

CUYAMACA COLLEGE
ACADEMIC PROGRAM CHANGES
December 2020
for the
2021-2022 CATALOG

COURSE ADDITIONS

Credit courses

AUTOMOTIVE TECHNOLOGY 111L – ENGINE DIAGNOSIS AND REPAIR LAB 1 UNIT

Prerequisite: None

Recommended Preparation: "C" grade or higher or "Pass" in Automotive Technology 162T – Electronics Diagnosis and Repair Assessment Test out

3 hours laboratory

This laboratory course allows a student to practice proper operation, disassembly, assembly, repair, and diagnostic techniques for gasoline and diesel engines including the proper timing procedures. Students will record and demonstrate critical clearance measurements. This course is the lab for students taking AUTO 111 Engine Diagnosis and Repair lecture, and or for students taking Work Experience and need additional instruction and practice completing required NATEF competencies and tasks.

AUTOMOTIVE TECHNOLOGY 131 – MANUAL TRANSMISSION AND TRANSAXLE REPAIR 1 UNIT

Prerequisite: None

Recommended Preparation: "C" grade or higher or "Pass" in Automotive Technology 162T – Electronics Diagnosis and Repair Assessment Test out

1 hour lecture

This lecture course describes and demonstrates proper operation, disassembly, assembly, repair, and diagnostic techniques for various manual transmission types and designs including electronic shift. The course also includes relationship of torque and coupling using EV electric vehicle motors and traditional clutches.

AUTOMOTIVE TECHNOLOGY 131L – MANUAL TRANSMISSION AND TRANSAXLE REPAIR LABORATORY 1 UNIT

Prerequisite: None

Recommended Preparation: "C" grade or higher or "Pass" in Automotive Technology 162T – Electronics Diagnosis and Repair Assessment Test out

3 hours laboratory

This laboratory course describes and demonstrates proper operation, disassembly, assembly, repair, and diagnostic techniques for various manual transmission types and designs including electronic shift. The course also includes relationship of torque and coupling using EV electric vehicle motors and traditional clutches. This course is the lab for students taking AUTO 131 Manual Transmission and Transaxle lecture, and or for students taking work experience and need additional instruction and practice completing required NATEF competencies and tasks.

AUTOMOTIVE TECHNOLOGY 131T – MANUAL TRANSMISSION AND TRANSAXLE REPAIR ASSESSMENT TEST OUT .5 UNIT

Prerequisite: None

Recommended Preparation: "C" grade or higher or "Pass" in Automotive Technology 162T – Electronics Diagnosis and Repair Assessment Test Out

1.5 hours laboratory

This student portfolio assessment course includes summative and criterion tests using actual transmission repair techniques to allow a student to demonstrate knowledge of proper operation, disassembly, assembly, repair, and diagnostic techniques for various manual transmission types and designs including electronic shift in the department laboratory or by using distance education technologies, live demonstrations, and recordings of work. The assessments will include various tests using transmissions, gears, clutch assemblies, and vehicle symptoms and conditions. This course allows a student residing distance from training centers to complete manufacturers certification requirements. This course compliments AUTO 131L Manual Transmission and Transaxle lab, 131 Lecture, and by work experience classes.

AUTOMOTIVE TECHNOLOGY 161L – ELECTRICAL DIAGNOSIS AND REPAIR LABORATORY 1 UNIT

Prerequisite: None

3 hours laboratory

This laboratory course describes and demonstrates proper operation, repair, and diagnostic techniques for automotive electrical systems. The course also includes the theory of electricity as related to lighting, power seats, power door locks, cruise controls, electric windows, electronic dashboards, radios, windshield wipers and other automotive systems. This course is the lab for students taking AUTO 161 Electrical Diagnosis and Repair lecture, or for students taking work experience who need additional instruction and practice completing required NATEF competencies and tasks.

AUTOMOTIVE TECHNOLOGY 162L – ELECTRONICS DIAGNOSIS AND REPAIR LABORATORY **1 UNIT**

Prerequisite: None

3 hours laboratory

This laboratory course describes and demonstrates proper diagnosis and repair of electronics systems of modern vehicles in the department laboratory, or by using distance education technologies such as augmented reality or virtual reality. The course also includes diagnosis of automotive computer modules, inputs and outs. This course is the lab for students taking AUTO 162 Electronics Diagnosis and Repair lecture, and or for students who are taking work experience and who need additional instruction and practice completing required NATEF competencies and tasks.

AUTOMOTIVE TECHNOLOGY 162T – ELECTRONICS DIAGNOSIS AND REPAIR ASSESSMENT TEST OUT **.5 UNIT**

Prerequisite: None

Recommended Preparation: "C" grade or higher or "Pass" in AUTO 161T Electrical Diagnosis and Repair Assessment Test Out

1.5 hours laboratory

This assessment course includes summative and criterion tests for students to prove knowledge skills and abilities to perform diagnosis and repair of automotive electronic systems in the department laboratory; or by using distance education technologies such as augmented reality, virtual reality, or mobile technologies. The tests will include electronic component diagnosis and repair using scan tools, digital multi-meters, and lab-scopes. This course allows students who reside at a distance from training centers to complete certification requirements. This course is complemented by work experience, AUTO 162 lecture, and AUTO 162L lab.

ETHNIC STUDIES 107 – HISTORY OF RACE & ETHNICITY IN THE UNITED STATES **3 UNITS**

Prerequisite: None

3 hours lecture

An introduction to the historical and socio-cultural experiences of racial and ethnic groups and their roles in shaping society and culture in the United States, from pre-contact to the present. Focus will be on migration, colonization, racialization, discrimination, assimilation, social stratification, liberation movements, and the intersection of racial, ethnic, gender, sexual identities as they relate to African Americans, Asian Americans, Latinas/os/x, Native Americans, and Middle Eastern Americans. *Also listed as HIST 107. Not open to students with credit in HIST 107.*

ETHNIC STUDIES 111 – CULTURE, ART & IDEAS OF THE UNITED STATES **3 UNITS**

Prerequisite: None

3 hours lecture

Humanities of the United States explored through film and television, music, dance, graphic novels, writing, photography, handicrafts (i.e. weaving, pottery, quilting, etc.), architecture, food, philosophy, and social institutions. Focus will be on the experiences and contributions of African Americans, Asian Americans, Latinas/os/x, Native Americans, and Middle Eastern Americans, with an emphasis on discrimination, social stratification, intersectionality, resistance, and liberation movements. *Also listed as HUM 111. Not open to students with credit in HUM 111.*

ETHNIC STUDIES 114 – INTRODUCTION TO RACE & ETHNICITY **3 UNITS**

Prerequisite: None

3 hours lecture

An introduction to the sociological analysis of ethnicity, race, and immigration in the United States. Topics include the history of racialized and minoritized groups in the United States, patterns of interaction between racial and ethnic groups, colonialism, immigration, identity formation, prejudice, discrimination, ethnocentrism, racism, institutional racism, social movements for civil rights, liberation and decolonization, and the intersection of race and ethnicity with other forms of difference. *Also listed as SOC 114. Not open to students with credit in SOC 114.*

