CUYAMACA COLLEGE
ACADEMIC PROGRAM CHANGES
May 2023
for the
2023-2024 CATALOG

COURSE ADDITIONS

ART 104 – ARTISTS AND DESIGNERS TODAY **3 UNITS**
Prerequisite: None
3 hours lecture
This course examines the wide variety of formats that contemporary artists work in today. It is an overview of current practices that enables students to gain insight into art, design, craft, media, and new genre disciplines, including but not limited to painting, sculpture, graphic design, interior design, industrial design, furniture design, photography, fibers, ceramics, metalwork, installation, performance, street art, and multimedia arts. Students will be introduced to how visual culture is contextualized, theorized, and displayed through curatorial studies and social media. Students will be exposed to course content through lectures, visiting artists' talks, readings, and visits to local galleries and museums. This course is designed for students beginning the study of art and/or related disciplines.
(CSU)

ART 119 – COLOR THEORY **3 UNITS**
Prerequisite: None
2 hours lecture, 4 hours laboratory
In the visual arts, color theory is the body of practical guidance for color mixing and the visual effects of a specific color combination. As an element of visual expression, color is both physical and psychological. This course will explore the principles, theories, and applications of additive and subtractive color in two dimensions. Topics will include major historical and contemporary color systems, production of projects in applied color, and the elements of design as they apply to the optical perception of color.
(CSU)

ART 142 – ART OF AFRICA, OCEANIA, AND THE AMERICAS **3 UNITS**
Prerequisite: None
3 hours lecture
This course is an introduction to the visual arts produced by peoples of Africa, Oceania, and the Americas from the prehistoric to contemporary periods. Topics include art, design, and architecture, and emphasize how art represents each region's cultural, religious, social, and political orientations. This course is designed for art and art history majors as well as others interested in the humanities.
(AA/AS GE, CSU)

ART 210 – INTRODUCTION TO PRINTMAKING **3 UNITS**
Prerequisite: None
Recommended Preparation: "C" grade or higher or "Pass" in ART 120 or ART 124 or equivalent
2 hours lecture, 4 hours laboratory
This course is an introduction to the basic materials, equipment, and processes of printmaking, including relief (linocut and woodcut), intaglio (drypoint and collagraph), planography (monotype), and stencil (screen print). Topics will include major historical and contemporary cultural movements in printmaking, color, and design applications, as well as creative responses to materials and subject matter.
(CSU)

ART 211 – INTERMEDIATE PRINTMAKING **3 UNITS**
Prerequisite: "C" grade or higher or "Pass" in ART 210 Introduction to Printmaking
2 hours lecture, 4 hours laboratory
This intermediate printmaking course explores color printing and approaches at a deeper level.
It includes the integration of digital imagery and technologies to generate and alter images in preparation for traditional, physical, and hybrid printing processes. Topics will include current cultural movements in printmaking, complex color, and design applications, as well as individualized approaches to materials and subject matter.
(CSU)

ART 240 – PORTRAITURE AND CHARACTER DESIGN **3 UNITS**
Prerequisite: None
Recommended Preparation: "C" grade or higher or "Pass" in ART 124 or equivalent
2 hours lecture, 4 hours laboratory
This course will enable students to develop a personal approach to portraiture through drawing methods and techniques, providing a concentrated examination of the human head, character, and anatomy. Students will explore how to work directly from the model using expressive drawing and multi-media approaches. Students will examine how portraiture and character design express ideas about power, social status, stages of life, gender, identity, and fantasy. They will also be introduced to a range of historical and contemporary artists whose work features the portrait as the subject matter.
(CSU)

ENGLISH AS A SECOND LANGUAGE 1AS – SUPPORT FOR ESL ACCELERATED READING AND WRITING **3 UNITS**
Prerequisite: None
Corequisite: Concurrent enrollment in ESL 1A or 1B
3 hours lecture
This course focuses on supplemental instruction in grammar, reading, writing, listening, and speaking to complement the studies in ESL 1A (Accelerated Reading and Writing for English as a Second Language). It develops and adds to skills in grammar, sentence structure, text analysis, and oral communication such as is utilized in ESL 1A. Software may be utilized to reinforce skills introduced in class. **Pass/No Pass only. Non-degree applicable.**

ENGLISH AS A SECOND LANGUAGE 1BS – SUPPORT FOR ADVANCED ESL READING AND WRITING **3 UNITS**
Prerequisite: None
Corequisite: Concurrent enrollment in ESL 1A or 1B
3 hours lecture
This course focuses on supplemental instruction in grammar, reading, writing, listening, and speaking to complement the studies in ESL 1B (Accelerated Reading and Writing for English as a Second Language). It develops and adds to skills in grammar, sentence structure, text analysis, and oral communication such as is utilized in ESL 1B. Software may be utilized to reinforce skills introduced in class. **Pass/No Pass only. Non-degree applicable.**

ENGLISH AS A SECOND LANGUAGE 2S – SUPPORT FOR ESL ACCELERATED COMPOSITION **3 UNITS**
Prerequisite: None
Corequisite: Concurrent enrollment in ESL 2
3 hours lecture
This course focuses on supplemental instruction in grammar, reading, writing, listening, and speaking to complement the studies in ESL 2 (Accelerated Composition for English as a Second Language). It develops and adds to skills in grammar, sentence structure, text analysis, and oral communication such as is utilized in ESL 2. Software may be utilized to reinforce skills introduced in class. **Pass/No Pass only. Non-degree applicable.**

HUMANITIES 118 – INTRODUCTION TO KUMEYAAY BASKETRY & POTTERY **3 UNITS**
Prerequisite: None
3 hours lecture
An introductory course to teach the traditional Kumeyaay process of creating juncus baskets and pottery. Students will learn gathering, material processing, and the cultural importance and uses of various basketry patterns and pottery styles and types. Field trips to various cultural sites for gathering purposes are a required component of this class. *Also listed as KUMEY 118. Not open to students with credit in KUMEY 118.*
(AA/AS GE, CSU)

KUMEYAAY STUDIES 118 – INTRODUCTION TO KUMEYAAY BASKETRY & POTTERY **3 UNITS**
Prerequisite: None
3 hours lecture
An introductory course to teach the traditional Kumeyaay process of creating juncus baskets and pottery. Students will learn gathering, material processing, and the cultural importance and uses of various basketry patterns and pottery styles and types. Field trips to various cultural sites for gathering purposes are a required component of this class. *Also listed as HUM 118. Not open to students with credit in HUM 118.*
(AA/AS GE, CSU)

KUMEYAAY STUDIES 133 – ETHNOECOLOGY **3 UNITS**
Prerequisite: None
3 hours lecture
Ethnoecology is the study of the dynamic relationship between people, biota and their environment. Through the scientific study of the principles of ecology, students use their knowledge and scientific reasoning to assess the impacts of humans on Earth's natural systems. This course will focus on the ecological and cultural basis of indigenous land management; particular attention will be paid to the environmental stewardship of the Kumeyaay/Diegueño people of Southern California and Northern Baja California. Local field trips and restoration projects in Cuyamaca College's nature preserve will provide opportunities for working directly with natural habitats. *Also listed as BIO 133. Not open to students with credit in BIO 133.*
(AA/AS GE, CSU, UC)

KUMEYAAY STUDIES 134 – ETHNOBOTANY **3 UNITS**

Prerequisite: None
3 hours lecture
Ethnobotany is the scientific study of the relationships that exist between peoples and plants, from the perspective of their traditional medicinal, cultural and utilitarian uses. Focusing on the Kumeyaay/Diegueño people of southern California, students will utilize the principles of scientific inquiry and modern plant biology to classify native plants, identify their anatomical structures and phytochemical composition and to relate this information to how plants were woven into the culture of indigenous populations and how plants were used to sustain, heal and protect their people. The historical uses and modern applications of this knowledge will be evaluated. Local field trips will provide opportunities for identification and scientific study of the plants in their natural habitats. *Also listed as BIO 134. Not open to students with credit in BIO 134.*
(AA/AS GE, CSU, UC)

KUMEYAAY STUDIES 135 – ETHNOBOTANY/ETHNOECOLOGY LAB **1 UNIT**

Prerequisite: "C" grade or higher or "Pass" in either BIO 133 or BIO 134 or KUMEY 133 or KUMEY 134 or concurrent enrollment
3 hours laboratory
Laboratory experiments to complement KUMEY 133/BIO 133: Ethnoecology and KUMEY 134/BIO 134: Ethnobotany. Basic concepts in cell biology, plant taxonomy/identification, plant anatomy, plant physiology, and ecology will be covered. Students will utilize the tools of scientific inquiry to examine the relationship between plants, people and the environment using hands-on experiences. The labs will feature lessons in plant morphology, plant ecology, phytochemistry, and traditional preparation and uses of plants. Particular attention will be paid to the plants and plant communities within the Kumeyaay/Diegueño ethnobotanical region of Southern California. *Also listed as BIO 135. Not open to students with credit in BIO 135.*
(AA/AS GE, CSU, UC)

KUMEYAAY STUDIES 150- INTRODUCTION TO CULTURAL RESOURCE MANAGEMENT **3 UNITS**

Prerequisite: None
2 hours lecture, 3 hours laboratory
An introduction to cultural resource management. Students will be exposed to archaeological methods, field practices, laws and regulations and learn how to be an effective cultural monitor to ensure the protection and preservation of Kumeyaay resources. *Also listed as ANTH 150. Not open to students with credit in ANTH 150.*
(AA/AS GE, CSU, UC)

STEM 101– INTRODUCTION TO COLLEGE SUCCESS IN STEM **0.5-1 UNIT**

Prerequisite: None
Corequisite: COUN 101
0.5-1 hour lecture
New to college? Interested in STEM? This low risk, fun, introductory class will get you connected with the resources to help you succeed at Cuyamaca College while providing a broad survey of what STEM has to offer through engaging, hands-on activities. Students will get to interact with like-minded peers, key STEM faculty, and STEM-specialized counselors. Students will learn about the college, its facilities, services, general education requirements, and certificate, degree, and transfer options in as well as receiving preliminary education planning in a supportive and caring environment. **Pass/No Pass only. Non-degree applicable.**

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
ANTHROPOLOGY 150- INTRODUCTION TO CULTURAL RESOURCE MANAGEMENT An introduction to cultural resource management. Students will be exposed to archaeological methods, field practices, laws and regulations and learn how to be an effective cultural monitor to ensure the protection and preservation of Kumeyaay resources.	An introduction to cultural resource management. Students will be exposed to archaeological methods, field practices, laws and regulations and learn how to be an effective cultural monitor to ensure the protection and preservation of Kumeyaay resources. *Also listed as KUMEY 150. Not open to students with credit in KUMEY 150.*
BIOLOGY 133 – ETHNOECOLOGY Ethnoecology is the study of the dynamic relationship between people, biota and their environment. Through the scientific study of the principles of ecology, students use their knowledge and scientific reasoning to assess the impacts of humans on Earth's natural systems. This course will focus on the ecological and cultural basis of indigenous land management; particular attention will be paid to the environmental stewardship of the Kumeyaay/Diegueño people of Southern California and Northern Baja California. Local field trips and restoration projects in Cuyamaca College's nature preserve will provide opportunities for working directly with natural habitats.	Ethnoecology is the study of the dynamic relationship between people, biota and their environment. Through the scientific study of the principles of ecology, students use their knowledge and scientific reasoning to assess the impacts of humans on Earth's natural systems. This course will focus on the ecological and cultural basis of indigenous land management; particular attention will be paid to the environmental stewardship of the Kumeyaay/Diegueño people of Southern California and Northern Baja California. Local field trips and restoration projects in Cuyamaca College's nature preserve will provide opportunities for working directly with natural habitats. *Also listed as KUMEY 133. Not open to students with credit in KUMEY 133.*
BIOLOGY 134 – ETHNOBOTANY Ethnobotany is the scientific study of the relationships that exist between peoples and plants, from the perspective of their traditional medicinal, cultural and utilitarian uses. Focusing on the Kumeyaay/Diegueño people of southern California, students will utilize the principles of scientific inquiry and modern plant biology to classify native plants, identify their anatomical structures and phytochemical composition and to relate this information to how plants were woven into the culture of indigenous populations and how plants were used to sustain, heal and protect their people. The historical uses and modern applications of this knowledge will be evaluated. Local field trips will provide opportunities for identification and scientific study of the plants in their natural habitats. *Not open to students with credit in GEOG 132.*	Ethnobotany is the scientific study of the relationships that exist between peoples and plants, from the perspective of their traditional medicinal, cultural and utilitarian uses. Focusing on the Kumeyaay/Diegueño people of southern California, students will utilize the principles of scientific inquiry and modern plant biology to classify native plants, identify their anatomical structures and phytochemical composition and to relate this information to how plants were woven into the culture of indigenous populations and how plants were used to sustain, heal and protect their people. The historical uses and modern applications of this knowledge will be evaluated. Local field trips will provide opportunities for identification and scientific study of the plants in their natural habitats. *Also listed as KUMEY 134. Not open to students with credit in KUMEY 134.*
BIOLOGY 135 – ETHNOBOTANY/ETHNOECOLOGY LAB Prerequisite: "C" grade or higher or "Pass" in either BIO 133 or 134 or concurrent enrollment Laboratory experiments to complement BIO 133: Ethnoecology and BIO 134: Ethnobotany. Basic concepts in cell biology, plant taxonomy/identification, plant anatomy, plant physiology, and ecology will be covered. Students will utilize the tools of scientific inquiry to examine the relationship between plants, people and the environment using hands-on experiences. The labs will feature lessons in plant morphology, plant ecology, phytochemistry, and traditional preparation and uses of plants. Particular attention will be paid to the plants and plant communities within the Kumeyaay/Diegueño ethnobotanical region of Southern California.	Prerequisite: "C" grade or higher or "Pass" in either BIO 133 or BIO 134 or KUMEY 133 or KUMEY 134 or concurrent enrollment Laboratory experiments to complement KUMEY 133/BIO 133: Ethnoecology and KUMEY 134/BIO 134: Ethnobotany. Basic concepts in cell biology, plant taxonomy/identification, plant anatomy, plant physiology, and ecology will be covered. Students will utilize the tools of scientific inquiry to examine the relationship between plants, people and the environment using hands-on experiences. The labs will feature lessons in plant morphology, plant ecology, phytochemistry, and traditional preparation and uses of plants. Particular attention will be paid to the plants and plant communities within the Kumeyaay/Diegueño ethnobotanical region of Southern California. *Also listed as KUMEY 135. Not open to students with credit in KUMEY 135.*
COMPUTER AND INFORMATION SCIENCE 261 – NSSA DEGREE CAPSTONE Prerequisite: Completion of 30+ units with a "C" grade or higher or "Pass" from the following courses: CIS 120, 121, 125, 140, 190, 191, 201, 202, 203, 209, 210, 262, 263, 290, 291, 293, 294, 295, CS 119, 119L or equivalent	Prerequisite: Completion of 30+ units with a "C" grade or higher or "Pass" from the following courses: CIS 120, 121, 125, 140, 190, 191, 201, 202, 203, 209, 210, 263, 290, 291, 293, 294, 295, CS 119, 119L or equivalent
COUNSELING 095 – ACADEMIC AND FINANCIAL AID PLANNING	*Review and update of course outline*

