

Degrees & Certificates

This list of programs may not include General Education Requirements, Basic Competency Requirements, and Specific Area Requirements needed to attain a degree. For more extensive information, go to [WebSMART](#), contact your counselor, or visit the requirement pages within this catalog (Please copy/paste link):

AA/AS Requirements: <https://catalog.canadacollege.edu/current/aa-as-degree/>

AA-T/AS-T Requirements: <https://catalog.canadacollege.edu/current/aat-ast-degree/>

Certificates: <https://catalog.canadacollege.edu/current/certificates/>

Legend

AA: Associate in Arts degree

AS: Associate in Science degree

AA-T: Associate in Arts degree for Transfer

AS-T: Associate in Science degree for Transfer

CA: Certificate of Achievement (requires 12 or more units, and is posted on students' academic transcripts)

Degree or Certificate Program	Award Type	Units
ACCOUNTING		
Accounting	AS	60 units
Accounting	CA	27.5 units
Entry Level Bookkeeper	CA	12 units
Payroll Specialist	CA	18 units
ANTHROPOLOGY		
Anthropology	AA	60 units
Anthropology	AA-T	60 units
ART		
Art History	AA	60 units
Art History	AA-T	60 units
Studio Arts	AA-T	60 units
BIOLOGICAL SCIENCES		
Allied Health	AS	60 units
Biological Sciences	AS	60 units
Biology	AS-T	60 units
Nutrition and Dietetics	AS-T	60 units
Professional School Preparation: Pre-Dental, Pre-Medicine, Pre-Pharmacy, Pre-Veterinary, Pre-Optometry		N/A
BUSINESS ADMINISTRATION/MANAGEMENT		
Business Administration	AS	60 units
Business Assistant	AS	60 units
Business Management	AS	60 units
Entrepreneurship and Small Business Management	AS	60 units
Marketing	AS	60 units



Degree or Certificate Program	Award Type	Units
Business Administration 2.0	AS-T	60 units
Business Administration	CA	19 units
Business Assistant	CA	18 - 19 units
Business Information Worker	CA	18 units
Business Management	CA	19 units
Entrepreneurship and Small Business Management	CA	21 - 22 units
Human Relations in the Workplace	CA	18 units
Marketing	CA	18 units
CHEMISTRY		
Chemistry	AS	60 units
COMMUNICATION STUDIES		
Communication Studies	AA	60 units
Communication Studies 2.0	AA-T	60 units
COMPUTER BUSINESS OFFICE TECHNOLOGY		
Administrative Assistant	AS	60 units
Administrative Support Assistant	AS	60 units
Administrative Assistant	CA	27 units
Administrative Support Assistant	CA	23.5 units
General Office	CA	12 units
COMPUTER SCIENCE		
Computer Science	AS-T	60 units
Cloud Computing	CA	15 units
Computer Science - C++	CA	16 units
Computer Science - Java	CA	16 units
Computer Science - Swift	CA	16 units
DIGITAL ART AND ANIMATION		
3D Animation and Videogame Art	AA	60 units
Digital Art and Animation	AA	60 units
3D Animation and Videogame Art	CA	42 units
Digital Art and Animation	CA	27 units
Graphic Design	CA	19.5 units
Video Game Design	CA	33 units
EARTH SCIENCE		
Earth Science	AS	60 units
ECONOMICS		
Economics	AA	60 units
Economics	AA-T	60 units



Degree or Certificate Program	Award Type	Units
EDUCATION AND HUMAN DEVELOPMENT: EARLY CHILDHOOD EDUCATION/EDUCATION		
Child and Adolescent Development	AA-T	60 units
Elementary Teacher Education	AA-T	60 units
Early Childhood Education	AS	60 units
Early Childhood Education	AS-T	60 units
Early Childhood Education	CA	27 units
Inclusion Support	CA	10 units
Multilingual Learner Teaching	CA	10 units
Youth and After School	CA	27 units
Child Development Permits and Areas of Specialization		N/A
ENGINEERING		
Engineering	AS	60 units
Engineering	CA	32 - 36 units
Math for Surveying and Computer-Aided Design	CA	23 units
ENGLISH		
English	AA	60 units
English	AA-T	60 units
ENVIRONMENTAL SCIENCE AND TECHNOLOGY		
Environmental Science	AS	60 units
Environmental Science	AS-T	60 units
ETHNIC STUDIES		
Ethnic Studies	AA	60 units
FASHION DESIGN AND MERCHANDISING		
Custom Dressmaking/Small Business Oriented	AS	60 units
Fashion Design Merchandising	AS	60 units
Technical (Apparel Industry Oriented)	AS	60 units
Theater Costuming	AS	60 units
Custom Dressmaking/Small Business Oriented	CA	34 units
Fashion Design Merchandising	CA	18 units
Technical (Apparel Industry Oriented)	CA	33 units
Theater Costuming	CA	28 units
FUNERAL SERVICES EDUCATION		
Funeral Service Education	AS	60 units
Funeral Service Arranger Certificate	CS	9 units
Funeral Service Attendant Certificate	CS	8 units
GENERAL STUDIES		
Pathways to Student Success	CA	16 units



Degree or Certificate Program	Award Type	Units
Preparation for Academic Scholarship and Success (PASS)	CA	12 units
GEOGRAPHY		
Geography	AA	60 units
Geography	AA-T	60 units
HISTORY		
History	AA	60 units
History	AA-T	60 units
HUMAN SERVICES		
Social Work and Human Services	AA-T	60 units
INTERDISCIPLINARY STUDIES WITH AREAS OF EMPHASIS		
Interdisciplinary Studies, Option 1, Cañada College Pattern: Arts and Humanities	AA	60 units
Interdisciplinary Studies, Option 1, Cañada College Pattern: Natural Science and Mathematics	AA	60 units
Interdisciplinary Studies, Option 1, Cañada College Pattern: Social and Behavioral Sciences	AA	60 units
Interdisciplinary Studies, Option 2, Transfer Pattern: Arts and Humanities	AA	60 units
Interdisciplinary Studies, Option 2, Transfer Pattern: Natural Science and Mathematics	AA	60 units
Interdisciplinary Studies, Option 2, Transfer Pattern: Social and Behavioral Sciences	AA	60 units
INTERIOR DESIGN		
Interior Design	AS	60 units
Home Staging	CA	24 units
Interior Design	CA	41 units
Kitchen and Bath Design (Affiliated with NKBA, National Kitchen & Bath Association)	CA	42 units
KINESIOLOGY, ATHLETICS AND DANCE		
Dance	AA	60 units
Kinesiology	AA	60 units
Kinesiology	AA-T	60 units
LATIN AMERICAN AND LATINO/A STUDIES		
Latin American and Latino/a Studies	AA	60 units
Latin American and Latino/a Studies	CA	18 - 23 units
MATHEMATICS		
Mathematics	AS-T	60 units
MEDICAL ASSISTING		
Medical Assisting	AS	60 units
Medical Billing Specialist	AS	60 units
Medical Administrative Assistant	CA	21 units
Medical Assisting	CA	35 units
Medical Billing Specialist	CA	21 units



Degree or Certificate Program	Award Type	Units
Medical Coding Specialist	CA	18 units
MUSIC		
Music	AA	60 units
PARALEGAL STUDIES		
Paralegal	AS	60 units
Litigation	CA	18 units
Paralegal	CA	27 units
PHILOSOPHY		
Philosophy	AA	60 units
Philosophy	AA-T	60 units
PHOTONICS AND LASER TECHNOLOGY		
Photonics and Laser Technology	CA	18 units
Advanced Optics and Photonics Technology	CA	27 units
PHYSICS		
Physics	AS	60 units
Physics	AS-T	60 units
POLITICAL SCIENCE		
Political Science	AA	60 units
Law, Public Policy, and Society	AA-T	60 units
Political Science	AA-T	60 units
PSYCHOLOGY		
Psychology	AA	60 units
Psychology	AA-T	60 units
RADIOLOGIC TECHNOLOGY		
Radiologic Technology	AS	70.5 units
SOCIAL SCIENCES		
International Studies	AA	60 units
SOCIOLOGY		
Sociology	AA	60 units
Sociology	AA-T	60 units
SPANISH		
Spanish	AA	60 units
Spanish	AA-T	60 units
Bilingualism and Biliteracy in English/Spanish	CA	13 - 15 units
THEATRE ARTS		
Theatre Arts	AA	60 units
Theatre Arts	AA-T	60 units



Degree or Certificate Program	Award Type	Units
UNIVERSITY TRANSFER		
Option 1: CSU General Education (CSU GE)	CA	39 units
Option 2: Intersegmental General Education Transfer Curriculum (IGETC) - CSU	CA	37 units
Option 3: Intersegmental General Education Transfer Curriculum (IGETC) - UC	CA	34 units



ACCOUNTING

AS Associate in Science Degree Program

Accounting..... 60 units

CA Certificate of Achievement

Accounting..... 27.5 units

Entry Level Bookkeeper..... 12 units

Payroll Specialist..... 18 units

AS Accounting

The accounting AS degree is designed to give students enough practical experience so that they can secure a position in either the public, governmental or private accounting sector.

Career Opportunities

Obtaining an Associate's degree in Accounting from Cañada College is an excellent start to a prosperous career in the business field. Accounting is considered to be the "language of all business," and is a valuable skill set for anyone wishing to work in Silicon Valley. Accounting offers an interesting and rewarding career to people who can work with numbers, focus on details, use a computer, and work as part of a team. There is a strong demand for accounting assistants, and you can advance in your career by demonstrating your skills on the job. However, a Bachelor's degree (any subject) is required to sit for the CPA (Certified Public Accountant) exam. Cañada College's accounting program offers courses needed to complete the requirements for the Professional Bookkeeper exam in addition to the courses needed for an Associate's Degree in Accounting, which is the first step to becoming a CPA.

Program Learning Outcomes

Students completing this program will be able to:

1. Design and manage business documents using current technology to engage in creative problem solving.
2. Communicate an understanding of business concepts professionally through written, oral and visual presentations using current technology.
3. Recognize ethical behavior in their chosen profession and behave in a socially responsible manner.
4. Analyze business issues, interpret financial data and identify economic trends.

AS Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 21.5 units

Units

ACTG 121	Financial Accounting	4 units
ACTG 131	Managerial Accounting	4 units
ACTG 180	Payroll Accounting	1.5 units
ACTG 200	QuickBooks	3 units
BUS. 100	Introduction to Business	3 units
CBOT 432	Introduction to Computer Applications	3 units
CBOT 435	Spreadsheets	3 units

Selective Courses, choose a minimum of 6 units from the following:

Units

ACTG 100	Accounting Procedures	3 units
BUS. 101	Human Relations in the Workplace	3 units
BUS. 103	Introduction to Business Information Systems	3 units
BUS. 201	Business Law	3 units
BUS. 401	Business Communications	3 units

Total Required Major Units: 27.5

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

Cañada College offers lower division coursework required for transfer in the area of Accounting/Business Administration. Usually an Accounting program of study is listed under Business Administration. Students should use PROJECT ASSIST (www.assist.org) to research lower division major requirements at the transfer destination(s) of their choice. Also, work with a Counselor/Advisor to determine appropriate transfer coursework.

CA Accounting

The Certificate of Achievement is designed for those individuals that are interested in job opportunities at the entry level in bookkeeping and or computerized accounting data entry. Those students that are interested in becoming professional bookkeepers may apply some of the course work in the accounting A.S. degree.



Career Opportunities

The Certificate of Achievement is designed for those individuals that are interested in job opportunities at the entry level in bookkeeping and or computerized accounting data entry. Those students that are interested in becoming professional bookkeepers may apply some of the course work in this certificate to the Certificate of Achievement in Accounting and the accounting A.S. degree.

Program Learning Outcomes

Students completing this program will be able to:

1. Design and manage business documents using current technology to engage in creative problem solving.
2. Communicate an understanding of business concepts professionally through written, oral and visual presentations using current technology.
3. Recognize ethical behavior in their chosen profession and behave in a socially responsible manner.
4. Analyze business issues, interpret financial data and identify economic trends.

Major: Core and Selective Requirements

Complete Core Courses, 21.5 units		Units
ACTG 121	Financial Accounting	4 units
ACTG 131	Managerial Accounting	4 units
ACTG 180	Payroll Accounting	1.5 units
ACTG 200	QuickBooks	3 units
BUS. 100	Introduction to Business	3 units
CBOT 432	Introduction to Computer Applications	3 units
CBOT 435	Spreadsheets	3 units

Selective Courses, choose a minimum of 6 units from the following:		Units
ACTG 100	Accounting Procedures	3 units
BUS. 101	Human Relations in the Workplace	3 units
BUS. 103	Introduction to Business Information Systems	3 units
BUS. 201	Business Law	3 units
BUS. 401	Business Communications	3 units

Total Required Units: 27.5

CA Entry Level Bookkeeper

The certificate of completion is designed for those individuals that are interested in job opportunities at the entry level in bookkeeping and or computerized accounting data entry. Those students that are interested in becoming professional bookkeepers may apply some of the course work in this certificate to the certificate of proficiency in accounting and the accounting A.S. degree.

Career Opportunities

The demand for entry level bookkeepers and accounting data entry personnel continues to remain high. Entry level positions pay between \$15 and \$25 per hour depending upon experience.

Program Learning Outcomes

Students completing this program will be able to:

1. Design and manage business documents using current technology to engage in creative problem solving.
2. Communicate an understanding of business concepts professionally through written, oral and visual presentations using current technology.
3. Recognize ethical behavior in their chosen profession and behave in a socially responsible manner.
4. Analyze business issues, interpret financial data and identify economic trends.

Major: Core and Selective Requirements

Complete Core Courses, 12 units		Units
ACTG 100	Accounting Procedures	3 units
ACTG 180	Payroll Accounting	1.5 units
ACTG 200	QuickBooks	3 units
CBOT 435	Spreadsheets	3 units
CBOT 472	Beginning Word Processing	1.5 units

Total Required Units: 12

CA Payroll Specialist

Payroll Specialists require specific bookkeeping/accounting/payroll training and current computer technology including word processing and spreadsheet programs. The specialist will perform a wide variety of record keeping and payroll processing activities, including computing wage and overtime payments, calculating and recording payroll



deductions, processing requests for paycheck advances, and processing terminations.

Career Opportunities

Assistant Payroll Clerk, Payroll Clerk

Program Learning Outcomes

Students completing this program will be able to:

1. Design and manage business documents using current technology to engage in creative problem solving.
2. Communicate an understanding of business concepts professionally through written, oral and visual presentations using current technology.
3. Recognize ethical behavior in their chosen profession and behave in a socially responsible manner.
4. Analyze business issues, interpret financial data and identify economic trends.

Major: Core and Selective Requirements

Complete Core Courses, 16.5 units		Units
ACTG 100	Accounting Procedures	3 units
ACTG 180	Payroll Accounting	1.5 units
ACTG 200	QuickBooks	3 units
BUS. 101	Human Relations in the Workplace	3 units
BUS. 103	Introduction to Business Information Systems	3 units
CBOT 435	Spreadsheets	3 units

Selective Courses, choose a minimum of 1.5 units from the following:		Units
CBOT 470	Advanced Spreadsheets	1.5 units
CBOT 472	Beginning Word Processing	1.5 units

Total Required Units: 18

ANTHROPOLOGY

AA Associate in Arts Degree Program

Anthropology.....60 units

AA-T Associate in Arts Degree for Transfer

Anthropology.....60 units

AA Anthropology

Anthropology is the study of humans. The discipline breaks down into four subfields. Cultural Anthropology deals with the social lives of people around the world, including our own society: economic systems, legal practices, kinship, religions, medical practices, folklore, arts and political systems, as well as the interrelationship of these systems in environmental adaptation and social change. Archaeology focuses on the material remains of human societies from the remote and recent past with emphasis on reconstructing and understanding past modes of human cultural adaptation and change. Physical Anthropology describes and compares world human biology with a focus on humans and their primate order, and seeks to document and understand the interplay of culture and biology in the course of human evolution and adaptation. Anthropological Linguistics deals with varied aspects of human language and the characteristics of nonhuman communication systems, to achieve an understanding of past and present human language systems and their significance in social life.

Career Opportunities

With a major in Anthropology, career opportunities can include the following: Archaeologist, Linguist, Environmental Impact Analyst, Museum Curator, Health Researcher, Redevelopment Specialist, Industrial Consultant, Artifacts Conservator, Cultural Resource Manager, Ethnic Relations Specialist, Population Analyst, Urban Planner, Exhibit Designer, Expedition Guide, Film Ethnographer, Social Gerontologist, College Faculty Instructor, Medical Anthropologist, Bilingual Education Consultant, Primatologist, Zoo Director, Museum Program Director, Museum Registrar, Forensic Anthropologist, Folklorist, Archivist, Surveyor, Researcher, Urban Planner, Travel Agent/Guide, Human Resources Manager, Journalist - Marketing Manager, National/State Park Interpreter, Coroner/Medical Examiner, State/Federal Government Policy Analyst, Social Worker, Public Health Educator, Bilingual/Bicultural Program Specialist, Teacher - Visual Anthropologist.

Program Learning Outcomes

Students completing this program will be able to:

1. Analyze social science concepts and theories.
2. Evaluate diverse viewpoints related to humans.
3. Produce evidence-based arguments.

AA Degree Requirements

Major: Core and Selective Requirements

Complete Core requirements, 9 units:		Units
ANTH 110	Cultural Anthropology	3 units
ANTH 125	Biological Anthropology	3 units



ANTH 351	Archaeology	3 units
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Selective Courses, choose a minimum of 9-11 units from the following:

List A: Choose a minimum of 3 units from the following:

		Units
MATH 200	Elementary Probability and Statistics	4 units
ANTH 126	Biological Anthropology Laboratory	1 unit

List B: Choose one to two courses, 3 - 5 units:

		Units
Choose any courses not selected from List A		1 unit
BIOL 250	Human Anatomy	4 units
GEOL 100	Introduction to Geology	3 units
AND		
GEOL 101	Geology Laboratory	1 unit
GEOL 121	Earth Science	4 units
PSYC 205	Social Science Research Methods	3 units
OR		
SOCI 205	Social Science Research Methods	3 units

List C: Choose one course from the following list, 3 - 4 units:

		Units
Any course not selected from List A or B		3 - 4 units
ANTH 200	Ethnographic Film	3 units
COMM 150	Intercultural Communication	3 units
GEOG 110	Cultural Geography	3 units
HIST 245	Race, Ethnicity and Immigration in the U.S.	3 units
HIST 246	History of Latinos in the U.S.	3 units
HIST 247	Women in U.S. History	3 units
MUS. 250	World Music	3 units
PHIL 300	Introduction to World Religions	3 units
PSYC 106	Psychology of Prejudice and Discrimination	3 units
SOCI 100	Introduction to Sociology	3 units
SOCI 105	Social Problems	3 units
SOCI 141	Ethnicity and Race in Society	3 units

Total Required Major Units: 18 - 21

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

AA-T Anthropology

Anthropology is the study of humans. The discipline breaks down into four subfields. Cultural Anthropology deals with the social lives of people around the world, including our own society: economic systems, legal practices, kinship, religions, medical practices, folklore, arts and political systems, as well as the interrelationship of these systems in environmental adaptation and social change. Archaeology focuses on the material remains of human societies from the remote and recent past with emphasis on reconstructing and understanding past modes of human cultural adaptation and change. Physical Anthropology describes and compares world human biology with a focus on humans and their primate order, and seeks to document and understand the interplay of culture and biology in the course of human evolution and adaptation. Anthropological Linguistics deals with varied aspects of human language and the characteristics of nonhuman communication systems, to achieve an understanding of past and present human language systems and their significance in social life.

Career Opportunities

With a major in Anthropology, career opportunities can include the following: Archaeologist, Linguist, Environmental Impact Analyst, Museum Curator, Health Researcher, Redevelopment Specialist, Industrial Consultant, Artifacts Conservator, Cultural Resource Manager, Ethnic Relations Specialist, Population Analyst, Urban Planner, Exhibit Designer, Expedition Guide, Film Ethnographer, Social Gerontologist, College Faculty Instructor, Medical Anthropologist, Bilingual Education Consultant, Primatologist, Zoo Director, Museum Program Director, Museum Registrar, Forensic Anthropologist, Folklorist, Archivist, Surveyor, Researcher, Urban Planner, Travel Agent/Guide, Human Resources Manager, Journalist - Marketing Manager, National/State Park Interpreter, Coroner/Medical Examiner, State/Federal Government Policy Analyst, Social Worker, Public Health Educator, Bilingual/Bi-cultural Program Specialist, Teacher - Visual Anthropologist.

Program Learning Outcomes

Students completing this program will be able to:

1. Analyze social science concepts and theories.
2. Evaluate diverse viewpoints related to humans.
3. Produce evidence-based arguments.

AA-T Degree Requirements



Major: Core and Selective Requirements**Complete Core Courses, 9 units**

		Units
ANTH 110	Cultural Anthropology	3 units
ANTH 125	Biological Anthropology	3 units
ANTH 351	Archaeology	3 units

Selective Courses, choose a minimum of 9 - 12 units from the following:**List A: Choose a minimum of 3 units from the following:**

		Units
MATH 200	Elementary Probability and Statistics	4 units
ANTH 126	Biological Anthropology Laboratory	1 unit

List B: Choose one to two courses, 3 - 5 units:

		Units
	Choose any courses not selected from List A	1 unit
BIOL 250	Human Anatomy	4 units
GEOL 100	Introduction to Geology	3 units
	AND	
GEOL 101	Geology Laboratory	1 unit
GEOL 121	Earth Science	4 units
PSYC 205	Social Science Research Methods	3 units
	OR	
SOCI 205	Social Science Research Methods	3 units

List C: Choose one course from the following list, 3 - 4 units:

		Units
	Any course not selected from List A or B	3 - 4 units
COMM 150	Intercultural Communication	3 units
GEOG 110	Cultural Geography	3 units
HIST 245	Race, Ethnicity and Immigration in the U.S.	3 units
HIST 246	History of Latinos in the U.S.	3 units
HIST 247	Women in U.S. History	3 units
MUS. 250	World Music	3 units
PHIL 300	Introduction to World Religions	3 units
PSYC 106	Psychology of Prejudice and Discrimination	3 units

SOCI 100	Introduction to Sociology	3 units
SOCI 105	Social Problems	3 units
SOCI 141	Ethnicity and Race in Society	3 units

Total Required Major Units: 18 - 21

General Education - certified completion of one of the following:

- California State University General Education-Breadth pattern (CSU GE Breadth),
- **OR**
- Intersegmental General Education Transfer Curriculum (IGETC/CSU) pattern

Elective courses: If applicable, additional courses to meet the minimum 60 CSU transferable units requirement.

Please refer to Associate Degree for Transfer (ADT) Requirements for more information.

ART

AA Associate in Arts Degree Program

Art History..... 60 units

AA-T Associate in Arts Degree for Transfer

Art History..... 60 units

Studio Arts..... 60 units

AA Art History

The Associate of Arts in Art History is designed for students who wish to pursue the study of art forms of the past and present in a social, political, philosophical and cultural context as a foundation for understanding human history and creativity.

Program Learning Outcomes

Students completing this program will be able to:

1. Apply critical thinking in the creative process.
2. Use the language of the discipline; demonstrate to command of critical vocabulary
3. Describe the roles of creative expression in human cultures
4. Engage with the arts; integrate the arts into life.
5. Use critical thinking in evaluating works of art in intrinsic terms, expressive content, and social context



AA Degree Requirements**Major: Core and Selective Requirements****Complete Core Courses, 12 units****Units**

ART 101	Ancient, Classical and Medieval Art History	3 units
ART 102	Late Medieval, Renaissance and Baroque Art History	3 units
ART 103	History of Art from the Baroque Period to Post-Impressionism	3 units
ART 104	History of Modern Art	3 units

Selective courses, choose a minimum of 11 units from the following:**Complete 8 units from the following courses:****Units**

ART 204	Drawing I	3 units
ART 205	Drawing II	3 units
ART 206	Figure Drawing and Portraiture	3 units
ART 207	Life Drawing	3 units
ART 214	Color	3 units
ART 221	Painting I	3 units
ART 222	Painting II	3 units
ART 229	Landscape Painting	2 units
ART 301	Two-Dimensional Design	3 units

Complete 3 units from the following courses:**Units**

ART 105	Art of Asia and the Near East	3 units
ART 113	Great Museums of America	3 units
ART 114	The Art History of Paris	3 units
ART 116	The Art of Great Britain	3 units
ART 118	The Art and Architecture of Spain	3 units
ART 128	Great Museums of California	3 units
ART 131	Art History Goes to the Movies	3 units
ART 250	The Art History of Rome	3 units

Total Required Major Units: 23

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

AA-T Art History

The Art Department affords a unique experience for students seeking a solid foundation in aesthetics, skill development, and understanding of the forms and history of art. The program has been designed to offer a continuity of study through structured courses in the academic tradition. This understanding of art history as a means of understanding the world is intended to support further studies for transfer students.

Program Learning Outcomes

Students completing this program will be able to:

1. Apply critical thinking in the creative process
2. Use the language of the discipline; demonstrate command of critical vocabulary
3. Describe the roles of creative expression in human cultures
4. Engage with the arts; integrate the arts into life
5. Use critical thinking in evaluating works of art in intrinsic terms, expressive content, and social context

AA-T Degree Requirements**Major: Core and Selective Requirements****Complete Core Courses, 15 units****Units**

ART 101	Ancient, Classical and Medieval Art History	3 units
ART 102	Late Medieval, Renaissance and Baroque Art History	3 units
ART 103	History of Art from the Baroque Period to Post-Impressionism	3 units
ART 104	History of Modern Art	3 units
ART 204	Drawing I	3 units

Selective Courses, choose 9 units from the following:**List A: 3 units****Units**

ART 105	Art of Asia and the Near East	3 units
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List B: Studio Art Courses - Select one course from the following, 3 units**Units**

ART 205	Drawing II	3 units
ART 207	Life Drawing	3 units
ART 214	Color	3 units
ART 221	Painting I	3 units
ART 301	Two-Dimensional Design	3 units



ART 306	Three-Dimensional Design	3 units
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List C: Select one course from the following, 3 units

Units

Any course from the Studio Art courses listed above not already used	3 units
ART 113 Great Museums of America	3 units
ART 114 The Art History of Paris	3 units
ART 116 The Art of Great Britain	3 units
ART 118 The Art and Architecture of Spain	3 units
ART 128 Great Museums of California	3 units
ART 131 Art History Goes to the Movies	3 units
ART 250 The Art History of Rome	3 units
HIST 100 History of Western Civilization I	3 units
HIST 101 History of Western Civilization II	3 units

Total Required Major Units: 24

General Education - certified completion of one of the following:

- California State University General Education-Breadth pattern (CSU GE Breadth),
- **OR**
- Intersegmental General Education Transfer Curriculum (IGETC/CSU) pattern

Elective courses: If applicable, additional courses to meet the minimum 60 CSU transferable units requirement.

Please refer to Associate Degree for Transfer (ADT) Requirements for more information.

AA-T Studio Arts

The Studio Arts major provides students with a solid foundation in the practice of creating art. It is designed for students who wish to transfer to a four-year school as an Art Major.

Career Opportunities

Art majors go on to a wide variety of careers in which the visual education they have received is applied. Career opportunities include advertising art director, animator, architect, art administrator, art appraiser, art curator, art restorer, art therapist, art critic, art dealer, art historian, art instructor, cartoonist, ceramicist, cinematographer, computer artist, design consultant, display designer, fashion designer, film artistic director, interior designer, gallery director, graphic artist, industrial designer, illustrator, jewelry designer, layout artist, muralist, museum

technician, painter, performance artist, photographer, police artist, printmaker, set designer, sculptor, and visual information specialist.

Program Learning Outcomes

Students completing this program will be able to:

1. Describe the roles of creative expression in human cultures.
2. Engage with the arts; integration of the arts into life.
3. Demonstrate creative process; apply critical thinking in the creative process. Use the language of the discipline; demonstrate command of critical vocabulary.
4. Use critical thinking in evaluating works of art in intrinsic terms, expressive content and social context.

AA-T Degree Requirements

Major: Core and Selective Requirements**

Complete Core Courses, 15 units

Units

ART 102 **	Late Medieval, Renaissance and Baroque Art History	3 units
ART 103 **	History of Art from the Baroque Period to Post-Impressionism	3 units
ART 204	Drawing I	3 units
ART 301	Two-Dimensional Design	3 units
ART 306	Three-Dimensional Design	3 units

Selective Courses, choose a minimum of 12 units from the following:

List A, choose a minimum of 3 units from the following:

Art History:

Units

ART 101 **	Ancient, Classical and Medieval Art History	3 units
ART 105	Art of Asia and the Near East	3 units

List B: Choose 9 units from the following:

Studio Arts:

Drawing

Units

ART 205	Drawing II	3 units
OR		
ART 207	Life Drawing	3 units



Color	Units
ART 214 Color	3 units

Painting	Units
ART 221 Painting I	3 units

Total Required Major Units: 27

***6 semester units may be double counted. ART 101, ART 102, ART 103 and/or ART 104 may be used to cover up to 6 units of Area C's required 9 units (but no more than 6).*

General Education - certified completion of one of the following:

- California State University General Education-Breadth pattern (CSU GE Breadth),
- **OR**
- Intersegmental General Education Transfer Curriculum (IGETC/CSU) pattern

Elective courses: If applicable, additional courses to meet the minimum 60 CSU transferable units requirement.

Please refer to Associate Degree for Transfer (ADT) Requirements for more information.

BIOLOGICAL SCIENCES

AS Associate in Science Degree Program

Allied Health.....60 units
Biological Sciences.....60 units

AS-T Associate in Science Degree for Transfer

Biology.....60 units
Nutrition and Dietetics.....60 units

Preparation/Specialization Information

Professional School Preparation: Pre-Dental, Pre-Medicine, Pre-Pharmacy, Pre-Veterinary, Pre-Optometry.....N/A

AS Allied Health

A major in Allied Health prepares students for further study, certification, and employment in a variety of allied health careers such as nursing, radiologic technology, respiratory therapy, occupational therapy, and physical therapy. In addition to these diagnostic and therapeutic fields, students

will also be prepared to pursue further education and training in a variety of non-clinical support services, public health and health administration careers. This program provides many of the prerequisite courses needed for entry in allied health certificate programs and many of the lower division courses needed for transfer to a four-year college or university.

Program Learning Outcomes

Students completing this program will be able to:

1. Use the Scientific Method to investigate biological questions and critically evaluate and effectively communicate scientific data.
2. Recognize and explain the evolutionary connections between biological structures and their function and between organisms and their environment.
3. Critically evaluate biological information and examine its significance and impact on society and the environment.

AS Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 17-18 units		Units
BIOL 240	General Microbiology	4 units
BIOL 250	Human Anatomy	4 units
BIOL 260	Human Physiology	5 units
CHEM 192	Elementary Chemistry	4 units
OR		
CHEM 210	General Chemistry I	5 units
OR		
CHEM 410	Chemistry for Health Sciences	4 units

Selective Courses, choose a minimum of 12 units from the following:

Complete 3-4 units from the following courses:		Units
BIOL 100	Introduction to the Life Sciences	3 units
BIOL 110	Principles Of Biology	4 units
BIOL 130	Human Biology	3 units
BIOL 132	Human Biology Laboratory	1 unit

Complete 9-10 units from the following courses:

	Units
BIOL 310 Nutrition	3 units



COMM 130	Interpersonal Communication	3 units
HSCI 100	General Health Science	3 units
MATH 200	Elementary Probability and Statistics	4 units
MEDA 110	Medical Terminology	3 units
PSYC 100	General Psychology	3 units
SOCI 100	Introduction to Sociology	3 units
BIOL 133	Emerging Infectious Diseases	3 units

Total Required Major Units: 29 - 32

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

AS Biological Sciences

A major in Biological Sciences is a preparation for advanced academic work, for careers in civil service, industry, or teaching; as a background for professional training in such fields as biological science education, biotechnology, nursing, public health, environmental health, pre-medicine and all related areas of biology. Natural resources are among the most important assets of man and the wise use of renewable resources is basic to development in the economic, social and political areas. The basic pre-professional requirements necessary to transfer are offered in the Biological Sciences, Physical Sciences, and Mathematics Departments.