ETHNIC STUDIES 150 – LATINX SOCIOLOGY **3 UNITS**

Prerequisite: None

3 hours lecture

This course is an in-depth sociological examination of Latinx/Hispanic communities in the United States. Topics include family structure, gender roles and sexuality; religion; economics; racialization, racism; intersectionality, social movements; U.S./Mexico border issues and immigration policy; and education. Emphasis is placed on social interactions, politics of identity formation, and social processes impacting the status of U.S. Latinx/Hispanics. This course is intended for sociology majors or any student interested in the social sciences. *Also listed as SOC 150. Not open to students with credit in SOC 150.*

ETHNIC STUDIES 165 – INTRODUCTION TO THE POLITICS OF RACE AND GENDER **3 UNITS**

Prerequisite: None

3 hours lecture

This course is an introduction to the politics of race and gender. The course offers an overview of the identity, status, and power of Women, Native Americans, African Americans, Latina/o Americans, and Asian Americans from an intersectionality perspective. *Also listed as POSC 165. Not open to students with credit in POSC 165.*

ETHNIC STUDIES 236— CHICANA/O LITERATURE**3 UNITS**

Prerequisite: None

Recommended Preparation: Placement into ENGL 120 or equivalent

3 hours lecture

This course is a survey of colonial, post-colonial, and contemporary Chicano/Chicana literature. Literary works originally written in English and the Chicano/a bilingual idiom as well as English translations of works written in Spanish will be taught. Reading selections may consist of poetry, ballads, short stories, novels, plays, and nonfiction prose. Students analyze the literature and apply critical theory to describe critical events in the histories, cultures, and intellectual and literary traditions, with special focus on the lived experiences, social struggles, and contributions of Latino/a Americans in the United States. *Also listed as ENGL 236. Not open to students with credit in ENGL 236.*

ETHNIC STUDIES 238—BLACK LITERATURE**3 UNITS**

Prerequisite: None

Recommended Preparation: Placement into ENGL 120 or equivalent

3 hours lecture

This course introduces students to a survey of Black literature, focusing on the early oral tradition, literature of slavery and freedom, the Harlem Renaissance, Modernism, the Black Arts Era, and the contemporary period. Reading selections may consist of poetry, short stories, plays, novels, and nonfiction prose, including essays, letters, political tracts, autobiographies, speeches, and sermons. Students analyze the literature and apply critical theory to describe critical events in the histories, cultures, and intellectual and literary traditions, with special focus on the lived experiences, social struggles, and contributions of African Americans in the United States. *Also listed as ENGL 238. Not open to students with credit in ENGL 238.*

HISTORY 107 – HISTORY OF RACE & ETHNICITY IN THE UNITED STATES**3 UNITS**

Prerequisite: None

3 hours lecture

An introduction to the historical and socio-cultural experiences of racial and ethnic groups and their roles in shaping society and culture in the United States, from pre-contact to the present. Focus will be on migration, colonization, racialization, discrimination, assimilation, social stratification, liberation movements, and the intersection of racial, ethnic, gender, sexual identities as they relate to African Americans, Asian Americans, Latinas/os/x, Native Americans, and Middle Eastern Americans. *Also listed as ETHN 107. Not open to students with credit in ETHN 107.*

HUMANITIES 111 – CULTURE, ART, & IDEAS OF THE UNITED STATES**3 UNITS**

Prerequisite: None

3 hours lecture

Humanities of the United States explored through film and television, music, dance, graphic novels, writing, photography, handicrafts (i.e. weaving, pottery, quilting, etc.), architecture, food, philosophy, and social institutions. Focus will be on the experiences and contributions of African Americans, Asian Americans, Latinas/os/x, Native Americans, and Middle Eastern Americans, with an emphasis on discrimination, social stratification, intersectionality, resistance, and liberation movements. *Also listed as ETHN 111. Not open to students with credit in ETHN 111.*

MATHEMATICS 121 – QUANTITATIVE REASONING FOR CAREER EDUCATION**3 UNITS**

Prerequisite: None

3 hours lecture

A mathematics course designed to develop the computational skills needed in many Career Education (CE) programs. Topics include geometry, measurement, number sense, estimation, basic statistics, trigonometric functions, and critical thinking skills.

SOCIOLOGY 150 – LATINX SOCIOLOGY**3 UNITS**

Prerequisite: None

3 hours lecture

This course is an in-depth sociological examination of Latinx/Hispanic communities in the United States. Topics include family structure, gender roles and sexuality; religion; economics; racialization, racism; intersectionality, social movements; U.S./Mexico border issues and immigration policy; and education. Emphasis is placed on social interactions, politics of identity formation, and social processes impacting the status of U.S. Latinx/Hispanics. This course is intended for sociology majors or any student interested in the social sciences. *Also listed as ETHN 150. Not open to students with credit in ETHN 150.*

Non-credit courses**MUSIC 052 – CONCERT BAND FOR THE ADULT LEARNER****0 UNITS**

Prerequisite: "C" grade or higher or "Pass" in MUS 253 or equivalent

3 hours laboratory

This course is designed for mature students who are interested in improving existing skills or developing a higher degree of expertise in the performance of instrumental music. *This is a no-fee/no-credit course.*

MUSIC 058 – CHOIR FOR THE ADULT LEARNER**0 UNITS**

Prerequisite: "C" grade or higher or "Pass" in MUS 259 or equivalent

3 hours laboratory

This course is designed for mature students who are interested in improving existing skills or developing a higher degree of expertise in the performance of choral music. *This is a no-fee/no-credit course.*