PRESENT	PROPOSED CHANGES TO AREAS AS INDICATED
COUNSELING 101 – INTRODUCTION TO COLLEGE An introductory course designed to assist students with a successful transition to college. An overview of student responsibilities, college expectations, college and career success strategies will be discussed. Students will learn about the college; its facilities, services, academic regulations, general education requirements, and certificate, degree and transfer options. Students will receive preliminary guidance in education planning. **Pass/No Pass only. Non-degree applicable.**	An introductory course designed to assist students with a successful transition to college. An overview of student responsibilities, college expectations, college and career success strategies will be discussed. Students will learn about the college; campus, services, academic regulations, general education requirements, and certificate, degree and transfer options. Students will receive education planning. **Pass/No Pass only. Non-degree applicable.**
COUNSELING 110 – CAREER DECISION MAKING Utilization of a group seminar structure to explore and research various career and major options. Lecture, group discussion, experiential activities, and vocational assessment tools will be utilized to assist students in identifying their individual interests, values, and personality styles. Students will conduct educational and career research to relate their vocational assessment results to setting academic and career goals.	Lecture, group discussion, experiential activities and career assessment tools will be utilized to assist students in identifying their individual interests, values, and personality styles. Students will conduct educational and career research that will help them relate their career assessment results to setting academic and career goals. Students will also learn essential skills for obtaining employment such as resume building and job interviewing techniques.
COUNSELING 120 – COLLEGE AND CAREER SUCCESS This course teaches success strategies to enhance academic and lifelong learning. The course also discusses the importance of looking at the human being as an integrated physiological, social and psychological organism. Students will explore personality types and examine their own interests and values as a way to increase self-understanding and select an appropriate major and career. Students will identify their learning style and apply psychological principles of learning, memory, motivation and stress management to academic study strategies. Students will also apply life management techniques - such as time and money management - to accomplish personal goals. Students will examine the adult stages of development and develop a plan for wellness and living a long and healthy life. Additionally, students will be given the opportunity to practice creative and critical thinking techniques.	This course teaches academic and career success strategies to enhance lifelong learning and well-being. Students will explore and discover values, interests, and personal strengths to make meaningful choices about their educational, career, and personal goals. Students will learn how to be successful in college by improving study skills and exploring motivation. Success topics include managing stress, developing creativity, improving communications and relationships, and maintaining wellness in a diverse society.
COUNSELING 130 – STUDY SKILLS AND TIME MANAGEMENT Designed to prepare students to adjust to the academic community by learning to plan and study effectively within given time limitations. Strategies include: time management, goal setting, textbook mastery, library research skills, note-taking, exam preparation, stress reduction, and educational planning.	This course is designed to prepare students to adjust to the academic community by learning to plan and study effectively within given time limitations. Strategies include: time management, goal setting, textbook mastery, library research skills, note-taking, exam preparation, stress reduction, and educational planning.
COUNSELING 140 – SELF AWARENESS AND INTERPERSONAL RELATIONSHIPS	*Review and update of course outline*
COUNSELING 150 – TRANSFER SUCCESS This course provides the information needed for a student to transfer to a baccalaureate institution, including strategies to achieve academic success and research skills essential to developing a comprehensive educational plan. Topics include the community college transfer process, selection of major, student support services, comparing and contrasting a variety of universities, and clarification of one's educational goal.	This course provides the information needed for a student to transfer to a baccalaureate institution, including strategies to achieve academic success and research skills essential to developing a comprehensive educational plan. Topics include the community college transfer process, selection of major, student support services, comparing and contrasting a variety of universities, and validation of one's educational goal.
ENGLISH 217 – FANTASY AND SCIENCE FICTION Prerequisite: None Recommended Preparation: "C" grade or higher or "Pass" in ENGL 120 or equivalent Survey reading course of fantasy and science fiction, a unique literary genre with an unparalleled and still growing popularity. Reading selections cover a diverse spectrum of fantasy and science fiction. Oral and written discussion of readings and their relevance to current trends will be emphasized. Analytical or original creative writings will be included.	Prerequisite: None Recommended Preparation: "C" grade or higher or "Pass" in ENGL 120 or ESL 122 or equivalent An introductory survey of the genres of fantasy and science fiction, ranging from Gothic literature to Afrofuturism, and from Frankenstein to works being published right now. The course will examine the historical and socio-cultural contexts which informed and continue to influence this literature, and it will explore the place of fantasy and science fiction in popular culture past and present.
ENGINEERING 200 – ENGINEERING MECHANICS–STATICS Prerequisite: "C" grade or higher or "Pass" in PHYC 190 or equivalent Corequisite: MATH 280 or previous enrollment	Prerequisite: "C" grade or higher or "Pass" in PHYC 201 or equivalent Corequisite: MATH 280 or previous enrollment

PRESENT	PROPOSED CHANGES TO AREAS AS INDICATED
ENGINEERING 210 – ELECTRIC CIRCUITS Prerequisite: "C" grade or higher or "Pass" in MATH 280, PHYC 200 or equivalent	Prerequisite: "C" grade or higher or "Pass" in MATH 280, PHYC 202 or equivalent
ENGINEERING 260 – ENGINEERING MATERIALS Prerequisite: "C" grade or higher or "Pass" in PHYC 190 or equivalent	Prerequisite: "C" grade or higher or "Pass" in PHYC 201 or equivalent
ETHNIC STUDIES 132 – KUMEYAAY HISTORY I: PRECONTACT - 1845 Historical survey of the Kumeyaay Nation from prehistoric times to 1845. Focus will be on Kumeyaay perspectives of Kumeyaay and non-Kumeyaay cultures; Kumeyaay oral history as it relates to the Creation Story, bird songs, ceremonies, religion and peon games; tribal sovereignty; sociopolitical clan structures; and the evolution of Kumeyaay leadership. Special emphasis will be given to the health and morbidity of indigenous populations and their labor in relation to the Mission San Diego de Alcalá and historic ranchos in San Diego County. *Also listed as HIST 132. Not open to students with credit in HIST 132.*	Historical survey of the Kumeyaay Nation from prehistoric times to 1845. Focus will be on Kumeyaay perspectives of Kumeyaay and non-Kumeyaay cultures; Kumeyaay oral history as it relates to the Creation Story, bird songs, ceremonies, religion and peon games; tribal sovereignty; sociopolitical clan structures; and the evolution of Kumeyaay leadership. Special emphasis will be given to the health and morbidity of indigenous populations and their labor in relation to the Mission San Diego de Alcalá and historic ranchos in San Diego County.
ETHNIC STUDIES 133 – KUMEYAAY HISTORY II: 1846 – PRESENT Historical survey of the Kumeyaay Nation from 1846 to the present. Focus will be on Kumeyaay perspectives of Kumeyaay and non-Kumeyaay cultures, creation of Kumeyaay reservations, Mission Indian Federation, Public Law 83-280, Indian self-determination, Indian Gaming Regulatory Act, contemporary tribal governments, landmark Indian Gaming court cases, and an overview of laws pertaining to Native Americans in the United States. Special emphasis will be given to contemporary issues affecting the Kumeyaay Nation and Kumeyaay tribal governments, including socioeconomic deficits, tribal sovereignty, blood quantum, tribal enrollment, demographic challenges, language loss and acquisition, historical trauma, and the growing equity gaps among tribes without casinos. *Also listed as HIST 133. Not open to students with credit in HIST 133.*	Historical survey of the Kumeyaay Nation from 1846 to the present. Focus will be on Kumeyaay perspectives of Kumeyaay and non-Kumeyaay cultures, creation of Kumeyaay reservations, Mission Indian Federation, Public Law 83-280, Indian self-determination, Indian Gaming Regulatory Act, contemporary tribal governments, landmark Indian Gaming court cases, and an overview of laws pertaining to Native Americans in the United States. Special emphasis will be given to contemporary issues affecting the Kumeyaay Nation and Kumeyaay tribal governments, including socioeconomic deficits, tribal sovereignty, blood quantum, tribal enrollment, demographic challenges, language loss and acquisition, historical trauma, and the growing equity gaps among tribes without casinos.
EXERCISE SCIENCE 255 – CARE AND PREVENTION OF ATHLETIC INJURIES	**EXERCISE SCIENCE 255 – CARE AND PREVENTION OF ATHLETIC AND RECREATIONAL INJURIES**
GEOGRAPHY 106 – WORLD REGIONAL GEOGRAPHY	*Review and update of course outline*
GEOGRAPHY 122 – REGIONAL FIELD STUDIES IN PHYSICAL GEOGRAPHY AND GEOLOGY OF DESERT ENVIRONMENTS	*Review and update of course outline*
GEOLOGY 122 – REGIONAL FIELD STUDIES IN PHYSICAL GEOGRAPHY AND GEOLOGY OF DESERT ENVIRONMENTS	*Review and update of course outline*
HUMANITIES 117 – KUMEYAAY ARTS AND CULTURE II This course is a seasonal survey of arts and culture of the Kumeyaay Nation in what is now commonly known as San Diego and Imperial Counties and Baja California. Students will study Kumeyaay uses of summer and fall plant resources, and participate in the harvest and construction of Tule boats, e`waa house, hunting and fishing tools, various types of baskets, and clothing and jewelry. Guest lectures by Kumeyaay experts will be integrated into the course. Field trips to various cultural sites and events are a required component of this class.	This course is a seasonal survey of arts and culture of the Kumeyaay Nation in what is now commonly known as San Diego and Imperial Counties and Baja California. Students will study Kumeyaay uses of summer and fall plant resources, and participate in the harvest and construction of Tule boats, e`waa house, hunting and fishing tools, various types of baskets, and clothing and jewelry. Guest lectures by Kumeyaay experts will be integrated into the course. Field trips to various cultural sites and events are a required component of this class. *Also listed as KUMEY 117. Not open to students with credit in KUMEY 117.*
KUMEYAAY STUDIES 117 – KUMEYAAY ARTS AND CULTURE II	*Review and update of course outline*
MATHEMATICS 176 – PRECALCULUS: FUNCTIONS AND GRAPHS Prerequisite: "C" grade or higher or "Pass" in MATH 110 or appropriate placement	Prerequisite: Appropriate placement or Intermediate Algebra
MUSIC 104 – INTRODUCTION TO THE MUSIC INDUSTRY	*Review and update of course outline*
MUSIC 161 – COOPERATIVE WORK EXPERIENCE IN MUSIC INDUSTRY	*Review and update of course outline*
OCEANOGRAPHY 112 – INTRODUCTION TO OCEANOGRAPHY	*Review and update of course outline*

PRESENT	PROPOSED CHANGES TO AREAS AS INDICATED
POLITICAL SCIENCE 166 – INTRODUCTION TO NATIVE AMERICAN POLITICS AND POLICY This course introduces students to Native American politics and policy from the treaty making process that formed the foundation of contemporary tribal sovereignty to legal cases and precedents that impact Native American lands and people. The course will also explore how Native people have both petitioned for access into the American polity and actively resisted assimilation. Emphasis will be given to twelve recognized Kumeyaay tribal governments in the United States and four recognized Kumeyaay/Kumiai tribal governments in Baja California, Mexico. *Also listed as ETHN 166. Not open to students with credit in ETHN 166.*	This course introduces students to Native American politics and policy from the treaty making process that formed the foundation of contemporary tribal sovereignty to legal cases and precedents that impact Native American lands and people. The course will also explore how Native people have both petitioned for access into the American polity and actively resisted assimilation. Emphasis will be given to twelve recognized Kumeyaay tribal governments in the United States and four recognized Kumeyaay/Kumiai tribal governments in Baja California, Mexico. *Also listed as KUMEY 166. Not open to students with credit in KUMEY 166.*
REAL ESTATE 191 – REAL ESTATE PRACTICE This course is designed to teach the day-to-day operations in real estate practices. Topics will cover listing, prospecting, advertising, financing, sales techniques, escrow, technology, and ethics. Students will have the opportunity to experience tasks typical in a Real Estate practice.	This course is designed to teach the day-to-day operations in real estate practices. Topics will cover listing, prospecting, advertising, financing, sales techniques, escrow, technology, and ethics. Students will have the opportunity to experience tasks typical in a Real Estate practice. RE 191 is SB1495 compliant. Cal. Bus. & Prof. Code §10151.

DISTANCE EDUCATION

(Approval for fully online except as noted)

Course	**Title**
ART 104	Artists and Designers Today
ART 142	Art of Africa, Oceania, and the Americas
MUS 104	Introduction to the Music Industry (*Partially Online)*

DEGREE AND CERTIFICATE ADDITIONS

BEHAVIORAL TRAINING
Certificate of Achievement

Students who complete the required courses qualify for a Certificate in Behavioral Training. The objectives of the program are for students to be able to: apply the basic elements of behavioral psychology to modify existing behaviors; keep accurate records and input data to track behavioral changes; and explore jobs and careers using behavioral psychology and experience real life situations applying the coursework. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

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

- Demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in behavioral psychology.
- Understand and apply basic research methods in behavioral psychology, including data entry, behavioral assessment, behavior modification plan, data analysis, and future modification plans.
- Respect and use critical and creative thinking applied to the application of behavioral paradigms in multiple situations.

Certificate Requirements:

Course	*Title*	*Units*
PSY-120	Introductory Psychology	3
PSY-220	Learning	3
PSY-215	Statistics for the Behavioral Sciences	4
or		
MATH-160	Elementary Statistics	4
	Total Units	10

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

COMMUNICATION STUDIES FOR TRANSFER 2.0 (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 higher or "Pass" 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.
- 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:

Course	*Title*	*Units*
COMM 122	Public Speaking	3
COMM 120	Interpersonal Communication	3
		6

List A: Select three of the following:

COMM 110	Introduction to Mass Communication	3
COMM 124	Intercultural Communication	3
COMM 137	Critical Thinking in Group Communication	3
COMM 145	Argumentation	3
		9

List B: Select one of the following:

COMM 123	Advanced Public Speaking	3
ENGL 124	Advanced Composition: Critical Reasoning and Writing	3
Any course from List A not selected above		3
		3

Units in the Major	18
12 units may be double counted	
Plus General Education Requirements (CSU GE or IGETC-CSU)	39/37
Total Transferable Elective Units	15/17
Total Units	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.

DEGREE AND CERTIFICATE MODIFICATIONS

ANTHROPOLOGY FOR TRANSFER (AA-T)

The AA-T in Anthropology for Transfer guides students in their quest to understand what it means to be human, and how humans make meaning in life. Students take courses from three subfields: archaeology, cultural anthropology and physical anthropology, and learn about human cultures and civilizations, past and present. The AA-T in Anthropology for Transfer is designed specifically to prepare students for transfer to a California State University, where a baccalaureate degree may be earned in Anthropology or a closely related field.