Career Opportunities

Degree recipients in Biological Sciences are prepared for careers in civil service, industry, or teaching; and are prepared for professional training in such fields as biological science education, biotechnology, nursing, public health, environmental health, biological or biomedical research, pre-medicine and all related areas of biology.

Program Learning Outcomes

Students completing this program will be able to:

1. Use the Scientific Method to investigate biological questions and critically evaluate and effectively communicate scientific data.
2. Recognize and explain the evolutionary connections between biological structures and their function and between organisms and their environment.
3. Critically evaluate biological information and examine its significance and impact on society and the environment.

AS Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 20 units

Units

BIOL 225	Biology Of Organisms	5 units
BIOL 230	Cell and Molecular Biology	5 units
CHEM 210	General Chemistry I	5 units
CHEM 220	General Chemistry II	5 units

Selective Courses, choose a minimum of 16 units from the following:

Units

BIOL 130	Human Biology	3 units
BIOL 132	Human Biology Laboratory	1 unit
BIOL 240	General Microbiology	4 units
BIOL 250	Human Anatomy	4 units
BIOL 260	Human Physiology	5 units
BIOL 310	Nutrition	3 units
CHEM 231	Organic Chemistry I	5 units
CHEM 232	Organic Chemistry II	5 units
MATH 200	Elementary Probability and Statistics	4 units
MATH 251	Analytical Geometry and Calculus I	5 units
AND		
MATH 252	Analytical Geometry and Calculus II	5 units
MATH 253	Analytic Geometry and Calculus III	5 units
PHYS 210	General Physics I	4 units
AND		
PHYS 220	General Physics II	4 units
OR		
PHYS 250	Physics with Calculus I	4 units
AND		
PHYS 260	Physics with Calculus II	4 units
PHYS 270	Physics with Calculus III	4 units

Total Required Major Units: 36

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.



AS-T Biology

The AS-T major in Biology prepares students for transfer into bachelor's degree programs in Biology and similar fields.

Career Opportunities: Degree recipients in Biological Sciences are prepared for careers in civil service, industry, or teaching; and are prepared for professional training in such fields as biological science education, biotechnology, nursing, public health, environmental health, biological or biomedical research, pre-medicine and all related areas of biology.

Program Learning Outcomes

Students completing this program will be able to:

1. Use the Scientific Method to investigate biological questions and critically evaluate and effectively communicate scientific data.
2. Recognize and explain the evolutionary connections between biological structures and their function and between organisms and their environment.
3. Critically evaluate biological information and examine its significance and impact on society and the environment.

AS-T Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses , 10 units

		Units
BIOL 225	Biology Of Organisms	5 units
BIOL 230	Cell and Molecular Biology	5 units

Selective Courses, choose 23 units from the following:

		Units
CHEM 210	General Chemistry I	5 units
AND		
CHEM 220	General Chemistry II	5 units
MATH 251	Analytical Geometry and Calculus I	5 units
PHYS 210	General Physics I	4 units
AND		
PHYS 220	General Physics II	4 units
OR		
PHYS 250	Physics with Calculus I	4 units
AND		
PHYS 260	Physics with Calculus II	4 units

Total Required Major Units: 33

General Education Requirements:*

Certified Completion of CSU-GE Breadth for STEM Pattern, **33 units**

OR

Certified Completion of IGETC for STEM Pattern, **31 units**

AS-T Nutrition and Dietetics

The AS-T major in Nutrition & Dietetics prepares students for transfer into bachelor's degree programs in Nutrition, Dietetics and similar fields.

Career Opportunities: Degree recipients in Nutrition & Dietetics are prepared for professional training for such careers as Registered Dietitians, Dietetic Technicians, Licensed Nutritionists, Sports Nutritionists and Health Coaches.

Career Opportunities

A transfer degree in nutrition and dietetics prepares students for further study in these fields, which might lead to employment in a variety of health care settings.

Program Learning Outcomes

Students completing this program will be able to:

1. Use the Scientific Method to investigate biological questions and critically evaluate and effectively communicate scientific data.
2. Recognize and explain the evolutionary connections between biological structures and their function and between organisms and their environment.
3. Critically evaluate biological information and examine its significance and impact on society and the environment.

AS-T Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 23 units

		Units
BIOL 130	Human Biology	3 units
BIOL 240	General Microbiology	4 units
BIOL 310	Nutrition	3 units
CHEM 210	General Chemistry I	5 units
CHEM 220	General Chemistry II	5 units
PSYC 100	General Psychology	3 units



Selective Courses, choose 4-5 units from the following:		Units
BIOL 250	Human Anatomy	4 units
CHEM 231	Organic Chemistry I	5 units
MATH 200	Elementary Probability and Statistics	4 units

Total Required Major Units: 27 - 28

General Education - certified completion of one of the following:

- California State University General Education-Breadth pattern (CSU GE Breadth),
- **OR**
- Intersegmental General Education Transfer Curriculum (IGETC/CSU) pattern

Elective courses: If applicable, additional courses to meet the minimum 60 CSU transferable units requirement.

Please refer to Associate Degree for Transfer (ADT) Requirements for more information.

**Professional School Preparation:
Pre-Dental, Pre-Medicine, Pre-
Pharmacy, Pre-Veterinary, Pre-
Optometry**

Many students are interested in careers in Allied Health and wonder what they should major in at Cañada College. Students often have the misconception that "pre-med" is an academic major and it is not. Students should major in what they enjoy as long as they take the appropriate courses required for professional school (medical, dental, veterinary) admission. Some students choose majors like Biological Science, Genetics, or Microbiology, where there is a great deal of overlap between courses required for their major and the professional school undergraduate requirements. Others choose majors not directly related to their career objective, such as English, Psychology, Anthropology, and use their elective units to meet the professional school requirements. Professional schools, especially medical schools, are looking for well-rounded students who have taken courses in the Humanities and Social Sciences, and who have participated in activities and community work. More information can be found at numerous websites (i.e., <https://www.aamc.org/>) and by speaking with a Counselor/Advisor.

Each professional school has a minimum number of prerequisite courses to be taken at the undergraduate level.

requirements vary from school to school. Many prerequisite courses may be taken at Cañada College.

Cañada College offers lower division coursework required for transfer in the area of Biological Sciences. students should use PROJECT ASSIST (<http://www.assist.org/web-assist/welcome.html>) to research lower division major requirements at the transfer destination(s) of their choice. Also, work with a Counselor/Advisor to determine appropriate transfer coursework.

**BUSINESS ADMINISTRATION/
MANAGEMENT**

AS Associate in Science Degree Program	
Business Administration.....	60 units
Business Assistant.....	60 units
Business Management.....	60 units
Entrepreneurship and Small Business Management	60 units
Marketing.....	60 units
AS-T Associate in Science Degree for Transfer	
Business Administration 2.0.....	60 units
CA Certificate of Achievement	
Business Administration.....	19 units
Business Assistant.....	18 - 19 units
Business Information Worker.....	18 units
Business Management.....	19 units
Entrepreneurship and Small Business Management.....	21 - 22 units
Human Relations in the Workplace.....	18 units
Marketing.....	18 units

AS Business Administration

This program is designed to give students an advanced understanding of business foundations including accounting and economics. Courses required for the major transfer core requirements must be evaluated by a letter grade, not by the pass (P) grade option.

Career Opportunities

Career opportunities include entry-level positions in business, such as customer service associate, relationship



manager, administration assistant, assistant store manager, and sales support specialist.

Program Learning Outcomes

Students completing this program will be able to:

1. Design and manage business documents using current technology to engage in creative problem solving.
2. Communicate an understanding of business concepts professionally through written, oral and visual presentations using current technology.
3. Recognize ethical behavior in their chosen profession and behave in a socially responsible manner.
4. Analyze business issues, interpret financial data and identify economic trends.

AS Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 20 units		Units
ACTG 121	Financial Accounting	4 units
ACTG 131	Managerial Accounting	4 units
BUS. 100	Introduction to Business	3 units
BUS. 201	Business Law	3 units
ECON 100	Principles of Macro Economics	3 units
ECON 102	Principles of Micro Economics	3 units

Selectives Courses, choose a minimum of 9 units from the following:

Complete a minimum of 3 units from the following courses:		Units
MATH 125	Elementary Finite Mathematics	3 units
MATH 200	Elementary Probability and Statistics	4 units
MATH 241	Business Calculus I	5 units

Complete 6 units from the following courses:

		Units
BUS. 101	Human Relations in the Workplace	3 units
BUS. 103	Introduction to Business Information Systems	3 units
BUS. 113	Personal Finance	3 units
BUS. 125	International Business	3 units
BUS. 180	Marketing	3 units
BUS. 230	International Marketing	3 units

BUS. 401	Business Communications	3 units
EDUC 249	Redefining Leadership: Individuals Effecting Change	3 units

Total Required Major Units: 29

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

AS Business Assistant

The Business Assistant Associate's Degree offers an advanced layer of core training for business and office assistants for a variety of duties. The business assistant curriculum enriches the chosen career of all who work in a professional office setting. This program trains business and office assistants for a variety of duties. Advanced core training for this program includes organizational behavior and interpersonal relations curriculum, Quickbooks accounting software training, and management principles with an emphasis on effective leadership.

Career Opportunities

Business Assistants perform routine clerical and administrative functions such as drafting correspondence, scheduling appointments, organizing and maintaining paper and electronic files, or providing information to callers. A sample of reported job titles includes Administrative Associate, Administrative Specialist, Administrative Technician, Clerk Typist, Office Assistant and Staff Assistant.

Program Learning Outcomes

Students completing this program will be able to:

1. Design and manage business documents using current technology to engage in creative problem solving.
2. Communicate an understanding of business concepts professionally through written, oral and visual presentations using current technology.
3. Recognize ethical behavior in their chosen profession and behave in a socially responsible manner.
4. Analyze business issues, interpret financial data and identify economic trends.

AS Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 27- 28 units		Units
ACTG 100	Accounting Procedures	3 units
OR		



ACTG 121	Financial Accounting	4 units
ACTG 200	QuickBooks	3 units
BUS. 100	Introduction to Business	3 units
BUS. 101	Human Relations in the Workplace	3 units
BUS. 103	Introduction to Business Information Systems	3 units
BUS. 401	Business Communications	3 units
CBOT 432	Introduction to Computer Applications	3 units
CBOT 435	Spreadsheets	3 units
MGMT 100	Introduction to Business Management	3 units

Selective Courses, choose a minimum of 3 units from the following:

	Units
CBOT 415 Beginning Computer Keyboarding	1.5 units
CBOT 417 Skill Building	1.5 units
CBOT 448 Using Microsoft Windows	1.5 units
CBOT 470 Advanced Spreadsheets	1.5 units
CBOT 472 Beginning Word Processing	1.5 units
CBOT 474 Intermediate Word Processing	1.5 units
CBOT 475 Using Outlook	1.5 units
CBOT 476 Adobe Acrobat	1.5 units

Total Required Major Units: 30 - 31

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

AS Business Management

The Business Management Associate's Degree is designed to offer mid-level training in the management field for working professionals seeking career advancement. This program completes exposure to advanced topics in the field of management, business, human relations, accounting and economics.

Career Opportunities

Career advancement opportunities in management vary across sectors, such as business, global trade, healthcare, hospitality and tourism, manufacturing, materials management, retail and sales, services, technology, and

transportation. This program prepares students for mid-level supervision positions.

Program Learning Outcomes

Students completing this program will be able to:

1. Design and manage business documents using current technology to engage in creative problem solving.
2. Communicate an understanding of business concepts professionally through written, oral and visual presentations using current technology.
3. Recognize ethical behavior in their chosen profession and behave in a socially responsible manner.
4. Analyze business issues, interpret financial data and identify economic trends.

AS Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 29 units

Units

ACTG 121	Financial Accounting	4 units
ACTG 131	Managerial Accounting	4 units
BUS. 100	Introduction to Business	3 units
BUS. 101	Human Relations in the Workplace	3 units
BUS. 113	Personal Finance	3 units
OR		
ECON 100	Principles of Macro Economics	3 units
BUS. 201	Business Law	3 units
BUS. 401	Business Communications	3 units
CBOT 435	Spreadsheets	3 units
MGMT 100	Introduction to Business Management	3 units

Selective Courses, choose a minimum of 6 units from the following:

Units

BUS. 103	Introduction to Business Information Systems	3 units
BUS. 180	Marketing	3 units
COMM 110	Public Speaking	3 units
OR		
COMM 130	Interpersonal Communication	3 units
ECON 102	Principles of Micro Economics	3 units



EDUC 249	Redefining Leadership: Individuals Effecting Change	3 units
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Total Required Major Units: 38

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

AS Entrepreneurship and Small Business Management

The AS degree in entrepreneurship is for students seeking to become new business owners, to update their skills as current business owners, or to work for a small business. The program teaches students the fundamentals of starting and managing a business and prepares them for likely challenges.

Career Opportunities

Career opportunities include roles within existing small businesses and the opportunity to start, acquire, or manage a small business.

Program Learning Outcomes

Students completing this program will be able to:

1. Design and manage business documents using current technology to engage in creative problem solving.
2. Communicate an understanding of business concepts professionally through written, oral and visual presentations using current technology.
3. Recognize ethical behavior in their chosen profession and behave in a socially responsible manner.
4. Analyze business issues, interpret financial data and identify economic trends.

AS Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 15 units		Units
ACTG 200	QuickBooks	3 units
BUS. 100	Introduction to Business	3 units
BUS. 150	Entrepreneurship: Small Business Management	3 units
BUS. 180	Marketing	3 units
BUS. 201	Business Law	3 units

Selective Courses, choose a minimum of 12-13 units from the following:

List A: Choose a minimum of 3-4 units from the following:

	Units
ACTG 100 Accounting Procedures	3 units
ACTG 121 Financial Accounting	4 units

List B: Choose a minimum of 9 units from the following:

	Units
BUS. 101 Human Relations in the Workplace	3 units
BUS. 103 Introduction to Business Information Systems	3 units
BUS. 113 Personal Finance	3 units
BUS. 125 International Business	3 units
BUS. 401 Business Communications	3 units
CBOT 432 Introduction to Computer Applications	3 units
CBOT 435 Spreadsheets	3 units
EDUC 249 Redefining Leadership: Individuals Effecting Change	3 units
MGMT 100 Introduction to Business Management	3 units

Total Required Major Units: 27 - 28

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

AS Marketing

As an introduction to the world of marketing, this degree is about creating customer value and engagement in a fast-changing, increasingly digital and social marketplace with entry-level training in the marketing field. Students learn about consumer behavior, supply chain management, advertising, pricing strategy, social media, and international marketing. Students will learn how to offer the most value to customers, including dealing with customer complaints and concerns. This program introduces advanced topics in business marketing with a focus on communications and digital technology.

Career Opportunities

Marketing professionals perform various tasks, including supporting integrated marketing campaigns, conducting



marketing research, social media strategy, pricing, and product development.

Program Learning Outcomes

Students completing this program will be able to:

1. Design and manage business documents using current technology to engage in creative problem solving.
2. Communicate an understanding of business concepts professionally through written, oral and visual presentations using current technology.
3. Recognize ethical behavior in their chosen profession and behave in a socially responsible manner.
4. Analyze business issues, interpret financial data and identify economic trends.

AS Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 9 units		Units
BUS. 100	Introduction to Business	3 units
BUS. 180	Marketing	3 units
BUS. 230	International Marketing	3 units

Selective Courses, choose a minimum of 18 units from the following:

List A, complete 12 units from the following:		Units
BUS. 101	Human Relations in the Workplace	3 units
BUS. 103	Introduction to Business Information Systems	3 units
BUS. 113	Personal Finance	3 units
BUS. 125	International Business	3 units
BUS. 150	Entrepreneurship: Small Business Management	3 units
BUS. 401	Business Communications	3 units
MGMT 100	Introduction to Business Management	3 units

List B, complete 6 units from the following:		Units
ANTH 110	Cultural Anthropology	3 units
COMM 110	Public Speaking	3 units
MART 366	Color Management and Theory	3 units

MART 371	User Interface/User Experience Design	3 units
MART 378	Digital Page Layout	3 units
MART 405	Storyboard Development for Animation and Interactive Media	3 units

Total Required Major Units: 27

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

AS-T Business Administration 2.0

The AS-T major in Business Administration 2.0 prepares students for transfer into bachelor's degree programs in Business Administration and similar fields. Courses offered are transferable as lower-division coursework toward a bachelor's degree in Business Administration. Students are required to have a grade of "C" or better in each course in the major to apply these courses to the AS-T degree. The AS-T degree also requires the completion of 60 transfer semester units, a minimum overall grade point average of 2.0, and completion of the CSU GE-breadth or IGETC.

Career Opportunities

Includes a wide variety of positions in business, marketing, international business, accounting, and economic fields.

Program Learning Outcomes

Students completing this program will be able to:

1. Design and manage business documents using current technology to engage in creative problem solving.
2. Communicate an understanding of business concepts professionally through written, oral and visual presentations using current technology.
3. Recognize ethical behavior in their chosen profession and behave in a socially responsible manner.
4. Analyze business issues, interpret financial data and identify economic trends.

AS-T Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 27-29 units		Units
ACTG 121	Financial Accounting	4 units
ACTG 131	Managerial Accounting	4 units
BUS. 100	Introduction to Business	3 units



OR		
BUS. 401	Business Communications	3 units
BUS. 201	Business Law	3 units
ECON 100	Principles of Macro Economics	3 units
ECON 102	Principles of Micro Economics	3 units
MATH 125	Elementary Finite Mathematics	3 units
OR		
MATH 241	Business Calculus I	5 units
OR		
MATH 251	Analytical Geometry and Calculus I	5 units
MATH 200	Elementary Probability and Statistics	4 units

Total Required Major Units: 27 - 29

General Education - certified completion of one of the following:

- California State University General Education-Breadth pattern (CSU GE Breadth),
- **OR**
- Intersegmental General Education Transfer Curriculum (IGETC/CSU) pattern

Elective courses: If applicable, additional courses to meet the minimum 60 CSU transferable units requirement.

Please refer to Associate Degree for Transfer (ADT) Requirements for more information.

CA Business Administration

This program is designed to prepare students to engage in the field of business. This certificate will provide students with an understanding of foundational business practices, accounting fundamentals, the importance of law in business, and essential communication skills and theories relevant to the workplace. Courses specifically required for the major transfer core requirements must be evaluated by a letter grade, not by the pass (P) option.

Career Opportunities

The certificate of achievement in business administration supports entry-level employment in jobs requiring some general business skills.

Program Learning Outcomes

Students completing this program will be able to:

1. Design and manage business documents using current technology to engage in creative problem solving.

2. Communicate an understanding of business concepts professionally through written, oral and visual presentations using current technology.
3. Recognize ethical behavior in their chosen profession and behave in a socially responsible manner.
4. Analyze business issues, interpret financial data and identify economic trends.

Major: Core and Selective Requirements

Complete Core Courses, 13 units		Units
ACTG 121	Financial Accounting	4 units
BUS. 100	Introduction to Business	3 units
BUS. 201	Business Law	3 units
BUS. 401	Business Communications	3 units

Selectives Courses, choose 6 units from the following:

		Units
BUS. 101	Human Relations in the Workplace	3 units
BUS. 113	Personal Finance	3 units
BUS. 125	International Business	3 units
BUS. 180	Marketing	3 units
EDUC 249	Redefining Leadership: Individuals Effecting Change	3 units

Total Required Units: 19

CA Business Assistant

The Business Assistant certificate offers an advanced layer of core training for business and office assistants for a variety of duties. The business assistant curriculum enriches the chosen career of all who work in a professional office setting. This program continues with advanced topics in management information systems and technical skills in spreadsheets such as formulas, functions, analyzing data, creating and formatting charts, and advanced data analysis.

Career Opportunities

Business assistants perform routine clerical and administrative functions such as drafting correspondence, scheduling appointments, organizing and maintaining paper and electronic files, or providing information to callers. A sample of reported job titles includes administrative associate, administrative specialist, administrative technician, clerk typist, office assistant, and staff assistant.



Program Learning Outcomes

Students completing this program will be able to:

1. Design and manage business documents using current technology to engage in creative problem solving.
2. Communicate an understanding of business concepts professionally through written, oral and visual presentations using current technology.
3. Recognize ethical behavior in their chosen profession and behave in a socially responsible manner.
4. Analyze business issues, interpret financial data and identify economic trends.

Major: Core and Selective Requirements

Complete Core Courses, 15 units:

Units

BUS. 100	Introduction to Business	3 units
BUS. 103	Introduction to Business Information Systems	3 units
BUS. 401	Business Communications	3 units
CBOT 432	Introduction to Computer Applications	3 units
CBOT 435	Spreadsheets	3 units

Selective Courses, choose 3 - 4 units from the following:

Units

ACTG 100	Accounting Procedures	3 units
ACTG 121	Financial Accounting	4 units

Total Required Units: 18 - 19

CA Business Information Worker

The Business Information Worker Certificate of Achievement is designed to prepare students for entry-level office and administrative support in a variety of fields or businesses. This certificate is a job readiness certificate for office workers, and was developed with local employers. Essential components of the Business Information Worker curriculum include a solid foundation in Microsoft Windows, Outlook and MS Office software, as well as strong digital and web literacy skills.

Career Opportunities

The Business Information Worker (BIW) Certificate of Achievement is often used by students who already have Associate or Bachelor's Degrees who want to change careers or enhance their skills. Alternatively, students who

are working on their Associate or Bachelor's Degrees are encouraged to complete the BIW Certificate of Achievement to aid them in securing employment to support themselves while continuing to attend college. The BIW Certificate of Achievement is ideal for students seeking to be trained in a field different from their previous work experience, and offers an affordable alternative to more costly private college and university programs in this field of study. Upon successful completion of the BIW Certificate of Achievement, students should be able to: produce basic business correspondence and reports with appropriate formatting using Word, maintain an office calendar for one or more individuals, develop simple spreadsheets with charting, discuss computer equipment and programming systems needs and troubleshoot basic computer problems. Moreover, students should be prepared to communicate, make informed decisions, and handle personnel problems in office environments. After successful completion of the Certificate of Achievement in Business Information Worker, employment possibilities include: General Office Clerk, Retail Salespersons, Customer Service Representatives, and Receptionists and Information Clerks.

Program Learning Outcomes

Students completing this program will be able to:

1. Work in teams analyzing and solving business problems.
2. Determine the most appropriate software for a specific project or task.
3. Improve keyboarding and proofreading skills.

Major: Core and Selective Requirements

Complete Core Courses, 16.5 units

Units

BUS. 101	Human Relations in the Workplace	3 units
BUS. 103	Introduction to Business Information Systems	3 units
BUS. 401	Business Communications	3 units
CBOT 415	Beginning Computer Keyboarding	1.5 units
CBOT 435	Spreadsheets	3 units
CBOT 448	Using Microsoft Windows	1.5 units
CBOT 475	Using Outlook	1.5 units

Selective Courses, choose 1.5 units from the following:

Units

CBOT 472	Beginning Word Processing	1.5 units
OR		
CBOT 474	Intermediate Word Processing	1.5 units



Total Required Units: 18**CA Business Management**

The Business Management certificate is designed to offer an advanced layer of core training in the management field for working professionals seeking career advancement. This program continues students' exposure to advanced topics in the field of management, business, human relations, and accounting.

Career Opportunities

Career advancement opportunities in management vary across sectors as identified by Strong Workforce, such as business, global trade, healthcare, hospitality and tourism, manufacturing, materials management, retail and sales, services, technology, and transportation. This program prepares students for mid-level positions.

Program Learning Outcomes

Students completing this program will be able to:

1. Design and manage business documents using current technology to engage in creative problem solving.
2. Communicate an understanding of business concepts professionally through written, oral and visual presentations using current technology.
3. Recognize ethical behavior in their chosen profession and behave in a socially responsible manner.
4. Analyze business issues, interpret financial data and identify economic trends.

Major: Core and Selective Requirements

Complete Core Courses, 16 units		Units
ACTG 121	Financial Accounting	4 units
BUS. 100	Introduction to Business	3 units
BUS. 101	Human Relations in the Workplace	3 units
BUS. 401	Business Communications	3 units
MGMT 100	Introduction to Business Management	3 units

Selective Courses, choose 3 units from the following:		Units
BUS. 113	Personal Finance	3 units
ECON 100	Principles of Macro Economics	3 units

Total Required Units: 19**CA Entrepreneurship and Small Business Management**

This certificate is designed to prepare students to engage in the world of entrepreneurship. The certificate will provide students with the skills necessary to become new business owners, update their skills as current business owners, or to work for a small business. The goal of this certificate program is to prepare students with relevant tools in exploring various pathways to entrepreneurship.

Career Opportunities

Career opportunities include small business owners, entrepreneurs, managers, partners, and investors.

Program Learning Outcomes

Students completing this program will be able to:

1. Design and manage business documents using current technology to engage in creative problem solving.
2. Communicate an understanding of business concepts professionally through written, oral and visual presentations using current technology.
3. Recognize ethical behavior in their chosen profession and behave in a socially responsible manner.
4. Analyze business issues, interpret financial data and identify economic trends.

Major: Core and Selective Requirements

Complete Core Courses, 15 units		Units
ACTG 200	QuickBooks	3 units
BUS. 100	Introduction to Business	3 units
BUS. 150	Entrepreneurship: Small Business Management	3 units
BUS. 180	Marketing	3 units
BUS. 201	Business Law	3 units

Selective Courses, choose a minimum of 6-7 units from the following:

List A: Choose a minimum of 3-4 units from the following:		Units
ACTG 100	Accounting Procedures	3 units
ACTG 121	Financial Accounting	4 units



List B: Choose a minimum of 3 units from the following:

	Units
BUS. 113 Personal Finance	3 units
BUS. 125 International Business	3 units
CBOT 435 Spreadsheets	3 units
MGMT 100 Introduction to Business Management	3 units

Total Required Units: 21 - 22**CA Human Relations in the Workplace**

This certificate is an introduction to how to effectively manage interpersonal workplace relationships. Students learn effective professional business communication techniques and strategies for the workplace. Individuals who work in or wish to work in agencies, nonprofit and business organizations, government institutions, the military, schools and universities, religious organizations, athletics, advising, personnel services, hospitals or any other setting in which human relation skills are a necessity will benefit from this certificate.

Career Opportunities

A career in human relations allows individuals to work in an interpersonal setting in diverse fields. The human relations career path includes jobs such as corporate trainer, human relations/leadership consultant, industrial/labor relations consultant, job recruiter, and personnel manager.

Program Learning Outcomes

Students completing this program will be able to:

1. Design and manage business documents using current technology to engage in creative problem solving.
2. Communicate an understanding of business concepts professionally through written, oral and visual presentations using current technology.
3. Recognize ethical behavior in their chosen profession and behave in a socially responsible manner.
4. Analyze business issues, interpret financial data and identify economic trends.

Major: Core and Selective Requirements**Complete Core Courses, 18 units:**

	Units
BUS. 100 Introduction to Business	3 units

BUS. 101 Human Relations in the Workplace	3 units
BUS. 180 Marketing	3 units
BUS. 401 Business Communications	3 units
COMM 110 Public Speaking	3 units
COMM 130 Interpersonal Communication	3 units

Total Required Units: 18**CA Marketing**

As an introduction to the world of marketing, this certificate is about creating customer value and engagement in a fast-changing, increasingly digital and social marketplace. Students learn about consumer behavior, supply chain management, advertising, pricing strategy, social media, and international marketing. Students will learn how to offer the most value to customers, including dealing with customer complaints and concerns.

Career Opportunities

Marketing professionals perform a wide variety of tasks, including supporting integrated marketing campaigns, conducting marketing research, social media strategy, pricing, and product development.

Program Learning Outcomes

Students completing this program will be able to:

1. Design and manage business documents using current technology to engage in creative problem solving.
2. Communicate an understanding of business concepts professionally through written, oral and visual presentations using current technology.
3. Recognize ethical behavior in their chosen profession and behave in a socially responsible manner.
4. Analyze business issues, interpret financial data and identify economic trends.

Major: Core and Selective Requirements**Complete Core Courses, 6 units**

	Units
BUS. 100 Introduction to Business	3 units
BUS. 180 Marketing	3 units



Selective Courses, choose a minimum of 12 units from the following:

List A, complete 6 units from the following: Units

BUS. 230	International Marketing	3 units
BUS. 401	Business Communications	3 units
MGMT 100	Introduction to Business Management	3 units

List B, complete 6 units from the following: Units

ANTH 110	Cultural Anthropology	3 units
COMM 110	Public Speaking	3 units
MART 366	Color Management and Theory	3 units
MART 371	User Interface/User Experience Design	3 units
MART 378	Digital Page Layout	3 units
MART 405	Storyboard Development for Animation and Interactive Media	3 units

Total Required Units: 18

CHEMISTRY

AS Associate in Science Degree Program

Chemistry.....60 units

AS Chemistry

The Physical Science Degree is designed to give the student breadth in the physical sciences while providing considerable strength in one of the specialized physical science fields. The lower-division program is virtually the same as that taken in the first two years of college by a chemistry, physics, or geology major. A major in physical science can serve as preparation for further study in technical fields and serves as an excellent background for professional training in law, business, medicine, or education.

Program Learning Outcomes

Students completing this program will be able to:

1. Use the scientific method and appreciate its importance to the development of scientific thought.
2. Demonstrate critical thinking and analyze physical systems in terms of scientific concepts.
3. Document and communicate their work effectively.

AS Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 30 units

Units

CHEM 210	General Chemistry I	5 units
CHEM 220	General Chemistry II	5 units
CHEM 231	Organic Chemistry I	5 units
CHEM 232	Organic Chemistry II	5 units
MATH 251	Analytical Geometry and Calculus I	5 units
MATH 252	Analytical Geometry and Calculus II	5 units

Selective Courses, choose a minimum of 8 units from the following:

Units

PHYS 210	General Physics I	4 units
PHYS 220	General Physics II	4 units
PHYS 250	Physics with Calculus I	4 units
PHYS 260	Physics with Calculus II	4 units
PHYS 270	Physics with Calculus III	4 units

Total Required Major Units: 38

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

COMMUNICATION STUDIES

AA Associate in Arts Degree Program

Communication Studies.....60 units

AA-T Associate in Arts Degree for Transfer

Communication Studies 2.0..... 60 units



AA Communication Studies

Communication studies explores how and why we communicate. Students study the ways we use communication techniques and technologies to shape identities and ideas. They explore a variety of communication contexts, from intimate relationships, to public address, to small group interactions, to how we govern ourselves, and examine the many ways communication shapes us. Graduates will transfer with an understanding of communication theory and demonstrate proficiency in communication skills such as speaking in public, evaluating diverse points of view, producing evidence-based arguments, and communicating across cultures.

Career Opportunities

Communication skills are essential in both work and social settings. Oral and written communication skills are at the top of the list of qualities that employers look for in job candidates. Career opportunities for the program graduate includes the following careers: Advertising Executive, Business Executive, Communication Specialist, Consultant, Employee Relations Representative, Film Editor, Human Resource Administrator, Impression Management Specialist, Journalist, Media Consultant, Newscaster, Professor, Public Relations Representative, Publications, Radio Programmer, Sales Representative, Speech Writer, Teacher, Technical Writer, Television Producer, Trainer, Writer.