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
AUTOMOTIVE TECHNOLOGY 120 – ENGINE PERFORMANCE I – MECHANICAL AND IGNITION SYSTEMS	<i>Review and update of course outline</i>
AUTOMOTIVE TECHNOLOGY 122 – AUTOMOTIVE ELECTRICAL SYSTEMS	<i>Review and update of course outline</i>
AUTOMOTIVE TECHNOLOGY 124 – ENGINE PERFORMANCE III – DRIVABILITY	<i>Review and update of course outline</i>
AUTOMOTIVE TECHNOLOGY 127 – ADVANCED AUTOMOTIVE ELECTRICAL SYSTEMS	<i>Review and update of course outline</i>
AUTOMOTIVE TECHNOLOGY 129 – INTRODUCTION TO HYBRID, ELECTRIC AND ALTERNATIVE FUELED VEHICLES	<i>Review and update of course outline</i>
AUTOMOTIVE TECHNOLOGY 130 – AUTOMOTIVE BRAKES AND BRAKE LICENSE	<i>Review and update of course outline</i>
AUTOMOTIVE TECHNOLOGY 135 – ADVANCED BRAKES	<i>Review and update of course outline</i>
AUTOMOTIVE TECHNOLOGY 140 – FOUR WHEEL ALIGNMENT	<i>Review and update of course outline</i>
AUTOMOTIVE TECHNOLOGY 145 – ADVANCED FOUR WHEEL ALIGNMENT	<i>Review and update of course outline</i>
AUTOMOTIVE TECHNOLOGY 152 – DRIVE TRAIN SYSTEMS	<i>Review and update of course outline</i>
AUTOMOTIVE TECHNOLOGY 160 – AIR CONDITIONING AND HEATING SYSTEMS	<i>Review and update of course outline</i>
AUTOMOTIVE TECHNOLOGY 165 – ADVANCED AIR CONDITIONING AND HEATING SYSTEMS	<i>Review and update of course outline</i>
AUTOMOTIVE TECHNOLOGY 170 – ENGINE OVERHAUL	<i>Review and update of course outline</i>
AUTOMOTIVE TECHNOLOGY 175 – ADVANCED ENGINE OVERHAUL	<i>Review and update of course outline</i>
AUTOMOTIVE TECHNOLOGY 193A – ASSET-ENGINE DIAGNOSIS AND REPAIR Prerequisite: None Recommended Preparation: “C” grade or higher or “Pass” in AUTO 122 Electrical or AUTO 196A Ford ASSET Electrical, or AUTO 196B Ford ASSET “TEST OUT” or equivalent. This classroom course teaches proper disassembly, assembly, repair, and diagnostic techniques for Ford engines including the proper timing procedures. The course also includes how to identify and measure critical clearances.	AUTOMOTIVE TECHNOLOGY 111 –ENGINE DIAGNOSIS AND REPAIR Prerequisite: None Recommended Preparation: “C” grade or higher or “Pass” in Automotive Technology 162T – Electronics Diagnosis and Repair Assessment Test Out. This classroom lecture course describes and demonstrates proper operation, disassembly, assembly, repair, and diagnostic techniques for gasoline and diesel engines including the proper timing procedures. The course also includes how to identify and measure critical clearances, and the theory and operation of various combustion engine designs and systems.

PRESENT	PROPOSED CHANGES TO AREAS AS INDICATED
<p>AUTOMOTIVE TECHNOLOGY 193B – ASSET–ENGINE DIAGNOSIS AND REPAIR TEST OUT Prerequisite: None Recommended Preparation: “C” grade or higher or “Pass” in AUTO 122 Electrical or AUTO 196A Ford ASSET Electrical, or AUTO 196B Ford ASSET "TEST OUT" or equivalent. Ford ASSET course to include hands on summative and criterion tests for students to prove knowledge skills and abilities to perform diagnosis and repair of engine and performance systems including diesel engine performance of Ford vehicles in the department laboratory; or by using distance education technologies such as augmented reality or virtual reality or mobile technologies. The tests will include engine component systems such as pistons, bearings, camshafts, electronic and mechanical engine control systems, inputs, actuations, or other auxiliary systems prescribed by Ford Motor Company. This course allows a student residing distance from training centers to complete Ford certification requirements prior to performing warranty service at a dealership. This course is complemented by required work experience at a Ford dealership, and by completing lecture classes engine diagnosis and repair and diesel engine performance.</p>	<p>AUTOMOTIVE TECHNOLOGY 111T – ENGINE DIAGNOSIS AND REPAIR ASSESSMENT TEST OUT Prerequisite: None Recommended Preparation: “C” grade or higher or “Pass” in Automotive Technology 162T – Electronics Diagnosis and Repair Assessment Test Out. This assessment course includes summative and criterion tests for students to prove knowledge skills and abilities to perform diagnosis and repair of engine systems including diesel engines in the department laboratory; or by using distance education technologies such as augmented reality, virtual reality, or mobile technologies. The tests will include engine component systems such as pistons, bearings, camshafts, electronic and mechanical engine control systems, inputs, actuations, or other auxiliary systems. This course allows a student residing distance from training centers to complete certification requirements. This course is complemented by work experience AUTO 111 lecture, and AUTO 111L lab.</p>
<p>AUTOMOTIVE TECHNOLOGY 196A – ASSET–ELECTRICAL Ford ASSET course to include electrical systems, theory, diagnosis and repair procedures utilizing state of the art equipment. Systems covered will be storage, generating and starting. Coverage of accessory systems such as lighting, power seats, power door locks, cruise controls, electric windows, electronic dashboards, radios, windshield wipers, and introduction to electronic systems such as transistors and electronic computer controls. This course is supplemented with required work experience at a Ford dealership where specific competencies are performed.</p>	<p>AUTOMOTIVE TECHNOLOGY 161 – ELECTRICAL DIAGNOSIS AND REPAIR This lecture course includes electrical systems theory, diagnosis and repair procedures utilizing state of the art equipment. Systems covered include storage, generating and starting. Accessory systems covered include lighting, power seats, power door locks, cruise controls, electric windows, electronic dashboards, radios, windshield wipers, and introduction to electronic systems such as transistors and electronic computer controls.</p>
<p>AUTOMOTIVE TECHNOLOGY 196B – ASSET–ELECTRICAL, ELECTRONICS, CLIMATE CONTROL TEST OUT Prerequisite: None Recommended Preparation: “C” grade or higher or “Pass” in AUTO 122 Electrical or AUTO 196A Ford ASSET Electrical, or equivalent. Ford ASSET course to include hands on summative and objective tests for students to prove knowledge skills and abilities to perform diagnosis and repair of electronics systems on Ford vehicles in the department laboratory, or by using distance education technologies such as augmented reality or virtual reality. The tests will include electronics systems such as lighting, power seats, power door locks, cruise controls, electric windows, electronic dashboards, radios, windshield wipers, or other systems as prescribed by Ford Motor Company. This course allows a student residing distance from training centers to complete Ford certification requirements prior to performing warranty service at a dealership. This course is complemented by required work experience at a Ford dealership, and by completing lecture class Electronics.</p>	<p>AUTOMOTIVE TECHNOLOGY 161T – ELECTRICAL DIAGNOSIS AND REPAIR ASSESSMENT TEST OUT Prerequisite: None Recommended Preparation: “C” grade or higher or “Pass” in AUTO 161L Electrical Diagnosis and Repair Laboratory or equivalent. This assessment course includes hands-on summative and criterion tests for students to prove knowledge skills and abilities to perform diagnosis and repair of electrical systems in the department laboratory, or by using distance education technologies such as augmented reality, virtual reality, or mobile technologies. The tests will include electrical systems such as lighting, power seats, power door locks, cruise controls, electric windows, electronic dashboards, radios, windshield wipers, or other systems. This course allows students who reside at a distance from training centers to complete certification requirements. This course is complemented by work experience, AUTO 161 lecture, and AUTO 161L lab.</p>
<p>AUTOMOTIVE TECHNOLOGY 196C – ASSET–ELECTRONICS Prerequisite: Students must have a signed Ford dealership sponsorship agreement. Recommended Preparation: “C” grade or higher or “Pass” in AUTO 122 Electrical or AUTO 196A Ford ASSET Electrical, or AUTO 196B Ford ASSET "TEST OUT" or equivalent. Ford ASSET course to include electronic systems, theory, diagnosis and repair procedures utilizing state of the art equipment. This course applies basic electrical test applications incorporating electronic controls units and computer networks. This course covers various vehicle computer functions such as: body electronics, infotainment systems, and electric vehicle and hybrid vehicle system operations. Students will use test equipment to measure sensor outputs used for computer component activation, and study vehicle electronic wiring diagrams in depth, gaining knowledge skills and abilities to perform complex tests. This course is preparation for Ford certification, and complemented by required work experience in the dealership.</p>	<p>AUTOMOTIVE TECHNOLOGY 162 – ELECTRONICS DIAGNOSIS AND REPAIR Prerequisite: Students must have a signed Ford dealership sponsorship agreement. Recommended Preparation: None This lecture course includes electronic system theory, diagnosis and repair procedures utilizing state of the art equipment. This course applies basic electrical test applications incorporating electronic controls units and computer networks. Covers various vehicle computer functions such as: body electronics, infotainment systems, and electric vehicle and hybrid vehicle system operations. Students will use test equipment to measure sensor outputs used for computer component activation, and study vehicle electronic wiring diagrams in-depth, gaining knowledge, skills and abilities to perform complex tests.</p>