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

1. 60 semester or 90 quarter CSU-transferable units;
2. The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education-Breadth Requirements;
3. Minimum of 18 semester or 27 quarter units in the major or area of emphasis;
4. Minimum grade point average (GPA) of 2.0;
5. A grade of "C" or higher or "Pass" in all courses required for the major or area of emphasis.

Program Learning Outcomes

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

- Demonstrate an understanding of the core concepts of archaeology, cultural anthropology and physical anthropology;
- Demonstrate knowledge of cultural variation and diversity of perspectives, practices and beliefs found within and across cultures;
- Understand long term changes in the conditions that have shaped humans and the environments they inhabit.

Associate in Arts Degree Requirements

Course	*Title*	*Units*
Core Curriculum:		
ANTH 120	Cultural Anthropology	3
ANTH 130	Introduction to Biological Anthropology	3
ANTH 140	Introduction to Archaeology	3
		9
List A: (Select 1 course)		
MATH 160	Elementary Statistics	4
PSY 215	Statistics for Behavioral Sciences	4
List B: (Select 1-2 courses; ~~3-5~~ 4 units)		
BIO 140	Human Anatomy	~~5~~ 4
PSY 205	Research Methods in Psychology	~~3~~ 4
GEOL 110	Planet Earth	3
and		
GEOL 111	Planet Earth Laboratory (must be taken if GEOL 110 is selected)	1
GEOL 104	Earth Science	3
and		
GEOG 121	Physical Geography: Earth Systems Laboratory (must be taken if GEOL 104 is selected)	1
List C: (Select 1 course)		
MUS 116	Introduction to World Music	3
RELG 120	World Religions	3
	Units in Major	~~19-21~~ 20
	Double-Counted Units	~~15-16~~ 19
	Plus General Education Requirements (CSU GE or IGETC-CSU)	37-39
	Total Transferable Elective Units	~~15-~~20-22
	Total Units ~~for Degree~~	60

ART

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 higher or "Pass" 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:

Course	*Title*	*Units*
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	3
		9

List A: Select one:

ART 146	Asian Art	3
ART 142	Art of Africa, Oceania, and the Americas	3
~~ART 149~~	~~History of Graphic Design~~	~~3~~
		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	3
		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	3
		3

Total Units for Major (9 units may be double-counted with GE)	18
6-9 units may be double-counted with GE	
Total Units for CSU GE or IGETC-CSU	39/37
Total Transferable Elective Units	~~12-14~~ 9-12/11-14
Total Units~~ for Degree~~	60

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:

Course	*Title*	*Units*
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
		18

Select twelve units from the following:

~~ART 149~~	~~History of Graphic Design~~	~~3~~
ART 104	Artists and Designers Today	3
ART 119	Color Theory	3
ART 177	Digital Drawing and Painting	3
ART 230	Figure Drawing I	3
ART 240	Portraiture and Character Design	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
		12

Recommended Electives:

ART 135	Watercolor I	3
ART/ETHN 151	Chicanx Art	3
ART 242	Illustration II	3
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	3
GD 230	Graphic Design Work Experience	3

Total Units ~~Required~~ 30
Plus General Education Requirements

ART-DRAWING AND PAINTING

This degree program is designed to provide a fundamental background in two-dimensional studio arts, emphasizing both technique and aesthetic awareness. The curriculum consists of courses in both studio techniques and art history. Students will develop their ability to control line, value, shape, color, perspective and composition in various mediums. The major provides preparation for transfer to a four-year college in fine art or a vocational area related to art.

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 the past and present cultures throughout the world, noting human diversity as it relates to the visual arts and the artists.
- Analyze, access 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 learned 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 Specialist
  Antique Dealer
* Art Conservator
* Art Therapist
  Arts Administration
  Cartoonist
* Curator
  Display Manager
* Fashion Designer
  Gallery Owner
  Illustrator
  Independent Artist
* Interior Design
  Jewelry Designer
  Museum Technician
  Painter
  Police Artist
  Set Designer
* Teacher/Professor

* Bachelor Degree or higher required

Associate in Arts Degree Requirements:

Course	*Title*	*Units*
ART 120	Two-Dimensional Design	3
ART 121	Painting I	3
ART 124	Drawing I	3
ART 125	Drawing II	3
ART 140	Survey of Western Art I: Prehistory through Middle Ages	3
ART 141	Survey of Western Art II: Renaissance through Modern	3
ART 230	Figure Drawing I	3
GD 105	Fundamentals of Digital Media	3
		24

Select six units from the following:

ART 104	Artists and Designers Today	3
ART 119	Color Theory	3
ART 129	Three-Dimensional Design	3
ART 135	Watercolor I	3
ART 143	Modern Art	3
ART 145	Contemporary Art	3
ART 210	Introduction to Printmaking	3
ART 211	Intermediate Printmaking	3

(Art Drawing and Painting continued)

ART 220	Painting II	3
ART 231	Figure Drawing II	3
ART 240	Portraiture and Character Design	3
ART 241	Illustration I	3
ART 242	Illustration II	3
~~GD 225~~	~~Digital Illustration~~	~~3~~
		6
	Total Units ~~Required~~	30
	Plus General Education Requirements	

Recommended Electives: ART 151, ETHN 151, HIST 105, HUM 155, RELG 120

BIOLOGICAL SCIENCES

BIOLOGY FOR TRANSFER (AS-T)

The Associate in Science in Biology for Transfer presents the diverse, dynamic study of life through a required core of biology and supporting courses. This degree is specifically designed to prepare students for transfer to a California State University, where a baccalaureate degree may be earned in Biological Sciences or a closely related field.

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

1. 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 higher or "Pass" in all courses required for the major.
5. The Intersegmental General Education Transfer Curriculum (IGETC) for Science, Technology, Engineering and Mathematics (STEM) pattern for the CSU; [1]

Program Learning Outcomes

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

- Draw scientific 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 for Transfer Degree Requirements:

Course	*Title*	*Units*
Required Core:		
BIO-230	Principles of Cellular, Molecular and Evolutionary Biology	4
BIO-240	Principles of Ecology, Evolution and Organismal Biology I	5
		9
List A:		
CHEM-141	General Chemistry I	5
CHEM-142	General Chemistry II	5
MATH-180	Analytic Geometry and Calculus I	5
~~Choose one sequence:~~ Select one of the following:		
PHYC-130	Fundamentals of Physics	4
PHYC-131	Fundamentals of Physics	4
or		
~~PHYC-190~~	~~Mechanics and Heat~~	~~5~~
~~PHYC-200~~	~~Electricity and Magnetism~~	~~5~~
PHYC-201	Mechanics and Waves	5
PHYC-202	Electricity, Magnetism and Heat	5
List B:		
MATH-160	Elementary Statistics	4
	~~Total~~ Units for the Major ~~(10 units may be double-counted with GE)~~	36-38
	10 Double-Counted Units	
	Plus General Education Requirements ~~Total Units for~~ (CSU-GE or IGETC-CSU)[1]	~~33/~~31
	Electives	1~~/~~3
	Total ~~Degree~~ Units	60

[1]Completion of IGETC-CSU for STEM allows for completion of 6 units of non-STEM GE work after transfer. One Area 3 course (Fine Arts and Humanities) and one Area 4 course (Social and Behavioral Sciences) may be deferred until after transfer.

BIOLOGICAL SCIENCES: PRE-ALLIED HEALTH

This program provides students with a pathway into allied health programs at baccalaureate institutions. Required science courses provide training in the methods of scientific inquiry, the fundamental principles of natural science, and the principle laws and theories governing the physical and life sciences. Recommended general education courses expose students to the necessary base of knowledge that will serve them well in any of the allied health fields. This degree prepares students for transfer to a baccalaureate institution or for advanced studies in an allied health major. Prior to enrolling in several courses in this major, students must take general biology and general biology laboratory as prerequisites*. It is recommended that students check with transfer institutions for specific program requirements.*

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

- Explain the principles and laws of living systems with particular reference to human disease and human performance, including the role of scientific inquiry in life/medical science, cell theory, the hierarchy of structure and function in living organisms and principles of heredity.
- Describe the normal relationships between structure and function relationships of humans, alterations in normal structure/function that characterize disease; the structure, function, classification and epidemiology of pathogenic microorganisms; and normal cellular and nutritional biochemistry.
- Exhibit competency in the methods used to study living systems, with a focus on human biology including applying principles and procedures of research and experimental design, and gathering, organizing interpreting, evaluating and communicating data.
- Exhibit confidence and ability to function as a health care professional including the ability to conduct independent and collaborative investigation skills, communicate scientific information effectively in oral and written form, and utilize technology effectively and appropriately.
- Exhibit the ability to integrate the content, skills and abilities gained in courses and practice independent, self-directed learning.

Associate in Science Degree Requirements:

Course	*Title*	*Units*
BIO 140	Human Anatomy	~~5~~ 4
BIO 141	Human Physiology	3
BIO 141L	Laboratory in Human Physiology	1
BIO 152	Paramedical Microbiology	5
CHEM 102	Introduction to General, Organic and Biological Chemistry	5
COMM 122	Public Speaking	3
PSY 120	Introductory Psychology	3
SOC 120	Introductory Sociology	3
	Total ~~Required~~ Units	~~28~~ 27
	Plus General Education Requirements	

Recommended Electives: CD 125 or PSY 150; MATH 160

(Biological Sciences continued)

MARINE BIOLOGY ASSOCIATE IN SCIENCE DEGREE

The Marine Biology degree is designed to provide a two-year transfer program leading to a B.S. degree in Marine Biology with emphasis on the diversity of organisms and the biological and physical processes that affect these organisms, their populations and their coastal and oceanic ecosystems. This major requires a strong foundation in natural sciences that is provided in this two-year transfer degree that can lead to UC or CSU Marine Biology programs.

Program Learning Outcomes

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

- Explain the basic structures and fundamental processes of life at the molecular, cellular, and organismal levels.
- Identify the evolutionary processes that lead to adaptation and biological diversity.
- Describe the relationship between life forms and their environment and ecosystems.
- Collect, organize, analyze, interpret and present quantitative and qualitative data and incorporate them into the broader context of biological knowledge.
- Effectively apply current technology and scientific methodologies for problem solving.
- Find, select and evaluate various types of scientific information including primary research articles, mass media sources and Internet information.
- Communicate effectively in written and oral formats.

Associate in Science Requirements:

Course	*Title*	*Units*
BIO-230	Principles of Cellular, Molecular and Evolutionary Biology	4
BIO-240	Principles of Ecology, Evolution and Organismal Biology	5
CHEM-141	General Chemistry I	5
CHEM-142	General Chemistry II	5
MATH-180	Analytic Geometry and Calculus I	5
MATH-280	Analytic Geometry and Calculus II	4
MATH-281	Multivariable Calculus	4
~~PHYC 190~~	~~Mechanics and Heat~~	~~5~~
PHYC-201	Mechanics and Waves	5
AND		
~~PHYC 200~~	~~Electricity and Magnetism~~	~~5~~
PHYC-202	Electricity, Magnetism, and Heat	5
AND		
~~PHYC 210~~	~~Wave Motion and Modern Physics~~	~~5~~
PHYC-203	Light, Optics, and Modern Physics	5
OR		
PHYC-130	Fundamentals of Physics	4
AND		
PHYC-131	Fundamentals of Physics	4
	Total Units ~~Required~~	40-47
	Plus General Education Requirements	

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.
- 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
Training
Education
Consulting
Human Resources
Public Relations
Sales

Communication graduates often pursue additional degrees in fields such as law, political science, management, and marketing.

Associate in Arts Degree Requirements:

Course	*Title*	*Units*
COMM 120	Interpersonal Communication	3
COMM 122	Public Speaking	3
		6
List A: Select two from the following:		
COMM 123	Advanced Public Speaking	3
COMM 137	Critical Thinking in Group Communication	3
COMM 145	Argumentation	3
		6
List B: Select two ~~six units~~ from the following:		
COMM 110	Introduction to Mass Communication	3
COMM 124	Intercultural Communication	3
~~COMM 137~~	~~Critical Thinking in Group Communication~~	~~3~~
Any course not selected from list A above		3
		6
	Total Units ~~Required~~	18
	Plus General Education Requirements	

CHEMISTRY

The chemistry curriculum is designed to provide students who choose to work toward a bachelor's degree a well-balanced, lower division program with a strong emphasis on fundamentals and problem solving. This major fulfills the lower division requirements (except for analytical chemistry) for chemistry majors and is typical of the requirements at four-year colleges and universities.

Program Learning Outcomes

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

- Comprehend and describe the nature of matter, including its classification, composition and structure.
- Demonstrate an understanding of the transformations of matter, both physical and chemical.
- Develop critical thinking skills by predicting interactions between different types of matter, both physical and chemical; analyzing matter in the laboratory both qualitatively and quantitatively and effectively communicating experimental results and conclusions; performing mathematical calculations related to the transformation and analysis of matter; and solving qualitative and quantitative problems in connection with the transformation and analysis of matter.

CAREER OPPORTUNITIES

Chemists work in a variety of fields, primarily those of the chemical, biotechnological, environmental, biomedical, pharmaceutical, electronics, forensic, agricultural and food industries. They usually work in analysis, research, development or production of materials. Management, marketing and teaching opportunities are also available.

* Agricultural Chemist
* Air Quality Control
* Analytical Chemist
* Biochemist
* Chemistry Teacher
* Dietician
* Environmental Technologist
  Fishery Specialist
* Food and Drug Inspector
* Forensic Specialist
  Laboratory Technician
* Materials Scientist
  Medical Technologist
* Microbiologist
* Organic Chemist
* Physician
* Polymer Chemist
  Sales Representative
  Sanitarian Technician

* Bachelor Degree or higher required

Associate in Science Degree Requirements:

Course	*Title*	*Units*
CHEM 141	General Chemistry I	5
CHEM 142	General Chemistry II	5
CHEM 231	Organic Chemistry I	5
MATH 180	Analytic Geometry and Calculus I	5
MATH 280	Analytic Geometry and Calculus II	4
MATH 281	Multivariable Calculus	4
PHYC 201	Mechanics and Waves	5
PHYC 202	Electricity, Magnetism, and Heat	5
PHYC 203	Light, Optics, and Modern Physics	5
~~PHYC 190~~	~~Mechanics and Heat~~	~~5~~
~~PHYC 200~~	~~Electricity and Magnetism~~	~~5~~
~~PHYC 210~~	~~Wave Motion and Modern Physics~~	~~5~~
	Total Units ~~Required~~	43
	Plus General Education Requirements	

Note:

1. Students pursuing an emphasis in biochemistry should also take the following courses: BIO 230, 240.
2. Students who intend to enroll at UCSD should take MATH 285 and check with the Counseling Center regarding program options.