Program Learning Outcomes

Students completing this program will be able to:

- 1. Analyze social science concepts and theories
- 2. Evaluate diverse viewpoints related to the human experience.
- 3. Produce evidence-based arguments.

AA Degree Requirements
Major: Core and Selective Requirements

Complete Core Courses, 6 units		Units
COMM 110	Public Speaking	3 units
COMM 130	Interpersonal Communication	3 units

Selective Courses, choose a minimum of 9 units from the following:

List A, choose a minimum of 9 units from the following:		Units
COMM 127	Argumentation and Debate	3 units
COMM 140	Small Group Communication	3 units
COMM 150	Intercultural Communication	3 units
COMM 180	Introduction to Communication Studies	3 units

List B, choose a minimum of 3 units from the following:		Units
Any List A course not used above.		
ANTH 110	Cultural Anthropology	3 units
ENGL 110	Composition, Literature, and Critical Thinking	3 units
ENGL 165	Advanced Composition	3 units
PSYC 100	General Psychology	3 units
SOCI 100	Introduction to Sociology	3 units
Any CSU transferable COMM course		

Total Required Major Units: 18
And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

AA-T Communication Studies 2.0

Communication studies 2.0 explores how and why we communicate. Students study the ways we use communication techniques and technologies to shape identities and ideas. They explore a variety of communication contexts, from intimate relationships, to public address, to small group interactions, to how we govern ourselves, and examine the many ways communication shapes us. Graduates will transfer with an understanding of communication theory and demonstrate proficiency in communication skills such as speaking in public, evaluating diverse points of view, producing evidence-based arguments, and communicating across cultures. . Students are required to have a grade of "C (or "P")" or better in each course in the major to apply these courses to the AS-T degree. The AS-T degree also requires the completion of 60 transfer semester units, a minimum



overall grade point average of 2.0, and completion of the CSU GE-breadth or IGETC.

Career Opportunities

Communication skills are essential in both work and social settings. Oral and written communication skills are at the top of the list of qualities that employers look for in job candidates. Career opportunities for the program graduate includes the following careers: Advertising Executive, Business Executive, Communication Specialist, Consultant, Employee Relations Representative, Film Editor, Human Resource Administrator, Impression Management Specialist, Journalist, Media Consultant, Newscaster, Professor, Public Relations Representative, Publications, Radio Programmer, Sales Representative, Speech Writer, Teacher, Technical Writer, Television Producer, Trainer, Writer.

Program Learning Outcomes

Students completing this program will be able to:

1. Analyze social science concepts and theories
2. Evaluate diverse viewpoints related to the human experience.
3. Produce evidence-based arguments.

AA-T Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 6 units		Units
COMM 110	Public Speaking	3 units
COMM 130	Interpersonal Communication	3 units

Selective Courses, choose a minimum of 12 units from the following:

List A, choose a minimum of 9 units from the following:		Units
COMM 127	Argumentation and Debate	3 units
COMM 140	Small Group Communication	3 units
COMM 150	Intercultural Communication	3 units
COMM 180	Introduction to Communication Studies	3 units

List B, choose a minimum of 3 units from the following:		Units
Any List A course not used above.		3 units

ANTH 110	Cultural Anthropology	3 units
ENGL 110	Composition, Literature, and Critical Thinking	3 units
ENGL 165	Advanced Composition	3 units
PSYC 100	General Psychology	3 units
SOCI 100	Introduction to Sociology	3 units
Any CSU transferable Communication Studies course		3 units

Total Required Major Units: 18

General Education - certified completion of one of the following:

- California State University General Education-Breadth pattern (CSU GE Breadth),
- **OR**
- Intersegmental General Education Transfer Curriculum (IGETC/CSU) pattern

Elective courses: If applicable, additional courses to meet the minimum 60 CSU transferable units requirement.

Please refer to Associate Degree for Transfer (ADT) Requirements for more information.

COMPUTER BUSINESS OFFICE TECHNOLOGY

AS Associate in Science Degree Program

Administrative Assistant.....	60 units
Administrative Support Assistant.....	60 units

CA Certificate of Achievement

Administrative Assistant.....	27 units
Administrative Support Assistant.....	23.5 units
General Office.....	12 units

AS Administrative Assistant

This Certificate and Degree prepares the person to perform high-level administrative support tasks such as compiling correspondence, preparing statistical reports, scheduling appointments, assisting clients in person and over the phone, arranging conference calls, taking and distributing minutes of meetings, handling information requests, organizing and maintaining paper and electronic files. These positions require the employee to interact effectively



with coworkers and multitask. This person may train and supervise lower-level clerical personnel.

Career Opportunities

This program is for individuals who seek employment in mid to high level administrative assistant positions working in general business offices, law firms, and insurance companies as an administrative assistant, executive secretary, information clerk, or related position.

Program Learning Outcomes

Students completing this program will be able to:

1. Develop the computer skills and confidence to obtain employment.
2. Develop the ability and knowledge to plan, design, create, edit, integrate, and manage business documents using current technology.
3. Utilize current supporting technology to increase workplace effectiveness.

AS Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 17 units		Units
BUS. 101	Human Relations in the Workplace	3 units
BUS. 401	Business Communications	3 units
CBOT 435	Spreadsheets	3 units
CBOT 457	Using PowerPoint in Business	2 units
CBOT 472	Beginning Word Processing	1.5 units
CBOT 474	Intermediate Word Processing	1.5 units
CBOT 475	Using Outlook	1.5 units
CBOT 476	Adobe Acrobat	1.5 units

Selective Courses, choose a minimum of 10 units from the following courses:		Units
ACTG 100	Accounting Procedures	3 units
ACTG 200	QuickBooks	3 units
BUS. 100	Introduction to Business	3 units
BUS. 201	Business Law	3 units
CBOT 470	Advanced Spreadsheets	1.5 units
MATH 120	Intermediate Algebra	5 units

Total Required Major Units: 27

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

AS Administrative Support Assistant

This Certificate and Degree prepares workers to perform clerical duties such as answering telephones, e-mail, word processing, prepare correspondence, reports, forms, e-mails or other materials. These positions require employees to interact effectively with coworkers and multitask.

Career Opportunities

After completing the certificate and or degree, you have the skills necessary to work in an office environment. Job titles include, but not limited to general office support, administrative support assistant, or receptionist.

Program Learning Outcomes

Students completing this program will be able to:

1. Develop the computer skills and confidence to obtain employment.
2. Develop the ability and knowledge to plan, design, create, edit, integrate, and manage business documents using current technology.
3. Utilize current supporting technology, according to industry standards, to increase workplace effectiveness.

AS Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 16.5 units		Units
BUS. 101	Human Relations in the Workplace	3 units
BUS. 401	Business Communications	3 units
CBOT 432	Introduction to Computer Applications	3 units
CBOT 448	Using Microsoft Windows	1.5 units
CBOT 472	Beginning Word Processing	1.5 units
CBOT 474	Intermediate Word Processing	1.5 units
CBOT 475	Using Outlook	1.5 units
CBOT 476	Adobe Acrobat	1.5 units

Selective Courses, choose a minimum of 7 units from the following:		Units
BUS. 100	Introduction to Business	3 units
BUS. 201	Business Law	3 units
CBOT 415	Beginning Computer Keyboarding	1.5 units
OR		



CBOT 417	Skill Building	1.5 units
CBOT 435	Spreadsheets	3 units
CBOT 457	Using PowerPoint in Business	2 units
MATH 120	Intermediate Algebra	5 units

Total Required Major Units: 23.5

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

CA Administrative Assistant

This Certificate and Degree prepares the person to perform high-level administrative support tasks such as compiling correspondence, preparing statistical reports, scheduling appointments, assisting clients in person and over the phone, arranging conference calls, taking and disseminating minutes of meetings, handling information requests, organizing and maintaining paper and electronic files. These positions require the employee to interact effectively with coworkers and handle several tasks at once. This person may train and supervise lower-level clerical personnel.

Career Opportunities

This program is for individuals who seek employment in mid to high level administrative assistant positions working in general business offices, law firms, and insurance companies as an administrative assistant, executive secretary, information clerk, or related position.

Program Learning Outcomes

Students completing this program will be able to:

1. Develop the computer skills and confidence to obtain employment.
2. Develop the ability and knowledge to plan, design, create, edit, integrate, and manage business documents using current technology.
3. Utilize current supporting technology to increase workplace effectiveness.

Major: Core and Selective Requirements

Complete Core Courses, 17 units		Units
BUS. 101	Human Relations in the Workplace	3 units
BUS. 401	Business Communications	3 units
CBOT 435	Spreadsheets	3 units
CBOT 457	Using PowerPoint in Business	2 units
CBOT 472	Beginning Word Processing	1.5 units

CBOT 474	Intermediate Word Processing	1.5 units
CBOT 475	Using Outlook	1.5 units
CBOT 476	Adobe Acrobat	1.5 units

Selective Courses, choose a minimum of 10 units from the following courses:

		Units
ACTG 100	Accounting Procedures	3 units
ACTG 200	QuickBooks	3 units
BUS. 100	Introduction to Business	3 units
BUS. 201	Business Law	3 units
CBOT 470	Advanced Spreadsheets	1.5 units
MATH 120	Intermediate Algebra	5 units

Total Required Units: 27

CA Administrative Support Assistant

This Certificate and Degree prepares workers to perform clerical duties such as answering telephones, e-mail, word processing, prepare correspondence, reports, forms, e-mails or other materials. These positions require employees to interact effectively with coworkers and multitask.

Career Opportunities

After completing the certificate and or degree, you have the skills necessary to work in an office environment. Job titles include, but not limited to general office support, administrative support assistant, or receptionist.

Program Learning Outcomes

Students completing this program will be able to:

1. Develop the computer skills and confidence to obtain employment.
2. Develop the ability and knowledge to plan, design, create, edit, integrate, and manage business documents using current technology.
3. Utilize current supporting technology, according to industry standards, to increase workplace effectiveness.

Major: Core and Selective Requirements

Complete Core Courses, 16.5 units		Units
BUS. 101	Human Relations in the Workplace	3 units
BUS. 401	Business Communications	3 units



CBOT 432	Introduction to Computer Applications	3 units
CBOT 448	Using Microsoft Windows	1.5 units
CBOT 472	Beginning Word Processing	1.5 units
CBOT 474	Intermediate Word Processing	1.5 units
CBOT 475	Using Outlook	1.5 units
CBOT 476	Adobe Acrobat	1.5 units

Selective Courses, choose a minimum of 7 units from the following:		Units
BUS. 100	Introduction to Business	3 units
BUS. 201	Business Law	3 units
CBOT 415	Beginning Computer Keyboarding	1.5 units
OR		
CBOT 417	Skill Building	1.5 units
CBOT 435	Spreadsheets	3 units
CBOT 457	Using PowerPoint in Business	2 units
MATH 120	Intermediate Algebra	5 units

Total Required Units: 23.5

CA General Office

The General Office certificate program prepares students for employment as entry-level general office clerks in a variety of business settings as support staff. This program gives an entry-level employee the solid foundational skills needed in an office. This program increases students' efficiency, speed and accuracy in typing while increasing technical skills and confidence in a variety of software. Students are also introduced to organizational behavior and interpersonal skills.

Career Opportunities

This program is for individuals who seek entry-level employment as a General Office Clerk or Information Clerk in the business environment. According to CTE Launchboard data, projected job openings in the Mid-Peninsula region for Office Technology/Office Computer Applications surpass 875 positions each year.

Program Learning Outcomes

Students completing this program will be able to:

1. Develop the computer skills and confidence to obtain employment.

2. Develop the ability and knowledge to plan, design, create, edit, integrate, and manage business documents using current technology.
3. Utilize current supporting technology, according to industry standards, to increase workplace effectiveness.

Major: Core and Selective Requirements

Complete Core Courses, 10.5 units		Units
BUS. 101	Human Relations in the Workplace	3 units
CBOT 432	Introduction to Computer Applications	3 units
CBOT 448	Using Microsoft Windows	1.5 units
CBOT 472	Beginning Word Processing	1.5 units
CBOT 475	Using Outlook	1.5 units

Selectives Courses, choose a minimum of 1.5 units from the following:		Units
CBOT 415	Beginning Computer Keyboarding	1.5 units
CBOT 417	Skill Building	1.5 units
CBOT 474	Intermediate Word Processing	1.5 units
CBOT 476	Adobe Acrobat	1.5 units

Total Required Units: 12

COMPUTER SCIENCE

AS-T Associate in Science Degree for Transfer

Computer Science..... 60 units

CA Certificate of Achievement

Cloud Computing..... 15 units

Computer Science - C++..... 16 units

Computer Science - Java..... 16 units

Computer Science - Swift..... 16 units

AS-T Computer Science

Completion of the AS-T in computer science prepares students for transfer to a 4-yr institution to complete their



Bachelor's degree in computer science or computer science engineering. This degree can be completed in either C⁺ or JAVA programming languages. Students will need to determine which language is preferred by the transfer institution.

Career Opportunities

Students completing this degree will be ready to transfer to a 4-yr institution to complete study in computer science. A basic knowledge of computer structure and programming adds to many jobs - both as a programmer, working with programmers and as a content expert developing programs for projects in that field.

Program Learning Outcomes

Students completing this program will be able to:

1. Apply knowledge of math, science and computer science to identify, formulate, and solve computer science problems.
2. Communicate effectively and work well in situations that require teamwork.
3. Design and perform tests or experiments, analyze and interpret data, and prepare a report summarizing the results of the tests of experiments.
4. Develop a design or system given a set of requirements and specifications
5. Use techniques, skills, and modern engineering and computer tools necessary for engineering or computer science practice.

AS-T Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 30 units		Units
CIS 242	Computer Architecture and Assembly Language	3 units
CIS 250	Introduction to Object Oriented Programming: C++	3 units
OR		
CIS 284	Introduction to Object Oriented Programming- Java	3 units
CIS 252	Introduction to Data Structures - C++	3 units
OR		
CIS 286	Introduction to Data Structures - Java	3 units
CIS 262	Discrete Mathematics for Computer Science	3 units
MATH 251	Analytical Geometry and Calculus I	5 units

MATH 252	Analytical Geometry and Calculus II	5 units
PHYS 250	Physics with Calculus I	4 units
PHYS 260	Physics with Calculus II	4 units

Total Required Major Units: 30

General Education - certified completion of one of the following:

- California State University General Education-Breadth pattern (CSU GE Breadth),
- **OR**
- Intersegmental General Education Transfer Curriculum (IGETC/CSU) pattern

Elective courses: If applicable, additional courses to meet the minimum 60 CSU transferable units requirement.

Please refer to Associate Degree for Transfer (ADT) Requirements for more information.

CA Cloud Computing

The Certificate of Achievement offers students the opportunity to study cloud computing principles and theories that focus on programming, database management, security, and other essentials. In this program, students learn cloud computing, database, and design principles. Graduates can find employment in federal or local government, military service, and private sector.

Career Opportunities

Cloud Architect: Associate Cloud Architect, Cloud Technical Account Manager, Cloud Service Delivery Manager and Cloud Application Architect/Developer. Operations/Support Engineering: Network Operations Engineer, Help Desk Technician, Cloud Support Associate, Cloud Infrastructure Engineer, Quality Assurance Team Lead, Network Technician, Cloud Support Engineer and Systems Engineer

Program Learning Outcomes

Students completing this program will be able to:

1. Apply knowledge of math, science and computer science to identify, formulate and solve computer science problems.
2. Communicate effectively and work well in situations that require teamwork.
3. Design and perform tests, analyze and interpret data and prepare a report summarizing the results of the tests.
4. Develop a design or system given a set of requirements and specifications.



5. Use techniques, skills and computer tools necessary for computer science practice.

Major: Core and Selective Requirements

Complete Core Courses, 15 units		Units
CIS 284	Introduction to Object Oriented Programming- Java	3 units
CIS 295	Introduction to Cloud Computing	3 units
CIS 296	Database Essentials in the Cloud	3 units
CIS 297	Amazon Web Services (AWS) and Cloud Compute Engines	3 units
CIS 298	Amazon Web Services (AWS) and Cloud Security	3 units

Total Required Units: 15

CA Computer Science - C++

Completion of this Certificate of Achievement prepares students for work using the C++ programming language.

Career Opportunities

A basic knowledge of computer structure and programming adds to many jobs - as a programmer, working with programmers and as a content expert developing programs for projects in that field.

Program Learning Outcomes

Students completing this program will be able to:

1. Apply knowledge of math, science and computer science to identify, formulate and solve computer science problems.
2. Communicate effectively and work well in situations that require teamwork.
3. Design and perform tests, analyze and interpret data and prepare a report summarizing the results of the tests.
4. Develop a design or system given a set of requirements and specifications.
5. Use techniques, skills and computer tools necessary for computer science practice.

Major: Core and Selective Requirements

Complete Core Courses, 16 units		Units
CIS 118	Introduction to Computer Science	4 units
CIS 242	Computer Architecture and Assembly Language	3 units

CIS 250	Introduction to Object Oriented Programming: C++	3 units
CIS 252	Introduction to Data Structures - C++	3 units
CIS 262	Discrete Mathematics for Computer Science	3 units

Total Required Units: 16

CA Computer Science - Java

Completion of this Certificate of Achievement prepares students for work using the Java programming language.

Career Opportunities

A basic knowledge of computer structure and programming adds to many jobs - as a programmer, working with programmers and as a content expert developing programs for projects in that field.

Program Learning Outcomes

Students completing this program will be able to:

1. Apply knowledge of math, science and computer science to identify, formulate and solve computer science problems.
2. Communicate effectively and work well in situations that require teamwork.
3. Design and perform tests, analyze and interpret data and prepare a report summarizing the results of the tests.
4. Develop a design or system given a set of requirements and specifications.
5. Use techniques, skills and computer tools necessary for computer science practice.

Major: Core and Selective Requirements

Complete Core Courses, 16 units		Units
CIS 118	Introduction to Computer Science	4 units
CIS 242	Computer Architecture and Assembly Language	3 units
CIS 262	Discrete Mathematics for Computer Science	3 units
CIS 284	Introduction to Object Oriented Programming- Java	3 units
CIS 286	Introduction to Data Structures - Java	3 units

Total Required Units: 16



CA Computer Science - Swift

Completion of the Certificate of Achievement prepares students for work using the Swift programming language.

Career Opportunities

A basic knowledge of computer structure and programming adds to many jobs - as a programmer, working with programmers and as a content expert developing programs for projects in that field.

Program Learning Outcomes

Students completing this program will be able to:

1. Apply knowledge of math, science and computer science to identify, formulate and solve computer science problems.
2. Communicate effectively and work well in situations that require teamwork.
3. Design and perform tests, analyze and interpret data and prepare a report summarizing the results of the tests.
4. Develop a design or system given a set of requirements and specifications.
5. Use techniques, skills and computer tools necessary for computer science practice.

Major: Core and Selective Requirements

Complete Core Courses, 16 units		Units
CIS 118	Introduction to Computer Science	4 units
CIS 242	Computer Architecture and Assembly Language	3 units
CIS 262	Discrete Mathematics for Computer Science	3 units
CIS 294	Introduction to Object Oriented Programming: Swift	3 units
CIS 321	iPhone Programming: Swift	3 units

Total Required Units: 16

DIGITAL ART AND ANIMATION

AA Associate in Arts Degree Program

3D Animation and Videogame Art.....	60 units
Digital Art and Animation.....	60 units

CA Certificate of Achievement

3D Animation and Videogame Art.....	42 units
Digital Art and Animation.....	27 units
Graphic Design.....	19.5 units
Video Game Design.....	33 units

AA 3D Animation and Videogame Art

The 3D Animation & Video Game Art Program is a comprehensive program that puts equal emphasis on the artistic and the technical side of 3D modeling and animation. Courses cover material that will take the student through the whole production process and workflow of 3D animation, from storyboarding and conceptualization to the final delivery of the rendered product. Curriculum spans traditional animation techniques, life drawing and the technical fundamentals of 3D animation and modeling. Classes are taught in a state-of-the-art computer studio with the latest versions of industry-standard software packages. Faculty members have extensive industry experience and their expertise is critical to the success of students in this growing field.

Career Opportunities

Animation, character development, storyboarding, modeling, rigging, effects work in film, games, mobile devices, apps, location-based entertainment, elearning, accident re-creation, courtroom animation, simulations, product design.

Program Learning Outcomes

Students completing this program will be able to:

1. Communicate design concepts clearly and concisely (i.e. visual, oral, and written).
2. Develop competitive industry standard skills in the respective fields.
3. Understand the elements and principles of design through discipline-specific implementation.

AA Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 39 units		Units
ART 207	Life Drawing	3 units
MART 325	Digital Painting	3 units
MART 379	Introduction to Digital Animation	3 units
MART 385	Coding for Designers and Artists	3 units



MART 389	Digital Media Careers	1.5 units
MART 390	Portfolio Creation	1.5 units
MART 400	Motion Graphics	1.5 units
MART 405	Storyboard Development for Animation and Interactive Media	3 units
MART 416	Drawing For Animation	3 units
MART 417	Principles of Animation	3 units
MART 418	History of Animation	1.5 units
MART 420	Introduction to 3D Modeling and Animation	3 units
MART 421	Advanced 3D Modeling and Animation	3 units
MART 424	3D Animation Fundamentals	3 units
MART 425	Advanced 3D Animation	3 units

Selective Courses, choose a minimum of 3 units from the following:

Units

MART 362	Introduction to Digital Photography	3 units
MART 363	Advanced Digital Photography	3 units
MART 366	Color Management and Theory	3 units
MART 372	Digital Illustration	3 units
MART 376	Introduction to Digital Imaging	3 units
MART 380	Advanced Digital Animation	3 units
MART 422	Introduction to Rigging	3 units
MART 431	Special Effects and Compositing	1.5 units
MART 432	3D Environments and Hard Surface Modeling	1.5 units

Total Required Major Units: 42

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

AA Digital Art and Animation

The Digital Art and Animation Department provides courses taught by faculty with extensive academic, professional, and industry experience. Students are guided through the department's project based courses to develop the knowledge and skills needed to incorporate the principles of visual communication in their work. Each course provides students with projects and evaluating critiques that challenge their creative problem solving skills. A culminating

course (MART 390) provides the opportunity for students to construct their electronic or print portfolio utilizing these projects.

Career Opportunities

The Digital Art and Animation program prepares students for entry level positions in animation, video, web development, and digital media development such as game development, interactive presentations, website development, and digital video.

Program Learning Outcomes

Students completing this program will be able to:

1. Communicate design concepts clearly and concisely (i.e. visual, oral, and written).
2. Develop competitive industry standard skills in the respective fields.
3. Understand the elements and principles of design through discipline-specific implementation.

AA Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 21 units

Units

MART 314	Introduction to Computer Graphics	3 units
MART 366	Color Management and Theory	3 units
MART 372	Digital Illustration	3 units
MART 376	Introduction to Digital Imaging	3 units
MART 379	Introduction to Digital Animation	3 units
MART 385	Coding for Designers and Artists	3 units
MART 389	Digital Media Careers	1.5 units
MART 390	Portfolio Creation	1.5 units

Selective Courses, choose a minimum of 6 units from the following:

Units

MART 325	Digital Painting	3 units
MART 362	Introduction to Digital Photography	3 units
MART 371	User Interface/User Experience Design	3 units
MART 378	Digital Page Layout	3 units

Total Required Major Units: 27

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.



CA 3D Animation and Videogame Art

The 3D Animation & Video Game Art Program is a comprehensive program that puts equal emphasis on the artistic and the technical side of 3D modeling and animation. Courses cover material that will take the student through the whole production process and workflow of 3D animation, from storyboarding and conceptualization to the final delivery of the rendered product. Curriculum spans traditional animation techniques, life drawing and the technical fundamentals of 3D animation and modeling. Classes are taught in a state-of-the-art computer studio with the latest versions of industry-standard software packages. Faculty members have extensive industry experience and their expertise is critical to the success of students in this growing field.

Career Opportunities

Animation, character development, storyboarding, modeling, rigging, effects work in film, games, mobile devices, apps, location-based entertainment, elearning, accident re-creation, courtroom animation, simulations, product design.

Program Learning Outcomes

Students completing this program will be able to:

1. Communicate design concepts clearly and concisely (i.e. visual, oral, and written).
2. Develop competitive industry standard skills in the respective fields.
3. Understand the elements and principles of design through discipline-specific implementation.

Major: Core and Selective Requirements

Complete Core Courses, 39 units		Units
ART 207	Life Drawing	3 units
MART 325	Digital Painting	3 units
MART 379	Introduction to Digital Animation	3 units
MART 385	Coding for Designers and Artists	3 units
MART 389	Digital Media Careers	1.5 units
MART 390	Portfolio Creation	1.5 units
MART 400	Motion Graphics	1.5 units
MART 405	Storyboard Development for Animation and Interactive Media	3 units
MART 416	Drawing For Animation	3 units
MART 417	Principles of Animation	3 units
MART 418	History of Animation	1.5 units

MART 420	Introduction to 3D Modeling and Animation	3 units
MART 421	Advanced 3D Modeling and Animation	3 units
MART 424	3D Animation Fundamentals	3 units
MART 425	Advanced 3D Animation	3 units

Selective Courses, choose a minimum of 3 units from the following:

	Units
MART 314 Introduction to Computer Graphics	3 units
MART 362 Introduction to Digital Photography	3 units
MART 363 Advanced Digital Photography	3 units
MART 366 Color Management and Theory	3 units
MART 372 Digital Illustration	3 units
MART 376 Introduction to Digital Imaging	3 units
MART 380 Advanced Digital Animation	3 units
MART 422 Introduction to Rigging	3 units
MART 431 Special Effects and Compositing	1.5 units
MART 432 3D Environments and Hard Surface Modeling	1.5 units

Total Required Units: 42

CA Digital Art and Animation

The Digital Art and Animation Department provides courses taught by faculty with extensive academic, professional, and industry experience. Students are guided through the department's project based courses to develop the knowledge and skills needed to incorporate the principles of visual communication in their work. Each course provides students with projects and evaluating critiques that challenge their creative problem solving skills. A culminating course (MART 390) provides the opportunity for students to construct their electronic or print portfolio utilizing these projects.

Career Opportunities

The Digital Art and Animation Program prepares students for entry level positions as graphic designers, production art designers, web designers, and production assistants in animation, video, and digital media product development such as game development, interactive CD presentations, and digital video.



Program Learning Outcomes

Students completing this program will be able to:

1. Communicate design concepts clearly and concisely (i.e. visual, oral, and written).
2. Develop competitive industry standard skills in the respective fields.
3. Understand the elements and principles of design through discipline-specific implementation.

Major: Core and Selective Requirements

Complete Core Courses, 21 units		Units
MART 314	Introduction to Computer Graphics	3 units
MART 366	Color Management and Theory	3 units
MART 372	Digital Illustration	3 units
MART 376	Introduction to Digital Imaging	3 units
MART 379	Introduction to Digital Animation	3 units
MART 385	Coding for Designers and Artists	3 units
MART 389	Digital Media Careers	1.5 units
MART 390	Portfolio Creation	1.5 units

Selective Courses, choose a minimum of 6 units from the following:		Units
MART 325	Digital Painting	3 units
MART 362	Introduction to Digital Photography	3 units
MART 371	User Interface/User Experience Design	3 units
MART 378	Digital Page Layout	3 units

Total Required Units: 27

CA Graphic Design

This certificate prepares students for the career of graphic design. Graphic Designers are typically responsible for graphic design production and pre press production. Graphic Designers create corporate branding and identification, logos, business cards, letterhead, newsletters, brochures, flyers, postcards and are responsible for the creation of publication marketing collateral. The Digital Art and Animation program provides the latest software and hardware to students in the graphic design certificate program. Faculty members have extensive industry

experience and their expertise is critical to the success of students in this exciting and creative field.

Career Opportunities

Career opportunities include entry level Graphic Design: Pre Press, Graphic Design Assistant, Graphic Design Production Assistant, and Freelance Graphic Designers. Graphic designers can work in both large and small firms. Large companies will have their own in-house departments and hire designers directly. Other firms need the talents of a designer seasonally or for special projects and look for small design firms or freelance designers. Pre press production is a vital part of the printing industry as printing firms rely on graphic designers to correctly set up creative work for the press.

Program Learning Outcomes

Students completing this program will be able to:

1. Communicate design concepts clearly and concisely (i.e. visual, oral, and written).
2. Develop competitive industry standard skills in the respective fields.
3. Understand the elements and principles of design through discipline-specific implementation.

Major: Core and Selective Requirements

Complete Core Courses, 19.5 units		Units
MART 314	Introduction to Computer Graphics	3 units
MART 366	Color Management and Theory	3 units
MART 371	User Interface/User Experience Design	3 units
MART 372	Digital Illustration	3 units
MART 376	Introduction to Digital Imaging	3 units
MART 378	Digital Page Layout	3 units
MART 390	Portfolio Creation	1.5 units

Total Required Units: 19.5

CA Video Game Design

Video game design is a rapidly growing field, both nationally and in the Bay Area. The Video Game Design certificate trains students in the skills they need to secure an entry-level position as a game designer, level designer, or associate producer in the video game industry. Curriculum was developed in conjunction with veteran game industry designers and reflects the skills currently in demand in the industry.



Career Opportunities

Game designer, game developer, level designer, coder, game artist, technical artist, director, producer, studio owner (indie game developer)

Program Learning Outcomes

Students completing this program will be able to:

1. Communicate design concepts clearly and concisely (i.e. visual, oral, and written).
2. Develop competitive industry standard skills in the respective fields.
3. Understand the elements and principles of design through discipline-specific implementation.

Major: Core and Selective Requirements

Complete Core Courses, 30 units		Units
MART 441	Introduction to Video Game Design	3 units
MART 442	History of Video Games	3 units
MART 443	Game Design Fundamentals	3 units
MART 445	3D Game Scripting	3 units
MART 446	Storytelling with Media	3 units
MART 447	3D Level Design	3 units
MART 450	Collaborative Game Production	3 units
MART 451	Rapid Game Development	3 units
MART 452	Advanced Game Design	3 units
MART 455	Indie Game Development & Entrepreneurship	3 units

Selective Courses, choose a minimum of 3 units from the following:		Units
MART 314	Introduction to Computer Graphics	3 units
MART 366	Color Management and Theory	3 units
MART 376	Introduction to Digital Imaging	3 units
MART 420	Introduction to 3D Modeling and Animation	3 units

Total Required Units: 33

EARTH SCIENCE

AS Associate in Science Degree Program

Earth Science.....60 units

AS Earth Science

A major in earth science prepares students for further study in the areas of geology, oceanography, meteorology and earth science. Each of these fields study features of the earth.

Career Opportunities

Study of the earth science prepares students for careers in real estate appraisal, location expertise, forestry technician, park ranger, hazardous waste planner, teacher, cartographer, GIS specialist, map librarian, community developer, weather forecaster, outdoor guide, soil conservationist, hydrologist, among others.

Program Learning Outcomes

Students completing this program will be able to:

1. Use the scientific method and appreciate its importance to the development of scientific thought.
2. Demonstrate critical thinking and analyze physical systems in terms of scientific concepts.
3. Document and communicate their work effectively.