PRESENT	PROPOSED CHANGES TO AREAS AS INDICATED
BUSINESS 122 – INTERMEDIATE ACCOUNTING	<i>Review and update of course outline</i>
BUSINESS 129 – PAYROLL ACCOUNTING AND BUSINESS TAXES	<i>Review and update of course outline</i>
CADD TECHNOLOGY 115 – ENGINEERING GRAPHICS	<i>Review and update of course outline</i>
CADD TECHNOLOGY 120 – Introduction to Computer-Aided Drafting and Design	<i>Review and update of course outline</i>
CADD TECHNOLOGY 125 – SOLID MODELING DESIGN	<i>Review and update of course outline</i>
CADD TECHNOLOGY 127 – SURVEY DRAFTING TECHNOLOGY	<i>Review and update of course outline</i>
CADD TECHNOLOGY 128 – GEOMETRIC DIMENSIONING AND TOLERANCING (GDT)	<i>Review and update of course outline</i>
CADD TECHNOLOGY 129 – ENGINEERING SOLID MODELING	<i>Review and update of course outline</i>
CADD TECHNOLOGY 131 – ARCHITECTURAL COMPUTER-AIDED DRAFTING AND DESIGN	<i>Review and update of course outline</i>
CADD TECHNOLOGY 133 – ADVANCED ARCHITECTURAL COMPUTER-AIDED DRAFTING AND DESIGN	<i>Review and update of course outline</i>
CENTER FOR WATER STUDIES 100 – CAREER PATHWAYS IN WATER & WASTEWATER	<i>Review and update of course outline</i>
CENTER FOR WATER STUDIES 101 – FUNDAMENTALS OF WATER & WASTEWATER	<i>Review and update of course outline</i>
CENTER FOR WATER STUDIES 102 – CALCULATIONS IN WATER & WASTEWATER	<i>Review and update of course outline</i>
CENTER FOR WATER STUDIES 103 – WATER RESOURCES MANAGEMENT	<i>Review and update of course outline</i>
CENTER FOR WATER STUDIES 105 – WATER CONSERVATION	<i>Review and update of course outline</i>
CENTER FOR WATER STUDIES 107 – SAFETY IN WATER & WASTEWATER	<i>Review and update of course outline</i>
CENTER FOR WATER STUDIES 112 – WATER TREATMENT PLANT OPERATIONS	<i>Review and update of course outline</i>
CENTER FOR WATER STUDIES 114 – WASTEWATER TREATMENT PLANT OPERATIONS	<i>Review and update of course outline</i>
CENTER FOR WATER STUDIES 115 – WASTEWATER RECLAMATION AND REUSE	<i>Review and update of course outline</i>
CENTER FOR WATER STUDIES 130 – WATER DISTRIBUTION SYSTEMS	<i>Review and update of course outline</i>
CENTER FOR WATER STUDIES 132 – WASTEWATER COLLECTION SYSTEMS	<i>Review and update of course outline</i>
CENTER FOR WATER STUDIES 134 – PUMPS, MOTORS & VALVES	<i>Review and update of course outline</i>
CENTER FOR WATER STUDIES 204 – APPLIED HYDRAULICS	<i>Review and update of course outline</i>
CENTER FOR WATER STUDIES 206 – ADVANCED ELECTRICAL & INSTRUMENTATION PROCESSES	<i>Review and update of course outline</i>
CENTER FOR WATER STUDIES 212 – ADVANCED WATER TREATMENT PLANT OPERATIONS	<i>Review and update of course outline</i>
CENTER FOR WATER STUDIES 214 – ADVANCED WASTEWATER TREATMENT PLANT OPERATIONS	<i>Review and update of course outline</i>
CENTER FOR WATER STUDIES 230 – ADVANCED WATER DISTRIBUTION SYSTEMS	<i>Review and update of course outline</i>
CENTER FOR WATER STUDIES 282 – CROSS-CONNECTION CONTROL SPECIALIST	<i>Review and update of course outline</i>
CENTER FOR WATER STUDIES 284 – CROSS-CONNECTION CONTROL SPECIALIST–RECYCLED WATER	<i>Review and update of course outline</i>

