select six units from the following:

COMM 110	Introduction to Mass Communication	3
COMM 124	Intercultural Communication	3
COMM 137	Critical Thinking in Group Communication	<u>3</u>
		6
	Total Required	18
	Plus General Education Requirements	

COMMUNICATION STUDIES FOR TRANSFER (AA-T)

This degree program is designed to provide students with a broad base of communication courses that provide training for entry into occupations in which public contact and verbal skills are important. Students will explore and analyze verbal communication methods, as well as develop and advance their oral communication skills. Students completing this degree may be interested in pursuing careers in community service, sales, performing arts, teaching, and other communication professions.

The following is required for the AA-T in Communication Studies for Transfer degree:

1. Minimum of 60 semester or 90 quarter CSU-transferable units.
 2. Minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework.
 3. Minimum of 18 semester or 27 quarter units in the major.
 4. A grade of "C" or better in all courses required for the major.
 5. Certified completion of the California State University General Education (CSU GE) Breadth pattern OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern; see Degree Requirements and Transfer Information section for more information.
- Note: If following IGETC, IGETC-CSU must be followed for admission to a CSU.

Program Learning Outcomes

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

- Research, write and deliver an effective public speech.
- ~~Analyze, critique, and improve interpersonal relationships in both personal and professional contexts.~~
- ~~Describe and apply specific skills to the communication process, including perception, emotion, listening and conflict management.~~
- ~~Describe and interpret communication similarities and differences between people from varying cultural backgrounds.~~
- ~~Interact with others in group settings to collect, analyze, and synthesize information.~~
- ~~Interact respectfully with others who hold divergent perspectives.~~
- Critically analyze, critique and synthesize arguments and information.
- Communicate clearly and effectively in a variety of media and/or contexts.
- Apply discipline-specific theories about language and communication to students' own practice or work.
- Navigate norms related to communicating in diverse environments, including professional, intercultural, and/or specialized settings.

Associate in Arts Degree Requirements:

Core Curriculum:

<i>Course</i>	<i>Title</i>	<i>Units</i>
COMM 122	Public Speaking	3

List A: Select two of the following:

COMM 120	Interpersonal Communication	3
COMM 137	Critical Thinking in Group Communication	3
COMM 145	Argumentation	<u>3</u>
		6

List B: Select two of the following:

COMM 110	Introduction to Mass Communication	3
COMM 124	Intercultural Communication	3
COMM 240	Speech and Debate Competition III	3
Any course from List A not selected above		<u>3</u>
		6

List C: Select one of the following:

ANTH 120	Cultural Anthropology	3
ENGL 122	Introduction to Literature	3
ENGL 124	Advanced Composition: Critical Reasoning and Writing	3
PSY 120	Introductory Psychology	<u>3</u>
SOC 120	Introductory Sociology	3
Any course from Lists A or B not selected above		<u>3</u>
		3

Total Units for Major (<u>12-15 units may be double counted</u>)	<u>18/21</u>
Total Units for CSU GE Breadth or IGETC-CSU	<u>37-39/37</u>
Total Transferable Elective Units	<u>3-15/14</u>
Total Units for Degree	60

Please note: SDSU accepts this degree for students transferring into the Health Communication Major and the Communication Major in Applied Arts and Sciences emphases.

GRAPHIC DESIGN

Students in this degree program develop entry level skills in design aesthetics, typography, illustration, digital imaging, page layout, web design and professional business practices. The course work provides training with state of the art computer hardware and software used in the graphic design profession. Students develop a professional portfolio for job interviews. Designed for a two-year degree or certificate only. Students interested in pursuing a bachelor's degree should refer to the Art-Graphic Design degree; please consult the catalog of the transfer institution for specific requirements.

Program Learning Outcomes

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

- Clarify design objectives and then apply design principles, communication skills, and production techniques to develop effective designs using industry standard software.