AS Degree Requirements

Major: Core and Selective Requirements

Selective Courses, choose a minimum of 30 units from the following:

List A, choose a minimum of 7 units from the following:		Units
GEOL 100	Introduction to Geology	3 units
AND		
GEOL 101	Geology Laboratory	1 unit
METE 100	Meteorology - Weather and Climate	3 units
OCEN 100	Oceanography	3 units
AND		
OCEN 101	Oceanography Lab	1 unit



List B, choose a minimum of 23 units from the following:

	Units
CHEM 210 General Chemistry I	5 units
AND	
CHEM 220 General Chemistry II	5 units
GEOG 100 Physical Geography	3 units
GEOG 101 Physical Geography Lab	1 unit
GEOG 110 Cultural Geography	3 units
GEOL 100 Introduction to Geology	3 units
AND	
GEOL 101 Geology Laboratory	1 unit
MATH 200 Elementary Probability and Statistics	4 units
MATH 251 Analytical Geometry and Calculus I	5 units
AND	
MATH 252 Analytical Geometry and Calculus II	5 units
METE 100 Meteorology - Weather and Climate	3 units
OCEAN 100 Oceanography	3 units
AND	
OCEAN 101 Oceanography Lab	1 unit
PHYS 210 General Physics I	4 units
AND	
PHYS 220 General Physics II	4 units
OR	
PHYS 250 Physics with Calculus I	4 units
AND	
PHYS 260 Physics with Calculus II	4 units
AND	
PHYS 270 Physics with Calculus III	4 units

Total Required Major Units: 30

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

Cañada College offers lower division coursework required for transfer in the areas related to Earth Science. Students should use PROJECT ASSIST (www.assist.org) to research lower division major requirements at the transfer destination(s) of their choice. Also, work with a Counselor/Advisor to determine appropriate transfer coursework.

ECONOMICS

AA Associate in Arts Degree Program

Economics.....60 units

AA-T Associate in Arts Degree for Transfer

Economics.....60 units

AA Economics

Economics is the study of production, consumption and allocation decisions under conditions of scarcity, or as economist Steven Landsburg says, "People respond to incentives. Everything else is noise.". The field is broken down into macroeconomics, the performance of the economy as a whole, and microeconomics, the economic behavior of consumers or firms. Macroeconomics includes topics such as economic growth, inflation, changes in employment and unemployment, international trade performance, and the relative success or failure of government and Federal Reserve economic policies. The general concern of microeconomics, on the other hand, is the efficient allocation of scarce resources between alternative uses. Therefore, microeconomics looks at the determination of price through the optimizing behavior of consumers and firms, with consumers seeking to maximize happiness and firms, profit.

Program Learning Outcomes

Students completing this program will be able to:

1. Analyze social science concepts and theories.
2. Evaluate diverse viewpoints related to the human experience.
3. Produce evidence-based arguments.

AA Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 6 units		Units
ECON 100	Principles of Macro Economics	3 units
ECON 102	Principles of Micro Economics	3 units

Selective Courses, choose a minimum of 12 units from the following:

	Units
ACTG 121 Financial Accounting	4 units
ACTG 131 Managerial Accounting	4 units



ANTH 110	Cultural Anthropology	3 units
ECON 230	Economic History of the United States	3 units
HIST 101	History of Western Civilization II	3 units
HIST 201	U.S. History through 1877	3 units
OR		
HIST 202	U.S. History from 1877 to the Present	3 units
IDST 150	Honors Research Seminar	1 unit
MATH 200	Elementary Probability and Statistics	4 units
MATH 241	Business Calculus I	5 units
OR		
MATH 251	Analytical Geometry and Calculus I	5 units
PHIL 100	Introduction to Philosophy	3 units
PSYC 100	General Psychology	3 units

Total Required Major Units: 18

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

AA-T Economics

Two of the most concise definitions of economics are as follows: Economics is the study of production, consumption and allocation decisions under conditions of scarcity, or as economist Steven Landsburg says, "People respond to incentives." Everything else is noise. Economics is usually broken down into two sub-disciplines:

Microeconomics looks at economics at the level of individual consumers, groups of consumers, or firms. The general concern of microeconomics is the efficient allocation of scarce resources among alternative uses. Microeconomics looks at the determination of price through the optimizing behavior of consumers and firms; with consumers seeking to maximize happiness and firms, profit.

Career Opportunities

AA-T completion would offer students opportunities in entry level banking and finance as well as some city and state government positions. Transfer and completion of a BS/BA in economics would offer students opportunities, in addition to the ones already described, in advanced banking, finance, venture capital and investment

companies. Finally, a BS/BA in economics creates a solid foundation for an MBA, JD or MS/PhD in economics.

Program Learning Outcomes

Students completing this program will be able to:

1. Analyze social science concepts and theories.
2. Evaluate diverse viewpoints related to the human experience.
3. Produce evidence-based arguments.

AA-T Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 15 units		Units
ECON 100	Principles of Macro Economics	3 units
ECON 102	Principles of Micro Economics	3 units
MATH 200	Elementary Probability and Statistics	4 units
MATH 241	Business Calculus I	5 units
OR		
MATH 251	Analytical Geometry and Calculus I	5 units

Selective Courses, choose a minimum of 6-10 units from the following:

List A, select 3-5 units from the following:		Units
ACTG 121	Financial Accounting	4 units
ACTG 131	Managerial Accounting	4 units
BUS. 103	Introduction to Business Information Systems	3 units
BUS. 401	Business Communications	3 units
MATH 125	Elementary Finite Mathematics	3 units
MATH 252	Analytical Geometry and Calculus II	5 units

List B, select 3-5 units from the following:		Units
Any course from List A not already used		
ECON 230	Economic History of the United States	3 units
MATH 253	Analytic Geometry and Calculus III	5 units
MATH 270	Linear Algebra	3 units

Total Required Major Units: 21 - 25

General Education - certified completion of one of the following:



- California State University General Education-Breadth pattern (CSU GE Breadth),
- **OR**
- Intersegmental General Education Transfer Curriculum (IGETC/CSU) pattern

Elective courses: If applicable, additional courses to meet the minimum 60 CSU transferable units requirement.

Please refer to Associate Degree for Transfer (ADT) Requirements for more information.

EDUCATION AND HUMAN DEVELOPMENT: EARLY CHILDHOOD EDUCATION/ EDUCATION

AA-T Associate in Arts Degree for Transfer

Child and Adolescent Development..... 60 units
Elementary Teacher Education..... 60 units

AS Associate in Science Degree Program

Early Childhood Education..... 60 units

AS-T Associate in Science Degree for Transfer

Early Childhood Education..... 60 units

CA Certificate of Achievement

Early Childhood Education..... 27 units
Inclusion Support..... 10 units
Multilingual Learner Teaching..... 10 units
Youth and After School..... 27 units

Preparation/Specialization Information

Child Development Permits and Areas of Specialization. N/A

AA-T Child and Adolescent Development

Knowledge of human growth and development gives a student an advantage in any pursuit that includes working with others. Majors explore growth and development from multiple perspectives in this interdisciplinary degree. The coursework is designed to meet the needs of people planning to transfer for further studies in the interdisciplinary field of Child and Adolescent Development, and to transfer to a CSU into programs in Child Development, Human Development, Child and

Adolescent Development, Family and Consumer Sciences, and Liberal Studies (Child Development).

Career opportunities: child mental health worker, school counselor, family support worker, child development research assistant, youth group administrator, child advocate, elementary education, etc.

Career Opportunities

School counselor, child mental health worker, family support worker, child development research assistant, youth group administrator, child advocate, elementary education, etc.

Program Learning Outcomes

Students completing this program will be able to:

1. Communicate their understanding of education and human development concepts through written, oral and visual presentations in various professional and academic contexts.
2. Demonstrate an understanding of education and human development theories, trends and needs of young children by developing and maintaining healthy, safe, respectful, challenging and culturally responsive learning environments.
3. Critically assess their own teaching and learning experiences through critical thinking and reflection that will guide and inform their practice.

AA-T Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 20 units		Units
BIOL 110	Principles Of Biology	4 units
ECE. 201	Child Development	3 units
ECE. 212	Child, Family, and Community	3 units
MATH 200	Elementary Probability and Statistics	4 units
PSYC 100	General Psychology	3 units
PSYC 200	Developmental Psychology	3 units

Total Required Major Units: 20

General Education - certified completion of one of the following:

- California State University General Education-Breadth pattern (CSU GE Breadth),
- **OR**
- Intersegmental General Education Transfer Curriculum (IGETC/CSU) pattern

Elective courses: If applicable, additional courses to meet the minimum 60 CSU transferable units requirement.



Please refer to Associate Degree for Transfer (ADT) Requirements for more information.

AA-T Elementary Teacher Education

The Associate in Arts Degree for Transfer (ADT) in Elementary Education degree acknowledges that the student has established a foundation of interdisciplinary knowledge to prepare them for the field of Education. It is intended for students who plan to complete a baccalaureate degree in a similar major at a CSU campus.

Career Opportunities

Graduates of the AA-T in Elementary Teacher Education are eligible for transfer into bachelor's degree programs that will prepare them for teaching jobs in elementary school settings; kindergarten through eighth grade.

Program Learning Outcomes

Students completing this program will be able to:

1. Demonstrate active participation in the field of elementary education.
2. Produce evidence-based written and oral arguments in interdisciplinary contexts.
3. Communicate their understanding of elementary education concepts through written, oral and visual presentations.

AA-T Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 48-50 units		Units
BIOL 110	Principles Of Biology	4 units
CHEM 114	Survey of Chemistry and Physics	4 units
OR		
PHYS 114	Survey of Chemistry and Physics	4 units
COMM 110	Public Speaking	3 units
ART 101	Ancient, Classical and Medieval Art History	3 units
OR		
DRAM 140	Introduction to the Theatre	3 units
ENGL 100	Reading and Composition	3 units
OR		
ENGL 105	Reading and Composition with Support	5 units
ECE. 201	Child Development	3 units

EDUC 200	Introduction to Classroom Teaching	3 units
ENGL 110	Composition, Literature, and Critical Thinking	3 units
ENGL 165	Advanced Composition	3 units
GEOG 150	World Regional Geography	3 units
GEOL 121	Earth Science	4 units
HIST 104	World History I	3 units
HIST 201	U.S. History through 1877	3 units
MATH 150	Mathematics for Elementary School Teachers	3 units
PLSC 210	American Politics	3 units

Total Required Major Units: 48 - 50

General Education - certified completion of one of the following:

- California State University General Education-Breadth pattern (CSU GE Breadth),
- **OR**
- Intersegmental General Education Transfer Curriculum (IGETC/CSU) pattern

Elective courses: If applicable, additional courses to meet the minimum 60 CSU transferable units requirement.

Please refer to Associate Degree for Transfer (ADT) Requirements for more information.

AS Early Childhood Education

The Education and Human Development program is designed to meet the needs of people planning for a career working with children from birth through school-age. Students in the program focus on current research, practical application and critical thinking in professional care settings. Children's growth, developmentally appropriate practice, cultural diversity, observational skills, family support and professional development within the various fields of education and human development are major components of the program.

Career Opportunities

Graduates of the Education and Human Development program with the ECE certificate are prepared for positions in the Early Care and Education field as teachers, family child care providers and para professionals in elementary school settings. Graduates with an ECE AS degree are prepared for positions as head teachers, master teachers, and site supervisors.



Program Learning Outcomes

Students completing this program will be able to:

1. Communicate their understanding of education and human development concepts through written, oral and visual presentations in various professional and academic contexts.
2. Demonstrate an understanding of education and human development theories, trends and needs of young children by developing and maintaining healthy, safe, respectful, challenging and culturally responsive learning environments.
3. Critically assess their own teaching and learning experiences through critical thinking and reflection that will guide and inform their practice.

AS Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 27 units		Units
ECE. 201	Child Development	3 units
ECE. 210	Early Childhood Education Principles	3 units
ECE. 211	Early Childhood Education Curriculum	3 units
ECE. 212	Child, Family, and Community	3 units
ECE. 254	Teaching in a Diverse Society	3 units
ECE. 260	Children with Special Needs	3 units
ECE. 313	Health, Safety and Nutrition	3 units
ECE. 333	Observation and Assessment of Young Children	3 units
ECE. 366	Practicum in Early Childhood Education	3 units

Total Required Major Units: 27

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

AS-T Early Childhood Education

The Education and Human Development program is designed to meet the needs of people planning for a career working with children from birth through school-age. Students in the program focus on current research, practical application and critical thinking in professional care settings. Children's growth, developmentally appropriate practice, cultural diversity, observational skills, family support and professional development within the various

fields of education and human development are major components of the program.

Career Opportunities

Graduates with an AS degree with a major in Education and Human Development are prepared for positions as head teachers, master teachers, and site supervisors. The AS-T Early Childhood Education prepares them for transfer into Child and Adolescent Development, Human Development and similar bachelor degree programs.

Program Learning Outcomes

Students completing this program will be able to:

1. Communicate their understanding of education and human development concepts through written, oral and visual presentations in various professional and academic contexts.
2. Demonstrate an understanding of education and human development theories, trends and needs of young children by developing and maintaining healthy, safe, respectful, challenging and culturally responsive learning environments.
3. Critically assess their own teaching and learning experiences through critical thinking and reflection that will guide and inform their practice.

AS-T Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 24 units		Units
ECE. 201	Child Development	3 units
ECE. 210	Early Childhood Education Principles	3 units
ECE. 211	Early Childhood Education Curriculum	3 units
ECE. 212	Child, Family, and Community	3 units
ECE. 254	Teaching in a Diverse Society	3 units
ECE. 313	Health, Safety and Nutrition	3 units
ECE. 333	Observation and Assessment of Young Children	3 units
ECE. 366	Practicum in Early Childhood Education	3 units

Total Required Major Units: 24

General Education - certified completion of one of the following:

- California State University General Education-Breadth pattern (CSU GE Breadth),
- **OR**
- Intersegmental General Education Transfer Curriculum (IGETC/CSU) pattern



Elective courses: If applicable, additional courses to meet the minimum 60 CSU transferable units requirement.

Please refer to Associate Degree for Transfer (ADT) Requirements for more information.

CA Early Childhood Education

The Education and Human Development program is designed to meet the needs of people planning for a career working with children from birth through school-age. Students in the program focus on current research, practical application and critical thinking in professional care settings. Children's growth, developmentally appropriate practice, cultural diversity, observational skills, family support and professional development within the various fields of education and human development are major components of the program.

Career Opportunities

Students who complete the Early Childhood Education certificate are eligible to apply for their Associate Teacher-Level Permit issued by the CA Commission on Teacher Credentialing. Upon completion of the certificate they are eligible for positions in the Early Care and Education field as teacher, family child care provider and para professional in elementary school settings.

Program Learning Outcomes

Students completing this program will be able to:

1. Communicate their understanding of education and human development concepts through written, oral and visual presentations in various professional and academic contexts.
2. Demonstrate an understanding of education and human development theories, trends and needs of young children by developing and maintaining healthy, safe, respectful, challenging and culturally responsive learning environments.
3. Critically assess their own teaching and learning experiences through critical thinking and reflection that will guide and inform their practice.

Major: Core and Selective Requirements

Complete Core Courses, 27 units		Units
ECE. 201	Child Development	3 units
ECE. 210	Early Childhood Education Principles	3 units
ECE. 211	Early Childhood Education Curriculum	3 units
ECE. 212	Child, Family, and Community	3 units

ECE. 254	Teaching in a Diverse Society	3 units
ECE. 260	Children with Special Needs	3 units
ECE. 313	Health, Safety and Nutrition	3 units
ECE. 333	Observation and Assessment of Young Children	3 units
ECE. 366	Practicum in Early Childhood Education	3 units

Total Required Units: 27

CA Inclusion Support

The Inclusion Support Certificate provides students with foundational knowledge and skills for those working with children with disabilities (PreK-12) in either self-contained or inclusive learning environments.

The 10-unit certificate requires 4 courses, each of which targets key concepts and competencies integral to the Special Education profession, including but not limited to:

1. Characteristics of children with diverse disabilities as outlined by legislated categorical definitions and criteria
2. Curriculum adaptations and modifications
3. Positive Behavior Support, and
4. Culminating experience requiring observation and case-analysis

Career Opportunities

Paraprofessional (PreK-12); Early Intervention Assistant; Early Childhood Special Education Assistant; Early Childhood Education Assistant.

Program Learning Outcomes

Students completing this program will be able to:

1. Communicate their understanding of education and human development concepts through written, oral and visual presentations in various professional and academic contexts.
2. Demonstrate an understanding of education and human development theories, trends and needs of young children by developing and maintaining healthy, safe, respectful, challenging and culturally responsive learning environments.
3. Critically assess their own teaching and learning experiences through critical thinking and reflection that will guide and inform their practice.

Core Courses	Units
ECE. 260 Children with Special Needs	3 units



ECE. 263	Curriculum and Strategies for Children with Special Needs	3 units
EDUC 265	Positive Behavior Support in Inclusive Settings	3 units
EDUC 300	Applied Inclusive Strategies	1 unit

Total Required Units: 10

CA Multilingual Learner Teaching

The Multilingual Learner Teaching Certificate of Achievement provides educators the knowledge and skills necessary to ensure full access and active participation of multilingual learners (MLs) in early learning settings.

The 10-unit certificate requires 8 courses, each of which targets key concepts and competencies foundational to dual/multilingual learning and development, including but not limited to first and second language acquisition, cultural and contextual factors, teaching multilingual learners and supporting their families, and curriculum planning for multilingual children in early learning settings.

Career Opportunities

Paraprofessional (PreK-3rd grade); Early Childhood Assistant Educators; Early Childhood Educators with specialization in dual language learning; ML coach; ML professional development provider

Program Learning Outcomes

Students completing this program will be able to:

1. Communicate their understanding of education and human development through written, oral and visual presentations in various professional and academic contexts.
2. Demonstrate an understanding of education and human development theories, trends and needs of young children by developing and maintaining healthy, safe, respectful, challenging and culturally responsive learning environments.
3. Critically assess their own teaching and learning experiences through critical thinking and reflection that will guide and inform their practice.

Major: Core and Selective Requirements

Complete Core Courses, 10 units		Units
ECE. 254	Teaching in a Diverse Society	3 units
ECE. 255	Multilingual Learners: Language and Literacy Development	1 unit

ECE. 271	Foundational Concepts in Multilingual Learning	1 unit
ECE. 273	Multilingual Learners: Personalized Oral Language Learning (POLL)	1 unit
ECE. 280	Cultural Humility: Cultivating an Equity Mindset	1 unit
ECE. 362	Partnering with Families	1 unit
ECE. 364	Multilingual Practices in Action	1 unit
EDUC 300	Applied Inclusive Strategies	1 unit

Total Required Units: 10

CA Youth and After School

The Education and Human Development program is designed to meet the needs of people planning for a career working with children from birth through school-age. Students earning the Youth and After School Certificate will focus on school age children in diverse settings including, but not limited to, recreation and health and academic enrichment. The program emphasizes current research and practical application involving issues related to youth learning and development.

Career Opportunities

Individuals taking this certificate will learn knowledge and skills to support their work in out of school or after school programs, youth coaching and athletic settings as well as academic enrichment support. The certificate also provides a foundation for individuals interested in working as a credentialed teacher (with further post-BA coursework).

Program Learning Outcomes

Students completing this program will be able to:

1. Communicate their understanding of education and human development concepts as it relates to school age learning, recreation and out of school time, through written, oral and visual presentations in various professional and academic contexts.
2. Demonstrates an understanding of education and human development theories, trends and needs of the school age child by maintaining healthy, safe, respectful, challenging and culturally responsive environments.
3. Critically assess their own teaching and learning experiences through critical thinking and reflection that will guide and inform their practice with school age children in various settings including recreation and after school programs.



Major: Core and Selective Requirements

Complete Core Courses, 21 units		Units
ECE. 201	Child Development	3 units
ECE. 212	Child, Family, and Community	3 units
ECE. 213	The School Age Child	3 units
ECE. 260	Children with Special Needs	3 units
EDUC 200	Introduction to Classroom Teaching	3 units
EDUC 265	Positive Behavior Support in Inclusive Settings	3 units
KINE 101	Introduction to Kinesiology	3 units

Selective Courses, choose a minimum of 6 units from the following:

List A - Recreation and Health, complete 3 units from the following:		Units
ECE. 313	Health, Safety and Nutrition	3 units
KINE 105	Stress Management	3 units
KINE 109	Lifetime Fitness and Nutrition	3 units

List B - School Age Academic Enrichment, complete 3 units from the following:		Units
ECE. 191	Children's Literature	3 units
ECE. 244	Curriculum and Strategies for PreK-Kindergarten	3 units
ECE. 247	Foundations for School Success	3 units

Total Required Units: 27

Child Development Permits and Areas of Specialization

CHILD DEVELOPMENT PERMIT

Cañada College's Early Childhood Education Certificate Program is aligned with the Child Development Permit regulations. The Permit has been approved by the California Department of Education and the Commission on Teacher Credentialing for child care and development centers operating under Title 5 (publicly subsidized).

The Child Development Permit emphasizes professional development and will eventually impact the entire Early Childhood Education field. The career lattice approach

acknowledges the importance of many entry points into the profession. The Child Development Permit has taken the place of the Emergency Children's Center Instructional Permit, the Children's Center Supervision Permit, and the Life Children's Center Supervision Permit.

AREAS OF SPECIALIZATION WITHIN THE EDUCATION AND HUMAN DEVELOPMENT PROGRAM APPLICABLE TO THE MASTER TEACHER PERMIT

In accordance with the guidelines established by the Child Development Permit for the Master Teacher, Cañada College's Education and Human Development Program has created several "specializations." "Administration" is not considered a specialization. Six semester units in specific areas define a specialization. These focus areas can be useful to students when seeking work advancement or career development options.

Infant/Toddler Care

ECE. 223 Infant and Toddler Development **3**
ECE. 225 Care and Education for Infants and Toddlers **3**

Developmentally Appropriate Curriculum: Children with Special Needs

ECE. 260 Children with Special Needs **3**
ECE. 263 Curriculum and Strategies for Children with Special Needs **3**

COURSES WITHIN THE EDUCATION AND HUMAN DEVELOPMENT PROGRAM APPLICABLE TO THE SITE SUPERVISOR AND PROGRAM DIRECTOR PERMITS

ECE. 240 Administration I: Business/Legal **3**
ECE. 241 Administration II: Personnel and Leadership **3**
ECE. 242 Adult Supervision and Mentoring **2**

ENGINEERING

AS Associate in Science Degree Program

Engineering.....60 units

CA Certificate of Achievement

Engineering.....32 - 36 units

Math for Surveying and Computer-Aided Design.....23 units

AS Engineering

Engineering is one of the largest professions in the United States with over one million jobs in fields ranging from airplane design to pollution control. The four largest



branches are civil, computer, electrical and mechanical engineering. All engineering branches place a heavy emphasis on problem solving. Engineering education focuses on teaching mathematical, scientific and engineering principles and their application to the creative and effective solution of problems.

Career Opportunities

Engineering is one of the highest paid professions in the country. Engineering graduates work in a variety of job functions (research and development, testing, design, construction, manufacturing, sales, consulting, management) and a variety of industry sectors (aerospace, computers/electronics manufacturing, electrical/electronics manufacturing, electrical equipment manufacturing, metals, machinery, architectural, engineering and related services, chemical, drugs, plastics, biotechnology, computers and technical consulting, research and development, professional and technical services, utilities).

Program Learning Outcomes

Students completing this program will be able to:

1. Apply knowledge of math, science, and engineering or computer science to identify, formulate, and solve engineering/computer science problems.
2. Communicate effectively and work well in situations that require teamwork.
3. Design and perform tests or experiments, analyze and interpret data, and prepare a report summarizing the results of the tests or experiments.
4. Develop a design or system given a set of requirements and specifications.
5. Use techniques, skills, and modern engineering and computer tools necessary for engineering or computer science practice

AS Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 23 units		Units
CHEM 210	General Chemistry I	5 units
MATH 251	Analytical Geometry and Calculus I	5 units
MATH 252	Analytical Geometry and Calculus II	5 units
PHYS 250	Physics with Calculus I	4 units
PHYS 260	Physics with Calculus II	4 units

Selective Courses, choose a minimum of 16-20 units from the following:

List A, complete 6-8 units from the following:

	Units
ENGR 100 Introduction to Engineering	3 units
ENGR 210 Engineering Graphics	4 units
ENGR 215 Computational Methods for Engineers and Scientists	3 units
ENGR 230 Statics	3 units
ENGR 240 Engineering Dynamics	3 units
ENGR 260 Circuits and Devices	3 units
ENGR 261 Circuits and Devices Laboratory	1 unit
ENGR 270 Materials Science	4 units

List B, complete 10-12 units from the following:

	Units
Any courses from List A not already chosen	1 - 4 units
CHEM 220 General Chemistry II	5 units
CIS 250 Introduction to Object Oriented Programming: C++	3 units
CIS 284 Introduction to Object Oriented Programming- Java	3 units
MATH 253 Analytic Geometry and Calculus III	5 units
MATH 270 Linear Algebra	3 units
MATH 275 Ordinary Differential Equations	3 units
PHYS 270 Physics with Calculus III	4 units

Total Required Major Units: 39 - 43

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

CA Engineering

Engineering is one of the largest professions in the United States with over one million jobs in fields ranging from airplane design to pollution control. The four largest branches are civil, computer, electrical and mechanical engineering. All engineering branches place a heavy emphasis on problem solving. Engineering education focuses on teaching mathematical, scientific and engineering principles and their application to the creative and effective solution of problems.



Career Opportunities

Engineering is one of the highest paid professions in the country. Engineering graduates work in a variety of job functions (research and development, testing, design, construction, manufacturing, sales, consulting, management) and a variety of industry sectors (aerospace, computers/electronics manufacturing, electrical/electronics manufacturing, electrical equipment manufacturing, metals, machinery, architectural, engineering and related services, chemical, drugs, plastics, biotechnology, computers and technical consulting, research and development, professional and technical services, utilities).

Program Learning Outcomes

Students completing this program will be able to:

1. Apply knowledge of math, science, and engineering to identify, formulate, and solve engineering problems.
2. Communicate effectively and work well in situations that require teamwork.
3. Design and perform tests or experiments, analyze and interpret data, and prepare a report summarizing the results of the tests or experiments.
4. Develop a design or system given a set of requirements and specifications.
5. Use techniques, skills, and modern engineering and computer tools necessary for engineering practice.

Major: Core and Selective Requirements

Complete Core Courses, 26-28 units		Units
CHEM 210	General Chemistry I	5 units
ENGL 100	Reading and Composition	3 units
OR		
ENGL 105	Reading and Composition with Support	5 units
MATH 251	Analytical Geometry and Calculus I	5 units
MATH 252	Analytical Geometry and Calculus II	5 units
PHYS 250	Physics with Calculus I	4 units
PHYS 260	Physics with Calculus II	4 units

Selectives: Complete 6-8 units from the following courses:

		Units
ENGR 100	Introduction to Engineering	3 units
ENGR 210	Engineering Graphics	4 units

ENGR 215	Computational Methods for Engineers and Scientists	3 units
ENGR 230	Statics	3 units
ENGR 240	Engineering Dynamics	3 units
ENGR 260	Circuits and Devices	3 units
ENGR 261	Circuits and Devices Laboratory	1 unit
ENGR 270	Materials Science	4 units

Total Required Units: 32 - 36

CA Math for Surveying and Computer-Aided Design

Engineering is one of the largest professions in the United States with over one million jobs in fields ranging from airplane design to pollution control. The four largest branches are civil, computer, electrical and mechanical engineering. All engineering branches place a heavy emphasis on problem solving. Engineering education focuses on teaching mathematical, scientific and engineering principles and their application to the creative and effective solution of problems.

Engineering is one of the highest paid professions in the country. Engineering graduates work in a variety of job functions (research and development, testing, design, construction, manufacturing, sales, consulting, management) and a variety of industry sectors (aerospace, computers/electronics manufacturing, electrical/electronics manufacturing, electrical equipment manufacturing, metals, machinery, architectural, engineering and related services, chemical, drugs, plastics, biotechnology, computers and technical consulting, research and development, professional and technical services, utilities).

Career Opportunities

The Certificate in Surveying and Computer-Aided Design (CAD) prepares students for an entry level position surveying land for construction projects, as well as preparing technical drawings, designs, diagrams and specifications for a wide variety of commercial, industrial, and government projects. Students learn the practice of using land surveying equipment and gain proficiency in using computers and computer software (AutoCAD and SolidWorks) to develop the basic skills needed to obtain a position as an engineering CAD technician, or other technical drafting positions. Upon completion of the certificate, students will be two semesters away from completing the lower-division coursework needed to transfer as a junior to a four-year engineering program.



Program Learning Outcomes

Students completing this program will be able to:

- 1. Apply knowledge of math, science, and engineering or computer science to identify, formulate, and solve engineering/computer science problems.
- 2. Communicate effectively and work well in situations that require teamwork.
- 3. Design and perform tests or experiments, analyze and interpret data, and prepare a report summarizing the results of the tests or experiments.
- 4. Develop a design or system given a set of requirements and specifications.
- 5. Use techniques, skills, and modern engineering and computer tools necessary for engineering or computer science practice

Major: Core and Selective Requirements

Complete Core Courses the following courses		Units
CHEM 210	General Chemistry I	5 units
ENGR 210	Engineering Graphics	4 units
MATH 251	Analytical Geometry and Calculus I	5 units
MATH 252	Analytical Geometry and Calculus II	5 units
PHYS 250	Physics with Calculus I	4 units

Total Required Units: 23

ENGLISH

AA Associate in Arts Degree Program	
English.....	60 units
AA-T Associate in Arts Degree for Transfer	
English.....	60 units

AA English

Students majoring in English choose from an assortment of courses in analytical and creative composition, literature of the United States and the world, and film studies. The degree prepares students for careers in journalism, editing, education, multimedia, communications, administration,

public service, advertising, broadcasting, and other fields requiring excellent critical thinking and communication skills.

Career Opportunities

A major in English prepares students for careers in journalism, editing, education, multimedia, communication, administration, public service, advertising, broadcasting, and other fields requiring excellent critical thinking, reading, and communication skills.

Program Learning Outcomes

Students completing this program will be able to:

- 1. Critically analyze written and oral arguments.
- 2. Conduct effective research.
- 3. Demonstrate civic consciousness.
- 4. Write and speak critically, thoughtfully, and persuasively in interdisciplinary contexts.

AA Degree Requirements
Major: Core and Selective Requirements

Complete Core Courses, 6 units		Units
ENGL 110	Composition, Literature, and Critical Thinking	3 units
ENGL 165	Advanced Composition	3 units

Selective Courses, choose 12 units from the following:

List A, choose 6 units from the following:		Units
LIT. 200	American Literature	3 units
LIT. 205	New Voices in World Literature	3 units
LIT. 231	Survey of English Literature I	3 units
LIT. 232	Survey of English Literature II	3 units

List B, choose 3 units from the following:		Units
Any courses from List A not used above.		3 units
ENGL 161	Creative Writing I	3 units
ENGL 162	Creative Writing II	3 units
LIT. 151	Introduction to Shakespeare I	3 units
LIT. 252	Women Writers: Multicultural Perspectives	3 units
LIT. 266	Black Literature	3 units
LIT. 371	Mexican-American Literature	3 units
LIT. 372	Myth and Folklore of La Raza	3 units
LIT. 373	Latin American Literature in Translation	3 units



LIT. 441	Survey of Film	3 units
LIT. 442	Film Study and Appreciation	3 units

List C, choose 3 units from the following: **Units**

Any course from lists A or B not used above		3 units
ENGL 200	Introduction to Linguistics: A Survey of Language	3 units
OR		
LING 200	Introduction to Linguistics: A Survey of Language	3 units
DRAM 140	Introduction to the Theatre	3 units
SPAN 162	Latino Literature II	3 units

Total Required Major Units: 18

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

AA-T English

Students majoring in English choose from an assortment of courses in analytical and creative composition, literature of the United States and the world, and film studies. Students are taught to examine texts from various perspectives in order to understand cultural contexts and experiences, become aware of biases, and appreciate diverse points of view.