COMPUTER AND INFORMATION SCIENCE

NETWORKING, SECURITY AND SYSTEM ADMINISTRATION - ENTERPRISE NETWORKING

These degree programs prepare students for careers in computer networking or system administration and related fields. Upon completion, students may find entry level positions as computer support technicians, junior network administrators, junior system administrators, hardware technicians, data/ voice/video cabling technicians, network project managers, designers/estimators or technical support personnel. The major prepares students to work as team members in an information technology group which designs, evaluates, tests, installs and maintains corporate networks. Preparation for the following industry certifications: A+, Network+, Security+, Linux+, Microsoft Certified Technician (MCT) in Windows and Windows Server (active directory, network infrastructure and applications infrastructure), Linux Profession Institute Certification Level 2, Certified Wireless Network Administrator (CWNA), Cisco Certified Network Associate (CCNA), Certified Ethical Hacking (CEH).

Program Learning Outcomes
Upon successful completion of this program, students will be able to:
- Install, configure, upgrade, diagnose and troubleshoot a personal computer and its associated networking hardware and software in accordance with industry standards.

Associate in Science Degree Requirements:
Core Curriculum:

Course	*Title*	*Units*
CIS 120	Computer Maintenance and A+ Certification	3
CIS 121	Network Cabling Systems	3
CIS 125	Network+ Certification	3
CS 119	Program Design and Development	3
CS 119L	Program Design and Development Lab	1
		13

Areas of Emphasis:

CIS 190	Windows Operating System	3
or		
CIS 191	Linux Operating System	3
CIS 201	Cisco Academy – Introduction to Networking	3
CIS 202	Cisco Academy – Routing, Switching, and Wireless Essentials	3
CIS 203	Cisco Academy– Enterprise Networking, Security, and Automation	3
CIS 209	Cisco CyberOps	3
or		
CIS 263	Fundamentals of Network Security	3
		15

Select three of the following:

CIS 101	Fundamental of Information Technology	1.5
CIS 210	Cisco Networking Academy–Voice	4
CIS 261	NSSA Degree Capstone	2
~~CIS 262~~	~~Wireless Networking~~	~~3~~
CIS 264	Certified Ethical Hacking	3
CIS 265	Computer Forensics	3
CIS 271	Palo Alto Networks – Certified Network Security Administrator (PCNSA)	3
CIS 272	Palo Alto Networks Firewall Configuration, Management, and Threat Prevention	3
		6.5-10
	Total Units ~~Required Including Core Classes~~	34.5-38
	Plus General Education Requirements	

Certificate of Achievement
Students who complete only the courses required for the major including an area of emphasis qualify for a Certificate in Networking, Security and System Administration - Enterprise Networking. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

COMPUTER SCIENCE

COMPUTER SCIENCE 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 Computer Science. The coursework provides a strong foundation in programming methodology, programming skills, and computer organization.
Most careers in computer science require a bachelor's degree, and some require a graduate-level degree. Computer science careers include software engineering, computer engineering, computer systems analysis, systems programming, mobile application development, artificial intelligence, robotics, and simulation. Computing technology now is used in most fields. Because of this, a wide range of jobs are open to people trained in Computer Science. Employment opportunities are expected to remain very strong.
A total of 33 units are required to fulfill the major portion of this degree. Students must also complete the Intersegmental General Education Transfer Curriculum (IGETC) for CSU admission requirements (see the "General Education Requirements and Transfer Information" section of the catalog). Students should speak with a counselor to verify that the requirements for this degree have been met. In addition, students planning to transfer to San Diego State University should consult with a counselor.

The following is required for the AS-T in Computer Science 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 higher or "Pass" 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:
- Define and apply current Software Engineering design patterns, algorithms, and data structures to produce efficient, well-engineered software applications.
- Apply problem-solving skills and the knowledge of computer science to solve real-world problems.
- Define and demonstrate the concept of object oriented programming and object oriented design.

Associate in Science Degree Requirements:
Core Curriculum:

Course	*Title*	*Units*
BIO 230	Principles of Cellular, Molecular and Evolutionary Biology	4
CS 165	Assembly Language and Machine Architecture	4
CS 181	Introduction to C++ Programming	4
or		
CS 182	Introduction to Java Programming	4
CS 240	Discrete Structures	3
CS 281	Intermediate C++ Programming and Fundamental Data Structures	4
or		
CS 282	Intermediate Java Programming and Fundamental Data Structures	4
MATH 180	Analytic Geometry and Calculus I	5
MATH 280	Analytic Geometry and Calculus II	4
PHYC 201	Mechanics and Waves	5
~~PHYC 190~~	~~Mechanics and Heat~~	~~5~~
	~~Total~~ Units in the major	33
	Double-Counted Units	10
	Plus General Education Requirements (CSU-GE or IGETC only[1])	37
	Total Units ~~Required for Degree~~	60

[1]IGETC only

(Computer Science continued)

MECHATRONICS
Certificate of Achievement

This certificate is designed for students interested in designing automatic electromechanical devices and systems. The curriculum is intended primarily for students interested in working in advanced manufacturing. It also provides the foundation for further studies in the skills required for the Internet of Things (physical computing and control systems).

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

- Write computer programs in high-level languages such as C++ and, when appropriate, in assembly language to control the operation of a microcontroller. In particular, students will be able to apply the following microcontroller capabilities: memory-mapped I/O (input/output), analog-to-digital (A/D) conversion, and volatile and non-volatile memory.
- Design automatic devices and control systems which can respond to inputs from sensors with appropriate outputs in the form of motion, light, and sound.
- Design mechanical components and devices, and create prototype versions of them.
- Combine the above capabilities to design integrated electro-mechanical devices of arbitrary complexity.

Certificate Requirements:

Course	*Title*	*Units*
CADD/ENGR 125	3D Solid Modeling	3
	or	
CADD/ENGR 129	Engineering Solid Modeling	3
~~CS/ENGR 175~~	~~Mechatronics: Introduction to Microcontrollers and Robotics~~	~~3~~
~~CS/ENGR 176~~	~~Mechatronics: Prototype Design~~	~~3~~
CS 181	Introduction to C++ Programming	4
CIS 267	Directed Work Experience in CIS	1-4
	or	
ENGR 182	Work Experience in Engineering Technology	1-3
ENGR 100	Introduction to Engineering and Design	4
ET 110	Introduction to Basic Electronics	4
	Total Units ~~Required~~	16-19 ~~22-25~~

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

ENGINEERING

CIVIL ENGINEERING

This degree program is designed to cover the first two years of a four-year program leading to the bachelor's degree in engineering at most four-year colleges and universities. While the bachelor's degree is usually the minimum needed to practice as an engineer, the associate degree will permit an individual to find work in most engineering firms as an engineering aide.

CAREER OPPORTUNITIES

* Aerospace Engineer
* Agricultural Engineer
* Architectural Engineer
* Biomedical Engineer
* CAD/CAM Engineer
* Chemical Engineer
* Civil Engineer
  Civil Engineering Technician
* Computer Engineer
* Electrical Engineer
  Electrical Engineering Technician
* Environmental Engineer
* Geological Engineer
* Industrial Engineer
  Industrial Engineering Technician
* Manufacturing Engineer
* Marine Engineer
* Materials Engineer
* Mechanical Engineer
  Mechanical Engineering Technician
* Mining Engineer
* Nuclear Engineer
* Petroleum Engineer
* Structural Engineer
* Systems Engineer
* Robotics Engineer

* Bachelor's degree or higher required

Program Learning Outcomes

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

- 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:

Course	*Title*	*Units*
CHEM 141	General Chemistry I	5
ENGR 100	Introduction to Engineering and Design	4
ENGR 119	Basic Engineering CAD	3
or		
CADD 120	Introduction to Computer-Aided Drafting and Design	3
ENGR 120	Engineering Computer Applications	3
ENGR/SURV 218	Plane Surveying	4
ENGR 225	Mechanics for Civil Engineers	3
ENGR 260	Engineering Materials	3
MATH 160	Elementary Statistics	4
MATH 180	Analytic Geometry and Calculus I	5
MATH 280	Analytic Geometry and Calculus II	4
MATH 281	Multivariable Calculus	4
MATH 285	Differential Equations	3
PHYC 201	Mechanics and Waves	5
PHYC 202	Electricity, Magnetism, and Heat	5
~~PHYC 190~~	~~Mechanics and Heat~~	~~5~~
~~PHYC 200~~	~~Electricity and Magnetism~~	~~5~~
	Total Units ~~Required~~	55
	Plus General Education Requirements	

(Engineering continued)

ELECTRICAL AND COMPUTER ENGINEERING

This degree program is designed to cover the first two years of a four-year program leading to the bachelor's degree in engineering at most four-year colleges and universities. While the bachelor's degree is usually the minimum needed to practice as an engineer, the associate degree will permit an individual to find work in most engineering firms as an engineering aide.

CAREER OPPORTUNITIES

* Aerospace Engineer
* Agricultural Engineer
* Architectural Engineer
* Biomedical Engineer
* CAD/CAM Engineer
* Chemical Engineer
* Civil Engineer
  Civil Engineering Technician
* Computer Engineer
* Electrical Engineer
  Electrical Engineering Technician
* Environmental Engineer
* Geological Engineer
* Industrial Engineer
  Industrial Engineering Technician
* Manufacturing Engineer
* Marine Engineer
* Materials Engineer
* Mechanical Engineer
  Mechanical Engineering Technician
* Mining Engineer
* Nuclear Engineer
* Petroleum Engineer
* Structural Engineer
* Systems Engineer
* Robotics Engineer

* Bachelor's degree or higher required

Program Learning Outcomes

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

- Visualize 3D objects and sketch them accurately in 2D.
- Solve engineering problems through computer modeling, employing a computer language such as C or Java.
- Design and write computer programs that employ linked list memory management, stacks, tree data structures, and searching and sorting algorithms.
- Determine the DC and steady-state AC voltages and currents everywhere in an electric circuit composed of passive components.
- Model linear systems of arbitrary size and complexity using linear algebra.
- Model transient and steady-state electrical systems using systems of 2nd order differential equations.
- Apply Green's theorem, Stokes' theorem, and Maxwell's equations to solve simple problems in electrostatics and electromagnetism.
- Analyze and design combinational and sequential digital logic systems of arbitrary complexity, including (for example) Moore and Mealy sequential machines.

Associate in Science Degree Requirements:

Course	*Title*	*Units*
CHEM 141	General Chemistry I	5
CS 181	Introduction to C++ Programming	4
or		
CS 182	Introduction to Java Programming	4
CS 281	Intermediate C++ Programming	4
or		
CS 282	Intermediate Java Programming and Fundamental Data Structures	4
ENGR 100	Introduction to Engineering and Design	4
ENGR 210	Electric Circuits	4
ENGR 270	Digital Design	4
MATH 180	Analytic Geometry and Calculus I	5
MATH 245	Discrete Mathematics	3
or		
MATH 281	Multivariable Calculus	4
MATH 280	Analytic Geometry and Calculus II	4

(Electrical & Computer Engineering continued)

MATH 284	Linear Algebra	3
MATH 285	Differential Equations	3
PHYC 201	Mechanics and Waves	5
PHYC 202	Electricity, Magnetism, and Heat	5
~~PHYC 190~~	~~Mechanics and Heat~~	~~5~~
~~PHYC 200~~	~~Electricity and Magnetism~~	~~5~~
	Total Units ~~Required~~	53-54
	Plus General Education Requirements	

(Engineering continued)

MECHANICAL AND AEROSPACE ENGINEERING

This degree program is designed to cover the first two years of a four-year program leading to the bachelor's degree in engineering at most four-year colleges and universities. While the bachelor's degree is usually the minimum needed to practice as an engineer, the associate degree will permit an individual to find work in most engineering firms as an engineering aide.

CAREER OPPORTUNITIES

* Aerospace Engineer
* Agricultural Engineer
* Architectural Engineer
* Biomedical Engineer
* CAD/CAM Engineer
* Chemical Engineer
* Civil Engineer
  Civil Engineering Technician
* Computer Engineer
* Electrical Engineer
  Electrical Engineering Technician
* Environmental Engineer
* Geological Engineer
* Industrial Engineer
  Industrial Engineering Technician
* Manufacturing Engineer
* Marine Engineer
* Materials Engineer
* Mechanical Engineer
  Mechanical Engineering Technician
* Mining Engineer
* Nuclear Engineer
* Petroleum Engineer
* Structural Engineer
* Systems Engineer
* Robotics Engineer
* Bachelor's degree or higher required

Program Learning Outcomes

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

- Visualize 3D objects and draw them in 2D, both by sketching and through the use of computer-aided drafting software; produce a complete set of drawings sufficient to manufacture a part, including dimensions and tolerances.
- Solve engineering problems through computer modeling, employing an engineering computer language such as Matlab.
- Design a rigid structure such as a bridge, determining forces in each part of the structure. Determine the weight and location of the structure's center of gravity.
- Design a dynamic system such as a piston or linkage and compute forces, accelerations, and speeds of all components of the system.
- Select an appropriate material for manufacturing a part or product and determine the appropriate material processing techniques to produce the part. Justify the choice of material on the basis of macroscopic mechanical properties as well as microstructure.
- Determine the DC and steady-state AC voltages and currents everywhere in an electric circuit composed of passive components.
- Model vibrating systems using systems of 2nd order differential equations.

Associate in Science Degree Requirements:

Course	*Title*	*Units*
CHEM 141	General Chemistry I	5
ENGR 100	Introduction to Engineering and Design	4
ENGR 120	Engineering Computer Applications	3
ENGR 200	Engineering Mechanics–Statics	3
ENGR 210	Electric Circuits	4
ENGR 220	Engineering Mechanics–Dynamics	3
ENGR 260	Engineering Materials	3
MATH 180	Analytic Geometry and Calculus I	5
MATH 280	Analytic Geometry and Calculus II	4
MATH 281	Multivariable Calculus	4
MATH 285	Differential Equations	3
PHYC 201	Mechanics and Waves	5
PHYC 202	Electricity, Magnetism, and Heat	5
~~PHYC 190~~	~~Mechanics and Heat~~	~~5~~
~~PHYC 200~~	~~Electricity and Magnetism~~	~~5~~
~~PHYC 210~~	~~Wave Motion and Modern Physics~~	~~5~~
	Total Units ~~Required~~	51 ~~56~~
	Plus General Education Requirements	

ETHNIC STUDIES

Ethnic Studies is a dynamic academic discipline and community that provides an understanding of the history, culture, and contributions of African Americans, Asian Americans, Latino/a/x Americans, Middle Eastern Americans, and Native Americans. Courses introduce students to the concepts of race and ethnicity, how race and ethnicity intersect with other forms of identity, and the role of power and inequality in the United States. It is an interdisciplinary degree, drawing from the arts, English, history, humanities, Kumeyaay studies, political science, sociology, and others. Ethnic Studies faculty foster community and promote civic engagement and social justice through a variety of panels, presentations, and field trips.