CAREER OPPORTUNITIES

- * Advertising Director
- * Art Director
 - Cartoonist
 - Desktop Publisher
 - Display Designer
 - Graphic Designer
 - Illustrator
- * Marketing Director
 - Multimedia Designer
 - Package Designer
 - Technical Illustrator
 - Web Designer

*Bachelor Degree or higher required

Associate in Science Degree Requirements:

<i>Course</i>	<i>Title</i>	<i>Units</i>
ART 124	Drawing I	3
CIS 211	Web Development I	3
GD 105	Fundamentals of Digital Media	3
GD 110	Graphic Design Principles	3
GD 125	Typography	3
GD 126	Adobe Photoshop Digital Imaging	3
GD 129	Page Layout	3
GD 130	Professional Business Practices	3
GD 225	Digital Illustration	3
		27

Select three of the following:

ART 230	Figure Drawing I	3
GD 115	Introduction to Multimedia	3
GD 120	User Experience Design	3
GD 210	Professional Digital Photography I	3
GD 211	Professional Digital Photography II	3
GD 212	Professional Digital Photography III	3
GD 217	Web Graphics	3
GD 222	Web Animation	3
GD 223	Advanced Web Animation	3
GD 230	Graphic Design Work Experience	1-4
		7-10
	Total Required	34-37
	Plus General Education Requirements	

Certificate of Achievement

Students who complete only the major requirements above qualify for a Certificate in Graphic Design. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

MATHEMATICS

Since jobs requiring mathematical skills such as data analysis, problem solving, pattern recognition, statistics, and probability are in high demand, the mathematics major may benefit both educationally and economically from developing and pursuing an interest in mathematics. Mathematical skills and statistical methods are employed regularly by researchers testing hypotheses, by workers applying quality control in manufacturing, and by informed citizens who must evaluate information from the media in tabular, graphical, and report form in order to reach solutions. This major offers a foundation in these necessary skills. The emphasis is to prepare students for transfer to a four-year institution and/or for career preparation in a vocational or professional field.

Program Learning Outcomes

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

- ~~• Apply mathematical reasoning and problem-solving strategies to analyze, interpret, and model applications in STEM or business programs.~~
- ~~• Select and apply appropriate definitions, postulates, and theorems to prove mathematical statements.~~
- Draw conclusions about simple and complex systems by collecting, assessing, and analyzing information.
- Communicate technical ideas in group and professional settings in both written and oral form.

CAREER OPPORTUNITIES

- * Accountant
- * Actuary
- Air Traffic Controller
- * Auditor
- † Bank Officer
- * Budget Analyst
- Computer Operator
- * Computer Programmer
- † Cost Estimator
- † Credit and Collection Manager
- Data Processing Manager
- * Economist
- * Engineer
- * Financial Planner
- Insurance Agent/Broker
- Insurance Claim Examiner
- Laboratory Examiner
- Loan Officer
- * Market Research Analyst
- * Mathematician
- * Mathematics Teacher
- * Securities Trader
- Semiconductor Technician
- * Statistician
- Surveyor
- * Systems Analyst

- * Bachelor Degree or higher required
- † Bachelor Degree normally recommended

Associate in Science Degree Requirements:

<i>Course</i>	<i>Title</i>	<i>Units</i>
MATH 180	Analytic Geometry and Calculus I	5
MATH 280	Analytic Geometry and Calculus II	4
MATH 281	Multivariable Calculus	<u>4</u>
		13

List A: select one of the following:

MATH 284	Linear Algebra	3
MATH 285	Differential Equations	<u>3</u>
		3

List B: select one of the following:

CS 181	Introduction to C++ Programming	4
ENGR 120	Engineering Computer Applications	3
MATH 160	Elementary Statistics	4
MATH 245	Discrete Math	3
PHYC 201	Mechanics and Waves	5
Any course from list A not selected:		<u>3</u>

Total Required	3-5
Plus General Education Requirements	19-21

(Mathematics continued)

Recommended Electives: Students planning to transfer to four-year institutions to complete a bachelor's degree in Pure Mathematics, Applied Mathematics, or Statistics should select an emphasis in an applied discipline such as accounting, chemistry, computer science, economics, engineering, or physics. In particular, transfer students are strongly urged to elect the following physics courses: PHYC 201, 202, 203. Students preparing for a vocational or professional career are strongly encouraged to select an emphasis in a vocational/professional discipline such as business, computer and information science, CADD technology, electronics technology, or environmental health and safety management.