Career Opportunities

A major in English prepares students for careers in journalism, editing, education, multimedia, communication, administration, public service, advertising, broadcasting, and other fields requiring excellent critical thinking, reading, and communication skills.

Program Learning Outcomes

Students completing this program will be able to:

1. Critically analyze written and oral arguments.
2. Conduct effective research.
3. Demonstrate civic consciousness.
4. Write and speak critically, thoughtfully, and persuasively in interdisciplinary contexts.

AA-T Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 6 units **Units**

ENGL 110	Composition, Literature, and Critical Thinking	3 units
ENGL 165	Advanced Composition	3 units

Selective Courses, choose 12 units from the following:

List A, choose 6 units from the following: **Units**

LIT. 200	American Literature	3 units
LIT. 205	New Voices in World Literature	3 units
LIT. 231	Survey of English Literature I	3 units
LIT. 232	Survey of English Literature II	3 units

List B, choose 3 units from the following: **Units**

Any course from List A not already used		3 units
ENGL 161	Creative Writing I	3 units
ENGL 162	Creative Writing II	3 units
LIT. 151	Introduction to Shakespeare I	3 units
LIT. 252	Women Writers: Multicultural Perspectives	3 units
LIT. 266	Black Literature	3 units
LIT. 371	Mexican-American Literature	3 units
LIT. 372	Myth and Folklore of La Raza	3 units
LIT. 373	Latin American Literature in Translation	3 units
LIT. 441	Survey of Film	3 units
LIT. 442	Film Study and Appreciation	3 units

List C, choose 3 units from the following: **Units**

Any course from List A or B not already used		3 units
ENGL 200	Introduction to Linguistics: A Survey of Language	3 units
OR		
LING 200	Introduction to Linguistics: A Survey of Language	3 units
DRAM 140	Introduction to the Theatre	3 units
SPAN 162	Latino Literature II	3 units

Total Required Major Units: 18

General Education - certified completion of one of the following:



- California State University General Education-Breadth pattern (CSU GE Breadth),
- **OR**
- Intersegmental General Education Transfer Curriculum (IGETC/CSU) pattern

Elective courses: If applicable, additional courses to meet the minimum 60 CSU transferable units requirement.

Please refer to Associate Degree for Transfer (ADT) Requirements for more information.

ENVIRONMENTAL SCIENCE AND TECHNOLOGY

AS Associate in Science Degree Program

Environmental Science.....60 units

AS-T Associate in Science Degree for Transfer

Environmental Science.....60 units

AS Environmental Science

The Environmental Science AS degree provides a strong and broad scientific foundation to prepare students for transfer into bachelor's degree programs in Environmental Science or Environmental Studies. This AS degree is more flexible and fewer units than the Environmental Science AS-T, and is tailored in part to our local CSU transfer partners. Students should work closely with an academic counselor (starting in their first semester) to ensure they are choosing the appropriate courses for their chosen transfer schools.

Career Opportunities

Students with a bachelor's degree in Environmental Science find employment in a wide variety of fields in both the public and private sector, including (but not limited to) environmental consulting, environmental education, urban and regional planning, recycling and waste management, hydrology, pollution control, natural resource management, park management, oceanography, meteorology, ecology, etc. The job growth in environmental fields is consistently greater than the national average.

Program Learning Outcomes

Students completing this program will be able to:

1. Use the Scientific Method and appreciate its role in the development of scientific thought.
2. Critically evaluate scientific information and examine its significance and impact on society and the environment.

3. Demonstrate an understanding of the interdisciplinary nature of environmental issues.
4. Document and communicate their work effectively

AS Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 21 units		Units
ENVS 115	Environmental Science	3 units
ENVS 101	Environmental Science Laboratory	1 unit
CHEM 210	General Chemistry I	5 units
BIOL 225	Biology Of Organisms	5 units
MATH 200	Elementary Probability and Statistics	4 units
GEOL 100	Introduction to Geology	3 units
OR		
GEOG 100	Physical Geography	3 units

Selective Courses, choose a minimum of 15 units from the following:

List A, complete at least 9 units from the following:		Units
BIOL 230	Cell and Molecular Biology	5 units
CHEM 220	General Chemistry II	5 units
ENVS 120	Global Climate Change	3 units
ENVS 695	Independent Study	0.5 - 3 units
GEOG 100 *	Physical Geography	3 units
GEOG 101	Physical Geography Lab	1 unit
GEOL 100 *	Introduction to Geology	3 units
GEOL 101	Geology Laboratory	1 unit
PHYS 210	General Physics I	4 units
PHYS 220	General Physics II	4 units
MATH 251	Analytical Geometry and Calculus I	5 units

List B, complete at least 6 units from the following:		Units
Any course(s) from List A not already used		
ECON 100	Principles of Macro Economics	3 units



ECON 102	Principles of Micro Economics	3 units
GEOG 110	Cultural Geography	3 units
GEOG 150	World Regional Geography	3 units
PHIL 240	Introduction to Ethics	3 units

* If not used as part of core

* if not used as part of core

Total Required Major Units: 36

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

AS-T Environmental Science

The Environmental Science degree provides students with a strong and broad scientific foundation to prepare students for transfer into Bachelor's degree programs in Environmental Science or Environmental Studies.

Career Opportunities

This transfer degree prepares students to complete Bachelor's degrees in Environmental Science. Students with Bachelor's degrees in Environmental Science can find employment in a wide variety of field in both the public and private sector, including (but not limited to) environmental consulting, environmental education, urban and regional planning, recycling and waste management, hydrology, ecology, etc.

Program Learning Outcomes

Students completing this program will be able to:

1. Use the Scientific Method and appreciate its role in the development of scientific thought
2. Critically evaluate scientific information and examine its significance and impact on society and the environment.
3. Demonstrate an understanding of the interdisciplinary nature of environmental issues
4. Document and communicate their work effectively.

AS-T Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 15 units		Units
BIOL 230	Cell and Molecular Biology	5 units
CHEM 210	General Chemistry I	5 units
CHEM 220	General Chemistry II	5 units

Selective Courses, choose 27 units from the following:

List A, 16 units:

Units

ENVS 115	Environmental Science	3 units
GEOL 100	Introduction to Geology	3 units
GEOL 101	Geology Laboratory	1 unit
MATH 200	Elementary Probability and Statistics	4 units
MATH 251	Analytical Geometry and Calculus I	5 units

List B, choose 11 units from the following:

Units

ECON 102	Principles of Micro Economics	3 units
PHYS 210	General Physics I	4 units
AND		
PHYS 220	General Physics II	4 units
OR		
PHYS 250	Physics with Calculus I	4 units
AND		
PHYS 260	Physics with Calculus II	4 units

Total Required Major Units: 42

General Education Requirements:*

Certified Completion of CSU-GE Breadth for STEM Pattern, **33 units**

OR

Certified Completion of IGETC for STEM Pattern, **31 units**

ETHNIC STUDIES

AA Associate in Arts Degree Program

Ethnic Studies.....60 units

AA Ethnic Studies

Ethnic studies is a multidisciplinary field focused on the analysis of socially-constructed categories such as race, ethnicity, gender, sexual identity, nationality and (non)citizenship. Using a range of materials, from literary and musical works to sociological studies and historical texts, we deeply examine the processes whereby social



categories of identity and difference are produced, resisted, inhabited, embraced, and transformed across historical time and geographic space. We trace the ways in which these racialized categories shape and are shaped by a variety of other complex issues, such as colonialism, military conflict, and the relations between capital and labor. Our classes interrogate systems of power and inequality, analyze the effects of social justice movements past and present, and delve into the ontology and phenomenology of the elusive notion of liberation. By familiarizing students with a range of methodological tools for the study of social life, while prioritizing the voices and perspectives of marginalized individuals and minoritized communities, we open up an intellectual space within which the term "ethnic" in "ethnic studies" is both critically deconstructed and strategically affirmed.

Career Opportunities

Students who transfer and complete a Bachelor’s degree in Ethnic Studies can pursue careers in the arts, business, city planning, creative writing, education at all levels, international relations, journalism, law, medicine, politics, psychology, public health, research, and social work. In addition, Ethnic Studies courses allow public school teachers the opportunity to meet California State requirements in ethnic education.

Program Learning Outcomes

Students completing this program will be able to:

- 1. Describe the historical development and contributions of various ethnic groups to the United States and to California in particular.
- 2. Analyze the role in the political process played by various ethnic groups in the United States and in California particularly.
- 3. Discuss public policies involving various ethnic groups in the United States and in California particularly.
- 4. Analyze concepts such as race and racism, racialization, ethnicity, discrimination, neo-colonialism, patriarchy and transnationalism.

AA Degree Requirements
Major: Core and Selective Requirements

Complete Core requirements, 6 units:		Units
ETHN 108	Rethinking Race, Gender, and Nation	3 units
ETHN 109	Borders and Crossings	3 units

Selective Courses, choose a minimum of 12 units from the following:		Units
ETHN 103	Asian American Studies	3 units

ETHN 105	African American History and Culture	3 units
ETHN 107	Introduction to Native American Studies	3 units
ETHN 130	Introduction to Latinx Studies	3 units
ETHN 265	Evolution of Hip Hop Culture: A Socio-Economic and Political Perspective	3 units
ETHN 288	African-American Cinema	3 units

Total Required Major Units: 18
And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

FASHION DESIGN AND MERCHANDISING

AS Associate in Science Degree Program

Custom Dressmaking/Small Business Oriented.....	60 units
Fashion Design Merchandising.....	60 units
Technical (Apparel Industry Oriented).....	60 units
Theater Costuming.....	60 units

CA Certificate of Achievement

Custom Dressmaking/Small Business Oriented.....	34 units
Fashion Design Merchandising.....	18 units
Technical (Apparel Industry Oriented).....	33 units
Theater Costuming.....	28 units

AS Custom Dressmaking/Small Business Oriented

The fashion department gives students a thorough introduction to apparel design and manufacturing. Students are prepared to find employment in an apparel design firm or to start their own business. They will develop essential skills and techniques in sketching, fabric selection, sewing, draping, and pattern making. Business skills are learned through an entrepreneurship course, and students learn to write a business plan. The fashion industry is vast and diverse with many creative, rewarding opportunities in ready-to-wear or high fashion design. An AS degree and certificate program are offered.



Program Learning Outcomes

Students completing this program will be able to:

1. Communicate design concepts clearly and concisely (i.e. visual, oral, and written)
2. Develop competitive industry standard skills in the respective fields.
3. Understand the elements and principles of design through discipline-specific implementation.

AS Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 31 units		Units
BUS. 150	Entrepreneurship: Small Business Management	3 units
FASH 100	Principles of Design	3 units
FASH 111	Techniques of Fit	3 units
FASH 113	Textiles	3 units
FASH 115	Intermediate Clothing Construction	3 units
FASH 116	Tailoring	3 units
FASH 118	Flat Pattern	3 units
FASH 123	Introduction to the Fashion Industry	3 units
FASH 162	Advanced Flat Pattern	3 units
FASH 168	Fashion Draping	3 units
FASH 195	Portfolio Development	1 unit

Selective Courses, choose a minimum of 3 units from the following:		Units
FASH 114	Introduction to Italian Fashion	3 units
FASH 122	Advanced Tailoring	3 units
FASH 132	Trouser Construction	1 unit
FASH 133	Copying Ready-to-Wear	1 unit
FASH 140	Basic Serging	1 unit
FASH 146	Designer Techniques in Sewing	3 units
FASH 150	History of Fashion	3 units
FASH 164	Fashion Illustration	3 units
FASH 167	The Custom Dress Form	1 unit
FASH 169	Evening Gown Construction	2 units
FASH 170	French Pattern Drafting	2 units
FASH 171	Pants Drafting	2 units
FASH 172	Bustier	1 unit

FASH 672	Work Experience Education: Internship	3 units
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Total Required Major Units: 34

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

AS Fashion Design Merchandising

Fashion merchandising requires the combination of the creative and business skill sets. Strategy and marketing know how are essential for the skilled professional. Fashion merchandising requires good analytical, communication, and visual skill sets. As the global retail sector diversifies and multiple channels including web and store based operations grow, there is a growing need for merchandisers.

Career Opportunities

A sampling of career opportunities within the retail sector include Visual Merchandise Manager, Visual Display Manager, Promotions Manager, Sales Manager, Account Specialist, Buyer, Merchandise Manager, Public Relations Manager, Sales Associate, Sales Representative, Account Manager, & Point of Purchase Representative.

Program Learning Outcomes

Students completing this program will be able to:

1. Communicate design concepts clearly and concisely (i.e. visual, oral, and written).
2. Develop competitive industry standard skills in the respective fields.
3. Understand the elements and principles of design through discipline-specific implementation.

AS Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 18 units		Units
FASH 100	Principles of Design	3 units
FASH 113	Textiles	3 units
FASH 123	Introduction to the Fashion Industry	3 units
FASH 151	Fashion Merchandising	3 units
FASH 225	Apparel Analysis	3 units
FASH 226	Visual Merchandising and Display	3 units

Total Required Major Units: 18



And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

AS Technical (Apparel Industry Oriented)

The fashion department gives students a thorough introduction to apparel design and manufacturing. Students are prepared to find employment in an apparel design firm or to start their own business. They will develop essential skills and techniques in sketching, fabric selection, sewing, draping, and pattern making. The fashion industry is vast and diverse with many creative, rewarding opportunities in ready-to-wear or high fashion design. An AS degree and certificate program are offered.

Program Learning Outcomes

Students completing this program will be able to:

1. Communicate design concepts clearly and concisely (i.e. visual, oral, and written).
2. Develop competitive industry standard skills in the respective fields.
3. Understand the elements and principles of design through discipline-specific implementation.

AS Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 27 units		Units
FASH 100	Principles of Design	3 units
FASH 113	Textiles	3 units
FASH 115	Intermediate Clothing Construction	3 units
FASH 118	Flat Pattern	3 units
FASH 123	Introduction to the Fashion Industry	3 units
FASH 163	Pattern Grading	1 unit
FASH 164	Fashion Illustration	3 units
FASH 175	Advanced Illustration	3 units
FASH 178	Computerized Pattern Grading	1 unit
FASH 180	Computerized Pattern Design	3 units
FASH 195	Portfolio Development	1 unit

Selective Courses, choose a minimum of 6 units from the following:

		Units
BUS. 150	Entrepreneurship: Small Business Management	3 units
FASH 110	Beginning Clothing Construction	3 units
FASH 111	Techniques of Fit	3 units
FASH 114	Introduction to Italian Fashion	3 units
FASH 140	Basic Serging	1 unit
FASH 150	History of Fashion	3 units
FASH 173	Lingerie Design and Construction	1 unit
FASH 672	Work Experience Education: Internship	3 units

Total Required Major Units: 33

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

AS Theater Costuming

The Theater Costuming Program provides students with an introduction to the costuming industry, including the many types of jobs available in this field, from designing to costume construction and show production. Students learn historic and theatrical styles, pattern making skills, tailoring and construction skills as well as design and illustration techniques to prepare them for a job in costuming. Students have the opportunity to work on actual productions through class work or internships.

Career Opportunities

The theater provides many interesting part-time, free-lance and full-time jobs in costuming, including design, patternmaking, construction, dressing a production, managing a costume shop and costume rentals. Graduates of this program will be prepared to begin a career as costume technicians in any number of areas, as well as to continue their education in costume design at a four-year university.

Program Learning Outcomes

Students completing this program will be able to:

1. Communicate design concepts clearly and concisely (i.e. visual, oral, and written).
2. Develop competitive industry standard skills in the respective fields.
3. Understand the elements and principles of design through discipline-specific implementation.



AS Degree Requirements**Major: Core and Selective Requirements**

Complete Core Courses, 22 units		Units
FASH 113	Textiles	3 units
FASH 116	Tailoring	3 units
FASH 150	History of Fashion	3 units
FASH 162	Advanced Flat Pattern	3 units
FASH 164	Fashion Illustration	3 units
FASH 168	Fashion Draping	3 units
FASH 196	Introduction to the Costume Industry	1 unit
FASH 197	Pattern Design for Historic Costume	3 units

Selective Courses, choose a minimum of 6 units from the following:

List A, complete 3 units from the following:		Units
FASH 199	Costuming for Theatrical Production	3 units
FASH 672	Work Experience Education: Internship	3 units

List B, complete 3 units from the following:		Units
FASH 140	Basic Serging	1 unit
FASH 169	Evening Gown Construction	2 units
FASH 170	French Pattern Drafting	2 units
FASH 171	Pants Drafting	2 units
FASH 172	Bustier	1 unit

Total Required Major Units: 28

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

CA Custom Dressmaking/Small Business Oriented

The fashion design department gives students a thorough introduction to apparel design and manufacturing. Students are prepared to find employment in an apparel design firm or to start their own business. They will develop essential skills and techniques in sketching, fabric selection, sewing, draping, and pattern making. Business skills are learned

through an entrepreneurship course, and students learn to write a business plan. The fashion industry is vast and diverse with many creative, rewarding opportunities in ready-to-wear or high fashion design. An AS degree and certificate program are offered.

Program Learning Outcomes

Students completing this program will be able to:

1. Communicate design concepts clearly and concisely (i.e. visual, oral, and written).
2. Develop competitive industry standard skills in the respective fields.
3. Understand the elements and principles of design through discipline-specific implementation.

Major: Core and Selective Requirements

Complete Core Courses, 31 units		Units
BUS. 150	Entrepreneurship: Small Business Management	3 units
FASH 100	Principles of Design	3 units
FASH 111	Techniques of Fit	3 units
FASH 113	Textiles	3 units
FASH 115	Intermediate Clothing Construction	3 units
FASH 116	Tailoring	3 units
FASH 118	Flat Pattern	3 units
FASH 123	Introduction to the Fashion Industry	3 units
FASH 162	Advanced Flat Pattern	3 units
FASH 168	Fashion Draping	3 units
FASH 195	Portfolio Development	1 unit

Selective Courses, choose a minimum of 3 units from the following:

		Units
FASH 114	Introduction to Italian Fashion	3 units
FASH 122	Advanced Tailoring	3 units
FASH 132	Trouser Construction	1 unit
FASH 133	Copying Ready-to-Wear	1 unit
FASH 140	Basic Serging	1 unit
FASH 146	Designer Techniques in Sewing	3 units
FASH 150	History of Fashion	3 units
FASH 164	Fashion Illustration	3 units
FASH 167	The Custom Dress Form	1 unit
FASH 169	Evening Gown Construction	2 units



FASH 170	French Pattern Drafting	2 units
FASH 171	Pants Drafting	2 units
FASH 172	Bustier	1 unit
FASH 672	Work Experience Education: Internship	3 units

Total Required Units: 34

CA Fashion Design Merchandising

Fashion merchandising requires the combination of the creative and business skill sets. Strategy and marketing know how are essential for the skilled professional. Fashion merchandising requires good analytical, communication, and visual skill sets. As the global retail sector diversifies and multiple channels including web and store based operations grow, there is a growing need for merchandisers.

Career Opportunities

Career opportunities within the retail sector include: Visual Merchandise Manager, Visual Display Manager, Promotions Manager, Sales Manager, Account Specialist, Buyer, Merchandise Manager, Public Relations Manager, Sales Associate, Sales Representative, Account Manager, Point of Purchase Representative.

Program Learning Outcomes

Students completing this program will be able to:

1. Communicate design concepts clearly and concisely (i.e. visual, oral, and written).
2. Develop competitive industry standard skills in the respective fields.
3. Understand the elements and principles of design through discipline-specific implementation.

Major: Core and Selective Requirements

Complete Core Courses, 18 units		Units
FASH 100	Principles of Design	3 units
FASH 113	Textiles	3 units
FASH 123	Introduction to the Fashion Industry	3 units
FASH 151	Fashion Merchandising	3 units
FASH 225	Apparel Analysis	3 units
FASH 226	Visual Merchandising and Display	3 units

Total Required Units: 18

CA Technical (Apparel Industry Oriented)

The fashion department gives students a thorough introduction to apparel design and manufacturing. Students are prepared to find employment in an apparel design firm or to start their own business. They will develop essential skills and techniques in sketching, fabric selection, sewing, draping, and pattern making. The fashion industry is vast and diverse with many creative, rewarding opportunities in ready-to-wear or high fashion design. An AS degree and certificate program are offered.

Program Learning Outcomes

Students completing this program will be able to:

1. Communicate design concepts clearly and concisely (i.e. visual, oral, and written).
2. Develop competitive industry standard skills in the respective fields.
3. Understand the elements and principles of design through discipline-specific implementation.

Major: Core and Selective Requirements

Complete Core Courses, 27 units		Units
FASH 100	Principles of Design	3 units
FASH 113	Textiles	3 units
FASH 115	Intermediate Clothing Construction	3 units
FASH 118	Flat Pattern	3 units
FASH 123	Introduction to the Fashion Industry	3 units
FASH 163	Pattern Grading	1 unit
FASH 164	Fashion Illustration	3 units
FASH 175	Advanced Illustration	3 units
FASH 178	Computerized Pattern Grading	1 unit
FASH 180	Computerized Pattern Design	3 units
FASH 195	Portfolio Development	1 unit

Selective Courses, choose a minimum of 6 units from the following:

		Units
BUS. 150	Entrepreneurship: Small Business Management	3 units
FASH 110	Beginning Clothing Construction	3 units
FASH 111	Techniques of Fit	3 units
FASH 114	Introduction to Italian Fashion	3 units



FASH 140	Basic Serging	1 unit
FASH 150	History of Fashion	3 units
FASH 173	Lingerie Design and Construction	1 unit
FASH 672	Work Experience Education: Internship	3 units

Total Required Units: 33

CA Theater Costuming

The Theater Costuming Program provides students with an introduction to the costuming industry, including the many types of jobs available in this field, from designing to costume construction and show production. Students learn historic and theatrical styles, pattern making skills, tailoring and construction skills as well as design and illustration techniques to prepare them for a job in costuming. Students have the opportunity to work on actual productions through class work or internships.

Career Opportunities

The theater provides many interesting part-time, free-lance and fulltime jobs in costuming, including design, patternmaking, construction, dressing a production, managing a costume shop and costume rentals. Graduates of this program will be prepared to begin a career as costume technicians in any number of areas, as well as to continue their education in costume design at a four-year university.

Program Learning Outcomes

Students completing this program will be able to:

1. Communicate design concepts clearly and concisely (i.e. visual, oral, and written).
2. Develop competitive industry standard skills in the respective fields.
3. Understand the elements and principles of design through discipline-specific implementation.

Major: Core and Selective Requirements

Complete Core Courses, 22 units		Units
FASH 113	Textiles	3 units
FASH 116	Tailoring	3 units
FASH 150	History of Fashion	3 units
FASH 162	Advanced Flat Pattern	3 units
FASH 164	Fashion Illustration	3 units
FASH 168	Fashion Draping	3 units

FASH 196	Introduction to the Costume Industry	1 unit
FASH 197	Pattern Design for Historic Costume	3 units

Selective Courses, choose a minimum of 6 units from the following:

List A, complete 3 units from the following: Units

FASH 199	Costuming for Theatrical Production	3 units
FASH 672	Work Experience Education: Internship	3 units

List B, complete 3 units from the following: Units

FASH 140	Basic Serging	1 unit
FASH 169	Evening Gown Construction	2 units
FASH 170	French Pattern Drafting	2 units
FASH 171	Pants Drafting	2 units
FASH 172	Bustier	1 unit

Total Required Units: 28

FUNERAL SERVICES EDUCATION

AS Associate in Science Degree Program

Funeral Service Education..... 60 units

CS Certificate of Specialization: Not Transcript Reported

Funeral Service Arranger Certificate.....9 units

Funeral Service Attendant Certificate.....8 units

AS Funeral Service Education

The Funeral Service Education degree prepares students for entry-level positions in funeral service. The student is exposed to theory-based and clinical experiences reflective of the current industry standards. It is designed to meet the prerequisites for licensure and employment in the field of funeral service as funeral directors or embalmers.



Information workshops are held in April and August for prospective students. For more information, please call the Science and Technology Division office at (650)306-3291.

Career Opportunities

Graduates of the Funeral Service Education program are able to seek careers in the following fields: Funeral Service Managers, Embalmers, Funeral Attendant, Mortician, Undertaker, Funeral Director.

Program Learning Outcomes

Students completing this program will be able to:

1. Explain the importance of funeral service professionals in developing relationships with the families and communities they serve.
2. Identify standards of ethical conduct in funeral service practice.
3. Interpret how federal, state, and local laws apply to funeral service in order to ensure compliance.
4. Apply principles of public health and safety in the handling and preparation of human remains.
5. Demonstrate technical skills in embalming and restorative art that are necessary for the preparation and handling of human remains.
6. Demonstrate skills required for conducting arrangement conferences, visitations, services, and ceremonies.
7. Describe the requirements and procedures for burial, cremation, and other accepted forms of final disposition of human remains.
8. Describe methods to address the grief-related needs of the bereaved.
9. Explain management skills associated with operating a funeral establishment.
10. Demonstrate verbal and written communication skills and research skills needed for funeral service practice.

AS Degree Requirements

Major: Core Requirements

Note: Students may take BIOL 101 at SKY or BIOL 110 (CAN) or BIOL 100(CAN) or BIOL 130(CAN).

Complete Core Courses:		Units
BIOL 110	Principles Of Biology	4 units
OR		
BIOL 100	Introduction to the Life Sciences	3 units
OR		
BIOL 130	Human Biology	3 units
BIOL 250	Human Anatomy	4 units

FSE. 210	Funeral Directing I	3 units
FSE. 200	Introduction to Funeral Service	2 units
FSE. 212	Funeral Service Science	5 units
FSE. 215	Funeral Directing II	3 units
FSE. 220	Funeral Service Law and Ethics	3 units
FSE. 225	Psychology of Death and Dying	3 units
FSE. 230	Merchandising in the Funeral Service Industry	3 units
FSE. 235	Funeral Service Management	3 units
FSE. 250	Restorative Art	5 units
FSE. 260	Embalming I	4 units
FSE. 265	Embalming II	2 units
FSE. 270	Funeral Service Counseling	3 units
FSE. 280	Funeral Service Education Practicum	5 units

A grade of "C" or better is required for progression through the program.

Graduates of the program will be permitted to take the Embalmer Examination offered by the Cemetery and Funeral Bureau of California.

The Funeral Service Education Program at Cañada College aims to be accredited by the American Board of Funeral Service Education (ABFSE) 992 Mantua Pike, Suite 108, Woodbury Heights, NJ 08097 (816) 233-3747. Web: www.abfse.org.

For Institutions or programs that achieve initial accreditation, the effective date of that accreditation is the date initial candidacy was awarded by the Committee on Accreditation (COA). Students who complete all coursework after the date candidacy is awarded, but before initial accreditation is achieved, will be permitted, after initial accreditation is awarded, to take the National Board Examination (NBE) and with all requirements completed, be considered graduates from an ABFSE accredited program.

CAUTION: *This program is pursuing accreditation but is NOT accredited by the American Board of Funeral Service Education (ABFSE). Until accreditation is achieved, students graduating from this program are NOT eligible to take any licensing examination that requires graduation from an ABFSE accredited program, including the National Board Examination.*

For more information, please go to BLDG - 23-137C or email at hooperg@smccd.edu or by phone at 650-381-2218.

Total Required Major Units: 51 - 52



And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

CS Funeral Service Arranger Certificate

The Funeral Service Arranger Certificate program provides a comprehensive examination of communication skills, emphasizing the multifaceted role of the funeral director as a facilitator, counselor, and caregiver. It encompasses a range of vital topics, including the application of specific communication and counseling techniques within the context of funeral service practice, the understanding of both normal and abnormal grief reactions, addressing issues related to children and death, crisis intervention counseling, and strategies for managing stress and preventing burnout.

In addition to the communication and counseling components, this program introduces students to the intricate legal landscape underpinning the funeral industry. It covers an array of essential topics, such as the sources of law, the legal status of a deceased human body, responsibilities concerning burial, rights pertaining to funeral arrangements and final disposition, liability associated with funeral expenses, considerations regarding torts involving the deceased and funeral directors, as well as discussions on wills, estates, probate, cemeteries, crematories, and state and federal laws and regulations. An emphasis is also placed on the exploration of personal and professional ethics that guide decision-making and actions related to the dignified treatment of the deceased.

Furthermore, the Funeral Service Arranger Certificate program delves into the realm of merchandising within the context of the funeral service profession. It covers the construction and features of caskets, outer burial containers, and other funeral-related products, and offers a comprehensive examination of pricing strategies, display techniques, presentation methods, and the effective management of funeral merchandise.

Career Opportunities

Funeral Service Attendant, Removal Technician, Cemetery Counselor, Funeral Service Arranger, Funeral Director, Funeral Service Supervisor, Funeral Service Manager, and Cemetery Manager.

Program Learning Outcomes

Students completing this program will be able to:

1. Analyze and apply statutory laws and judicial decisions relevant to the funeral service profession. Comprehend the principles of torts, criminal law, and contract law as they pertain to the field of

funeral service. Analyze and understand pertinent facts, issues, laws, and legal reasoning in the context of funeral service practices. Exhibit ethical, moral, and legal behavior in all aspects concerning the disposition of human remains. Understand the role of a counselor within the funeral home setting. Develop a comprehensive funeral service merchandising plan, encompassing merchandise selection and pricing strategies. Describe the features and components of funeral merchandise to client families.

Complete the following Courses:

Units

FSE. 220	Funeral Service Law and Ethics	3 units
FSE. 230	Merchandising in the Funeral Service Industry	3 units
FSE. 270	Funeral Service Counseling	3 units

Total Required Units: 9

CS Funeral Service Attendant Certificate

The Funeral Service Attendant Certificate program serves as an foundational exploration of both theoretical and practical knowledge essential for eventual professional licensure within the funeral service industry. This program is designed to assist individuals in assessing their level of interest in the field and in gauging their suitability for further, formal vocational training in funeral service education. Successful completion of this program will equip students with the foundational competencies necessary for securing an entry-level position as a Funeral Service Assistant. The curriculum encompasses a structured series of courses meticulously crafted to impart the requisite knowledge and skills enabling students to proficiently fulfill the responsibilities inherent to the role of a funeral service attendant.

Career Opportunities

Office Administrator, Groundskeeper, Pre-need Sales Representative, Funeral Service Attendant, Removal Technician

Program Learning Outcomes

Students completing this program will be able to:

1. Understand the historical evolution of modern funeral practices and their connection to the preparation of human remains Expand knowledge of contemporary and emerging methods of disposition within the funeral service industry.



Explain various types of funeral and memorial ceremonies, including their significance and variations. Discuss the dynamics of interactions between funeral directors and grieving families during the immediate aftermath of a death. Apply effective verbal and non-verbal communication techniques to support client-families in navigating the grieving process during funeral services

Complete the following Courses:		Units
FSE. 200	Introduction to Funeral Service	2 units
FSE. 210	Funeral Directing I	3 units
FSE. 225	Psychology of Death and Dying	3 units

Total Required Units: 8

GENERAL STUDIES

CA Certificate of Achievement

Pathways to Student Success.....	16 units
Preparation for Academic Scholarship and Success (PASS).....	12 units

CA Pathways to Student Success

The Pathways to Student Success certificate of achievement acknowledges students' completion of the first level of college work in English, reading, math, and other academic and technology courses. Students receiving this certificate will be able to use the reading, writing, computation and study skills necessary to succeed in transfer level courses and will develop a Student Educational Plan by identifying and assessing educational opportunities at Cañada College. The certificate indicates to employers that the students have the communication and critical thinking skills to compete in today's workforce. Earning this certificate of achievement also encourages students to persist and earn other certificates and/or associate degrees.