Program Learning Outcomes

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

- Interpret and evaluate evidence by analyzing biases, patterns, trends, and relationships.
- Evaluate and apply subject matter to students' lived experiences and current events.
- Analyze how power and privilege operate in society, through the categories of race, class, gender, ethnicity, and sexuality.
- Develop and support arguments with evidence, including academic and organic (i.e. cultural, traditional, and experiential).
- Research and explore career options and/or obtain experience in a career field.

Associate in Arts Degree Requirements:

Core Curriculum:

Course	*Title*	*Units*
ETHN/HIST 107	History of Race and Ethnicity in the U.S.	3
ETHN/HUM 111	Culture, Art, and Ideas of the United States	3
ETHN/SOC 114	Introduction to Race & Ethnicity	3
		9
List A: Select two of the following:		
ETHN/HIST 118	U.S. History: Chicano/Chicana Perspectives I	3
ETHN/HIST 119	U.S. History: Chicano/Chicana Perspectives II	3
ETHN/HIST 130	U.S. History and Cultures: Native American Perspectives I	3
ETHN/HIST 131	U.S. History and Cultures: Native American Perspectives II	3
ETHN/HIST ~~132~~128	Kumeyaay History I: Precontact – 1845	3
ETHN/HIST ~~133~~129	Kumeyaay History II: 1846 – Present	3
ETHN/HIST 180	U.S. History: Black Perspectives I	3
ETHN/HIST 181	U.S. History: Black Perspectives II	3
		6
List B: Select two of the following		
ETHN/ART 151	Chicanx Art	3
ETHN/ENGL 236	Chicana/o Literature	3
ETHN/ENGL 238	Black Literature	3
ETHN/POSC 165	Introduction to the Politics of Race and Gender	3
~~ETHN~~KUMEY/POSC 166	Native American Politics and Policy	3
ETHN/SOC 150	Latinx Sociology	3
KUMEY/HUM 116	Kumeyaay Arts and Culture I	3
Or any course from List A not selected		3
		6
	Total Units ~~Required~~	21
	Plus General Education Requirements	

(Ethnic Studies continued)

KUMEYAAY STUDIES

The Associate in Arts program in Kumeyaay Studies is designed to provide an understanding of Kumeyaay history, culture and heritage. It is a multi-disciplinary degree, drawing from the sciences, humanities, world languages and history departments. Through specific coursework that encompasses on-site learning experiences, students will learn about the Kumeyaay Nation of San Diego's East County region.

Program Learning Outcomes

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

- Interpret and evaluate evidence by analyzing biases, patterns, trends, and relationships.
- Evaluate and apply subject matter to students' lived experiences and current events.
- Analyze how power and privilege operate in society, through the categories of race, class, gender, ethnicity, and sexuality.
- Develop and support arguments with evidence, including academic and organic (i.e. cultural, traditional, and experiential).
- Research and explore career options and/or obtain experience in a career field.

Associate in Arts Degree Requirements:

Course	*Title*	*Units*
~~ANTH 150~~	~~Introduction to Cultural Resource Management~~	~~3~~
~~BIO 133~~	~~Ethnoecology~~	~~3~~
~~**or**~~		
~~BIO 134~~	~~Ethnobotany~~	~~3~~
~~BIO 135~~	~~Ethnobotany/Ethnoecology Lab~~	~~1~~
~~NAKY~~ KUMEY 120	Kumeyaay Language I	4
~~NAKY~~ KUMEY 121	Kumeyaay Language II	4
KUMEY/HIST 128 ~~132~~	Kumeyaay History I: Precontact – 1900	3
KUMEY/HIST 129 ~~133~~	Kumeyaay History II: 1900 – Present	3
~~HUM 116~~	~~Kumeyaay Arts and Culture~~	~~3~~
~~**or**~~		
~~HUM 117~~	~~Kumeyaay Arts and Culture II~~	~~3~~
		14 ~~24~~

List A, Select ~~One~~ Four (4) Units:

~~Course not taken above (BIO 133 or BIO 134 or HUM 116 or HUM 117)~~		~~3~~
~~NAKY 220~~	~~Kumeyaay III~~	~~4~~
~~POSC/ETHN 166~~	~~Native American Politics and Policy~~	~~3~~
		~~3-4~~
KUMEY/BIO 133	Ethnoecology	3
or		
KUMEY/BIO 134	Ethnobotany	3
and		
KUMEY/BIO 135	Ethnobotany/Ethnoecology Lab	1
		4

List B, Select Two Courses:

KUMEY/HUM 116	Kumeyaay Arts and Culture I	3
KUMEY/HUM 117	Kumeyaay Arts and Culture II	3
KUMEY/HUM 118	Kumeyaay Pottery & Basketry	3
		6

List B, Select One Course:

KUMEY/ANTH 150	Introduction to Cultural Resource Management	3
KUMEY 220	Kumeyaay III	4
KUMEY/POSC 166	Introduction to Native American Politics and Policy	3
KUMEY/SW 170	Kumeyaay Conflict Resolution	3
Or any course from List A or B not selected		3
		3-4
	Total Units ~~Required~~	27-28
	Plus General Education Requirements	

(Ethnic Studies continued)

KUMEYAAY STUDIES
Certificate of Achievement

The Certificate of Achievement in Kumeyaay Studies is designed to provide an understanding of Kumeyaay language, history, culture, heritage, and land management. Kumeyaay Studies is an interdisciplinary program, drawing from anthropology, biology, history, humanities, Kumeyaay language, and political science. Students will learn about the Kumeyaay Nation of San Diego's East County region through specialized, interactive coursework and on-site learning experiences.

Program Learning Outcomes
Upon successful completion of this certificate, students will be able to:
• Interpret and evaluate evidence by analyzing biases, patterns, trends, and relationships.
• Evaluate and apply subject matter to students' lived experiences and current events.
•Analyze how power and privilege operate in society, through the categories of race, class, gender, ethnicity, and sexuality.
• Develop and support arguments with evidence, including academic and organic (i.e. cultural, traditional, and experiential).
• Research and explore career options and/or obtain experience in a career field.

Certificate of Achievement Requirements:

Course	*Title*	*Units*
KUMEY/BIO 133	Ethnoecology	3
or		
KUMEY/BIO 134	Ethnobotany	3
KUMEY/HIST 128 ~~132~~	Kumeyaay History I: Precontact-1900	3
KUMEY/HUM 116	Kumeyaay Arts and Culture I	3
or		
KUMEY/HUM 117	Kumeyaay Arts and Culture II	3
KUMEY ~~NAKY~~ 120	Kumeyaay Language I	4
		13
Select one of the following:		
~~Course not taken above (BIO 133 or BIO 134 or HUM 116 or HUM 117)~~		3
KUMEY/ANTH 150	Introduction Cultural Resource Management	3
KUMEY/HIST 129 ~~133~~	Kumeyaay History II: 1900-Present	3
KUMEY ~~NAKY~~ 121	Kumeyaay Language II	4
KUMEY ~~NAKY~~ 220	Kumeyaay Language III	4
KUMEY ~~POSC~~/~~ETHN~~ 166	Introduction to Native American Politics and Policy	3
Or any course not taken above		3
		3-4
	Total Units ~~Required~~	16-17

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

GENERAL STUDIES

GENERAL STUDIES: BUSINESS AND TECHNOLOGY

The Associate Degree in General Studies with an Area of Emphasis provides an opportunity for students to design a program of study meaningful and appropriate to their own needs and academic interests. The degree includes general education and a focused area of study. Students may choose to earn this degree for preparation for employment or for personal development.

REQUIREMENTS

To meet the General Studies degree requirements, a student must complete the following:

I. **AS or AA General Education Requirements** (see Degree Requirements and Transfer Information section)

AND

II. Choose a minimum of 18 units
Students must take a minimum of three units from each area. The remaining units may be taken from any area.

The Associate in Science in General Studies with an Emphasis in Business and Technology will be awarded to students upon completion of general education degree requirements and 18 units in this area. These courses emphasize the study of business transaction theory and practice, the operations and strategies of business decisions, legal concepts, and the place of business in the American and global economy as a whole. Students will apply mathematical and quantitative reasoning skills to the discipline's methodologies, as well as evaluate and interpret basic economic principles and theories related to performance and specific economic sectors.

Program Learning Outcomes

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

- Contribute to an effective and ethical organization.
- Use information technology to support effective decision making in the business organization.
- Analyze markets, economic environments and associated trends at the macro and micro levels.
- Express and apply quantitative information in order to make sound decisions and solve problems in the business environment.

Business

BUS 109, 110, 111, 115, 120, 121, 122, 124, 125, 128, 129, 150, 155, 156, 161, 162, 176, 195

Computer and Information Science

CIS ~~105,~~ 110, 120, 121, 125, 140, 162, 190, 191, 201, 202, 203, 205, 211, 213, 215, 219, 220, 225, 261, ~~262,~~ 263, 290, 291

Economics

ECON 110, 120, 121

Mathematics

MATH 121, 160, 178, 180

GENERAL STUDIES: COMMUNICATION AND LANGUAGE ARTS

The Associate Degree in General Studies with an Area of Emphasis provides an opportunity for students to design a program of study meaningful and appropriate to their own needs and academic interests. The degree includes general education and a focused area of study. Students may choose to earn this degree for preparation for employment or for personal development.

REQUIREMENTS
To meet the General Studies degree requirements, a student must complete the following:

I. AS or AA General Education Requirements (see Degree Requirements and Transfer Information section)

AND

II. Choose a minimum of 18 units
Students must complete a minimum of three units in Communication and three units in Language Arts. The remaining twelve units may be taken from either category.

The Associate in Arts in General Studies with an Emphasis in Communication and Language Arts will be awarded to students upon completion of general education degree requirements and 18 units in this area. These courses emphasize the study of how language works to express human ideas and feelings. Students will explore and analyze written and verbal communication methods, as well as develop and advance their oral and written communication skills.

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

- Demonstrate the ability to analyze information and write effectively.
- ~~Demonstrate the ability to locate relevant, reliable information and read it effectively.~~
- Organize thoughts and ideas in both oral and written format.
- Communicate effectively with diverse audiences.

Communication
BUS 128
COMM 110, 120, 122, 123, 124, ~~135,~~ 137, 145

(General Studies continued)

Language Arts
ARAM 120, 121, 220
ARBC 120, 121, 122, 123, 220, 221, 250, 251, 254, 256
ASL 120, 121, 220, 221
BUS 128
ENGL 122, 124, 126, 201, 202, 217, 221, 222, 231, 232, 236, 238, 270, 271
ETHN 236, 238
~~NAKY~~ KUMEY 120, 121, 220
SPAN 120, 121, 220, 221, 250, 251

GENERAL STUDIES: HUMANITIES AND FINE ARTS

The Associate Degree in General Studies with an Area of Emphasis provides an opportunity for students to design a program of study meaningful and appropriate to their own needs and academic interests. The degree includes general education and a focused area of study. Students may choose to earn this degree for preparation for employment or for personal development.

REQUIREMENTS
To meet the General Studies degree requirements, a student must complete the following:

I. AS or AA General Education Requirements (see Degree Requirements and Transfer Information section)

AND

II. Choose a minimum of 18 units
Students must complete a minimum of three units in Humanities and three units in Fine Arts. The remaining twelve units may be taken from either category.

The Associate in Arts in General Studies with an Emphasis in Humanities and Fine Arts will be awarded to students upon completion of general education degree requirements and 18 units in this area. These courses emphasize the study of cultural, humanistic activities and artistic expression of human beings. Students will evaluate and interpret the ways in which people through the ages in different cultures have responded to themselves and the world around them through artistic and cultural creation. Students will develop an aesthetic awareness and incorporate these concepts when constructing value judgments.

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

- Analyze the principle elements of representative examples of art, architecture, literature, theater, philosophy, music, dance, film, or other relevant areas of cultural and/or intellectual creativity.
- Demonstrate an awareness of the historical and philosophical contexts of representative areas, movements, media, works, or styles of cultural and/or intellectual creativity.
- Employ the language, concepts and methods of interpretive criticism as applicable to the respective categories of human creativity.
- When applicable, apply artistic processes and skills as a creative expression, using a variety of media to communicate meaning and intent in original works of art.

Humanities
ARAM 120, 121, 220
ARBC 120, 121, 122, 123, 130, 145, 220, 221, 250, 251, 254, 256
ART 140, 141, 142, 143, 145, 146, ~~149~~151
ASL 120, 121, 140, 220, 221
ENGL 122, 201, 202, 217, 221, 222, 231, 232, 236, 238, 270, 271
ETHN 111, 151, 236, 238
HIST 100, 101, 105, 106, 114, 115
HUM 110, 111, 115, 116, 117, 120, 140, 155
(General Studies continued)

~~NAKY~~ KUMEY 116, 117, 120, 121, 220
PHIL 110, 115, 117, 140, 141, ~~160~~, 170
RELG 120, 130, 160, 170
SPAN 120, 121, 141, 145, 220, 221, 250, 251

Fine Arts
ART 100, 104, 119, 120, 121, 124, 125, 129, 135, 140, 141, 142, 143, 144, 145, 146, 148, 151, 210, 211, 220, 221, 222, 224, 225, 230, 231, 232, 233, 235, 236, 240, 241, 242
ETHN 151
MUS 110, 111, 115, 116, 117, 123
THTR 110

GENERAL STUDIES: SCIENCE AND MATHEMATICS

The Associate Degree in General Studies with an Area of Emphasis provides an opportunity for students to design a program of study meaningful and appropriate to their own needs and academic interests. The degree includes general education and a focused area of study. Students may choose to earn this degree for preparation for employment or for personal development.

REQUIREMENTS
To meet the General Studies degree requirements, a student must complete the following:

I. AS or AA General Education Requirements (see Degree Requirements and Transfer Information section)

AND

II. Choose a minimum of 18 units

Students must complete a minimum of three units in Science and three units in Mathematics (limitation of one statistics course). The remaining twelve units may be taken from any category.

The Associate in Science in General Studies with an Emphasis in Science and Mathematics will be awarded to students upon completion of general education degree requirements and 18 units in this area. These courses emphasize the study of mathematical and quantitative reasoning skills and apply the facts and principles that form the foundations of living and non-living systems. Students will recognize and utilize the methodologies of science as investigative tools, as well as the limitations of science. Students will use mathematical skills to solve numerical problems encountered in daily life, and more advanced skills for applications in the physical and life sciences.

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

- ~~Use algebraic methods to solve problems.~~ Solve problems using fundamentals of mathematics, engineering, natural and/or computer science.
- ~~Interpret basic mathematical models and draw inferences from them.~~ Utilize mathematical skills to analyze data and/or solve problems.
- ~~Represent mathematical information symbolically, visually, numerically and verbally.~~
- Use the scientific method of inquiry and techniques to answer questions about physical and biological processes.
- Analyze basic concepts of physical and biological science to evaluate scientific information and solve scientific problems.