Certificate of Achievement

Students who complete only the major requirements above qualify for a Certificate in Mathematics. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

MATHEMATICS FOR TRANSFER (AS-T)

This program is designed to prepare students for transfer to a California State University (CSU) with the intent of earning a B.S. degree in Mathematics. Since jobs requiring mathematical skills such as data analysis, problem solving, pattern recognition, statistics, and probability are in high demand, the mathematics major may benefit both educationally and economically from developing and pursuing an interest in mathematics. Mathematical skills and statistical methods are employed regularly by researchers testing hypotheses, by workers applying quality control in manufacturing, and by informed citizens who must evaluate information from the media in tabular, graphical, and report form in order to reach solutions. This major offers a foundation in these necessary skills. The emphasis is to prepare students for transfer to a four-year institution and/or for career preparation in a vocational or professional field.

The following is required for the AS-T in Mathematics for Transfer degree:

1. Minimum of 60 semester or 90 quarter CSU-transferable units.
 2. Minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework.
 3. Minimum of 18 semester or 27 quarter units in the major.
 4. A grade of "C" or better in all courses required for the major.
 5. Certified completion of the California State University General Education (CSU GE) Breadth pattern OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern; see Degree Requirements and Transfer Information section for more information.
- Note: If following IGETC, IGETC-CSU must be followed for admission to a CSU.

Program Learning Outcomes

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

- ~~Apply mathematical reasoning and problem solving strategies to analyze, interpret, and model applications from degree and transfer-level courses and programs in math, science, engineering, business, and technology.~~
- ~~Select and apply appropriate definitions, postulates, and theorems to prove mathematical statements.~~
- Draw conclusions about simple and complex systems by collecting, assessing, and analyzing information.
- Communicate technical ideas in group and professional settings in both written and oral form.

Associate in Science Degree Requirements:

Core Curriculum:

Course	Title	Units
MATH 180	Analytic Geometry and Calculus I	5
MATH 280	Analytic Geometry and Calculus II	4
MATH 281	Multivariable Calculus	<u>4</u>
		13

List A: Select one of the following:

MATH 284	Linear Algebra	3
MATH 285	Differential Equations	<u>3</u>
		3

List B: Select one of the following:

CS 181	Intro to C++ Programing	4
MATH 160	Elementary Statistics	4
MATH 245	Discrete Mathematics	3
PHYC 201	Mechanics and Waves	5
Any course from List A not selected above		<u>3</u>
		3-5
	Total Units for Major (7 units may be double-counted with GE)	19-21
	Total Units for CSU GE Breadth or IGETC-CSU	39/37
	Total Transferable Elective Units	<u>7-9</u>
	Total Units for Degree	60

Please note: SDSU accepts this degree for students transferring into Mathematics (Science Emphasis) B.S.

SPANISH

This degree program is designed to provide students with communicative skills in understanding, speaking, reading, and writing Spanish. It also gives students a greater understanding of Spanish culture and civilization, and prepares them for greater international and domestic career opportunities. For the suggested sequence of courses to be taken and/or assistance in transferring to a four-year institution, contact the Counseling Center or the Department of World Languages.

Program Learning Outcomes

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

- ~~• Utilize more complex vocabulary and grammatical structures to communicate and discuss hypothetical situations dealing with nature, city, life, health, and well-being, professions and occupations, the arts, current events, and politics.~~
- ~~• Utilize more complex vocabulary and grammatical structures to write about situations dealing with nature, city life, health and well-being, profession, and occupations, the arts, current events, and politics.~~
- ~~• Use language and vocabulary skills developed in class to read, analyze, and interpret authentic texts.~~
- Communicate clearly and effectively in a variety of media and/or contexts (speech, writing, and/or sign language).
- Apply discipline-specific theories about language and communication to students' own practice or work.
- Navigate norms related to communicating in diverse environments, including professional, intercultural, and/or specialized settings.