Program Learning Outcomes

Students completing this program will be able to:

- 1. Use the reading, writing, and computation skills necessary to succeed in transfer level courses.
- 2. Successfully prepare written and oral communication that illustrates critical thinking and creation of inquiry-or research based texts, and information literacy.

- 3. Use mathematical reasoning and a generalized problem solving process to solve real-world problems.

Major: Core and Selective Requirements

Complete Core Courses, minimum of 3 units		Units
ENGL 100	Reading and Composition	3 units
OR		
ENGL 105	Reading and Composition with Support	5 units

Selective courses, choose a minimum of 13 units from the following:

Area A: Complete 3 units from the following courses:		Units
COMM 110	Public Speaking	3 units
COMM 127	Argumentation and Debate	3 units
COMM 130	Interpersonal Communication	3 units
COMM 140	Small Group Communication	3 units

Area B: Complete a minimum of 3 units from the following courses:		Units
BUS. 113	Personal Finance	3 units
MATH 145	Liberal Arts Mathematics	3 units
MATH 200	Elementary Probability and Statistics	4 units

Area C: Complete a minimum of 7 units from the following courses:		Units
BUS. 401	Business Communications	3 units
CBOT 432	Introduction to Computer Applications	3 units
CRER 110	Honors Colloquium in Career and Personal Development: Transfer Essentials and Planning	1 unit
CRER 137	Life and Career Planning	3 units
CRER 401	College Success	1 unit
CRER 430	Career Assessment	0.5 units



LIBR 100	Introduction to Information Research	1 unit
CRER 127	Career Choices II: Job Search	0.5 units

Total Required Units: 16

CA Preparation for Academic Scholarship and Success (PASS)

The Preparation for Academic Scholarship and Success (PASS) language certificate is a multi-skill, academic English language certificate. Upon completion, students are able to read, write, speak, and understand English in college-level academic contexts. Students who earn the Preparation for Scholarship and Success (PASS) language certificate are prepared to take college courses for transfer, certificates, and degrees in both academic and vocational areas. Additionally, this certificate officially recognizes the acquisition of the English language necessary to succeed in college-level courses and compete successfully in the labor market.

Career Opportunities

The Preparation for Academic Scholarship and Success (PASS) language certificate assists community employers in determining the level of English language qualifications and basic computer skills of potential employees.

Program Learning Outcomes

Students completing this program will be able to:

1. Produce and interpret oral and written English at an advanced level in order to successfully enter academic or career pathways.
2. Use academic and study skills to succeed at the transfer level.
3. Use technology and information competency skills to succeed at the transfer level.
4. Develop specific academic and career goals by creating a Student Educational Plan (SEP) and/or identifying and assessing educational opportunities at Cañada College.

Major: Core and Selective Requirements

Complete Core Courses, minimum of 8 units

	Units
ENGL 100 Reading and Composition	3 units
OR	
ENGL 105 Reading and Composition with Support	5 units

ESL 400	Composition for Multilingual Students	5 units
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Selective Courses, choose a minimum of 4 units from the following (units must be completed from more than one subject):

	Units
CBOT 432 Introduction to Computer Applications	3 units
CBOT 435 Spreadsheets	3 units
CBOT 448 Using Microsoft Windows	1.5 units
CBOT 457 Using PowerPoint in Business	2 units
CBOT 470 Advanced Spreadsheets	1.5 units
CBOT 472 Beginning Word Processing	1.5 units
CBOT 474 Intermediate Word Processing	1.5 units
CBOT 475 Using Outlook	1.5 units
CBOT 476 Adobe Acrobat	1.5 units
CRER 110 Honors Colloquium in Career and Personal Development: Transfer Essentials and Planning	1 unit
CRER 137 Life and Career Planning	3 units
CRER 300 Introduction to Scholarships	1.5 units
CRER 401 College Success	1 unit
IDST 150 Honors Research Seminar	1 unit
LIBR 100 Introduction to Information Research	1 unit

Total Required Units: 12

GEOGRAPHY

AA Associate in Arts Degree Program

Geography..... 60 units

AA-T Associate in Arts Degree for Transfer

Geography..... 60 units

AA Geography

Geography provides insights about the earth as the human habitat. It is a way of looking at the earth, not an inventory of its contents. This viewpoint rests on fundamental



interlocking concepts. The cultural appraisal of the earth, the regional concept, aerial coherence, human ecology, spatial interaction, study of landscape, and the concept of change are all ways the geographer tries to better understand the environment.

Career Opportunities

Study of geography prepares students for careers in location expertise, route delivery management, forestry, park ranger, teacher, community developer, outdoor guide, and soil conservationist, among others.

Program Learning Outcomes

Students completing this program will be able to:

- 1. Use the scientific method and appreciate its importance to the development of scientific thought.
- 2. Demonstrate critical thinking and analyze physical systems in terms of scientific concepts.
- 3. Document and communicate their work effectively.

AA Degree Requirements
Major: Core and Selective Requirements

Complete Core Courses, 10 units		Units
GEOG 100	Physical Geography	3 units
GEOG 110	Cultural Geography	3 units
MATH 200	Elementary Probability and Statistics	4 units

Selective Courses, choose a minimum of 8 units from the following:		Units
ANTH 110	Cultural Anthropology	3 units
CIS 118	Introduction to Computer Science	4 units
OR		
CIS 122	Introduction to Programming: Python	3 units
ECON 100	Principles of Macro Economics	3 units
ENGL 110	Composition, Literature, and Critical Thinking	3 units
GEOG 101	Physical Geography Lab	1 unit
MATH 225	Path to Calculus	6 units

Total Required Major Units: 18
And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

AA-T Geography

Geography provides insights about the earth as the human habitat. It is a way of looking at the earth, not an inventory of its contents. This viewpoint rests on fundamental interlocking concepts. The cultural appraisal of the earth, the regional concept, areal coherence, human ecology, spatial interaction, study of landscape, and the concept of change are all ways the geographer tries to better understand the environment.

Geographers are curious about what they see around them. They study the processes that shape the landscape, including those that build up the Earth's surface (earthquakes and volcanoes) and those that wear it down (weather, water, ice, wind, and waves). In addition to the physical landscape, geographers study the cultural landscape. They study populations, their cultural origins, and the spread of cultural features (language, religion, technology, etc). Interestingly, geographers are also interested in how the physical and cultural landscapes interact, how humans alter the environment and how the physical environment affects populations and cultures.

Career Opportunities

The broad, interdisciplinary field of Geography prepares students for a wide variety of careers related to spatial analysis, including career in urban planning, community development, emergency management, environmental studies, marketing, transportation management, map-making, real estate appraisal, demography, foreign service, library/information science, park interpretation, and teaching. Expertise with Geographic Information System (GIS) will further enhance employability in any of these fields. Additionally, analytical and research skills gained through a Geography major provide a strong foundation for graduate study in law, urban planning, or architecture.

Program Learning Outcomes

Students completing this program will be able to:

- 1. Analyze social science concepts and theories
- 2. Evaluate diverse viewpoints related to the human population.
- 3. Produce evidence-based arguments.

AA-T Degree Requirements
Major: Core and Selective Requirements

Required Core Courses (6 units)		Units
GEOG 100	Physical Geography	3 units
GEOG 110	Cultural Geography	3 units



Selective Courses, choose a minimum of 12 units from the following:

List A: (6 units)

Units

GEOG 150	World Regional Geography	3 units
METE 100	Meteorology - Weather and Climate	3 units

List B: (6 units)

Units

ANTH 110	Cultural Anthropology	3 units
GEOL 100	Introduction to Geology	3 units

Total Required Major Units: 18

General Education - certified completion of one of the following:

- California State University General Education-Breadth pattern (CSU GE Breadth),
- **OR**
- Intersegmental General Education Transfer Curriculum (IGETC/CSU) pattern

Elective courses: If applicable, additional courses to meet the minimum 60 CSU transferable units requirement.

Please refer to Associate Degree for Transfer (ADT) Requirements for more information.

HISTORY

AA Associate in Arts Degree Program

History.....60 units

AA-T Associate in Arts Degree for Transfer

History.....60 units

AA History

History is the study of change and continuity over time. It is a broad and dynamic social sciences discipline that involves examination, interpretation, and analysis of the actions, institutions, societies, and cultures of diverse groups across various times and places. By examining cause and effect, History helps us explain how societies in the past and present came to be and gives us insight into what may happen in the future.

The History program at Cañada offers students a unique opportunity to acquire critical and historical thinking skills while also developing a broad background in both U.S. history and the history of different regions and peoples of the world.

Career Opportunities

History program graduates will find themselves with a strong foundation for further study and careers as teachers, documentarians, journalists, lawyers, non-profit leaders, political activists, politicians, professors, archivists, museum curators, civil servants, cultural and historical resource managers, diplomats, publishers, researchers, writers and more.

Program Learning Outcomes

Students completing this program will be able to:

1. Analyze social science concepts and theories.
2. Evaluate diverse viewpoints related to the human experience.
3. Produce evidence-based arguments.

AA Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 6 units

Units

HIST 201	U.S. History through 1877	3 units
HIST 202	U.S. History from 1877 to the Present	3 units

Selective Courses, choose a minimum of 12 units from the following:

List A, complete 6 units from the following courses:

Units

HIST 100	History of Western Civilization I	3 units
OR		
HIST 104	World History I	3 units
HIST 101	History of Western Civilization II	3 units
OR		
HIST 106	World History II	3 units

List B, complete 6 units from the following courses:

Units

Select any courses from List A not already used		3 - 6 units
HIST 245	Race, Ethnicity and Immigration in the U.S.	3 units
HIST 246	History of Latinos in the U.S.	3 units
HIST 247	Women in U.S. History	3 units



HIST 422	Modern Latin America	3 units
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Total Required Major Units: 18

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

AA-T History

History is the study of change and continuity over time. It is a broad and dynamic social sciences discipline that involves examination, interpretation, and analysis of the actions, institutions, societies, and cultures of diverse groups across various times and places. By examining cause and effect, History helps us explain how societies in the past and present came to be and gives us insight into what may happen in the future.

The History program at Cañada offers students a unique opportunity to acquire critical and historical thinking skills while also developing a broad background in both U.S. history and the history of different regions and peoples of the world.

Career Opportunities

History program graduates will find themselves with a strong foundation for further study and careers as teachers, documentarians, journalists, lawyers, non-profit leaders, political activists, politicians, professors, archivists, museum curators, civil servants, cultural and historical resource managers, diplomats, publishers, researchers, writers and more.

Program Learning Outcomes

Students completing this program will be able to:

- 1. Analyze social science concepts and theories.
- 2. Evaluate diverse viewpoints related to the human experience.
- 3. Produce evidence-based arguments.

AA-T Degree Requirements
Major: Core and Selective Requirements

Complete Core courses, 6 units		Units
HIST 201	U.S. History through 1877	3 units
HIST 202	U.S. History from 1877 to the Present	3 units

Selective Courses, choose a minimum of 12 units from the following:

List A, select 2 courses, 6 units:		Units
HIST 100	History of Western Civilization I	3 units
OR		
HIST 104	World History I	3 units
AND		
HIST 101	History of Western Civilization II	3 units
OR		
HIST 106	World History II	3 units

List B, Area 1, select 1 course, 3 units: (HIST 104 or 106 can be used to satisfy this area if not used in list A)		Units
HIST 104 **	World History I	3 units
HIST 106 **	World History II	3 units
HIST 245	Race, Ethnicity and Immigration in the U.S.	3 units
HIST 246	History of Latinos in the U.S.	3 units
HIST 247	Women in U.S. History	3 units
HIST 422	Modern Latin America	3 units

List B, Area 2, select 1 course, 3 units:		Units
Any course from List A or B Area 1 not already used.		3 units
ANTH 110	Cultural Anthropology	3 units
ART 101	Ancient, Classical and Medieval Art History	3 units
ART 102	Late Medieval, Renaissance and Baroque Art History	3 units
ART 103	History of Art from the Baroque Period to Post-Impressionism	3 units
ART 104	History of Modern Art	3 units
ART 105	Art of Asia and the Near East	3 units
ECON 100	Principles of Macro Economics	3 units
ECON 230	Economic History of the United States	3 units
GEOG 110	Cultural Geography	3 units
PHIL 100	Introduction to Philosophy	3 units



PHIL 160	History of Philosophy: Ancient and Medieval	3 units
PLSC 210	American Politics	3 units
PSYC 100	General Psychology	3 units
SOCI 100	Introduction to Sociology	3 units

** If not used in list A

Total Required Major Units: 18

General Education - certified completion of one of the following:

- California State University General Education-Breadth pattern (CSU GE Breadth),
- **OR**
- Intersegmental General Education Transfer Curriculum (IGETC/CSU) pattern

Elective courses: If applicable, additional courses to meet the minimum 60 CSU transferable units requirement.

Please refer to Associate Degree for Transfer (ADT) Requirements for more information.

HUMAN SERVICES

AA-T Associate in Arts Degree for Transfer

Social Work and Human Services..... 60 units

AA-T Social Work and Human Services

Through this program, students will gain knowledge of human service delivery systems, communication skills for working with individuals, groups, and diverse populations, case management techniques, and will gain hands-on field experience in one or more human service agencies. The program will also encourage students to think critically about societal conditions that contribute to the need for social services.

Career Opportunities

Students completing the associate degree are eligible for para-professional level social work and human services jobs such as, case manager, outreach worker and program office manager. This program is designed for transfer to a California State University (CSU) for completion of a bachelor's degree in social work or human services. Students completing a bachelor's degree are eligible for professional positions in state and county agencies, non

profits, and private organizations as social workers and social work managers.

Program Learning Outcomes

Students completing this program will be able to:

1. View the client as a whole person in the context of family, culture, and community in assessing the client's strengths and needs.
2. Demonstrate a working knowledge of public and private entities that deliver human services, locally and statewide.
3. Demonstrate an understanding of the qualities and characteristics of effective human service professionals.
4. Critically analyze societal factors that create and contribute to social service needs.
5. Be prepared for transfer to a California State University (CSU) in the majors of social work or human services.

AA-T Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 22-23 units		Units
BIOL 130	Human Biology	3 units
OR		
BIOL 250	Human Anatomy	4 units
ECON 100	Principles of Macro Economics	3 units
OR		
ECON 102	Principles of Micro Economics	3 units
HMSV 100	Introduction to Social Work and Human Services	3 units
HMSV 121	Social Work and Human Services Seminar	1 unit
HMSV 122	Social Work and Human Services Fieldwork	2 units
MATH 200	Elementary Probability and Statistics	4 units
PSYC 100	General Psychology	3 units
SOCI 100	Introduction to Sociology	3 units

Selective Courses, choose 6 units from the following:

		Units
ANTH 110	Cultural Anthropology	3 units
COMM 150	Intercultural Communication	3 units
ECE. 201	Child Development	3 units
ECE. 212	Child, Family, and Community	3 units



ENGL 165	Advanced Composition	3 units
HIST 201	U.S. History through 1877	3 units
HIST 202	U.S. History from 1877 to the Present	3 units
PSYC 200	Developmental Psychology	3 units
PSYC 410	Abnormal Psychology	3 units
SOCI 105	Social Problems	3 units
SOCI 141	Ethnicity and Race in Society	3 units

Total Required Major Units: 28 - 29

General Education - certified completion of one of the following:

- California State University General Education-Breadth pattern (CSU GE Breadth),
- **OR**
- Intersegmental General Education Transfer Curriculum (IGETC/CSU) pattern

Elective courses: If applicable, additional courses to meet the minimum 60 CSU transferable units requirement.

Please refer to Associate Degree for Transfer (ADT) Requirements for more information.

INTERDISCIPLINARY STUDIES WITH AREAS OF EMPHASIS

AA Associate in Arts Degree Program

Interdisciplinary Studies, Option 1, Cañada College Pattern: Arts and Humanities..... 60 units

Interdisciplinary Studies, Option 1, Cañada College Pattern: Natural Science and Mathematics..... 60 units

Interdisciplinary Studies, Option 1, Cañada College Pattern: Social and Behavioral Sciences..... 60 units

Interdisciplinary Studies, Option 2, Transfer Pattern: Arts and Humanities..... 60 units

Interdisciplinary Studies, Option 2, Transfer Pattern: Natural Science and Mathematics..... 60 units

Interdisciplinary Studies, Option 2, Transfer Pattern: Social and Behavioral Sciences..... 60 units

AA Interdisciplinary Studies, Option 1, Cañada College Pattern: Arts and Humanities

The Interdisciplinary Studies major is designed for students pursuing broad areas of study and exploration in an area of emphasis as described below. Option 1 enables students to complete the requirements for the Associate Degree.

Students earning this AA degree analyze and evaluate the ways in which people from different cultures have expressed themselves through the Arts and Humanities.

Option 1: Cañada College Pattern

Provides an opportunity to earn an Associate in Arts degree in Interdisciplinary Studies, which covers a broad area of study and is intended for students who may not be planning to transfer to a four-year university.

A. Complete basic competencies, including 2 units of Physical Education activity courses, and specific areas (A, B, C, D, E, F) of the General Education requirements for the AA/AS degree (22 units).

B. Complete 18 units in the Arts and Humanities area of emphasis as shown below.

C. Select degree applicable units in consultation with a counselor to fulfill lower-division preparation and/or electives and complete the required 60 degree applicable units for an Associate Degree.

Program Learning Outcomes

Students completing this program will be able to:

1. Select, evaluate, and use information to solve problems, investigate and express a point of view, support a conclusion, engage in or assess creative expression, and explicate the intellectual connect
2. Use spoken and written language, source material, evidence, and artistic expression to convey an idea or set of facts according to institutional and discipline standards.
3. Demonstrate the ability to recognize and interpret multiple points of view and means of expression that emerge from a diverse world of peoples and cultures.

AA Degree Requirements

Major: Core and Selective Requirements

Selective Courses, choose a minimum of 18 units from the following:



I. Arts:

Select 9 units, courses must be selected from at least 2 disciplines:

		Units
ART 101	Ancient, Classical and Medieval Art History	3 units
ART 102	Late Medieval, Renaissance and Baroque Art History	3 units
ART 103	History of Art from the Baroque Period to Post-Impressionism	3 units
ART 104	History of Modern Art	3 units
ART 204	Drawing I	3 units
ART 214	Color	3 units
ART 301	Two-Dimensional Design	3 units
DRAM 140	Introduction to the Theatre	3 units
DRAM 151	Introduction to Shakespeare I	3 units
LIT. 441	Survey of Film	3 units
LIT. 442	Film Study and Appreciation	3 units
MUS. 100	Fundamentals of Music	3 units
MUS. 202	Music Appreciation	3 units
MUS. 210	Histories of Popular Music and Rock	3 units
MUS. 240	Latin American Music	3 units
MUS. 250	World Music	3 units

II. Humanities

Select 9 units, courses must be selected from at least 2 disciplines:

		Units
DRAM 151	Introduction to Shakespeare I	3 units
ENGL 110	Composition, Literature, and Critical Thinking	3 units
ENGL 161	Creative Writing I	3 units
HIST 100	History of Western Civilization I	3 units
HIST 101	History of Western Civilization II	3 units
HIST 104	World History I	3 units
HIST 106	World History II	3 units
HIST 201	U.S. History through 1877	3 units
HIST 202	U.S. History from 1877 to the Present	3 units
HIST 245	Race, Ethnicity and Immigration in the U.S.	3 units
HIST 246	History of Latinos in the U.S.	3 units

HIST 247	Women in U.S. History	3 units
LIT. 151	Introduction to Shakespeare I	3 units
LIT. 200	American Literature	3 units
LIT. 205	New Voices in World Literature	3 units
LIT. 231	Survey of English Literature I	3 units
LIT. 232	Survey of English Literature II	3 units
LIT. 252	Women Writers: Multicultural Perspectives	3 units
LIT. 266	Black Literature	3 units
LIT. 371	Mexican-American Literature	3 units
LIT. 372	Myth and Folklore of La Raza	3 units
LIT. 373	Latin American Literature in Translation	3 units
LIT. 441	Survey of Film	3 units
LIT. 442	Film Study and Appreciation	3 units
PHIL 100	Introduction to Philosophy	3 units
PHIL 160	History of Philosophy: Ancient and Medieval	3 units
PHIL 190	Contemporary Philosophy	3 units
PHIL 240	Introduction to Ethics	3 units
PHIL 300	Introduction to World Religions	3 units
SPAN 120	Advanced Elementary Spanish	5 units
SPAN 121	Advanced Elementary Spanish I	3 units
SPAN 122	Advanced Elementary Spanish II	3 units
SPAN 130	Intermediate Spanish	4 units
SPAN 140	Advanced Intermediate Spanish	4 units
SPAN 162	Latino Literature II	3 units
SPAN 220	Spanish for Heritage Speakers I	4 units
SPAN 230	Spanish for Heritage Speakers II	4 units

Total Required Major Units: 18

Refer to Option 1 listed above for information on additional degree requirements that must be fulfilled in order to complete the total of 60 transferable, degree applicable units for an Associate Degree.



**AA Interdisciplinary Studies,
Option 1, Cañada College Pattern:
Natural Science and Mathematics**

The Interdisciplinary Studies major is designed for students pursuing broad areas of study and exploration in an area of emphasis as described below. Option 1 enables students to complete the requirements for the Associate Degree.

The Natural Science and Mathematics are a gateway to a very large number of occupations, many of which require specific coursework for transfer and/or admission to professional schools. In general, careers in the natural sciences require strong computational, communication and analytical thinking skills.

The degree in Interdisciplinary Studies with emphasis in Natural Science and Mathematics prepares students for further study and employment as life and physical scientists, health practitioners, engineers and science technicians.

Option 1: Cañada College Pattern

Provides an opportunity to earn an Associate in Arts degree in Interdisciplinary Studies, which covers a broad area of study and is intended for students who may not be planning to transfer to a four-year university.

A. Complete basic competencies, including 2 units of Physical Education activity courses, and specific areas (A, B, C, D, E, F) of the General Education requirements for the AA/AS degree (22 units).

B. Complete 18 units in the Natural Science and Mathematics area of emphasis as shown below.

C. Select degree applicable units in consultation with a counselor to fulfill lower-division preparation and/or electives and complete the required 60 degree applicable units for an Associate Degree.

Program Learning Outcomes

Students completing this program will be able to:

- 1. Use the scientific method to investigate scientific questions and critically evaluate and effectively communicate scientific data.
- 2. Use symbolic, graphical and numerical representation of mathematical ideas to address real world problems.
- 3. Critically evaluate scientific information and examine its significance and impact on society and the environment.

**AA Degree Requirements
Major: Core and Selective Requirements**

Selective Courses, choose a minimum of 18 units from the following:

I. Introductory Science Courses**, select a minimum of 9 units:		Units
1. Biology: a student may choose up to 2 of the following courses to meet this requirement:		
BIOL 110	Principles Of Biology	4 units
BIOL 130	Human Biology	3 units
BIOL 132	Human Biology Laboratory	1 unit
BIOL 310	Nutrition	3 units
2. Chemistry: a student may choose 1 of the following courses to meet this requirement:		
CHEM 192	Elementary Chemistry	4 units
CHEM 210	General Chemistry I	5 units
CHEM 410	Chemistry for Health Sciences	4 units
3. Physics: a student may choose 1 of the following courses to meet this requirement:		
PHYS 210	General Physics I	4 units
PHYS 250	Physics with Calculus I	4 units
4. Other sciences: a student may choose up to 3 of the following courses to meet this requirement:		
ANTH 125	Biological Anthropology	3 units
ASTR 100	Introduction to Astronomy	3 units
AND		
ASTR 101	Astronomy Laboratory	1 unit
CIS 118	Introduction to Computer Science	4 units
OR		
CIS 122	Introduction to Programming: Python	3 units
ENGR 100	Introduction to Engineering	3 units
ENVS 115	Environmental Science	3 units
GEOG 100	Physical Geography	3 units
GEOL 100	Introduction to Geology	3 units
AND		
GEOL 101	Geology Laboratory	1 unit
HSCI 100	General Health Science	3 units



METE 100	Meteorology - Weather and Climate	3 units
OCEN 100	Oceanography	3 units
AND		
OCEN 101	Oceanography Lab	1 unit

***At least one introductory OR advanced course MUST have a laboratory experience included or a laboratory course must be taken.*

II. Mathematics Competency, select a minimum of 3 units:

Units

MATH 125	Elementary Finite Mathematics	3 units
MATH 130	Analytical Trigonometry	4 units
MATH 200	Elementary Probability and Statistics	4 units
MATH 225	Path to Calculus	6 units
MATH 241	Business Calculus I	5 units
MATH 251	Analytical Geometry and Calculus I	5 units

III. Advanced Courses**, select a minimum of 6 units:

Units

BIOL 225	Biology Of Organisms	5 units
BIOL 230	Cell and Molecular Biology	5 units
BIOL 240	General Microbiology	4 units
BIOL 250	Human Anatomy	4 units
BIOL 260	Human Physiology	5 units
CHEM 220	General Chemistry II	5 units
CHEM 231	Organic Chemistry I	5 units
CIS 242	Computer Architecture and Assembly Language	3 units
CIS 262	Discrete Mathematics for Computer Science	3 units
MATH 252	Analytical Geometry and Calculus II	5 units
MATH 253	Analytic Geometry and Calculus III	5 units
PHYS 220	General Physics II	4 units
PHYS 260	Physics with Calculus II	4 units
PHYS 270	Physics with Calculus III	4 units
BIOL 133	Emerging Infectious Diseases	3 units

***At least one introductory OR advanced course MUST have a laboratory experience included or a laboratory course must be taken.*

Total Required Major Units: 18

Refer to Option 1 listed above for information on additional degree requirements that must be fulfilled in order to complete the total of 60 transferable, degree applicable units for an Associate Degree.

AA Interdisciplinary Studies, Option 1, Cañada College Pattern: Social and Behavioral Sciences

The Social and Behavioral Sciences are a cluster of disciplines that analyze basic dimensions of the human world through the application of systematic methods. Social scientists study an array of topics and deploy a multitude of theories and research methods collecting and analyzing data from participant observations, group interviews, surveys, historical documents, laboratory experiments, and more. Students who earn an AA in the Social and Behavioral Sciences analyze and evaluate the social world from the perspectives of anthropology, communication studies, economics, geography, history, philosophy, political science, psychology, and sociology.

The degree in Interdisciplinary Studies with an emphasis in Social and Behavioral Sciences prepares students for a variety of careers related to education, law, social work, business, politics, and human services.

The Interdisciplinary Studies major is designed for students pursuing broad areas of study and exploration in an area of emphasis as described below. Option 1 enables students to complete the requirements for the Associate Degree.

Option 1: Cañada College Pattern

Provides an opportunity to earn an Associate in Arts degree in Interdisciplinary Studies, which covers a broad area of study and is intended for students who may not be planning to transfer to a four-year university.

A. Complete basic competencies, including two Physical Education activity courses, and specific areas (A, B, C, D, E, F) of the General Education requirements for the AA/AS degree (22 units).

B. Complete 18 units in the Social and Behavioral Sciences Area of Emphasis as shown below.

C. Select degree applicable units in consultation with a counselor to fulfill lower-division preparation and/or



electives and complete the required 60 degree applicable units for an Associate Degree.

Program Learning Outcomes

Students completing this program will be able to:

1. Analyze Social Science concepts and theories
2. Evaluate diverse viewpoints related to the human experience
3. Produce evidence-based arguments

AA Degree Requirements

Major: Core and Selective Requirements

Selective Courses, choose a minimum of 18 units from the following:

Social and Behavioral Sciences. Courses must be selected from at least 4 disciplines:

		Units
ANTH 110	Cultural Anthropology	3 units
ANTH 125	Biological Anthropology	3 units
ANTH 126	Biological Anthropology Laboratory	1 unit
ANTH 351	Archaeology	3 units
COMM 110	Public Speaking	3 units
COMM 150	Intercultural Communication	3 units
COMM 180	Introduction to Communication Studies	3 units
ECON 100	Principles of Macro Economics	3 units
ECON 102	Principles of Micro Economics	3 units
ECON 230	Economic History of the United States	3 units
GEOG 110	Cultural Geography	3 units
HIST 100	History of Western Civilization I	3 units
HIST 101	History of Western Civilization II	3 units
HIST 104	World History I	3 units
HIST 106	World History II	3 units
HIST 201	U.S. History through 1877	3 units
HIST 202	U.S. History from 1877 to the Present	3 units
PHIL 100	Introduction to Philosophy	3 units
PHIL 160	History of Philosophy: Ancient and Medieval	3 units
PHIL 175	Modern Philosophy	3 units
PHIL 190	Contemporary Philosophy	3 units

PHIL 240	Introduction to Ethics	3 units
PHIL 300	Introduction to World Religions	3 units
PHIL 312	Introduction to Philosophy of Religion	3 units
PLSC 130	Introduction to International Relations	3 units
PLSC 150	Introduction to Political Theory	3 units
PLSC 210	American Politics	3 units
PLSC 310	California State and Local Government	3 units
PSYC 100	General Psychology	3 units
PSYC 106	Psychology of Prejudice and Discrimination	3 units
PSYC 200	Developmental Psychology	3 units
PSYC 205	Social Science Research Methods	3 units
PSYC 300	Social Psychology	3 units
PSYC 340	Introduction to Human Sexuality	3 units
PSYC 410	Abnormal Psychology	3 units
SOCI 100	Introduction to Sociology	3 units
SOCI 105	Social Problems	3 units
SOCI 141	Ethnicity and Race in Society	3 units
SOCI 205	Social Science Research Methods	3 units

Total Required Major Units: 18

Refer to Option 1 listed above for information on additional degree requirements that must be fulfilled in order to complete the total of 60 transferable, degree applicable units for an Associate Degree.

AA Interdisciplinary Studies, Option 2, Transfer Pattern: Arts and Humanities

Students earning this AA degree analyze and evaluate the ways in which people from different cultures have expressed themselves through the Arts and Humanities.

The Interdisciplinary Studies major is designed for students pursuing broad areas of study and exploration in an area of emphasis as described below. Option 2 enables students to complete the requirements for the Associate degree and to fulfill the general education requirements for the California State University, University of California, or some private and out-of-state universities.



Important: Completion of the CSU or UC patterns does not guarantee admission to any of these institutions. Consult with a counselor for further information.

Option 2, Transfer Pattern: California State University, University of California, or some private and out-of-state universities.

Intended for students who are planning to transfer to a four-year university. Courses should be chosen carefully in consultation with a counselor.

A. Choose a General Education Pattern

- Complete 39 units of the CSU GE requirements (a C or better grade is required in Areas A1, A2, A3 and B4)

OR

- Complete 34-37 units of the Intersegmental General Education Transfer Curriculum (IGETC) for UC or CSU (all courses must be completed with a C or better grade)

B. Complete 18 units in the Arts and Humanities Area of Emphasis as shown below.

C. Remaining 3 to 5 units should be chosen in consultation with a counselor to fulfill Associate Degree competency and specific area requirements and lower-division preparation and/or electives for a total of 60 degree applicable units for an Associate Degree.

Program Learning Outcomes

Students completing this program will be able to:

- Select, evaluate, and use information to solve problems, investigate and express a point of view, support a conclusion, engage in or assess creative expression, and explicate the intellectual connections between disciplines.
- Use spoken and written language, source material, evidence, and artistic expression to convey an idea or set of facts according to institutional and discipline standards.
- Demonstrate the ability to recognize and interpret multiple points of view and means of expression that emerge from a diverse world of peoples and cultures.