PRESENT	PROPOSED CHANGES TO AREAS AS INDICATED
CHEMISTRY 102 – INTRODUCTION TO GENERAL, ORGANIC AND BIOLOGICAL CHEMISTRY	<i>Review and update of course outline</i>
CHEMISTRY 120 – PREPARATION FOR GENERAL CHEMISTRY	<i>Review and update of course outline</i>
CHEMISTRY 141 – GENERAL CHEMISTRY I	<i>Review and update of course outline</i>
CHEMISTRY 142 – GENERAL CHEMISTRY II	<i>Review and update of course outline</i>
CHEMISTRY 231 – ORGANIC CHEMISTRY I	<i>Review and update of course outline</i>
CHEMISTRY 232 – ORGANIC CHEMISTRY II	<i>Review and update of course outline</i>
COMMUNICATION 124 – INTERCULTURAL COMMUNICATION	<i>Review and update of course outline</i>
COMMUNICATION 137 – CRITICAL THINKING IN GROUP COMMUNICATION	<i>Review and update of course outline</i>
COMMUNICATION 145 – ARGUMENTATION	<i>Review and update of course outline</i>
COMPUTER AND INFORMATION SCIENCE 110 – PRINCIPLES OF INFORMATION SYSTEMS	<i>Review and update of course outline</i>
COMPUTER AND INFORMATION SCIENCE 121 – NETWORK CABLING SYSTEMS	<i>Review and update of course outline</i>
COMPUTER AND INFORMATION SCIENCE 191 – LINUX OPERATING SYSTEM	<i>Review and update of course outline</i>
COMPUTER AND INFORMATION SCIENCE 270 – PALO ALTO NETWORK SECURITY I	<i>Review and update of course outline</i>
COMPUTER AND INFORMATION SCIENCE 271 – PALO ALTO NETWORKS – CERTIFIED NETWORK SECURITY ADMINISTRATOR (PCNSA)	<i>Review and update of course outline</i>
ENGINEERING 100 – INTRODUCTION TO ENGINEERING AND DESIGN	<i>Review and update of course outline</i>
ENGINEERING 125 – SOLID MODELING DESIGN	<i>Review and update of course outline</i>
ENGINEERING 119 – BASIC ENGINEERING CAD	<i>Review and update of course outline</i>
ENGINEERING 129 – ENGINEERING SOLID MODELING	<i>Review and update of course outline</i>
ENGINEERING 210 – ELECTRIC CIRCUITS	<i>Review and update of course outline</i>
ENGINEERING 218 – PLANE SURVEYING	<i>Review and update of course outline</i>
ENGLISH 236 – CHICANA/O LITERATURE This course is a survey of colonial, post-colonial, and early and contemporary Chicano/Chicana literature. Literary works originally written in English and the Chicano/a bilingual idiom as well as English translations of works written in Spanish will be taught. Students examine the literature as a reflection of Chicano/a experience in the world and the effects of the literature on American culture and politics. Reading selections may consist of poetry, ballads, short stories, novels, plays, and nonfiction prose. Authors such as the following will be read, analyzed, discussed, and written about in critical essays and exams: Alvar Nunez Cabeza de Vaca, Fray Junipero Serra, Maria Amparo Ruiz do Burton, Luis Rodriguez, Gloria Anzaldua, Rudolfo Anaya, Lorna Dee Cervantes, Helena Maria Viramontes, Sandra Cisneros, Jimmy Santiago Baca, Luis J. Rodriguez, Luis Alberto Urrea, Dagoberto Gilb.	This course is a survey of colonial, post-colonial, and contemporary Chicano/Chicana literature. Literary works originally written in English and the Chicano/a bilingual idiom as well as English translations of works written in Spanish will be taught. Reading selections may consist of poetry, ballads, short stories, novels, plays, and nonfiction prose. Students analyze the literature and apply critical theory to describe critical events in the histories, cultures, and intellectual and literary traditions, with special focus on the lived experiences, social struggles, and contributions of Latino/a Americans in the United States. <i>Also listed as ETHN 236. Not open to students with credit in ETHN 236.</i>

PRESENT	PROPOSED CHANGES TO AREAS AS INDICATED
<p>ENGLISH 238 – BLACK LITERATURE This course introduces students to a survey of Black literature, focusing on the early oral tradition, literature of slavery and freedom, the Harlem Renaissance, Modernism, the Black Arts Era, and the contemporary period. Students examine the literature as a reflection of Black experience in the world and the effects of the literature on American culture and politics. Reading selections may consist of poetry, short stories, plays, novels, and nonfiction prose, including essays, letters, political tracts, autobiographies, speeches, and sermons. Authors such as the following will be read, analyzed, discussed, and written about in critical essays and exams: Phillis Wheatley, Harriet Jacobs, Frederick Douglass, Booker T. Washington, W.E.B. Du Bois, Zora Neale Hurston, Langston Hughes, Countee Cullen, Richard Wright, Gwendolyn Brooks, Amiri Baraka, Lucile Clifton, Maya Angelou, Toni Morrison, Alice Walker, August Wilson, Saul Williams, Ntozake Schange, Suzan-Lori Parks, and Natasha Trethewey.</p>	<p>This course introduces students to a survey of Black literature, focusing on the early oral tradition, literature of slavery and freedom, the Harlem Renaissance, Modernism, the Black Arts Era, and the contemporary period. Reading selections may consist of poetry, short stories, plays, novels, and nonfiction prose, including essays, letters, political tracts, autobiographies, speeches, and sermons. Students analyze the literature and apply critical theory to describe critical events in the histories, cultures, and intellectual and literary traditions, with special focus on the lived experiences, social struggles, and contributions of African Americans in the United States. <i>Also listed as ETHN 238. Not open to students with credit in ETHN 238.</i></p>
<p>ENVIRONMENTAL HEALTH AND SAFETY MANAGEMENT 230 – HAZWOPER CERTIFICATION</p>	<p><i>Review and update of course outline</i></p>
<p>EXERCISE SCIENCE 180 – SELF DEFENSE FOR WOMEN</p>	<p><i>Review and update of course outline</i></p>
<p>GRAPHIC DESIGN 105 – FUNDAMENTALS OF DIGITAL MEDIA</p>	<p><i>Review and update of course outline</i></p>
<p>OCEANOGRAPHY 113 – OCEANOGRAPHY LABORATORY</p>	<p><i>Review and update of course outline</i></p>
<p>ORNAMENTAL HORTICULTURE 114 – FLORAL DESIGN I</p>	<p><i>Review and update of course outline</i></p>
<p>ORNAMENTAL HORTICULTURE 220 – LANDSCAPE CONSTRUCTION: CONCRETE AND MASONRY</p>	<p><i>Review and update of course outline</i></p>
<p>POLITICAL SCIENCE 165 – INTRODUCTION TO THE POLITICS OF RACE AND GENDER This course is an introduction to the politics of race and gender. The course offers an overview of the identity, status, and power of groups that have traditionally been politically disadvantaged in the United States. These groups include, but are not limited to, African Americans, Asian-Americans, Native Americans, Latinx, LGBT, and Women.</p>	<p>This course is an introduction to the politics of race and gender. The course offers an overview of the identity, status, and power of Women, Native Americans, African Americans, Latina/o Americans, and Asian Americans from an intersectionality perspective. <i>Also listed as ETHN 165. Not open to students with credit in ETHN 165.</i></p>
<p>PSYCHOLOGY 125 – CROSS-CULTURAL PSYCHOLOGY.</p>	<p><i>Review and update of course outline</i></p>
<p>PSYCHOLOGY 138 – SOCIAL PSYCHOLOGY</p>	<p><i>Review and update of course outline</i></p>
<p>PSYCHOLOGY 140 – PHYSIOLOGICAL PSYCHOLOGY</p>	<p><i>Review and update of course outline</i></p>
<p>PSYCHOLOGY 205 – RESEARCH METHODS IN PSYCHOLOGY</p>	<p><i>Review and update of course outline</i></p>
<p>SOCIOLOGY 114 – INTRODUCTION TO RACE & ETHNICITY An introduction to the sociological analysis of ethnicity, race, and immigration in a global context. Topics include the history of minority groups in the United States, patterns of interaction between racial and ethnic groups, colonialism, immigration, identity formation, prejudice, discrimination, racism, institutional racism, civil rights movements, and the intersection between race, social class, and gender.</p>	<p>An introduction to the sociological analysis of ethnicity, race, and immigration in the United States. Topics include the history of racialized and minoritized groups in the United States, patterns of interaction between racial and ethnic groups, colonialism, immigration, identity formation, prejudice, discrimination, ethnocentrism, racism, institutional racism, social movements for civil rights, liberation and decolonization, and the intersection of race and ethnicity with other forms of difference. <i>Also listed as ETHN 114. Not open to students with credit in ETHN 114.</i></p>
<p>SOCIOLOGY 120 – INTRODUCTORY SOCIOLOGY</p>	<p><i>Review and update of course outline</i></p>
<p>SOCIOLOGY 130 – CONTEMPORARY SOCIAL PROBLEMS</p>	<p><i>Review and update of course outline</i></p>
<p>SOCIOLOGY 138– SOCIAL PSYCHOLOGY</p>	<p><i>Review and update of course outline</i></p>
<p>SOCIOLOGY 140 - SEX AND GENDER ACROSS CULTURES</p>	<p><i>Review and update of course outline</i></p>
<p>SURVEYING 127 – SURVEY DRAFTING TECHNOLOGY</p>	<p><i>Review and update of course outline</i></p>
<p>SURVEYING 218 – PLANE SURVEYING</p>	<p><i>Review and update of course outline</i></p>
<p>SURVEYING 220 – BOUNDARY CONTROL AND LEGAL PRINCIPLES</p>	<p><i>Review and update of course outline</i></p>