CAREER OPPORTUNITIES

- Bilingual Aide
- Border Patrol Officer
- Buyer
- Court Interpreter
- Counseling
- Customs Agent/Inspector
- Foreign Exchange Clerk
- * Foreign Student Advisor
- Interpreter
- * Journalist
- * Museum Curator
- * Physician
- * Scientific Linguist
- Tour Guide
- Tutor

* Bachelor Degree or higher required

Associate in Arts Degree Requirements:

<i>Course</i>	<i>Title</i>	<i>Units</i>
SPAN 120	Spanish I	5
SPAN 121	Spanish II	5
SPAN 220	Spanish III	5
SPAN 221	Spanish IV	5
SPAN 250	Conversational Spanish I	3
SPAN 251	Conversational Spanish II	<u>3</u>
		26

Select one of the following:

HIST 118	U.S. History: Chicano/Chicana Perspectives I	3
HIST 119	U.S. History: Chicano/Chicana Perspectives II	3
SPAN 141	Spanish and Latin American Cultures	3
SPAN 145	Hispanic Civilizations	<u>3</u>
		3
	Total Required	29
	Plus General Education Requirements	

Certificate of Achievement

Students who complete only the major requirements above qualify for a Certificate in Spanish. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

SPANISH FOR TRANSFER (AA-T)

The Associate in Arts in Spanish for Transfer degree is designed to provide students with communicative skills in Spanish, as well as a greater understanding of Spanish culture and civilization. This degree prepares students to transfer to a California State University.

The following is required for the AA-T in Spanish for Transfer degree:

1. Minimum of 60 semester or 90 quarter CSU-transferable units.
 2. Minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework.
 3. Minimum of 18 semester or 27 quarter units in the major.
 4. A grade of "C" or better in all courses required for the major.
 5. Certified completion of the California State University General Education (CSU GE) Breadth pattern OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern; see Degree Requirements and Transfer Information section for more information.
- Note: If following IGETC, IGETC-CSU must be followed for admission to a CSU.

Program Learning Outcomes

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

- ~~Utilize more complex vocabulary and grammatical structures to communicate and discuss hypothetical situations dealing with nature, city, life, health and well-being, professions and occupations, the arts, current events, and politics.~~
- ~~Utilize more complex vocabulary and grammatical structures to write about situations dealing with nature, city life, health and well-being, professions and occupations, the arts, current events, and politics.~~
- ~~Use language and vocabulary skills developed in class to read, analyze, and interpret authentic texts.~~
- Communicate clearly and effectively in a variety of media and/or contexts (speech, writing, and/or sign language).
- Apply discipline-specific theories about language and communication to students' own practice or work.
- Navigate norms related to communicating in diverse environments, including professional, intercultural, and/or specialized settings.

Associate in Arts Degree Requirements:

Core Curriculum:

<i>Course</i>	<i>Title</i>	<i>Units</i>
SPAN 120	Spanish I	5
SPAN 121	Spanish II	5
SPAN 220	Spanish III	5
SPAN 221	Spanish IV	<u>5</u>
		20

List A: Select one of the following:

<u>ETHN 118/HIST 118</u>	U.S. History: Chicano/Chicana Perspectives I	3
<u>ETHN 119/HIST 119</u>	U.S. History: Chicano/Chicana Perspectives II	3
<u>ETHN 236/ENGL 236</u>	Chicana/o Literature	<u>3</u>
SPAN 141	Spanish and Latin American Cultures	3
SPAN 145	Hispanic Civilizations	3
SPAN 250*	Conversational Spanish I	3
SPAN 251*	Conversational Spanish II	<u>3</u>
		3
	Total Units for Major (9 units may be double-counted with GE)	<u>19-23</u>
	Total Units for CSU GE Breadth or IGETC-CSU	<u>39/37</u>
	Total Transferable Elective Units	<u>7-9 13</u>
	Total Units for Degree	60

*Substitution Courses:

SPAN 250 may be substituted for SPAN I for students placing at the level of SPAN II.

SPAN 251 may be substituted for SPAN II for students placing into SPAN III.

Please note: SDSU accepts this degree for students transferring into Spanish B.A.