AA Degree Requirements

Major: Core and Selective Requirements

Selective Courses, choose a minimum of 18 units from the following:

I. Arts:

Select 9 units, courses must be selected from at least 2 disciplines:

		Units
ART 101	Ancient, Classical and Medieval Art History	3 units
ART 102	Late Medieval, Renaissance and Baroque Art History	3 units
ART 103	History of Art from the Baroque Period to Post-Impressionism	3 units
ART 104	History of Modern Art	3 units
ART 204	Drawing I	3 units
ART 214	Color	3 units
ART 301	Two-Dimensional Design	3 units
DRAM 140	Introduction to the Theatre	3 units
DRAM 151	Introduction to Shakespeare I	3 units
LIT. 441	Survey of Film	3 units
LIT. 442	Film Study and Appreciation	3 units
MUS. 100	Fundamentals of Music	3 units
MUS. 202	Music Appreciation	3 units
MUS. 210	Histories of Popular Music and Rock	3 units
MUS. 240	Latin American Music	3 units
MUS. 250	World Music	3 units

II. Humanities

Select 9 units, courses must be selected from at least 2 disciplines:

		Units
DRAM 151	Introduction to Shakespeare I	3 units
ENGL 110	Composition, Literature, and Critical Thinking	3 units
ENGL 161	Creative Writing I	3 units
HIST 100	History of Western Civilization I	3 units
HIST 101	History of Western Civilization II	3 units
HIST 104	World History I	3 units
HIST 106	World History II	3 units
HIST 201	U.S. History through 1877	3 units
HIST 202	U.S. History from 1877 to the Present	3 units
HIST 245	Race, Ethnicity and Immigration in the U.S.	3 units
HIST 246	History of Latinos in the U.S.	3 units



HIST 247	Women in U.S. History	3 units
LIT. 151	Introduction to Shakespeare I	3 units
LIT. 200	American Literature	3 units
LIT. 205	New Voices in World Literature	3 units
LIT. 231	Survey of English Literature I	3 units
LIT. 232	Survey of English Literature II	3 units
LIT. 252	Women Writers: Multicultural Perspectives	3 units
LIT. 266	Black Literature	3 units
LIT. 371	Mexican-American Literature	3 units
LIT. 372	Myth and Folklore of La Raza	3 units
LIT. 373	Latin American Literature in Translation	3 units
LIT. 441	Survey of Film	3 units
LIT. 442	Film Study and Appreciation	3 units
PHIL 100	Introduction to Philosophy	3 units
PHIL 160	History of Philosophy: Ancient and Medieval	3 units
PHIL 175	Modern Philosophy	3 units
PHIL 190	Contemporary Philosophy	3 units
PHIL 240	Introduction to Ethics	3 units
PHIL 300	Introduction to World Religions	3 units
PHIL 312	Introduction to Philosophy of Religion	3 units
SPAN 120	Advanced Elementary Spanish	5 units
SPAN 121	Advanced Elementary Spanish I	3 units
SPAN 122	Advanced Elementary Spanish II	3 units
SPAN 130	Intermediate Spanish	4 units
SPAN 140	Advanced Intermediate Spanish	4 units
SPAN 162	Latino Literature II	3 units
SPAN 220	Spanish for Heritage Speakers I	4 units
SPAN 230	Spanish for Heritage Speakers II	4 units

Total Required Major Units: 18

Refer to Option 2 listed above for information on degree requirements that must be fulfilled in order to complete the total of 60 degree applicable units for an Associate Degree.

AA Interdisciplinary Studies, Option 2, Transfer Pattern: Natural Science and Mathematics

The Natural Science and Mathematics are a gateway to a very large number of occupations, many of which require specific coursework for transfer and/or admission to professional schools. In general, careers in the natural sciences require strong computational, communication and analytical thinking skills.

The degree in Interdisciplinary Studies with emphasis in Natural Science and Mathematics prepares students for further study and employment as life and physical scientists, health practitioners, engineers and science technicians.

The Interdisciplinary Studies major is designed for students pursuing broad areas of study and exploration in an area of emphasis as described below. Option 2 enables students to complete the requirements for the Associate degree and to fulfill the general education requirements for the California State University, University of California, or some private and out-of-state universities.

Important: Completion of the CSU or UC patterns does not guarantee admission to any of these institutions. Consult with a counselor for further information.

Option 2, Transfer Pattern: California State University, University of California, or some private and out-of-state universities.

Intended for students who are planning to transfer to a four-year university. Courses should be chosen carefully in consultation with a counselor.

A. Choose a General Education Pattern

- Complete 39 units of the CSU GE requirements (a C or better grade is required in Areas A1, A2, A3 and B4)

OR

- Complete 34-37 units of the Intersegmental General Education Transfer Curriculum (IGETC) for UC or CSU (all courses must be completed with a C or better grade)

B. Complete 18 units in the Natural Science and Mathematics Areas of Emphasis as shown below.

C. Remaining 3 to 5 units should be chosen in consultation with a counselor to fulfill Associate Degree competency and specific area requirements and lower-division preparation and/or electives for a total of 60 degree applicable units for an Associate Degree.



Program Learning Outcomes

Students completing this program will be able to:

1. Use the scientific method to investigate scientific questions and critically evaluate and effectively communicate scientific data.
2. Use symbolic, graphical and numerical representation of mathematical ideas to address real world problems.
3. Critically evaluate scientific information and examine its significance and impact on society and the environment.

AA Degree Requirements

Major: Core and Selective Requirements

Selective Courses, choose a minimum of 18 units from the following:

I. Introductory Science Courses**, select a minimum of 9 units:

Units

1. Biology: a student may choose up to 2 of the following courses to meet this requirement:		
BIOL 110	Principles Of Biology	4 units
BIOL 130	Human Biology	3 units
BIOL 132	Human Biology Laboratory	1 unit
BIOL 310	Nutrition	3 units
2. Chemistry: a student may choose 1 of the following courses to meet this requirement:		
CHEM 192	Elementary Chemistry	4 units
CHEM 210	General Chemistry I	5 units
CHEM 410	Chemistry for Health Sciences	4 units
3. Physics: a student may choose 1 of the following courses to meet this requirement:		
PHYS 210	General Physics I	4 units
PHYS 250	Physics with Calculus I	4 units
4. Other sciences: a student may choose up to 3 of the following courses to meet this requirement:		
ANTH 125	Biological Anthropology	3 units
ASTR 100	Introduction to Astronomy	3 units
AND		
ASTR 101	Astronomy Laboratory	1 unit
CIS 118	Introduction to Computer Science	4 units
OR		

CIS 122	Introduction to Programming: Python	3 units
ENGR 100	Introduction to Engineering	3 units
ENVS 115	Environmental Science	3 units
GEOG 100	Physical Geography	3 units
GEOL 100	Introduction to Geology	3 units
AND		
GEOL 101	Geology Laboratory	1 unit
HSCI 100	General Health Science	3 units
METE 100	Meteorology - Weather and Climate	3 units
OCEN 100	Oceanography	3 units
AND		
OCEN 101	Oceanography Lab	1 unit

****At least one introductory OR advanced course MUST have a laboratory experience included or a laboratory course must be taken.**

II. Mathematics Competency, select a minimum of 3 units:

Units

MATH 125	Elementary Finite Mathematics	3 units
MATH 130	Analytical Trigonometry	4 units
MATH 200	Elementary Probability and Statistics	4 units
MATH 225	Path to Calculus	6 units
MATH 241	Business Calculus I	5 units
MATH 251	Analytical Geometry and Calculus I	5 units

III. Advanced Courses**, select a minimum of 6 units:

Units

BIOL 225	Biology Of Organisms	5 units
BIOL 230	Cell and Molecular Biology	5 units
BIOL 240	General Microbiology	4 units
BIOL 250	Human Anatomy	4 units
BIOL 260	Human Physiology	5 units
CHEM 220	General Chemistry II	5 units
CHEM 231	Organic Chemistry I	5 units
CIS 242	Computer Architecture and Assembly Language	3 units
CIS 262	Discrete Mathematics for Computer Science	3 units



MATH 252	Analytical Geometry and Calculus II	5 units
MATH 253	Analytic Geometry and Calculus III	5 units
PHYS 220	General Physics II	4 units
PHYS 260	Physics with Calculus II	4 units
PHYS 270	Physics with Calculus III	4 units

***At least one introductory OR advanced course MUST have a laboratory experience included or a laboratory course must be taken.*

Total Required Major Units: 18

Refer to Option 2 listed above for information on degree requirements that must be fulfilled in order to complete the total of 60 degree applicable units for an Associate Degree.

AA Interdisciplinary Studies, Option 2, Transfer Pattern: Social and Behavioral Sciences

The Social and Behavioral Sciences are a cluster of disciplines that analyze basic dimensions of the human world through the application of systematic methods. Social scientists study an array of topics and deploy a multitude of theories and research methods collecting and analyzing data from participant observations, group interviews, surveys, historical documents, laboratory experiments, and more. Students who earn an AA in the Social and Behavioral Sciences analyze and evaluate the social world from the perspectives of anthropology, communication studies, economics, geography, history, philosophy, political science, psychology, and sociology.

The degree in Interdisciplinary Studies with emphasis in Social and Behavioral Sciences prepares students for a variety of careers related to education, law, social work, business, politics, and human services.

The Interdisciplinary Studies major is designed for students pursuing broad areas of study and exploration in an area of emphasis as described below. Option 2 enables students to complete the requirements for the Associate degree and to fulfill the general education requirements for the California State University, University of California, or some private and out-of-state universities.

Important: Completion of the CSU or UC patterns does not guarantee admission to any of these institutions. Consult with a counselor for further information.

Option 2, Transfer Pattern: California State University, University of California, or some private and out-of-state universities.

Intended for students who are planning to transfer to a four-year university. Courses should be chosen carefully in consultation with a counselor.

A. Choose a General Education Pattern

- Complete 39 units of the CSU GE requirements (a C or better grade is required in Areas A1, A2, A3 and B4)
- OR**
- Complete 34-37 units of the Intersegmental General Education Transfer Curriculum (IGETC) for UC or CSU (all courses must be completed with a C or better grade)

B. Complete 18 units in the Social and Behavioral Sciences Area of Emphasis as shown below.

C. Remaining 3 to 5 units should be chosen in consultation with a counselor to fulfill Associate Degree competency and specific area requirements and lower-division preparation and/or electives for a total of 60 degree applicable units for an Associate Degree.

Program Learning Outcomes

Students completing this program will be able to:

1. Analyze Social Science concepts and theories
2. Evaluate diverse viewpoints related to the human experience
3. Produce evidence based arguments

AA Degree Requirements

Major: Core and Selective Requirements

Selective Courses, choose a minimum of 18 units from the following:

Social and Behavioral Sciences. Courses must be selected from at least 4 disciplines:

		Units
ANTH 110	Cultural Anthropology	3 units
ANTH 125	Biological Anthropology	3 units
ANTH 126	Biological Anthropology Laboratory	1 unit
ANTH 351	Archaeology	3 units
COMM 110	Public Speaking	3 units
COMM 150	Intercultural Communication	3 units



COMM 180	Introduction to Communication Studies	3 units
ECON 100	Principles of Macro Economics	3 units
ECON 102	Principles of Micro Economics	3 units
ECON 230	Economic History of the United States	3 units
GEOG 110	Cultural Geography	3 units
HIST 100	History of Western Civilization I	3 units
HIST 101	History of Western Civilization II	3 units
HIST 104	World History I	3 units
HIST 106	World History II	3 units
HIST 201	U.S. History through 1877	3 units
HIST 202	U.S. History from 1877 to the Present	3 units
PHIL 100	Introduction to Philosophy	3 units
PHIL 160	History of Philosophy: Ancient and Medieval	3 units
PHIL 190	Contemporary Philosophy	3 units
PHIL 240	Introduction to Ethics	3 units
PHIL 300	Introduction to World Religions	3 units
PLSC 130	Introduction to International Relations	3 units
PLSC 150	Introduction to Political Theory	3 units
PLSC 210	American Politics	3 units
PLSC 310	California State and Local Government	3 units
PSYC 100	General Psychology	3 units
PSYC 106	Psychology of Prejudice and Discrimination	3 units
PSYC 200	Developmental Psychology	3 units
PSYC 205	Social Science Research Methods	3 units
PSYC 300	Social Psychology	3 units
PSYC 340	Introduction to Human Sexuality	3 units
PSYC 410	Abnormal Psychology	3 units
SOCI 100	Introduction to Sociology	3 units
SOCI 105	Social Problems	3 units
SOCI 141	Ethnicity and Race in Society	3 units
SOCI 205	Social Science Research Methods	3 units

Total Required Major Units: 18

Refer to Option 2 listed above for information on degree requirements that must be fulfilled in order to complete

the total of 60 degree applicable units for an Associate Degree.

INTERIOR DESIGN

AS Associate in Science Degree Program

Interior Design..... 60 units

CA Certificate of Achievement

Home Staging.....24 units

Interior Design..... 41 units

Kitchen and Bath Design (Affiliated with NKBA, National Kitchen & Bath Association)..... 42 units

AS Interior Design

The Interior Design Department offers courses for individuals interested in preparing for careers in interior design. Included in the program are a transfer program, an AS degree, and three Certificates of Achievement: the Interior Design Certificate, the Kitchen and Bath Certificate, and the Home Staging Certificate. Students can apply for the AS degree in Interior Design after completion of the required units from the certificate and from the general education plan. If a student has earned a bachelor's degree, they need to see a counselor regarding courses completed during the first two years of college that may be substituted for core requirement courses. Also, they can have their general education unit requirement waived to earn the AS degree in Interior Design.

Career Opportunities

Options for career paths include residential design, space planning and home staging, kitchen and bath design, commercial design, retail sales, sustainable design, historic preservation and renovation, lighting design, or showroom or product manufacturer's representative.

Program Learning Outcomes

Students completing this program will be able to:

1. Communicate design concepts clearly and concisely (i.e. visual, oral, and written).
2. Develop competitive industry standard skills in the respective fields.
3. Understand the elements and principles of design through discipline-specific implementation.

AS Degree Requirements



Major: Core and Selective Requirements

Complete Core Courses, 35 units		Units
ARCH 110	Interior Architectural Drafting	3 units
INTD 115	Introduction to Interior Design	3 units
INTD 128	Presentation Techniques	3 units
INTD 148	Color and Design	3 units
INTD 150	History of Interiors I	3 units
INTD 151	History of Interiors II	3 units
INTD 175	Space Planning and Design	3 units
INTD 250	Professional Practices for Interior Designers	3 units
INTD 260	Overview of Lighting Design	3 units
INTD 301	Portfolio Development	1 unit
INTD 400	Principles of Sustainable Design	3 units
INTD 450	Materials and Finishes	3 units
INTD 672	Work Experience Education: Internship	1 unit

Selective Courses, choose a minimum of 6 units from the following:

List A, complete 3 units from the following:		Units
INTD 360	CAD Applications for Interior Designers	3 units
INTD 361	Chief Architect for Interior Designers	3 units

List B, complete 3 units from the following:		Units
INTD 126	Critical Thinking for Interior Designers	3 units
INTD 367	3D Modeling SketchUp for Interior Designers	3 units
INTD 272	Kitchen and Bath Design	3 units

Total Required Major Units: 41

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

Cañada College offers lower division coursework required for transfer in Interior Design. Students should use PROJECT ASSIST (www.assist.org) to research lower division major requirements at the transfer destination(s) of their choice. Also, work with a Counselor/Advisor to determine appropriate transfer coursework.

CA Home Staging

The Interior Design Department offers courses designed for individuals interested in preparing for careers in the professional fields of interior design. Included in the program are a transfer program, an AS degree, and three certificate programs. The Kitchen & Bath Design Certificate is affiliated with the NKBA (National Kitchen & Bath Association). The AS degree and Interior Design Certificate of Achievement meet the minimum education qualifying requirements for ASID (American Society of Interior Designers) allied membership. The Home Staging Certificate of Achievement provides students with the basics of Home Staging business including in site-training with a Professional Home Stager. Cañada College is the only community college in the Bay Area offering this certificate. These, as well as the Kitchen & Bath Design Certificate fulfill the educational requirement for the IDEX exam to become a Certified Interior Designer (CID) in California. Completion of the Kitchen and Bath Design Certificate prepares students for the AKBD (Associate Kitchen & Bath Design) exam, and along with sufficient work experience in the field, the CKD (Certified Kitchen Designer) and the CBD (Certified Bath Designer) exams. If a student has an earned Bachelor's Degree, he/she needs to see a counselor regarding courses completed during the first two years of college that may be substituted for core requirement courses.

Career Opportunities

Options for career paths include residential design, space planning and home staging, retail sales, or showroom or product manufacturer's representative.

Program Learning Outcomes

Students completing this program will be able to:

1. Communicate design concepts clearly and concisely (i.e. visual, oral, and written).
2. Develop competitive industry standard skills in the respective fields.
3. Understand the elements and principles of design through discipline-specific implementation.

Major: Core and Selective Requirements

Complete Core Courses, 24 units		Units
ARCH 110	Interior Architectural Drafting	3 units
INTD 115	Introduction to Interior Design	3 units
INTD 148	Color and Design	3 units
INTD 175	Space Planning and Design	3 units
INTD 250	Professional Practices for Interior Designers	3 units
INTD 260	Overview of Lighting Design	3 units



INTD 300	Studio I: Home Staging	3 units
INTD 450	Materials and Finishes	3 units

Total Required Units: 24

CA Interior Design

The Interior Design Department offers courses for individuals interested in preparing for careers in interior design. Included in the program are a transfer program, an AS degree, and three Certificates of Achievement: the Interior Design Certificate, the Kitchen and Bath Certificate, and the Home Staging Certificate. The Interior Design Certificate of Achievement meets the minimum education qualifying requirements for the IDEX (Interior Design Examination) exam to become a Certified Interior Designer (CID) in California once the student graduates from the program and for the ASID (American Society of Interior Designers) allied membership. If a student has earned a bachelor's degree, they need to see a counselor regarding courses completed during the first two years of college that may be substituted for core requirement courses. Also, they can have their general education unit requirement waived to earn the AS degree in Interior Design after completion of the required units from the certificate.

Career Opportunities

Options for career paths include residential design, space planning and home staging, kitchen and bath design, commercial design, sustainable design, retail sales, historic preservation and renovation, lighting design, or showroom or product manufacturer's representative.

Program Learning Outcomes

Students completing this program will be able to:

1. Communicate design concepts clearly and concisely (i.e. visual, oral, and written).
2. Develop competitive industry standard skills in the respective fields.
3. Understand the elements and principles of design through discipline-specific implementation.

Major: Core and Selective Requirements

Complete Core Courses, 35 units		Units
ARCH 110	Interior Architectural Drafting	3 units
INTD 115	Introduction to Interior Design	3 units
INTD 128	Presentation Techniques	3 units
INTD 148	Color and Design	3 units
INTD 150	History of Interiors I	3 units

INTD 151	History of Interiors II	3 units
INTD 175	Space Planning and Design	3 units
INTD 250	Professional Practices for Interior Designers	3 units
INTD 260	Overview of Lighting Design	3 units
INTD 301	Portfolio Development	1 unit
INTD 400	Principles of Sustainable Design	3 units
INTD 450	Materials and Finishes	3 units
INTD 672	Work Experience Education: Internship	1 unit

Selective Courses, choose a minimum of 6 units from the following:

List A, complete 3 units from the following: Units

INTD 360	CAD Applications for Interior Designers	3 units
INTD 361	Chief Architect for Interior Designers	3 units

List B, complete 3 units from the following: Units

INTD 126	Critical Thinking for Interior Designers	3 units
INTD 272	Kitchen and Bath Design	3 units
INTD 367	3D Modeling SketchUp for Interior Designers	3 units

Total Required Units: 41

CA Kitchen and Bath Design (Affiliated with NKBA, National Kitchen & Bath Association)

The Interior Design Department offers courses designed for individuals interested in preparing for careers in the professional fields of interior design. Included in the program are a transfer program, an AS degree, and three certificate programs. The Kitchen & Bath Design Certificate is affiliated with the NKBA (National Kitchen & Bath Association). The AS degree and Interior Design Certificate of Achievement meet the minimum education qualifying requirements for ASID (American Society of Interior Designers) allied membership. These, as well as the Kitchen & Bath Design Certificate and the Residential & Commercial Design Certificate fulfill the educational



requirement for the IDEX exam to become a Certified Interior Designer (CID) in California. Completion of the Kitchen and Bath Design Certificate prepares students for the AKBD (Associate Kitchen & Bath Design) exam, and along with sufficient work experience in the field, the CKD (Certified Kitchen Designer) and the CBD (Certified Bath Designer) exams. If a student has an earned Bachelor's Degree, he/she needs to see a counselor regarding courses completed during the first two years of college that may be substituted for core requirement courses.

Career Opportunities

Options for career paths include residential design, kitchen and bath space planning and design, retail sales and design, showroom or product manufacturer's representative.

Program Learning Outcomes

Students completing this program will be able to:

1. Communicate design concepts clearly and concisely (i.e. visual, oral, and written).
2. Develop competitive industry standard skills in the respective fields.
3. Understand the elements and principles of design through discipline-specific implementation.

Major: Core and Selective Requirements

Complete Core Courses, 33 units		Units
ARCH 110	Interior Architectural Drafting	3 units
INTD 115	Introduction to Interior Design	3 units
INTD 128	Presentation Techniques	3 units
INTD 148	Color and Design	3 units
INTD 175	Space Planning and Design	3 units
INTD 250	Professional Practices for Interior Designers	3 units
INTD 272	Kitchen and Bath Design	3 units
INTD 276	Advanced Kitchen and Bath Design	2 units
INTD 301	Portfolio Development	1 unit
INTD 357	Kitchen and Bath Systems	3 units
INTD 450	Materials and Finishes	3 units
INTD 672	Work Experience Education: Internship	3 units

Selective Courses, choose a minimum of 9 units from the following:

List A, complete 6 units from the following:		Units
INTD 150	History of Interiors I	3 units

INTD 151	History of Interiors II	3 units
INTD 260	Overview of Lighting Design	3 units
INTD 367	3D Modeling SketchUp for Interior Designers	3 units

List B, complete 3 units from the following: Units

INTD 360	CAD Applications for Interior Designers	3 units
INTD 361	Chief Architect for Interior Designers	3 units

Total Required Units: 42

KINESIOLOGY, ATHLETICS AND DANCE

AA Associate in Arts Degree Program

Dance..... 60 units

Kinesiology.....60 units

AA-T Associate in Arts Degree for Transfer

Kinesiology.....60 units

AA Dance

The dance program allows students to develop technical, aesthetic and artistic skills required to pursue a four-year dance degree. Courses cover topics on ballet, modern dance, jazz dance, history, dance composition and music. Upon completion of the program, the dancers will possess good problem-solving skills, an ability to work with people, good health and physical stamina, along with flexibility, agility, coordination, and grace, a sense of rhythm, a feeling for music, and a creative ability to express themselves through movement.

Career Opportunities

Career opportunities include dance performers, dance instructors, dance teachers, dance aerobics instructors and choreographers. Dancers perform in a variety of settings, including opera, musical theater, and other musical productions. They also perform in television, movies, music videos, and commercials, in which they may sing and act. Choreographers and dance instructors create original dances, teach dance and develop new interpretations of



existing dances. They work in theaters, dance schools, dance and movie studios, and at fashion shows, and are involved in auditioning performers for dance parts.

Program Learning Outcomes

Students completing this program will be able to:

1. Recognize and evaluate the importance of physical activity in leading a healthy, functional lifestyle and in creating or increasing a sense of well-being.
2. Exhibit interpersonal communication, cooperative relationships and social interaction within diverse and dynamic environments.
3. Analyze and understand the discipline of kinesiology to apply appropriate scientific and quantitative conclusions to physical activity.
4. Demonstrate and improve fitness components along with alignment, body positioning, special awareness, or rhythm while performing exercise movements.
5. Demonstrate professional and ethical decision-making and civic responsibility when applying knowledge of kinesiology.

AA Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 6 units		Units
DANC 100	Dance Appreciation	3 units
MUS. 100	Fundamentals of Music	3 units

Selective courses, choose a minimum of 15 units from the following:

Group A: Complete 6 units from the following (minimum of one course from each one of the families):

		Units
DANC 121.1	Contemporary Modern Dance I	1 unit
DANC 121.2	Contemporary Modern Dance II	1 unit
DANC 121.3	Contemporary Modern Dance III	1 unit
DANC 121.4	Contemporary Modern Dance IV	1 unit
DANC 130.1	Jazz Dance I	1 unit
DANC 130.2	Jazz Dance II	1 unit
DANC 130.3	Jazz Dance III	1 unit

DANC 130.4	Jazz Dance IV	1 unit
DANC 140.1	Ballet I	0.5 or 1 units
DANC 140.2	Ballet II	0.5 or 1 units
DANC 140.3	Ballet III	0.5 or 1 units
DANC 140.4	Ballet IV	0.5 or 1 units
DANC 400.1	Dance Performance and Production I	1 unit
DANC 400.2	Dance Performance and Production II	1 unit
DANC 400.3	Dance Performance and Production III	1 unit
DANC 400.4	Dance Performance and Production IV	1 unit

Group B: complete 6 units from the following (no more than 2 courses per family):

		Units
DANC 115.1	Mexican Folkloric Dance I	1 unit
DANC 115.2	Mexican Folkloric Dance II	1 unit
DANC 115.3	Mexican Folkloric Dance III	1 unit
DANC 115.4	Mexican Folkloric Dance IV	1 unit
DANC 117.1	Tap Dance I	1 unit
DANC 117.2	Tap Dance II	1 unit
DANC 117.3	Tap Dance III	1 unit
DANC 117.4	Tap Dance IV	1 unit
DANC 125.1	Salsa I	1 unit
DANC 125.2	Salsa II	1 unit
DANC 125.3	Salsa III	1 unit
DANC 125.4	Salsa IV	1 unit



DANC 150.1	Hip Hop I	1 unit
DANC 150.2	Hip Hop II	1 unit
DANC 150.3	Hip Hop III	1 unit
DANC 150.4	Hip Hop IV	1 unit
DANC 151.1	Social Dance I	1 unit
DANC 151.2	Social Dance II	1 unit
DANC 151.3	Social Dance III	1 unit
DANC 151.4	Social Dance IV	1 unit
DANC 157.1	Afro Cuban Dance Fusion I	0.5 or 1 units
DANC 157.2	Afro Cuban Dance Fusion II	0.5 or 1 units
DANC 157.4	Afro Cuban Dance Fusion IV	0.5 or 1 units
DANC 157.3	Afro Cuban Dance Fusion III	0.5 or 1 units
DANC 161.1	Tango Argentino I	0.5 or 1 units
DANC 161.2	Tango Argentino II	0.5 or 1 units
DANC 161.3	Tango Argentino III	0.5 or 1 units
DANC 161.4	Tango Argentino IV	0.5 or 1 units
DANC 350.1	Cardio Dance I	1 unit
DANC 350.2	Cardio Dance II	1 unit
DANC 350.3	Cardio Dance III	1 unit
DANC 350.4	Cardio Dance IV	1 unit
FITN 334.1	Yoga I	1 unit
FITN 334.2	Yoga II	1 unit
FITN 334.3	Yoga III	1 unit

FITN 334.4	Yoga IV	1 unit
FITN 335.1	Pilates I	1 unit
FITN 335.2	Pilates II	1 unit
FITN 335.3	Pilates III	1 unit
FITN 335.4	Pilates IV	1 unit

Group C: complete 3 units from the following:

Units

BUS. 150	Entrepreneurship: Small Business Management	3 units
COMM 130	Interpersonal Communication	3 units
DRAM 200	Acting I: Acting For the Stage and the Camera	3 units

Total Required Major Units: 21

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

AA Kinesiology

An associate degree in kinesiology offers the foundation of the human movement field. Upon completion of the associate's degree, students gain an understanding of how human movement can affect sports training and health. The degree includes a solid foundation of their selected sub discipline in kinesiology.

Career Opportunities

An associate degree in kinesiology prepares students for transfer to obtain a bachelor's degree to work in a variety of fields, such as health, wellness, fitness, personal trainer, coaching, athletic trainer, group exercise instructor, exercise physiologist, etc.

Program Learning Outcomes

Students completing this program will be able to:

1. Recognize and evaluate the importance of physical activity in leading a healthy, functional lifestyle and in creating or increasing a sense of well-being.
2. Exhibit interpersonal communication, cooperative relationships and social interaction within diverse and dynamic environments.



3. Analyze and understand the discipline of kinesiology to apply appropriate scientific and quantitative conclusions to physical activity.
4. Demonstrate and improve fitness components along with alignment, body positioning, special awareness, or rhythm while performing exercise movements.
5. Demonstrate professional and ethical decision-making and civic responsibility when applying knowledge of kinesiology.