PRESENT	PROPOSED CHANGES TO AREAS AS INDICATED
SURVEYING 240 – ADVANCED SURVEYING	<i>Review and update of course outline</i>

DISTANCE EDUCATION

Course	Title
AUTO 161L	Electrical Diagnosis and Repair Laboratory
AUTO 162L	Electronics Diagnosis and Repair Laboratory
AUTO 162T	Electronics Diagnosis and Repair Assessment Test Out
AUTO 161 (formerly 196A)	Electrical Diagnosis and Repair
AUTO 161 T (formerly 196B)	Electrical Diagnosis and Repair Assessment Test Out
AUTO 162 (formerly 196C)	Electronics Diagnosis and Repair
BUS 122	Intermediate Accounting
BUS 129	Payroll Accounting and Business Taxes
ETHN 107	History Of Race & Ethnicity in the United States
ETHN 111	Culture, Art, & Ideas of the United States
ETHN 150	Latinx Sociology
ETHN 165	Introduction to the Politics Of Race And Gender
ETHN 236	Chicana/o Literature
ETHN 238	Black Literature
HIST 107	History Of Race & Ethnicity in the United States
HUM 111	Culture, Art, & Ideas of the United States
PSY 125	Cross-Cultural Psychology
PSY 138	Social Psychology
SOC 138	Social Psychology
SOC 150	Latinx Sociology

EMERGENCY REMOTE TEACHING

Course	Title
AUTO 120	Engine Performance I – Mechanical and Ignition Systems
AUTO 122	Automotive Electrical Systems
AUTO 124	Engine Performance III – Drivability
AUTO 127	Advanced Automotive Electrical Systems
AUTO 129	Introduction to Hybrid, Electric, and Alternative Fueled Vehicles
AUTO 130	Automotive Brakes and Brake License
AUTO 135	Advanced Brakes
AUTO 140	Four Wheel Alignment
AUTO 145	Advanced Four Wheel Alignment
AUTO 152	Drive Train Systems
AUTO 160	Air Conditioning and Heating Systems

AUTO 165	Advanced Air Conditioning and Heating Systems
AUTO 170	Engine Overhaul
AUTO 175	Advanced Engine Overhaul
CADD 115	Engineering Graphics
CADD 120	Introduction to Computer-Aided Drafting and Design
CADD 125	Solid Modeling Design
CADD 127	Survey Drafting Technology
CADD 128	Geometric Dimensioning and Tolerancing (GDT)
CADD 129	Engineering Solid Modeling
CADD 131	Architectural Computer-Aided Drafting and Design
CADD 133	Advanced Architectural Computer-Aided Drafting and Design
CWS 100	Career Pathways in Water & Wastewater
CWS 101	Fundamentals of Water & Wastewater
CWS 102	Calculations in Water & Wastewater
CWS 103	Water Resources Management
CWS 105	Water Conservation
CWS 107	Safety in Water & Wastewater
CWS 112	Water Treatment Plant Operations
CWS 114	Wastewater Treatment Plant Operations
CWS 115	Wastewater Reclamation and Reuse
CWS 130	Water Distribution Systems
CWS 132	Wastewater Collection Systems
CWS 134	Pumps, Motors, & Valves
CWS 204	Applied Hydraulics
CWS 206	Advanced Electrical & Instrumentation Processes
CWS 212	Advanced Water Treatment Plant Operations
CWS 214	Advanced Wastewater Treatment Plant Operations
CWS 230	Advanced Water Distribution Systems
CWS 282	Cross-Connection Control Specialist
CWS 284	Cross-Connection Control Specialist – Recycled Water
CHEM 102	Introduction to General Organic and Biological Chemistry
CHEM 120	Preparation for General Chemistry
CHEM 141	General Chemistry I
CHEM 142	General Chemistry II
CHEM 231	Organic Chemistry I
CHEM 232	Organic Chemistry II
COMM 124	Intercultural Communication
COMM 137	Critical Thinking in Group Communication
COMM 145	Argumentation
CIS 270	Palo Alto Network Security I

CIS 271	Palo Alto Networks – Certified Network Security Administrator (PCNSA)
ENGR 100	Introduction to Engineering and Design
ENGR 119	Basic Engineering Cad
ENGR 125	Solid Modeling Design
ENGR 129	Engineering Solid Modeling
ENGR 210	Electric Circuits
ENGR 218	Plane Surveying
EHSM 230	Hazwoper Certification
ES 180	Self Defense for Women
MATH 121	Quantitative Reasoning for Career Education
OCEA 113	Oceanography Laboratory
OH 114	Floral Design I
OH 220	Landscape Construction: Concrete and Masonry
PSY 140	Physiological Psychology
SOC 114	Introduction to Race & Ethnicity
SOC 120	Introductory Sociology
SOC 130	Contemporary Social Problems
SOC 140	Sex and Gender Across Cultures
SURV 127	Survey Drafting Technology
SURV 218	Plane Surveying
SURV 220	Boundary Control And Legal Principles
SURV 240	Advanced Surveying

DEGREE AND CERTIFICATE MODIFICATIONS

ORNAMENTAL HORTICULTURE

I. ARBORICULTURE Associate in Science Degree

This major encompasses urban forestry, professional tree care, and tree trimming. Students will learn care and pruning of landscape trees, palms and related plants as well as common fruit trees. Course work includes skill development in tree climbing and pruning techniques, basic tree maintenance, and principles of urban forestry. Graduates are employed by private tree care companies, public agencies, landscape contractors, wholesale and retail nurseries, or may be self-employed.

Program Learning Outcomes

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

- Describe proper and safe principles and practices of tree climbing.
- Describe the principles of tree biology and physiology for growth management.
- Demonstrate proper tree pruning procedures per industry standards.
- Identify common biotic and abiotic problems for trees common to Southern California landscapes and list appropriate control measures.
- Conduct a visual tree assessment for tree risk or value appraisal.
- Draft a tree preservation plan for a construction site.