Science
ANTH 130
ASTR 110, 112
BIO 112, 115, 122, 130, 131, 133, 134, 135, 140, 141, 141L, 152, 230, 240, 251
CHEM 102, 115, 116, 120, 141, 142, 231, 232
ET 110
GEOG 120, 121
GEOL 104, 105, 110, 111
KUMEY 133, 134, 135
OCEA 112, 113
PHYC 110, 130, 131, ~~190~~, ~~200~~, 201, 202, 203, ~~210~~

Mathematics
BIO 215
MATH 160, 170, 175, 176, 178, 180, 245, 280, 281, 284, 285
PSY 215

CADD and Engineering
CADD 115, 120, 125, 129, 131
ENGR 100, 119, 120, 125, 129, ~~175~~, ~~176~~, 200, 210, 218, 220, 270

Computer Science
CS 119, 119L, 165, 181, 182, 240, 281, 282

GENERAL STUDIES: SOCIAL AND BEHAVIORAL SCIENCES

The Associate Degree in General Studies with an Area of Emphasis provides an opportunity for students to design a program of study meaningful and appropriate to their own needs and academic interests. The degree includes general education and a focused area of study. Students may choose to earn this degree for preparation for employment or for personal development.

REQUIREMENTS
To meet the General Studies degree requirements, a student must complete the following:

I. AS or AA General Education Requirements (see Degree Requirements and Transfer Information section)

AND

II. Choose a minimum of 18 units

Students must complete a minimum of three units in Social Science and three units in Behavioral Science. The remaining twelve units may be taken from either category.

The Associate in Arts in General Studies with an Emphasis in Social and Behavioral Sciences will be awarded to students upon completion of general education degree requirements and 18 units in this area. These courses emphasize the study and understanding of human behavior. Students will evaluate and interpret human societies; the institutions, organizations and groups that form them; the ways in which individuals and groups relate to one another; and various approaches and methodologies of the disciplines.

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

- Describe general principles of the political institutions and government of the United States.
- ~~Demonstrate an understanding and appreciation~~ Analyze the role of social, political, and economic institutions within a historical perspective.
- Evaluate the ways people act and interact in cultures, societies and social subgroups.
- Assess how social issues are influenced by geographical and historical processes.
- Apply knowledge of social and behavioral sciences theories and scientific methods in an assessment of real-world problems.

Social Science
ANTH 120, 140, 150
ARBC 145
BIO 134
CD 145
COUN 120, 140
ECON 110, 120, 121
ETHN 107, 114, 118, 119, 130, 131, ~~132, 133,~~ 150, 165, ~~166~~, 180, 181
GEOG 106, 122, 130
HIST 100, 101, 105, 106, 107, 108, 109, 118, 119, 122, 123, 124, 128, 129, 130, 131, ~~132~~, ~~133~~, 148, 180, 181, 275, 276, 277
KUMEY 128, 129, 150, 166, 170
POSC 120, 121, 124, 130, 140, 145, 147, 148, 150, 165, 166, 170
SOC 114, 120, 125, 130, 138, 140, 150
SPAN 145
SW 170

Behavioral Science
CD 115, 125, 131
COMM 110, 124
HED 120, 201, 203, 204, 251
NUTR 158
PSY 120, 125, 132, 134, 138, 140, 150, 170, 201, 211, 220

HISTORY

HISTORY FOR TRANSFER (AA-T)

This degree program is useful for students preparing for careers in education ~~teaching~~, the law and legal field, journalism, government service, political science, museums and archives, consulting, and research. The history program offers a diverse transfer curriculum and is committed to equity-minded teaching in an atmosphere of academic excellence. History course offerings focus on global cultures, historically-underrepresented groups in the United States, and the development of American Institutions. History courses ~~also emphasize~~ help students develop and refine research, writing, and interpretive skills that are essential in navigating both society and their careers. ~~to the college's General Education mission.~~ History faculty create a vibrant intellectual campus culture and promote civic engagement through a variety of panels, presentations, and field trips.

The following is required for the AA-T in 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 higher or "Pass" 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:

- Interpret and evaluate evidence by analyzing biases, patterns, trends, and relationships.
- Evaluate and apply subject matter to students' lived experiences and current events.
- Analyze how power and privilege operate in society, through the categories of race, class, gender, ethnicity, and sexuality.
- Develop and support arguments with evidence, including academic and organic (i.e. cultural, traditional, and experiential).
- Research and explore career options and/or obtain experience in a career field.

Associate in Arts Degree Requirements

Core Curriculum:

Course	*Title*	*Units*
HIST 108	Early American History	3
HIST 109	Modern American History	3
		6

List A: Select six units:

HIST 100	Early World History	3
or		
HIST 105	Early Western Civilization	3
HIST 101	Modern World History	3
or		
HIST 106	Modern Western Civilization	3
		6

List B: Select one course from each group:

Group 1: Select one of the following courses:

ETHN/HIST 107	History of Race & Ethnicity in the United States	3
ETHN/HIST 118	U.S. History: Chicano/Chicana Perspectives I	3
ETHN/HIST 119	U.S. History: Chicano/Chicana Perspectives II	3
ETHN/HIST 130	U.S. History and Cultures: Native American Perspectives I	3
ETHN/HIST 131	U.S. History and Cultures: Native American Perspectives II	3
HIST/KUMEY 128 ~~132~~	Kumeyaay History I: Precontact - 1845	3
HIST/KUMEY 129 ~~133~~	Kumeyaay History II: 1846 - Present	3
ETHN/HIST 180	U.S. History: Black Perspectives I	3
ETHN/HIST 181	U.S. History: Black Perspectives II	3
or HIST 100 or 101 if not selected above		3
		3

Group 2: Select one of the following courses:

HIST 114	Comparative History of the Early Americas
HIST 115	Comparative History of the Modern Americas
HIST 122	Women in Early American History
HIST 123	Women in Modern American History
HIST 124	History of California
HIST 148	The Modern Middle East
ETHN/HUM 111	Culture, Art, & Ideas of the United States

(History for Transfer continued)

HUM 115 Arts and Culture in Local Context-San Diego	
KUMEY/HUM 116 Kumeyaay Arts and Culture I	
POSC 140 Introduction to California Government and Politics	
KUMEY ~~ETHN~~/POSC 166 Introduction to Native American Politics and Policy	
or any course from Group 1 not selected	3
	6
~~Total~~ Units in the Major	18
~~12~~ 15 Units may be double-counted with GE	
Plus General Education Requirements (CSU GE or IGETC-CSU)	39/37
Total Transferable Elective Units	~~15/17~~ 18/20
Total Units ~~for Degree~~	60

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

HISTORY

This degree program is useful for students preparing for careers in education teaching, the law and legal field, journalism, government service, political science, museums and archives, consulting, and research. The history program offers a diverse transfer curriculum and is committed to equity-minded teaching in an atmosphere of academic excellence. History course offerings focus on global cultures, historically-underrepresented groups in the United States, and the development of American Institutions. History courses ~~also emphasize~~ help students develop and refine research, writing, and interpretive skills that are essential in navigating both society and their careers. ~~to the college's General Education mission.~~ History faculty create a vibrant intellectual campus culture and promote civic engagement through a variety of panels, presentations, and field trips.

Program Learning Outcomes
Upon successful completion of this program, students will be able to:
- Interpret and evaluate evidence by analyzing biases, patterns, trends, and relationships.
- Evaluate and apply subject matter to students' lived experiences and current events.
- Analyze how power and privilege operate in society, through the categories of race, class, gender, ethnicity, and sexuality.
- Develop and support arguments with evidence, including academic and organic (i.e. cultural, traditional, and experiential).
- Research and explore career options and/or obtain experience in a career field.

CAREER OPPORTUNITIES
* Anthropologist
* Archaeologist
* Archivist
Attorney
~~* Cartographer~~
*Editor
*Education Administrator
*History Professor/Historian
*Judicial Law Clerk
*Law Professor
~~* College History Professor~~
~~* Historian~~
~~* Intelligence Analyst~~
~~* Journalist~~
~~Legislative Assistant~~
*Legislative Assistant
*Legal Arbitrator, Mediator, and Conciliator
*Museum Curator
*Political Science Professor
Politician
* Research Historian
*Reporter, Correspondent
* Secondary School (K-12) Teacher
*Social Worker
~~Travel Advisor~~
~~Technical Writer~~
~~* Textbook Writer/Editor~~
*Writer, Author, Editor

* Bachelor Degree (B.A.) or higher required

(History continued)

Associate in Arts Degree Requirements:
Select twelve units from any two of the following sequences:

Course	*Title*	*Units*
HIST 100	Early World History	
HIST 101	Modern World History	6
HIST 105	Early Western Civilization	
HIST 106	Modern Western Civilization	6
HIST 108	Early American History	
HIST 109	Modern American History	6
		12

List A: Select one of the following courses:

HIST/ETHN 107	History of Race & Ethnicity in the United States	3
HIST/ETHN 118	U.S. History: Chicano/Chicana Perspectives I	3
HIST/ETHN 119	U.S. History: Chicano/Chicana Perspectives II	3
HIST/ETHN 130	U.S. History and Cultures: Native American Perspectives I	3
HIST/~~ETHN 131~~KUMEY 128	U.S. History and Cultures: Native American Perspectives II	3
HIST/~~ETHN 132~~KUMEY 129	Kumeyaay History I: Precontact - 1845	3
HIST/ETHN 133	Kumeyaay History II: 1846 - Present	3
HIST/ETHN 180	U.S. History: Black Perspectives I	3
HIST/ETHN 181	U.S. History: Black Perspectives II	3
		3

List B: Select one of the following courses:

HIST 114	Comparative History of the Early Americas	3
HIST 115	Comparative History of the Modern Americas	3
HIST 122	Women in Early American History	3
HIST 123	Women in Modern American History	3
HIST 124	History of California	3
HIST 148	The Modern Middle East	3
ETHN/HUM 111	Culture, Art, & Ideas of the United States	3
HUM 115	Arts and Culture in Local Context-San Diego	3
KUMEY/HUM 116	Kumeyaay Arts and Culture I	3
POSC 140	Introduction to California Government and Politics	3
KUMEY/POSC 166	Introduction to Native American Politics and Policy	3
or any course from List A not selected		3
		3
		6

Total Units ~~Required~~	18
Plus General Education Requirements	

KINESIOLOGY

KINESIOLOGY FOR TRANSFER (AA-T)

The Associate in Arts in Kinesiology for Transfer degree is designed to prepare students for transfer to a California State University (CSU) by fulfilling lower-division requirements for the disciplines of Kinesiology, Exercise Science and Physical Education. This major provides preparation for careers in physical therapy, coaching, personal training, and other allied health professions by including classes oriented toward fitness, wellness, and health promotion throughout the lifespan.

The following is required for the AA-T in Kinesiology 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 higher or "Pass" 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:
- List and define the five basic components of physical fitness.
- Describe the concepts of frequency, intensity, and time and how they relate to personal fitness goals.
- Outline a basic strategy for achieving fitness through the lifespan.
- List options within the community for continued lifelong physical activity.
- List benefits of daily physical activity.
- Demonstrate competence in acquiring sound nutritional information.
- Demonstrate improvement in sport skills.
- Outline appropriate goals and activities for increasing the fitness of children.
- Describe appropriate preventive measures as well as treatments for various sport injuries.
- List and describe opportunities for employment in the field.
- Describe their field of interest and a course of instruction that will meet their professional needs.

Associate in Arts Degree Requirements:
Core Curriculum:

Course	*Title*	*Units*
BIO 140	Human Anatomy	4~~5~~
BIO 141	Human Physiology	3
BIO 141L	Laboratory in Human Physiology	1
ES 250	Introduction to Kinesiology	3

Movement Based Courses: Select one course from three different areas for a minimum of three units:

Combatives:		
ES 180	Self Defense for Women	1
Fitness:		
ES 009AB~~C~~	Beginning, Intermediate~~, Advanced~~ Aerobic Dance Exercise	1
ES 014AB~~C~~	Beginning, Intermediate~~, Advanced~~ Body Building	1.5
ES 019AB~~C~~	Beginning, Intermediate~~, Advanced~~ Physical Fitness	1.5
ES 024AB	Beginning, Intermediate Fitness Boot Camp	1
ES 028AB	Beginning, Intermediate Yoga	1.5
Individual Sports:		
ES 060AB~~C~~	Beginning, Intermediate~~, Advanced~~ Badminton	1
ES 076AB~~C~~	Beginning, Intermediate~~, Advanced~~ Tennis	1
ES 125A	Beginning Golf	1
ES 125B~~C~~	Intermediate~~, Advanced~~ Golf	1.5
Team Sports:		
ES 155AB~~C~~	Beginning, Intermediate~~, Advanced~~ Basketball	1
ES 170AB~~C~~	Beginning, Intermediate~~, Advanced~~ Soccer	1
ES 171AB~~C~~	Beginning, Intermediate~~, Advanced~~ Softball	1
ES 175AB~~C~~	Beginning, Intermediate~~, Advanced~~ Volleyball	1
		14~~-15-16~~

(Kinesiology continued)

List A:

CHEM 102	Introduction to General, Organic and Biological Chemistry	5
or		
CHEM 141	General Chemistry I	5
MATH 160	Elementary Statistics	4
or		
PSY 215	Statistics for Behavioral Sciences	4
		9

~~Total~~ Units ~~for~~ in Major	23-24~~-25~~
10-11.5 units may be double-counted with GE	
Plus General Education Requirements (CSU GE or IGETC CSU)	37-39
Total Transferable Elective Units	8.5-9.5/9-10~~7.5-9~~
Total Units ~~for Degree~~	60

Please note: SDSU accepts this degree for students transferring into Exercise Science Generalist.

EXERCISE SCIENCE

This degree program is designed to prepare students for a variety of careers including education, physical therapy, coaching, personal training and other allied health professions by providing classes oriented toward fitness, wellness and health promotion throughout the lifespan. The major also provides preparation for transfer to a four-year college in physical education, exercise physiology, kinesiology, nutrition or athletic training, as well as teacher credentialing programs.

Program Learning Outcomes

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

- List and define the five basic components of physical fitness.
- Describe the concepts of frequency, intensity and time, and how they relate to personal fitness goals.
- Outline a basic strategy for achieving fitness through the lifespan.
- List options within the community for continued lifelong physical activity.
- List benefits of daily physical activity.
- Demonstrate competence in acquiring sound nutritional information.
- Demonstrate improvement in sport skills.
- Outline appropriate goals and activities for increasing the fitness of children.
- Describe appropriate preventive measures as well as treatments for various sport injuries.
- List and describe opportunities for employment in the field.
- Describe their field of interest and a course of instruction that will meet their professional needs.