Associate in Science Degree Requirements:

<i>Course</i>	<i>Title</i>	<i>Units</i>
OH 120	Fundamentals of Ornamental Horticulture	3
OH 130	Plant Pest Control	3
OH 140	Soils	3
OH 170	Plant Materials: Trees and Shrubs	3
OH 260	Arboriculture	3
OH 290*	Cooperative Work Experience Education	<u>3</u>
		18

Select two of the following:

OH 263	Urban Forestry	1
OH 264	Safe Work Practices in Tree Climbing and Arboriculture	1
OH 266	Science in Practice for Arboriculture	<u>1</u>
		2

Select one of the following:

BUS 110	Introduction to Business	3
BUS 111	Entrepreneurship: Starting and Developing a Business	3
BUS 125	Business Law: Legal Environment of Business	<u>3</u>
		3

Select nine units from the following:

OH 102	Xeriscape: Water Conservation in the Landscape	2
OH 150	Landscape Architecture I	3
OH 172	Introduction to Landscape Design	3
OH 174	Turf and Ground Cover Management	3
OH 221	Landscape Construction: Irrigation and Carpentry	3
OH 235	Principles of Landscape Irrigation	4
OH 250	Landscape Water Management	2
OH 255	Sustainable Urban Landscapes Principles and Practices	2
OH 275	Diagnosing Horticultural Problems	3
SPAN 120	Spanish I	<u>5</u>
		9
	Total Required	32
	Plus General Education Requirements	

*Student must complete six units within the major at Cuyamaca College to be eligible for this course.

Certificate of Achievement

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

(Ornamental Horticulture continued)

II. IRRIGATION TECHNOLOGY Associate in Science Degree

This specialized field focuses on the design, installation and management of landscape irrigation systems. The program is designed for entry level students, those seeking to upgrade existing skills, or those wishing to transfer to a four-year degree program at Cal Poly or other institution. The use of current design theory, installation techniques, and management programs form the heart of the curriculum. Graduates are employed by landscape architects, irrigation consultants, landscape contractors, public agencies or may be self-employed.

Program Learning Outcomes

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

- Explain the relationships between plants and their soil and water environment including the use of recycled water.
- Demonstrate an understanding of landscape irrigation hydraulics.
- Identify irrigation system components and demonstrate their proper installation.
- Demonstrate a basic understanding of irrigation design principles.
- Demonstrate the ability to calculate an irrigation schedule.
- Demonstrate the ability to diagnose irrigation system problems related to valves, wiring and hydraulics.
- Explain the importance of, and best practices for, water conservation in regards to water sources, water quality and regulations.
- Gain practical experience working in the landscape industry.

Associate in Science Degree Requirements:

<i>Course</i>	<i>Title</i>	<i>Units</i>
OH 102	Xeriscape: Water Conservation in the Landscape	2
OH 120	Fundamentals of Ornamental Horticulture	3
OH 140	Soils	3
OH 221	Landscape Construction: Irrigation and Carpentry	3
OH 235	Principles of Landscape Irrigation	4
OH 250	Landscape Water Management	2
OH 290*	Cooperative Work Experience Education	<u>3</u>
		20

Select one of the following:

BUS 110	Introduction to Business	3
BUS 111	Entrepreneurship: Starting and Developing a Business	3
BUS 125	Business Law: Legal Environment of Business	<u>3</u>
		3

Select nine units from the following:

OH 130	Plant Pest Control	3
OH 150	Landscape Architecture I	<u>3</u>
OH 170	Plant Materials: Trees and Shrubs	3
OH 171	Landscape Drafting	<u>1</u>
OH 172	Introduction to Landscape Design	<u>3</u>
OH 174	Turf and Ground Cover Management	3
OH/CADD 200**	Introduction to Computer-Aided Landscape Design	3
OH 225	Landscape Contracting	3
OH 238	Irrigation System Design	3
SPAN 120	Spanish I	<u>5</u>
		9
	Total Required	32
	Plus General Education Requirements	

*Student must complete six units within the major at Cuyamaca College to be eligible for this course.

**May also be offered at Southwestern College as LA 200.

Certificate of Achievement

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

(Ornamental Horticulture continued)

VI. LANDSCAPE TECHNOLOGY
Associate in Science Degree

Landscape installation and management forms the focus of this program. Students will learn the latest methods, materials and techniques in the landscape industry. Those seeking careers in landscape technology are entering a challenging career field that requires knowledge of plant material, turfgrass, landscape and irrigation design, soils, pest control and landscape construction. A professional in the field has the opportunity to be involved in working with people as well as plants as the manager must direct and supervise employees, deal with clients and suppliers, and may become involved in professional organizations. Students entering the landscape industry, those already employed but seeking to upgrade their skills, and those wishing to transfer to Cal Poly or other four-year degree programs will benefit from the curriculum. Graduates are employed by landscape contractors, public agencies or may be self-employed.

Program Learning Outcomes

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

- Understand the principles of plant structure function and plant growth.
- Identify 175 trees, shrubs, annuals, perennials and turf grass species commonly used in Southern California landscapes.
- Using standard industry practices, develop guidelines and demonstrate the ability to perform proper fertilizing, pruning, mulch application and irrigation of Southern California landscapes.
- Understand the elements of water management of a large landscape site.
- Identify common biotic and abiotic problems common to Southern California landscapes and list appropriate control measures.
- Gain practical experience working in the landscape industry.

Associate in Science Degree Requirements:

<i>Course</i>	<i>Title</i>	<i>Units</i>
OH 120	Fundamentals of Ornamental Horticulture	3
OH 130	Plant Pest Control	3
OH 140	Soils	3
OH 170	Plant Materials: Trees and Shrubs	3
OH 180	Plant Materials: Annuals and Perennials	3
OH 235	Principles of Landscape Irrigation	4
OH 250	Landscape Water Management	2
OH 290*	Cooperative Work Experience Education	<u>3</u>
		24

Select one of the following:

BUS 110	Introduction to Business	3
BUS 111	Entrepreneurship: Starting and Developing a Business	3
BUS 125	Business Law: Legal Environment of Business	<u>3</u>
		3

Select five units from the following:

OH 102	Xeriscape: Water Conservation in the Landscape	2
OH 105	Edibles in Urban Landscapes	1.5
OH 150	Landscape Architecture I	<u>3</u>
OH 151	Landscape Architecture II	<u>3</u>
OH 172	Introduction to Landscape Design	<u>3</u>
OH 173	Intermediate Landscape Design	<u>3</u>
OH 174	Turf and Ground Cover Management	3
OH 220	Landscape Construction: Concrete and Masonry	3
OH 221	Landscape Construction: Irrigation and Carpentry	3
OH 222	Japanese Garden Design and Construction	1
OH 225	Landscape Contracting	3
OH 255	Sustainable Urban Landscapes Principles and Practices	2
OH 260	Arboriculture	3
OH 275	Diagnosing Horticultural Problems	3
SPAN 120	Spanish I	<u>5</u>
		5-5.5
	Total Required	32-32.5
	Plus General Education Requirements	

*Student must complete six units within the major at Cuyamaca College to be eligible for this course.