CAREER OPPORTUNITIES

Aerobics Instructor
Athletics Coach
* Athletics Trainer
* Cardiovascular Rehabilitation
* College Professor
* Elementary School Teacher
* Exercise Physiologist
* Health Club Manager
Personal Trainer
* Physical Therapist/ Assistant
* Registered Dietician
* Secondary School Teacher
* Teaching

* Bachelor Degree or higher required

Associate in Science Degree Requirements:

Course	*Title*	*Units*
BIO 130	General Biology I	3
BIO 131	General Biology I Laboratory	1
BIO 140	Human Anatomy	~~5~~ 4
CHEM 102	Introduction to General, Organic and Biological Chemistry	5
or		
CHEM 115	Fundamentals of Chemistry	4
or		
CHEM 120	Preparation for General Chemistry	4
or		

(Exercise Science continued)

CHEM 141	General Chemistry I	5
COMM 122	Public Speaking	3
ES 014ABC	Body Building	1.5
or		
ES 019ABC	Physical Fitness	1.5
ES 250	Introduction to Kinesiology	3
ES 255	Care and Prevention of Athletic and Recreational Injuries	3
NUTR 158	Nutrition for Fitness and Sports	3
or		
NUTR 255*	Science of Nutrition	3
PSY 120	Introductory Psychology	3
SOC 120	Introductory Sociology	3
		31.5-32.5

Select one of the following:

BIO 215	Statistics for Life Sciences	3
MATH 160	Elementary Statistics	4
PSY 215	Statistics for the Behavioral Sciences	4
		3-4

Select two of the following *(fulfills the activity requirement for the associate degree):*

ES 001	Adapted Physical Exercise	1
ES 009ABC	Aerobic Dance Exercise	1
ES 019ABC	Physical Fitness	1.5
ES 028ABC	Yoga	1.5
ES 060ABC	Badminton	1
ES 076ABC	Tennis	1
ES 125ABC	Golf	1-1.5
ES 155ABC	Basketball	1
ES 170ABC	Soccer	1
ES 171ABC	Softball	1
ES 175ABC	Volleyball	1
		2-3
	Total Units ~~Required~~	36.5-39.5~~37.5-40.5~~
	Plus General Education Requirements	

*Students planning to transfer to SDSU must take NUTR 255.

PARALEGAL STUDIES

Associate in Science Degree

The legal profession has evolved, like the medical profession, into a profession of specialties. Based on this development, lawyers need qualified assistants to better help them provide legal services to their clients. Paralegals are trained, professional technicians able to provide this needed legal assistance.

This degree program is specifically designed to prepare and provide students with the analytical skills and written abilities necessary to assist attorneys in the practice of law. The technical curriculum goals and objectives emphasize three primary areas:

1.Legal Research, Analysis and Writing
2. Ethics and the Mechanics of Law
3. Integration of Substantive and Procedural Law

The successful paralegal degree candidate will possess a broad educational background with an opportunity to gain specialized skills in specific areas of law. The large curriculum offering also allows practicing paralegals to attend college refresher or new skills development courses.

This program does not prepare students for law school or the practice of law. Please note: Paralegals may not provide legal services directly to the public, except as permitted by law.

Program Learning Outcomes
Upon successful completion of this program, students will be able to:
- Apply the research, analytical skills and college-level writing abilities necessary to assist attorneys in the practice of law.
- Conduct oneself in an ethical and professional manner when confronted with a law office related conflict scenario.

CAREER OPPORTUNITIES

Claim Examiner
Compensation and Benefits Manager
Compliance and Enforcement Inspector
† Contract Consultant
Forms and Procedures Specialist
Freelance Paralegal
* Labor Relations Specialist
Law Clerk
Legal Aide
Legal Assistant
Legal Research Assistant
Legal Technician
Occupational Safety and Health Worker
† Paralegal
Patent Agent
Title Examiner

* Bachelor Degree or higher required
† Bachelor Degree normally recommended

It is recommended that incoming students complete C grade or higher in ESL 2B or placement into ENGL 120 or equivalent prior to taking any Paralegal Studies classes.

Associate in Science Degree Requirements:

Course	*Title*	*Units*
BOT 120-121	Comprehensive Word Levels I–II	2
BOT 122	Comprehensive Word, Level III	1
or		
BOT 151	Using Microsoft Outlook	1
or		
BOT 115	Essential Excel	1
BUS 125	Business Law: Legal Environment of Business	3
PARA 100	Introduction to Paralegal Studies	3
PARA 110	Civil Litigation Practice and Procedures	3
PARA 130	Legal Research and Writing	3
PARA 132	Computer Assisted Legal Research (CALR)	3
PARA 135	Bankruptcy Law	3
		21

Select at least six units from the following:

PARA 120	Introduction to Administrative Law	2
PARA 121	Social Security Law – Practice and Procedure	1
PARA 125	Business Organizations	1

PARA 140	Criminal Law and Procedures	3
PARA 145	Estate Planning	2
PARA 146	Probate and Administration of Estates	1
PARA 150	Family Law (Divorce, Separation, Nullity, and Paternity)	2
PARA 151	Family Law (Custody, Visitation, and Support)	1
PARA 160	Personal Injury	1
PARA 170	Worker's Compensation	1
PARA 175	Electronic Discovery: Fundamentals and Procedure	1
PARA 176	Electronic Discovery: Advanced Practice	2
PARA 250*	Internship	1-3
		6
	Total Units ~~Required~~	27
	Plus General Education Requirements	

*Student must complete 18 units within the major to be eligible for this course.

Recommended Elective: BUS 128

GENERAL EDUCATION REQUIREMENTS FOR THE PARALEGAL STUDIES DEGREE:
AREA A–LANGUAGE AND RATIONALITY
(Minimum of 6 semester units)
One course from each area:

1. **Written Communication**
   ENGL 120

2. **Oral Communication and Analytical Thinking**
   COMM 120, 122, 137, 145
   ENGR 100
   MATH 110, 120, 125, 160, 170, 175, 176, 178, 180, 245, 280, 281, 284
   PHIL 125, 130
   PSY 215

AREA B–NATURAL SCIENCES
(Minimum of 4 semester units)
A course that includes a laboratory (laboratory courses are underlined):

ANTH 130
ASTR 110, 112
BIO 112, 115, 122, 130, 131, 140, 152, 230, 240
CHEM 102, 115*, 120*, 141
GEOG 120, 121
GEOL 104, 110, 111
OCEA 112, 113
PHYC 110, 130, 131, 201, 202, 203

*Students will not receive credit for more than one of the following courses: CHEM 115, 120.
AREA C–HUMANITIES
(Minimum of 3 semester units)
One of the following courses:

ARAM 120, 121, 220
ARBC 120, 121, 145, 220, 221, 250, 251
ART 100, 120, 124, 129, 140, 141, 143, 144, 145, 146, 148
ASL 120, 121, 140, 220, 221
ENGL 122, 201, 202, 214, 217, 221, 222, 231, 232, 270, 271
HIST 100, 101, 105, 106
HUM 110, 115, 116, 120, 140, 155
KUMEY 120, 121, 220
MUS 110, 111, 115, 116, 117
~~NAKY 120, 121, 220~~
PHIL 110, 115, 117, 140~~, 160~~, 170
RELG 120, 130, 160, 170
SPAN 120, 121, 141, 145, 220, 221, 250, 251
THTR 110

AREA D–SOCIAL AND BEHAVIORAL SCIENCES
(Minimum of 3 semester units)
One of the following courses:

ANTH 120
CD 115, 125, 131, 145
COMM 110, 124
ECON 110, 120, 121
GEOG 106, 130
HED 120, 201
HIST 108, 109, 118, 119, 122, 123, 124, 130, 131, 132, 133, 180, 181
POSC 120, 121, 124, 130, 140
PSY 120, 125, 134, 138, 140, 150, 170, 220
SOC 120, 125, 130

AREA E- CULTURAL DIVERSITY GRADUATION REQUIREMENT
(Minimum of 3 semester units)
One of the following courses:
ART 151
COMM 124
ENGL 236, 238
ETHN 107, 111, 114, 118, 119, 130, 131, 132, 133, 150, 166, 180, 236, 238
HIST 107, 114, 115, 118, 119, 130, 131, 132, 133, 148, 180, 181
HUM 111
POSC 165, 166
PSY 125, 132
SOC 114, 120, 125, 150

ADDITIONAL REQUIREMENTS:
(Minimum 6 semester units)
Two additional courses from two different areas:

- Area B – Natural Sciences
- Area C – Humanities
- Area D – Social and Behavioral Sciences

DEGREE REQUIREMENTS:
Cuyamaca College will confer the Degree of Associate in Science in Paralegal Studies upon students who successfully complete the following requirements:

1. A minimum of 60 semester units of college work.
2. Competency Requirements
   A. Completion of ENGL 120 with a grade of "C" or better or "P"*.
   B. Completion of MATH 110 or a higher numbered mathematics class, or a statistics course from another discipline that has intermediate algebra as a prerequisite, with a grade of "C" or better or a grade of "P"* or completion of assessment placing into a class higher than MATH 110.
3. Exercise Science Degree Requirements
   Two activity courses in exercise science are required for graduation from Cuyamaca College. These courses are marked with an asterisk in the Course Descriptions section.
   A. If medical reasons necessitate exclusion from exercise science, a medical statement must be on file with the Admissions and Records Office. Adaptive exercise science classes are available.
   B. Veterans who have completed at least one year of honorable active service will receive up to three units of credit for exercise science which will satisfy the activity requirement for graduation. To receive credit for military service, a DD-214 and appropriate military records must be submitted to the Admissions and Records Office.
4. Achievement of a "C" average (2.0 GPA) in all college work counted toward general education requirements.
5. Achievement of a "C" grade or ~~better~~ higher or "Pass" in all courses counted toward the major. ~~(P/NP grading not accepted for the major.)~~
6. A maximum of 12 "P"* semester units taken in regular course work at this institution may be counted toward the 60 semester units required for graduation. ~~but shall not be included as part of the requirements for the major~~.
7. A minimum of 12 semester units of Legal Specialty courses must be completed at Cuyamaca College.

*A grade of "P" (Pass) represents a "C" grade or better.
For more information regarding degree requirements, see Degree Requirements and Transfer Information section.

PUBLIC HEALTH SCIENCE FOR TRANSFER (AS-T)

The Associate in Science in Public Health Science for Transfer provides a broad exposure to the field of public health and related disciplines. Upon completion of this degree, students will be able to recognize effective strategies aimed at reducing threats to the health of our communities and the public at large. The program lays the foundation for student preparation in development, implementation, and evaluation of public health services in various settings and with diverse populations.

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

1. 60 semester or 90 quarter CSU-transferable units;
2. Minimum grade point average (GPA) of 2.0;
3. Minimum of 18 semester or 27 quarter units in the major or area of emphasis;
4. A grade of "C" or higher or "Pass" in all courses required for the major.
5. California State University General Education Breadth pattern (CSU GE Breadth); or the Intersegmental General Education Transfer Curriculum (IGETC) pattern for the CSU;

Program Learning Outcomes

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

- Outline strategies for prevention, detection and control of infectious and chronic disease.
- Describe the organization, financing and delivery of various medical and population-based services in the United States health care system.
- Explain the role of Public Health in addressing the following issues: disparities among different populations, aging, injuries, obesity, control of emerging diseases and epidemics, and emergency preparedness.
- Analyze reliable public data sources to find statistical and epidemiologic data on incidence, prevalence, and trends in drug, tobacco and alcohol use.
- Review recent public health literature detailing ways that race, socioeconomic status and gender become embodied in disparate health outcomes.
- Analyze the contribution of environmental conditions to disparate health outcomes, using case studies.

Career Opportunities

Career opportunities in Public Health are varied, but consist primarily of administration[1], teaching[1], research[1], program planning[1], health promotion[1], outreach, and administrative assistance duties in the following contexts:
Government agencies
Private Volunteer agencies
Hospitals
Clinics
International Relief programs
Environmental Health programs
Occupational Health programs
[1]Bachelor degree or higher recommended.

Associate in Science for Transfer Degree Requirements:

Course	*Title*	*Units*
Core Curriculum Requirements		
BIO 130	General Biology I	3
BIO 131	General Biology I Lab I	1
BIO 140	Human Anatomy	4~~5~~
BIO 141	Human Physiology	3
BIO 141L	Lab in Human Physiology	1
CHEM 115	Fundamentals of Chemistry	4
HED 120	Personal Health and Lifestyles	3
HED 201	Introduction to Public Health	3
MATH 160	Elementary Statistics	4
PSY 120	Introductory Psychology	3
		29 ~~30~~
List A: Select one course from the following: (3 units):		
ECON 120	Principles of Macroeconomics	3
ECON 121	Principles of Microeconomics	3
HED 202	Health Professions and Organizations	3
HED 203	Substance Abuse and Public Health	3
HED 204	Health and Social Justice	3
PSY 134	Human Sexuality	3
SOC 120	Introductory Sociology	3
	~~Total~~ Units in the Major	32 ~~33~~
	16-19/13-16 ~~15-18~~ Double-Counted Units	
	Plus General Education Requirements ~~Total Units for~~ (CSU-GE or IGETC-CSU)	39/37
	Total Transferable Elective Units	5-8/4-7 ~~3-6~~
	Total ~~Degree~~ Units	60

UNIVERSITY STUDIES

UNIVERSITY STUDIES: COMMUNICATION AND LANGUAGE ARTS

The Associate Degree in University Studies with an Area of Emphasis is intended to accommodate the differing requirements of a wide variety of transfer institutions and major options. Because admission and major preparation requirements vary at each four-year transfer institution, courses used to complete this degree should be selected with the assistance of a counselor. The completion of the University Studies Degree does not guarantee acceptance into either a baccalaureate major or a four-year institution.

REQUIREMENTS:

I. California State University (CSU) General Education Breadth

1. Complete CSU General Education Breadth (see Degree Requirements and Transfer Information section).
2. Earn a grade of "C" or better in 30 of the required 39 semester units of general education to include all courses in Area A and the Mathematical/Quantitative Reasoning courses in Area B.
3. Credit earned through external examinations, i.e., AP, will be applied towards general education in accordance with Cuyamaca College policies. Please note: This may be different than how the external exam is used on a CSU certification.
4. Complete a minimum of 18 units in an Area of Emphasis (listed below).
5. Complete a minimum of 60 degree applicable CSU transferable semester units.
6. Earn a cumulative GPA of 2.0 in all college course work completed.
7. Meet Cuyamaca College residence requirements for graduation (see Admission Information).

OR

II. Intersegmental General Education Transfer Curriculum (IGETC) for CSU or UC

1. Complete IGETC Certification (see Degree Requirements and Transfer Information section.
2. Earn a grade of "C" or better in all IGETC courses.
3. Credit earned through external examinations, i.e., AP, will be applied in accordance with Cuyamaca College policies. Please note: This may be different than how the external exam is used on an IGETC certification.
4. Complete a minimum of 18 units in an Area of Emphasis (listed below).
5. Complete a minimum of 60 degree applicable UC transferable semester units for UC University Studies.
6. Earn a cumulative GPA of 2.0 in all college course work completed.
7. Meet Cuyamaca College residence requirements for graduation (see Admission Information).

AND

Choose a minimum of 18 units. Students must complete a minimum of three units in Communication and three units in Language Arts. The remaining twelve units may be taken from either category.

While 18 units are required in a specific area to meet the requirements of the degree, it is strongly recommended that as many lower division preparation for the major courses as possible be completed at the community college prior to transfer. Some baccalaureate majors and four-year institutions require a higher GPA than is necessary for the associate degree. Courses that are not UC-transferable will not be used in the UC University Studies Area of Emphasis Degrees. Completion of the University Studies degree does not guarantee admission to a four-year institution.

Courses for the Associate in Arts in University Studies with an Emphasis in Communication and Language Arts focus on the study of how language works to express human ideas and feelings. Students will explore and analyze written and verbal communication methods, as well as develop and advance their oral and written communication skills. Students completing this area may be interested in the following baccalaureate majors: communication, English, foreign language, literature, journalism, and linguistics.

Program Learning Outcomes

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

- Demonstrate the ability to <u>analyze information and</u> write effectively.
- ~~Demonstrate the ability to locate relevant, reliable information and read it effectively.~~
- Organize thoughts and ideas in both oral and written format.
- Communicate effectively with diverse audiences.

Communication

BUS 128*
COMM 110, 120, 122, 123, 124, 130, 137, 145

Language Arts

ARAM 120, 121, 220
ARBC 120, 121, 122, 123, 220, 221, 254<u>, 256*</u>
ASL 120, 121, 220, 221
BUS 128*

ENGL 122, 124, 126, 201, 202, 221, 222, 231, 232, 236, 238, 270, 271
ETHN 236, 238
~~NAKY~~ KUMEY 120, 121, 220
SPAN 120, 121, 220, 221, 250, 251

*Course not UC transferable

UNIVERSITY STUDIES: HUMANITIES AND FINE ARTS

The Associate Degree in University Studies with an Area of Emphasis is intended to accommodate the differing requirements of a wide variety of transfer institutions and major options. Because admission and major preparation requirements vary at each four-year transfer institution, courses used to complete this degree should be selected with the assistance of a counselor. The completion of the University Studies Degree does not guarantee acceptance into either a baccalaureate major or a four-year institution.

REQUIREMENTS:

I. California State University (CSU) General Education Breadth
1. Complete CSU General Education Breadth (see Degree Requirements and Transfer Information section).
2. Earn a grade of "C" or better in 30 of the required 39 semester units of general education to include all courses in Area A and the Mathematical/Quantitative Reasoning courses in Area B.
3. Credit earned through external examinations, i.e., AP, will be applied towards general education in accordance with Cuyamaca College policies. Please note: This may be different than how the external exam is used on a CSU certification.
4. Complete a minimum of 18 units in an Area of Emphasis (listed below).
5. Complete a minimum of 60 degree applicable CSU transferable semester units.
6. Earn a cumulative GPA of 2.0 in all college course work completed.
7. Meet Cuyamaca College residence requirements for graduation (see Admission Information).

OR

II. Intersegmental General Education Transfer Curriculum (IGETC) for CSU or UC
1. Complete IGETC Certification (see Degree Requirements and Transfer Information section.
2. Earn a grade of "C" or better in all IGETC courses.
3. Credit earned through external examinations, i.e., AP, will be applied in accordance with Cuyamaca College policies. Please note: This may be different than how the external exam is used on an IGETC certification.
4. Complete a minimum of 18 units in an Area of Emphasis (listed below).
5. Complete a minimum of 60 degree applicable UC transferable semester units for UC University Studies.
6. Earn a cumulative GPA of 2.0 in all college course work completed.
7. Meet Cuyamaca College residence requirements for graduation (see Admission Information).

AND
Choose a minimum of 18 units. Students must complete a minimum of three units in Humanities and three units in Fine Arts. The remaining twelve units may be taken from either category.

While 18 units are required in a specific area to meet the requirements of the degree, it is strongly recommended that as many lower division preparation for the major courses as possible be completed at the community college prior to transfer. Some baccalaureate majors and four-year institutions require a higher GPA than is necessary for the associate degree. Courses that are not UC-transferable will not be used in the UC University Studies Area of Emphasis Degrees. Completion of the University Studies degree does not guarantee admission to a four-year institution.

Courses for the Associate in Arts in University Studies with an Emphasis in Humanities and Fine Arts focus on the study of cultural, humanistic activities, and artistic expression of human beings. Students will evaluate and interpret the ways in which people through the ages in different cultures have responded to themselves and the world around them through artistic and cultural creation. Students will develop an aesthetic awareness and incorporate these concepts when constructing value judgments. Students completing this area may be interested in the following baccalaureate majors: art, humanities, music, philosophy, religious studies, and theatre arts.

Program Learning Outcomes
Upon successful completion of this program, students will be able to:
- Analyze the principle elements of representative examples of art, architecture, literature, theater, philosophy, music, dance, film, or other relevant areas of cultural and/or intellectual creativity.
- Demonstrate an awareness of the historical and philosophical contexts of representative areas, movements, media, works, or styles of cultural and/or intellectual creativity.
- Employ the language, concepts and methods of interpretive criticism as applicable to the respective categories of human creativity.
- When applicable, apply artistic processes and skills as a creative expression, using a variety of media to communicate meaning and intent in original works of art.

Humanities
ARAM 120, 121, 220
ARBC 120, 121, 122, 123, 130, 145, 220, 221, 254, 256*
ART 140, 141, 142*, 143, 145, 146, ~~149~~151
ASL 120, 121, 140, 220, 221
ENGL 122, 201, 202, 217, 221, 222, 231, 232, 236, 238, 270, 271
ETHN 111~~*~~, 151, 236, 238
HIST 100, 101, 105, 106, 114, 115
HUM 110, 111~~*~~, 115, 116, 117~~*~~, 120, 140, 155
~~NAKY~~ KUMEY 116, 117, 120, 121, 220
PHIL 110, 115, 117, 140, 141, ~~160~~, 170
RELG 120, 130, 160, 170
SPAN 120, 121, 141, 145~~*~~, 220, 221, 250, 251

Fine Arts
ART 100, 104*, 119*, 120, 124, 125, 129, 140, 141, 142*, 143, 144, 145, 146, 148, 151, 210*, 211*, 241, 242
ETHN 151
MUS 110, 111, 115, 116, 117, 123~~*~~
THTR 110

* Course not UC transferable

UNIVERSITY STUDIES: SCIENCE AND MATHEMATICS

The Associate Degree in University Studies with an Area of Emphasis is intended to accommodate the differing requirements of a wide variety of transfer institutions and major options. Because admission and major preparation requirements vary at each four-year transfer institution, courses used to complete this degree should be selected with the assistance of a counselor. The completion of the University Studies Degree does not guarantee acceptance into either a baccalaureate major or a four-year institution.

REQUIREMENTS:

I. California State University (CSU) General Education Breadth
1. Complete CSU General Education Breadth (see Degree Requirements and Transfer Information section).
2. Earn a grade of "C" or better in 30 of the required 39 semester units of general education to include all courses in Area A and the Mathematical/Quantitative Reasoning courses in Area B.
3. Credit earned through external examinations, i.e., AP, will be applied towards general education in accordance with Cuyamaca College policies. Please note: This may be different than how the external exam is used on a CSU certification.
4. Complete a minimum of 18 units in an Area of Emphasis (listed below).
5. Complete a minimum of 60 degree applicable CSU transferable semester units.
6. Earn a cumulative GPA of 2.0 in all college course work completed.
7. Meet Cuyamaca College residence requirements for graduation (see Admission Information).

OR

II. Intersegmental General Education Transfer Curriculum (IGETC) for CSU or UC
1. Complete IGETC Certification (see Degree Requirements and Transfer Information section.
2. Students pursuing an Associate's Degree in University Studies: Science and Mathematics may follow IGETC for STEM requirements. IGETC for STEM permits a student to delay one GE course in Humanities and one in Social Sciences until after transfer. One 3A and one 3B course must be selected.
3. Earn a grade of "C" or better in all IGETC courses.
4. Credit earned through external examinations, i.e., AP, will be applied in accordance with Cuyamaca College policies. Please note: This may be different than how the external exam is used on an IGETC certification.
5. Complete a minimum of 18 units in an Area of Emphasis (listed below).
6. Complete a minimum of 60 degree applicable UC transferable semester units for UC University Studies.
7. Earn a cumulative GPA of 2.0 in all college course work completed.
8. Meet Cuyamaca College residence requirements for graduation (see Admission Information).

AND

Choose a minimum of 18 units. Students must complete a minimum of three units in Science and three units in Mathematics (limitation of one statistics course). The remaining twelve units may be taken from either category.

While 18 units are required in a specific area to meet the requirements of the degree, it is strongly recommended that as many lower division preparation for the major courses as possible be completed at the community college prior to transfer. Some baccalaureate majors and four-year institutions require a higher GPA than is necessary for the associate degree. Courses that are not UC-transferable will not be used in the UC University Studies Area of Emphasis Degrees. Completion of the University Studies degree does not guarantee admission to a four-year institution.

Courses for the Associate in Science in University Studies with an Emphasis in Science and Mathematics focus on the study of mathematical and quantitative reasoning skills and the application of facts and principles that form the foundations of living and non-living systems. Students will recognize and utilize the methodologies of science as investigative tools, as well as the limitations of science. Students will use mathematical skills to solve numerical problems encountered in daily life, as well as more advanced skills for applications in the physical and life sciences. Students completing this area may be interested in the following baccalaureate majors: astronomy, biological sciences, chemistry, computer science, engineering, geography, geology, mathematics, oceanography, physical science, and physics.

Program Learning Outcomes
Upon successful completion of this program, students will be able to:
- ~~Use arithmetical, algebraic, geometric and statistical methods~~ Utilize high level mathematical skills to analyze data and/or ~~to~~ solve problems.
- ~~Interpret mathematical models such as formulas, graphs, tables and schematics, and draw inferences from them.~~
- ~~Represent mathematical information symbolically, visually, numerically and verbally.~~
- Use the scientific method of inquiry and techniques to answer questions about physical and biological processes.
- Analyze ~~basic~~ concepts of physical and biological science to evaluate scientific information and solve scientific problems.

Science
ANTH 130
ASTR 110, 112
BIO 115, 122, 130, 131, 133, 134, 135, 140, 141, 141L, 152, 230, 240, 251
CHEM 102, 115, 120, 141, 142, 231, 232
CS 119, 119L, 181, 182, 281, 282
GEOG 120, 121
GEOL 104, 105, 110, 111
KUMEY 133, 134, 135
OCEA 112, 113
PHYC 110, 130, 131, ~~190, 200,~~ 201, 202, 203~~, 210~~

Mathematics
BIO 215
MATH 160, 170*, 175, 176, 178, 180, 245, 280, 281, 284, 285
PSY 215

*Course not UC transferable

UNIVERSITY STUDIES: SOCIAL AND BEHAVIORAL SCIENCES

The Associate Degree in University Studies with an Area of Emphasis is intended to accommodate the differing requirements of a wide variety of transfer institutions and major options. Because admission and major preparation requirements vary at each four-year transfer institution, courses used to complete this degree should be selected with the assistance of a counselor. The completion of the University Studies Degree does not guarantee acceptance into either a baccalaureate major or a four-year institution.

REQUIREMENTS:

I. California State University (CSU) General Education Breadth
1. Complete CSU General Education Breadth (see Degree Requirements and Transfer Information section).
2. Earn a grade of "C" or better in 30 of the required 39 semester units of general education to include all courses in Area A and the Mathematical/Quantitative Reasoning courses in Area B.
3. Credit earned through external examinations, i.e., AP, will be applied towards general education in accordance with Cuyamaca College policies. Please note: This may be different than how the external exam is used on a CSU certification.
4. Complete a minimum of 18 units in an Area of Emphasis (listed below).
5. Complete a minimum of 60 degree applicable CSU transferable semester units.
6. Earn a cumulative GPA of 2.0 in all college course work completed.
7. Meet Cuyamaca College residence requirements for graduation (see Admission Information).

OR

II. Intersegmental General Education Transfer Curriculum (IGETC) for CSU or UC
1. Complete IGETC Certification (see Degree Requirements and Transfer Information section.
2. Earn a grade of "C" or better in all IGETC courses.
3. Credit earned through external examinations, i.e., AP, will be applied in accordance with Cuyamaca College policies. Please note: This may be different than how the external exam is used on an IGETC certification.
4. Complete a minimum of 18 units in an Area of Emphasis (listed below).
5. Complete a minimum of 60 degree applicable UC transferable semester units for UC University Studies.
6. Earn a cumulative GPA of 2.0 in all college course work completed.
7. Meet Cuyamaca College residence requirements for graduation (see Admission Information).

AND

Choose a minimum of 18 units. Students must complete a minimum of three units in Social Science and three units in Behavioral Science. The remaining twelve units may be taken from either category.

While 18 units are required in a specific area to meet the requirements of the degree, it is strongly recommended that as many lower division preparation for the major courses as possible be completed at the community college prior to transfer. Some baccalaureate majors and four-year institutions require a higher GPA than is necessary for the associate degree. Courses that are not UC-transferable will not be used in the UC University Studies Area of Emphasis Degrees. Completion of the University Studies degree does not guarantee admission to a four-year institution.

Courses for the Associate in Arts in University Studies with an Emphasis in Social and Behavioral Sciences focus on the study and understanding of human behavior. Students will evaluate and interpret human societies; the institutions, organizations, and the groups that form them; the ways in which individuals and groups relate to one another; and various approaches and methodologies of the disciplines. Students completing this area may be interested in the following baccalaureate majors: anthropology, child development, education, history, nutrition, political science, psychology, social work, and sociology.

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

- Describe general principles of the political institutions and government of the United States.
- ~~Demonstrate an understanding and appreciation~~ Analyze the role of social, political, and economic institutions within a historical perspective.
- Evaluate the ways people act and interact in cultures, societies and social subgroups.
- Assess how social issues are influenced by geographical and historical processes.
- Apply knowledge of social and behavioral sciences theories and scientific methods in an assessment of real-world problems.

Social Science
ANTH 120, 140, 150
BIO 134
COUN 120, 140
ECON 110, 120, 121
ETHN 107~~*~~, 114, 118, 119, 130, 131~~, 132, 133~~, 150~~*~~, 165~~*~~, ~~166*,~~ 180, 181
GEOG 106, 130
HIST 100, 101, 105, 106, 107~~*~~, 108, 109, 118, 119, 122, 123, 124, 128, 129, 130, 131, ~~132, 133,~~ 148, 180, 181, 275, 276, 277
KUMEY 128, 129, 150, 166, 170*
POSC 120, 121, 124, 130, 140, 145*, 147*, 148*, 150*, 165~~*~~, 166~~*~~, 170
SOC 114, 120, 125, 130, 138~~*~~, 150~~*~~, 140
SPAN 145~~*~~
SW 170*

Behavioral Science
CD 115, 125, 131, 145
COMM 110, 124
HED 120, 201, 203, 204, 251*
PSY 120, 125, 132, 134, 138, 140, 150, 170, 201*, 211, 220

*Course not UC-transferable