Certificate of Achievement

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

(Ornamental Horticulture continued)

VII. NURSERY TECHNOLOGY

Associate in Science Degree

Students enrolled in this major pursue careers in the wholesale production and retail sales of horticultural crops. Course work will focus on plant propagation, greenhouse plant production, and horticultural practices related to production and sales of landscape and greenhouse plant material. Students entering the nursery industry, those already employed but seeking upgraded skills, and those wishing to transfer to Cal Poly or other four-year degree programs will benefit from the curriculum. Graduates are employed by wholesale and retail nurseries, public agencies or may be self-employed.

Program Learning Outcomes

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

- Identify 250 trees, shrubs, annuals, perennials and turf grass species commonly used in Southern California landscapes.
- Explain the principles of plant structure function and plant growth.
- Demonstrate an understanding of common plant propagation practices.
- Cultivate horticultural crops in both natural and artificial environments common in the horticulture industry.
- Demonstrate an understanding of soil principles.
- Explain how to produce a business plan for the nursery industry.
- Gain practical experience working in the landscape industry.

Associate in Science Degree Requirements:

<i>Course</i>	<i>Title</i>	<i>Units</i>
OH 120	Fundamentals of Ornamental Horticulture	3
OH 121	Plant Propagation	3
OH 130	Plant Pest Control	3
OH 140	Soils	3
OH 170	Plant Materials: Trees and Shrubs	3
OH 180	Plant Materials: Annuals and Perennials	3
OH 290*	Cooperative Work Experience Education	<u>3</u>
		21

Select one of the following:

BUS 110	Introduction to Business	3
BUS 111	Entrepreneurship: Starting and Developing a Business	3
BUS 125	Business Law: Legal Environment of Business	<u>3</u>
		3

Select eight units from the following:

BIO 122	The Secret Life of Plants	4
OH 102	Xeriscape: Water Conservation in the Landscape	2
OH 114	Floral Design I	3
OH 150	Landscape Architecture I	<u>3</u>
OH 172	Introduction to Landscape Design	3
OH 240	Greenhouse Plant Production	3
SPAN 120	Spanish I	<u>5</u>
		8-9
	Total Required	32-33
	Plus General Education Requirements	

*Student must complete six units within the major at Cuyamaca College to be eligible for this course.

Certificate of Achievement

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

(Ornamental Horticulture continued)

VIII. SUSTAINABLE URBAN LANDSCAPES
Associate in Science Degree

This curriculum is designed to investigate the current trends and provide practical experience in sustainable landscape design, construction and maintenance. Students will use technology, materials and methods that enhance the urban landscape with minimal input of labor and materials while reducing negative environmental impacts. Students entering the landscape industry, those already employed but seeking upgraded skills, and those wishing to transfer to four-year degree programs will benefit from the curriculum. Graduates are employed by landscape contractors, landscape architects and designers, public agencies, or are self-employed.

Program Learning Outcomes

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

- Use industry accepted standards to conduct site evaluations and determine site assets and constraints for the development of aesthetically pleasing and sustainable landscapes.
- Identify common biotic and abiotic problems common to Southern California landscapes and list appropriate control measures.
- Utilize standard industry practices and principles of plant structure, function and plant growth to develop guidelines for the proper maintenance of Southern California landscapes.
- Demonstrate the ability to calculate an irrigation schedule.
- Explain the elements of water management of a large landscape site.
- Gain practical experience working in the landscape industry.

CAREER OPPORTUNITIES

- Irrigation Manager
- Landscape Design Consultant
- Landscape Maintenance Supervisor
- Landscape Manager
- Landscape Water Auditor
- Water Conservation Specialist

Associate in Science Degree Requirements:

<i>Course</i>	<i>Title</i>	<i>Units</i>
OH 120	Fundamentals of Ornamental Horticulture	3
OH 130	Plant Pest Control	3
OH 140	Soils	3
OH 170	Plant Materials: Trees and Shrubs	3
OH 250	Landscape Water Management	2
OH 255	Sustainable Urban Landscape Principles and Practices	2
OH 263	Urban Forestry	1
OH 290*	Cooperative Work Experience Education	<u>3</u>
		20

Select one of the following:

BUS 110	Introduction to Business	3
BUS 111	Entrepreneurship: Starting and Developing a Business	3
BUS 125	Business Law: Legal Environment of Business	<u>3</u>
		3

Select a minimum of eight units from the following:

OH 102	Xeriscape: Water Conservation in the Landscape	2
OH 105	Edibles in Urban Landscapes	1.5
<u>OH 150</u>	<u>Landscape Architecture I</u>	<u>3</u>
OH 172	Introduction to Landscape Design	3
OH 180	Plant Materials: Annuals and Perennials	3
OH 220	Landscape Construction: Concrete and Masonry	3
OH 221	Landscape Construction: Irrigation and Carpentry	3
OH 235	Principles of Landscape Irrigation	4
OH 260	Arboriculture	3
OH 266	Science in Practice for Arboriculture	<u>1</u>
		<u>8-8.5</u>
	Total Required	31-31.5
	Plus General Education Requirements	

*Student must complete six units within the major at Cuyamaca College to be eligible for this course.

Certificate of Achievement

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

(Ornamental Horticulture continued)

BASIC ORNAMENTAL HORTICULTURE Certificate of Specialization

This certificate prepares students to work in the horticulture industry at an entry or intermediate level by providing them with basic knowledge of horticultural principles and practices. Upon completion, students will be prepared to work in one of many fields of horticulture, or choose to continue their studies and apply their earned credits to a degree or certificate of achievement.

Program Learning Outcomes

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

- Understand the basic principles of plant growth.
- Identify 125 trees and shrub species commonly used in Southern California landscapes.
- Understand the basic principles of soil science as they relate to plant growth and plant nutrition.
- Apply basic horticultural knowledge to specific field of study in ornamental horticulture.
- Understand business principles as they apply to working in ornamental horticulture.

Certificate Requirements:

<i>Course</i>	<i>Title</i>	<i>Units</i>
OH 120	Fundamentals of Ornamental Horticulture	3
OH 170	Plant Materials: Trees and Shrubs	<u>3</u>
		6

Select one of the following:

OH 130	Plant Pest Control	3
OH 140	Soils	3
OH 180	Plant Materials: Annuals and Perennials	<u>3</u>
		3

Select one of the following:

BUS 110	Introduction to Business	3
BUS 111	Entrepreneurship: Starting and Developing a Business	3
BUS 125	Business Law: Legal Environment of Business	<u>3</u>
		3

Select at least three units from the following:

OH 114	Floral Design I	3
OH 121	Plant Propagation	3
OH 150	Landscape Architecture I	<u>3</u>
OH 172	Introduction to Landscape Design	3
OH 174	Turf and Ground Cover Management	3
OH 220	Landscape Construction: Concrete and Masonry	3
OH 221	Landscape Construction: Irrigation and Carpentry	3
OH 260	Arboriculture	<u>3</u>
		3
	Total Required	15

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