AA Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 12 units

Units

BIOL 250	Human Anatomy	4 units
BIOL 260	Human Physiology	5 units
KINE 101	Introduction to Kinesiology	3 units

Movement Based Courses: Select 3 units from the following with a maximum of one unit from any one area

Area 1: Aquatics

Units

AQUA 127.1	Swim Stroke Development I	1 unit
AQUA 127.2	Swim Stroke Development II	1 unit
AQUA 127.3	Swim Stroke Development III	1 unit
AQUA 127.4	Swim Stroke Development IV	1 unit
AQUA 133.1	Individual Swim Conditioning I	1 unit
AQUA 135.1	Aqua Exercise I	1 unit

Area 2: Dance

Units

DANC 115.1	Mexican Folkloric Dance I	1 unit
DANC 115.2	Mexican Folkloric Dance II	1 unit
DANC 115.3	Mexican Folkloric Dance III	1 unit
DANC 115.4	Mexican Folkloric Dance IV	1 unit
DANC 117.1	Tap Dance I	1 unit

DANC 117.2	Tap Dance II	1 unit
DANC 117.3	Tap Dance III	1 unit
DANC 117.4	Tap Dance IV	1 unit
DANC 121.1	Contemporary Modern Dance I	1 unit
DANC 121.2	Contemporary Modern Dance II	1 unit
DANC 121.3	Contemporary Modern Dance III	1 unit
DANC 121.4	Contemporary Modern Dance IV	1 unit
DANC 125.1	Salsa I	1 unit
DANC 125.2	Salsa II	1 unit
DANC 125.3	Salsa III	1 unit
DANC 125.4	Salsa IV	1 unit
DANC 130.1	Jazz Dance I	1 unit
DANC 130.2	Jazz Dance II	1 unit
DANC 130.3	Jazz Dance III	1 unit
DANC 130.4	Jazz Dance IV	1 unit
DANC 140.1	Ballet I	0.5 or 1 units
DANC 140.2	Ballet II	0.5 or 1 units
DANC 140.3	Ballet III	0.5 or 1 units
DANC 140.4	Ballet IV	0.5 or 1 units
DANC 150.1	Hip Hop I	1 unit
DANC 150.2	Hip Hop II	1 unit
DANC 150.3	Hip Hop III	1 unit
DANC 150.4	Hip Hop IV	1 unit



DANC 151.1	Social Dance I	1 unit
DANC 151.2	Social Dance II	1 unit
DANC 151.3	Social Dance III	1 unit
DANC 151.4	Social Dance IV	1 unit
DANC 157.1	Afro Cuban Dance Fusion I	0.5 or 1 units
DANC 157.2	Afro Cuban Dance Fusion II	0.5 or 1 units
DANC 157.3	Afro Cuban Dance Fusion III	0.5 or 1 units
DANC 157.4	Afro Cuban Dance Fusion IV	0.5 or 1 units
DANC 161.1	Tango Argentino I	0.5 or 1 units
DANC 161.2	Tango Argentino II	0.5 or 1 units
DANC 161.3	Tango Argentino III	0.5 or 1 units
DANC 161.4	Tango Argentino IV	0.5 or 1 units
DANC 350.1	Cardio Dance I	1 unit
DANC 350.2	Cardio Dance II	1 unit
DANC 350.3	Cardio Dance III	1 unit
DANC 350.4	Cardio Dance IV	1 unit
DANC 400.1	Dance Performance and Production I	1 unit
DANC 400.2	Dance Performance and Production II	1 unit
DANC 400.3	Dance Performance and Production III	1 unit
DANC 400.4	Dance Performance and Production IV	1 unit

Area 3: Fitness**Units**

FITN 112	Cross-Training	1 unit
FITN 117	Fitness Assessment, Strength and Conditioning	1 unit

FITN 118	Beginning Fitness Center	1 unit
FITN 119	Intermediate Fitness Center	1 unit
FITN 122	Total Body Burn	1 unit
FITN 128.1	Core Strength and Functional Training I	1 unit
FITN 128.2	Core Strength and Functional Training II	1 unit
FITN 152	Basketball Conditioning	1 unit
FITN 153	Soccer Conditioning	1 unit
FITN 154	Volleyball Conditioning	1 unit
FITN 210	Varsity Weight Conditioning	1 unit
FITN 227.1	TRX® Suspension Training I	1 unit
FITN 227.2	TRX® Suspension Training II	1 unit
FITN 227.3	TRX® Suspension Training III	1 unit
FITN 227.4	TRX® Suspension Training IV	1 unit
FITN 235	Boot Camp	1 unit
FITN 301.1	Spinning I	1 unit
FITN 301.2	Spinning II	1 unit
FITN 301.3	Spinning III	1 unit
FITN 304.1	Walking Fitness I	1 unit
FITN 304.2	Walking Fitness II	1 unit
FITN 304.3	Walking Fitness III	1 unit
FITN 304.4	Walking Fitness IV	1 unit
FITN 308.1	Hiking and Trekking for Fitness I	1 unit
FITN 332.1	Flexibility and Stretching I	1 unit
FITN 332.2	Flexibility and Stretching II	1 unit
FITN 334.1	Yoga I	1 unit
FITN 334.2	Yoga II	1 unit



FITN 334.3	Yoga III	1 unit
FITN 334.4	Yoga IV	1 unit
FITN 335.1	Pilates I	1 unit
FITN 335.2	Pilates II	1 unit
FITN 335.3	Pilates III	1 unit
FITN 335.4	Pilates IV	1 unit

Area 4: Individual Sports**Units**

INDV 121.1	Badminton I	1 unit
INDV 121.2	Badminton II	1 unit
INDV 160.1	Golf I	1 unit
INDV 160.2	Golf II	1 unit
INDV 160.3	Golf III	1 unit
INDV 160.4	Golf IV	1 unit
INDV 251.1	Tennis I	1 unit
INDV 251.2	Tennis II	1 unit
INDV 251.3	Tennis III	1 unit
INDV 251.4	Tennis IV	1 unit

Area 5: Team Sports**Units**

TEAM 105	Advanced Baseball	1 unit
TEAM 111.1	Basketball I	1 unit
TEAM 111.2	Basketball II	1 unit
TEAM 111.3	Basketball III	1 unit
TEAM 111.4	Basketball IV	1 unit

TEAM 132.1	Flag Football I	1 unit
TEAM 132.2	Flag Football II	1 unit
TEAM 132.3	Flag Football III	1 unit
TEAM 141.1	Soccer I	1 unit
TEAM 141.2	Soccer II	1 unit
TEAM 141.3	Soccer III	1 unit
TEAM 141.4	Soccer IV	1 unit
TEAM 148.1	Indoor Soccer I	1 unit
TEAM 148.2	Indoor Soccer II	1 unit
TEAM 148.3	Indoor Soccer III	1 unit
TEAM 148.4	Indoor Soccer IV	1 unit
TEAM 171.1	Volleyball I	1 unit
TEAM 171.2	Volleyball II	1 unit
TEAM 171.3	Volleyball III	1 unit
TEAM 171.4	Volleyball IV	1 unit
TEAM 184	Soccer: Skill Development and Conditioning	1 unit
TEAM 185	Expert Volleyball Training	1 unit
TEAM 186	Basketball: Individual Skill Development	1 unit
TEAM 187	Tennis: Skill Development and Conditioning	1 unit

Selective courses: choose a minimum of 6 units from the following:

Units

BIOL 310	Nutrition	3 units
CBOT 432	Introduction to Computer Applications	3 units
CHEM 210	General Chemistry I	5 units

OR



CHEM 410	Chemistry for Health Sciences	4 units
COMM 110	Public Speaking	3 units
KINE 119	First Aid/Adult and Pediatric CPR/AED	3 units
MATH 200	Elementary Probability and Statistics	4 units
PHYS 210	General Physics I	4 units

Total Required Major Units: 21

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

AA-T Kinesiology

An Associate Degree in Kinesiology offers the foundation for major course requirements towards a Bachelor's Degree program at a four-year university. Upon completion of the Associate's degree, students gain an understanding of how human movement can affect sports training, health, as well as a solid foundation to build their selected sub discipline in Kinesiology at a four-year university. For additional AA or AA-T degree requirements, please see explanation in college catalog or see a Counselor.

Career Opportunities

An associate degree in Kinesiology prepares students for transfer to obtain a Bachelor's degree to work in a variety of fields, such as health, wellness, fitness, personal trainer, coaching, athletic trainer, group exercise instructor, exercise physiologist, etc.

Program Learning Outcomes

Students completing this program will be able to:

1. Recognize and evaluate the importance of physical activity in leading a healthy, functional lifestyle and in creating or increasing a sense of well-being.
2. Exhibit interpersonal communication, cooperative relationships and social interaction within diverse and dynamic environments.
3. Analyze and understand the discipline of kinesiology to apply appropriate scientific and quantitative conclusions to physical activity.
4. Demonstrate and improve fitness components along with alignment, body positioning, special awareness, or rhythm while performing exercise movements.
5. Demonstrate professional and ethical decision-making and civic responsibility when applying knowledge of kinesiology.

AA-T Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 15 units

Units

BIOL 250	Human Anatomy	4 units
BIOL 260	Human Physiology	5 units
KINE 101	Introduction to Kinesiology	3 units

Movement Based Courses: Select a maximum of one course from any three of the following areas for a maximum of 3 units.

Area 1: Aquatics

Units

AQUA 127.1	Swim Stroke Development I	1 unit
AQUA 127.2	Swim Stroke Development II	1 unit

Area 2: Dance

Units

DANC 115.1	Mexican Folkloric Dance I	1 unit
DANC 115.2	Mexican Folkloric Dance II	1 unit
DANC 115.3	Mexican Folkloric Dance III	1 unit
DANC 115.4	Mexican Folkloric Dance IV	1 unit
DANC 117.1	Tap Dance I	1 unit
DANC 117.2	Tap Dance II	1 unit
DANC 117.3	Tap Dance III	1 unit
DANC 117.4	Tap Dance IV	1 unit
DANC 121.1	Contemporary Modern Dance I	1 unit
DANC 121.2	Contemporary Modern Dance II	1 unit
DANC 121.3	Contemporary Modern Dance III	1 unit
DANC 121.4	Contemporary Modern Dance IV	1 unit
DANC 125.1	Salsa I	1 unit



DANC 125.2	Salsa II	1 unit
DANC 125.3	Salsa III	1 unit
DANC 125.4	Salsa IV	1 unit
DANC 130.1	Jazz Dance I	1 unit
DANC 130.2	Jazz Dance II	1 unit
DANC 130.3	Jazz Dance III	1 unit
DANC 130.4	Jazz Dance IV	1 unit
DANC 140.1	Ballet I	0.5 or 1 units
DANC 140.2	Ballet II	0.5 or 1 units
DANC 140.3	Ballet III	0.5 or 1 units
DANC 140.4	Ballet IV	0.5 or 1 units
DANC 150.1	Hip Hop I	1 unit
DANC 150.2	Hip Hop II	1 unit
DANC 150.3	Hip Hop III	1 unit
DANC 150.4	Hip Hop IV	1 unit
DANC 151.1	Social Dance I	1 unit
DANC 151.2	Social Dance II	1 unit
DANC 151.3	Social Dance III	1 unit
DANC 151.4	Social Dance IV	1 unit
DANC 161.1	Tango Argentino I	0.5 or 1 units
DANC 161.2	Tango Argentino II	0.5 or 1 units
DANC 161.3	Tango Argentino III	0.5 or 1 units
DANC 161.4	Tango Argentino IV	0.5 or 1 units

DANC 400.1	Dance Performance and Production I	1 unit
DANC 400.2	Dance Performance and Production II	1 unit
DANC 400.3	Dance Performance and Production III	1 unit
DANC 400.4	Dance Performance and Production IV	1 unit

Area 3: Fitness**Units**

FITN 112	Cross-Training	1 unit
FITN 117	Fitness Assessment, Strength and Conditioning	1 unit
FITN 118	Beginning Fitness Center	1 unit
FITN 119	Intermediate Fitness Center	1 unit
FITN 122	Total Body Burn	1 unit
FITN 128.1	Core Strength and Functional Training I	1 unit
FITN 128.2	Core Strength and Functional Training II	1 unit
FITN 152	Basketball Conditioning	1 unit
FITN 153	Soccer Conditioning	1 unit
FITN 154	Volleyball Conditioning	1 unit
FITN 210	Varsity Weight Conditioning	1 unit
FITN 227.1	TRX® Suspension Training I	1 unit
FITN 227.2	TRX® Suspension Training II	1 unit
FITN 227.3	TRX® Suspension Training III	1 unit
FITN 227.4	TRX® Suspension Training IV	1 unit
FITN 235	Boot Camp	1 unit
FITN 301.1	Spinning I	1 unit
FITN 301.2	Spinning II	1 unit
FITN 301.3	Spinning III	1 unit
FITN 304.1	Walking Fitness I	1 unit
FITN 304.2	Walking Fitness II	1 unit



FITN 304.3	Walking Fitness III	1 unit
FITN 304.4	Walking Fitness IV	1 unit
FITN 308.1	Hiking and Trekking for Fitness I	1 unit
FITN 332.1	Flexibility and Stretching I	1 unit
FITN 332.2	Flexibility and Stretching II	1 unit
FITN 334.1	Yoga I	1 unit
FITN 334.2	Yoga II	1 unit
FITN 334.3	Yoga III	1 unit
FITN 334.4	Yoga IV	1 unit
FITN 335.1	Pilates I	1 unit
FITN 335.2	Pilates II	1 unit
FITN 335.3	Pilates III	1 unit
FITN 335.4	Pilates IV	1 unit

Area 4: Individual Sports**Units**

INDV 121.1	Badminton I	1 unit
INDV 121.2	Badminton II	1 unit
INDV 160.1	Golf I	1 unit
INDV 160.2	Golf II	1 unit
INDV 160.3	Golf III	1 unit
INDV 160.4	Golf IV	1 unit
INDV 251.1	Tennis I	1 unit
INDV 251.2	Tennis II	1 unit
INDV 251.3	Tennis III	1 unit

INDV 251.4	Tennis IV	1 unit
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Area 5: Team Sports**Units**

TEAM 105	Advanced Baseball	1 unit
TEAM 111.1	Basketball I	1 unit
TEAM 111.2	Basketball II	1 unit
TEAM 111.3	Basketball III	1 unit
TEAM 111.4	Basketball IV	1 unit
TEAM 132.1	Flag Football I	1 unit
TEAM 132.2	Flag Football II	1 unit
TEAM 132.3	Flag Football III	1 unit
TEAM 141.1	Soccer I	1 unit
TEAM 141.2	Soccer II	1 unit
TEAM 141.3	Soccer III	1 unit
TEAM 141.4	Soccer IV	1 unit
TEAM 148.1	Indoor Soccer I	1 unit
TEAM 148.2	Indoor Soccer II	1 unit
TEAM 148.3	Indoor Soccer III	1 unit
TEAM 148.4	Indoor Soccer IV	1 unit
TEAM 171.1	Volleyball I	1 unit
TEAM 171.2	Volleyball II	1 unit
TEAM 171.3	Volleyball III	1 unit
TEAM 171.4	Volleyball IV	1 unit
TEAM 184	Soccer: Skill Development and Conditioning	1 unit



TEAM 185	Expert Volleyball Training	1 unit
TEAM 186	Basketball: Individual Skill Development	1 unit
TEAM 187	Tennis: Skill Development and Conditioning	1 unit

Selective courses, choose a minimum of 6 units from the following:

Units

BIOL 130	Human Biology	3 units
AND		
BIOL 132	Human Biology Laboratory	1 unit
CHEM 210	General Chemistry I	5 units
OR		
CHEM 410	Chemistry for Health Sciences	4 units
KINE 119	First Aid/Adult and Pediatric CPR/AED	3 units
MATH 200	Elementary Probability and Statistics	4 units
PHYS 210	General Physics I	4 units

Total Required Major Units: 21

General Education - certified completion of one of the following:

- California State University General Education-Breadth pattern (CSU GE Breadth),
- **OR**
- Intersegmental General Education Transfer Curriculum (IGETC/CSU) pattern

Elective courses: If applicable, additional courses to meet the minimum 60 CSU transferable units requirement.

Please refer to Associate Degree for Transfer (ADT) Requirements for more information.

LATIN AMERICAN AND LATINO/A STUDIES

AA Associate in Arts Degree Program

Latin American and Latino/a Studies..... 60 units

CA Certificate of Achievement

Latin American and Latino/a Studies..... 18 - 23 units

AA Latin American and Latino/a Studies

Latin American and Latino/a Studies is an interdisciplinary program that combines courses from multiple academic departments to give students a broad understanding of historical, social, and cultural aspects of Latin America and Latino/a communities. Coursework in social sciences, literature, music, dance, drama, and Spanish language provides a comprehensive approach to historical and contemporary issues as well as questions of identity, heritage and creative expression.

Career Opportunities

The Latin American and Latino/a Studies program affords students access to a range of career opportunities in the United States and abroad. The continuing importance of Latin America for the U.S. and the growing Latino/a population in the U.S. have produced an increasing need for trained persons with a knowledge of Latin American and Latino/a communities to work in social service, government and foreign service, non-governmental organizations, law, teaching, business and other fields.

Program Learning Outcomes

Students completing this program will be able to:

1. Demonstrate knowledge of Latin American history, geography, cultural traditions and innovations, and social issues.
2. Engage with the integrative, multidisciplinary nature of Latin American and Latino/a Studies and apply multiple perspectives from the Humanities and Social Sciences.
3. Use effective written and oral communication skills that reflect knowledge of the Spanish language, critical thinking and a comparative approach to cross-cultural understanding.

AA Degree Requirements

Major: Core and Selective Requirements

Selective Courses, complete a total of 18 - 23 units from the following:

Area 1 - Social Sciences, choose a minimum of 6 units from the following:

Units

HIST 245	Race, Ethnicity and Immigration in the U.S.	3 units
HIST 246	History of Latinos in the U.S.	3 units
HIST 422	Modern Latin America	3 units
PSYC 106	Psychology of Prejudice and Discrimination	3 units



SOCI 141	Ethnicity and Race in Society	3 units
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**Area 2 - Arts, Culture and Literature,
choose a minimum of 4-6 units from the
following:**

Units

DANC 115.1	Mexican Folkloric Dance I	1 unit
DANC 115.2	Mexican Folkloric Dance II	1 unit
DANC 115.3	Mexican Folkloric Dance III	1 unit
DANC 115.4	Mexican Folkloric Dance IV	1 unit
DANC 125.1	Salsa I	1 unit
DANC 125.2	Salsa II	1 unit
DANC 125.3	Salsa III	1 unit
DANC 125.4	Salsa IV	1 unit
LIT. 371	Mexican-American Literature	3 units
LIT. 372	Myth and Folklore of La Raza	3 units
LIT. 373	Latin American Literature in Translation	3 units
MUS. 240	Latin American Music	3 units
SPAN 162	Latino Literature II	3 units

**Area 3 - Spanish Language and Heritage,
choose a minimum of 3-5 units from the
following:**

Units

SPAN 120	Advanced Elementary Spanish	5 units
SPAN 122	Advanced Elementary Spanish II	3 units
SPAN 130	Intermediate Spanish	4 units
SPAN 140	Advanced Intermediate Spanish	4 units
SPAN 145	Spanish Conversation through Film	3 units
SPAN 220	Spanish for Heritage Speakers I	4 units
SPAN 230	Spanish for Heritage Speakers II	4 units

**Area 4, choose a minimum of 5-6 units
from the following:**

Units

Any course or courses not selected from Areas 1, 2 or 3	5 - 6 units
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Total Required Major Units: 18 - 23

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

CA Latin American and Latino/a Studies

Latin American and Latino/a Studies is an interdisciplinary program that combines courses from multiple academic departments to give students a broad understanding of historical, social, and cultural aspects of Latin America and Latino/a communities. Coursework in social sciences, literature, music, dance, drama, and Spanish language provides a comprehensive approach to historical and contemporary issues as well as questions of identity, heritage and creative expression.

Career Opportunities

The Latin American and Latino/a Studies program affords students access to a range of career opportunities in the United States and abroad. The continuing importance of Latin America for the U.S. and the growing Latino/a population in the U.S. have produced an increasing need for trained persons with a knowledge of Latin American and Latino/a communities to work in social service, government and foreign service, non-governmental organizations, law, teaching, business and other fields.

Program Learning Outcomes

Students completing this program will be able to:

1. Demonstrate knowledge of Latin American history, geography, cultural traditions and innovations, and social issues.
2. Engage with the integrative, multidisciplinary nature of Latin American and Latino/a Studies and apply multiple perspectives from the Humanities and Social Sciences.
3. Use effective written and oral communication skills that reflect knowledge of the Spanish language, critical thinking and a comparative approach to cross-cultural understanding.

Major: Core and Selective Requirements



Selective Courses, complete a total of 18-23 units from the following:

Area 1 - Social Sciences, choose a minimum of 6 units from the following:

Units

HIST 245	Race, Ethnicity and Immigration in the U.S.	3 units
HIST 246	History of Latinos in the U.S.	3 units
HIST 422	Modern Latin America	3 units
PSYC 106	Psychology of Prejudice and Discrimination	3 units
SOCI 141	Ethnicity and Race in Society	3 units

Area 2 - Arts, Culture and Literature, choose a minimum of 4-6 units from the following:

Units

DANC 115.1	Mexican Folkloric Dance I	1 unit
DANC 115.2	Mexican Folkloric Dance II	1 unit
DANC 115.3	Mexican Folkloric Dance III	1 unit
DANC 115.4	Mexican Folkloric Dance IV	1 unit
DANC 125.1	Salsa I	1 unit
DANC 125.2	Salsa II	1 unit
DANC 125.3	Salsa III	1 unit
DANC 125.4	Salsa IV	1 unit
LIT. 371	Mexican-American Literature	3 units
LIT. 372	Myth and Folklore of La Raza	3 units
LIT. 373	Latin American Literature in Translation	3 units
MUS. 240	Latin American Music	3 units
SPAN 162	Latino Literature II	3 units

Area 3 - Spanish Language and Heritage, choose a minimum of 3-5 units from the following:

Units

SPAN 120	Advanced Elementary Spanish	5 units
SPAN 122	Advanced Elementary Spanish II	3 units
SPAN 130	Intermediate Spanish	4 units

SPAN 140	Advanced Intermediate Spanish	4 units
SPAN 145	Spanish Conversation through Film	3 units
SPAN 220	Spanish for Heritage Speakers I	4 units
SPAN 230	Spanish for Heritage Speakers II	4 units

Area 4, choose a minimum of 5 to 6 units from the following:

Units

Any course or courses not selected from Areas 1, 2 or 3.	5 - 6 units
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Total Required Units: 18 - 23

MATHEMATICS

AS-T Associate in Science Degree for Transfer

Mathematics..... 60 units

AS-T Mathematics

Mathematics provides the foundation for studying engineering, the physical, biological, and health sciences, economics, business, computer science, statistics, and many other fields.

Career Opportunities

Students with degrees in mathematics have a wide variety of career opportunities. Some pursue careers in the teaching of mathematics. Others pursue lucrative positions in fields such as engineering, operations research, computer programming, finance, data analysis, and law.

Program Learning Outcomes

Students completing this program will be able to:

1. Use symbolic, graphical, numerical, and written representations of mathematical ideas.
2. Use mathematical reasoning and a generalized problem solving process to solve real-world problems.

AS-T Degree Requirements



Major: Core and Selective Requirements

Complete Core Courses, 21 units		Units
MATH 251	Analytical Geometry and Calculus I	5 units
MATH 252	Analytical Geometry and Calculus II	5 units
MATH 253	Analytic Geometry and Calculus III	5 units
MATH 270	Linear Algebra	3 units
MATH 275	Ordinary Differential Equations	3 units

Total Required Major Units: 21

General Education - certified completion of one of the following:

- California State University General Education-Breadth pattern (CSU GE Breadth),
- **OR**
- Intersegmental General Education Transfer Curriculum (IGETC/CSU) pattern

Elective courses: If applicable, additional courses to meet the minimum 60 CSU transferable units requirement.

Please refer to Associate Degree for Transfer (ADT) Requirements for more information.

MEDICAL ASSISTING

AS Associate in Science Degree Program

Medical Assisting.....	60 units
Medical Billing Specialist.....	60 units

CA Certificate of Achievement

Medical Administrative Assistant.....	21 units
Medical Assisting.....	35 units
Medical Billing Specialist.....	21 units
Medical Coding Specialist.....	18 units

AS Medical Assisting

The ability to work well with people, be well organized, and be emphatic in dealing with patients are essential qualities in a medical assistant. The Medical Assisting program at Cañada is designed to provide the finest training and experience available. Through the expertise of a

talented faculty and exposure to professionals in the field, students can expect to learn administrative duties such as medical/financial records management, medical report transcription, patient appointment scheduling, and clinical duties including preparation of patients for examination, assistance with minor surgery, giving injections, and operating electrocardiographs.

Career Opportunities

The field of Medical Assisting is one of the fastest growing occupations in this decade. Career opportunities for the well-trained medical assistant are plentiful. Graduates of Cañada's program secure employment in physician's offices, clinic, hospitals, labs, medical publication firms, laboratories, pharmaceutical firms, public health agencies, and the claims departments of health insurance companies. Recommended high school preparation: written and oral communication skills, typing, biology, psychology, and basic mathematics.

Program Learning Outcomes

Students completing this program will be able to:

1. Apply their education and training to begin employment in health care.
2. Use updated job skills to maintain or advance in current employment.

AS Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 35 units		Units
BIOL 130	Human Biology	3 units
MEDA 100	Introduction to Medical Assisting	3 units
MEDA 110	Medical Terminology	3 units
MEDA 115	Introduction to Electronic Health Record	3 units
MEDA 120	Clinical Procedures I	4 units
MEDA 121	Clinical Procedures II	4 units
MEDA 140	Implementation of Electronic Health Record	3 units
MEDA 150	Medical Office Procedures	3 units
MEDA 160	Medical Insurance Procedures	3 units
MEDA 190	Introduction to Pharmacology	3 units
MEDA 672	Work Experience Education: Internship	3 units

Total Required Major Units: 35

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.



AS Medical Billing Specialist

Associate of Science Degree with a major in Medical Billing Specialist; Certificate Program. Medical Billing Specialists usually perform their duties for all providers of health care services and equipment in hospitals, clinics, and private medical offices.

Career Opportunities

The employment outlook for Medical Billing Specialists is excellent and is expected to grow as health care needs continue to increase. Due to the rapid expansion in health care, employment opportunities include all providers of health care services and supplies, hospitals, clinics, health agencies, private medical offices, medical labs, educational institutions, and insurance carriers.

Program Learning Outcomes

Students completing this program will be able to:

1. Apply their education and training to begin employment in health care.
2. Use updated job skills to maintain or advance in current employment.

AS Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 21 units		Units
ACTG 100	Accounting Procedures	3 units
MEDA 100	Introduction to Medical Assisting	3 units
MEDA 110	Medical Terminology	3 units
MEDA 150	Medical Office Procedures	3 units
MEDA 160	Medical Insurance Procedures	3 units
MEDA 164	CPT (Current Procedural Terminology) Beginning Coding	1 unit
MEDA 165	CPT (Current Procedural Terminology) Intermediate Coding	1 unit
MEDA 166	CPT (Current Procedural Terminology) Advanced Coding	1 unit
MEDA 167	ICD (International Classification of Diseases)-10-CM (Clinical Modification) Beginning Coding	1 unit
MEDA 168	ICD (International Classification of Diseases)-10-CM (Clinical Modification) Intermediate Coding	1 unit
MEDA 169	ICD (International Classification of Diseases)-10-CM (Clinical Modification) Advanced Coding	1 unit

Total Required Major Units: 21

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

CA Medical Administrative Assistant

The ability to work well with people, be well organized with attention to detail are essential qualities in an administrative medical assistant. Administrative skills include patient appointment scheduling, medical report transcription, medical billing and insurance, and medical/financial records management.

Career Opportunities

Administrative medical assistants work in physician's offices, clinics, outpatient facilities, hospitals, and business offices of medical facilities.

Program Learning Outcomes

Students completing this program will be able to:

1. Apply their education and training to begin employment in health care.
2. Use updated job skills to maintain or advance in current employment.

Major: Core and Selective Requirements

Complete Core Courses, 21 units		Units
MEDA 100	Introduction to Medical Assisting	3 units
MEDA 110	Medical Terminology	3 units
MEDA 115	Introduction to Electronic Health Record	3 units
MEDA 140	Implementation of Electronic Health Record	3 units
MEDA 150	Medical Office Procedures	3 units
MEDA 160	Medical Insurance Procedures	3 units
MEDA 190	Introduction to Pharmacology	3 units

Total Required Units: 21

CA Medical Assisting

The ability to work well with people, be well organized, and be emphatic in dealing with patients are essential qualities in a medical assistant. The Medical Assisting



program at Cañada is designed to provide the finest training and experience available. Through the expertise of a talented faculty and exposure to professionals in the field, students can expect to learn administrative duties such as medical/financial records management, medical report transcription, patient appointment scheduling, and clinical duties including preparation of patients for examination, assistance with minor surgery, giving injections, and operating electrocardiographs.

Career Opportunities

The field of Medical Assisting is one of the fastest growing occupations in this decade. Career opportunities for the well-trained medical assistant are plentiful. Graduates of Cañada's program secure employment in physician's offices, clinic, hospitals, labs, medical publication firms, laboratories, pharmaceutical firms, public health agencies, and the claims departments of health insurance companies. Recommended high school preparation: written and oral communication skills, typing, biology, psychology, and basic mathematics.

Program Learning Outcomes

Students completing this program will be able to:

1. Apply their education and training to begin employment in health care.
2. Use updated job skills to maintain or advance in current employment.

Major: Core and Selective Requirements

Complete Core Courses, 35 units		Units
BIOL 130	Human Biology	3 units
MEDA 100	Introduction to Medical Assisting	3 units
MEDA 110	Medical Terminology	3 units
MEDA 115	Introduction to Electronic Health Record	3 units
MEDA 120	Clinical Procedures I	4 units
MEDA 121	Clinical Procedures II	4 units
MEDA 140	Implementation of Electronic Health Record	3 units
MEDA 150	Medical Office Procedures	3 units
MEDA 160	Medical Insurance Procedures	3 units
MEDA 190	Introduction to Pharmacology	3 units
MEDA 672	Work Experience Education: Internship	3 units

Total Required Units: 35

CA Medical Billing Specialist

Associate of Science Degree with a major in Medical Billing Specialist; Certificate Program. Medical Billing Specialists usually perform their duties for all providers of health care services and equipment in hospitals, clinics, and private medical offices.

Career Opportunities

The employment outlook for Medical Billing Specialists is excellent and is expected to grow as health care needs continue to increase. Due to the rapid expansion in health care, employment opportunities include all providers of health care services and supplies, hospitals, clinics, health agencies, private medical offices, medical labs, educational institutions, and insurance carriers.

Program Learning Outcomes

Students completing this program will be able to:

1. Apply their education and training to begin employment in health care.
2. Use updated job skills to maintain or advance in current employment.

Major: Core and Selective Requirements

Complete Core Courses, 21 units		Units
ACTG 100	Accounting Procedures	3 units
MEDA 100	Introduction to Medical Assisting	3 units
MEDA 110	Medical Terminology	3 units
MEDA 150	Medical Office Procedures	3 units
MEDA 160	Medical Insurance Procedures	3 units
MEDA 164	CPT (Current Procedural Terminology) Beginning Coding	1 unit
MEDA 165	CPT (Current Procedural Terminology) Intermediate Coding	1 unit
MEDA 166	CPT (Current Procedural Terminology) Advanced Coding	1 unit
MEDA 167	ICD (International Classification of Diseases)-10-CM (Clinical Modification) Beginning Coding	1 unit
MEDA 168	ICD (International Classification of Diseases)-10-CM (Clinical Modification) Intermediate Coding	1 unit
MEDA 169	ICD (International Classification of Diseases)-10-CM (Clinical Modification) Advanced Coding	1 unit



Total Required Units: 21

CA Medical Coding Specialist

Ability to work independently and under pressure, attention to detail, organizational skills, and able to implement Federal and State compliance laws and regulations are essential qualities in a medical coder.

Career Opportunities

Medical coders work in in-patient and out-patient hospital facilities, large clinics, and insurance companies.

Program Learning Outcomes

Students completing this program will be able to:

1. Apply their education and training to begin employment in health care.
2. Use updated job skills to maintain or advance in current employment.

Major: Core and Selective Requirements

Complete Core Courses, 18 units		Units
BIOL 130	Human Biology	3 units
MEDA 100	Introduction to Medical Assisting	3 units
MEDA 110	Medical Terminology	3 units
MEDA 160	Medical Insurance Procedures	3 units
MEDA 164	CPT (Current Procedural Terminology) Beginning Coding	1 unit
MEDA 165	CPT (Current Procedural Terminology) Intermediate Coding	1 unit
MEDA 166	CPT (Current Procedural Terminology) Advanced Coding	1 unit
MEDA 167	ICD (International Classification of Diseases)-10-CM (Clinical Modification) Beginning Coding	1 unit
MEDA 168	ICD (International Classification of Diseases)-10-CM (Clinical Modification) Intermediate Coding	1 unit
MEDA 169	ICD (International Classification of Diseases)-10-CM (Clinical Modification) Advanced Coding	1 unit

Total Required Units: 18

MUSIC

AA Associate in Arts Degree Program

Music..... 60 units

AA Music

The music department at Cañada College provides a variety of courses to introduce students to the many ways of knowing music. The selection of courses in the music major gives a student several different creative outlets and prepares an open mind for the wide array of possibilities in the rapidly changing music world. Courses focus on the intersection of music and social contexts of its production. Note that this major does not specifically support transfer into most four-year degree music programs, which require ensemble performance experience and other courses available in the district.

Career Opportunities

Students who complete this AA may be interested in careers in music marketing or music production.

Program Learning Outcomes

Students completing this program will be able to:

1. Apply critical thinking in the creative process.
2. Use the language of the discipline; demonstrate a command of critical vocabulary
3. Describe the roles of creative expression in human cultures
4. Create music in performance and composition.
5. Use critical thinking in evaluating works of art in intrinsic terms, expressive content, and social context

AA Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses - Music Fundamentals and Composition, 6 units		Units
MUS. 100	Fundamentals of Music	3 units
MUS. 120	Songwriting Workshop I	3 units



Selective Courses, choose a minimum of 15 units from the following:

List A (Music Traditions other than American Popular Music), choose 3 units from the following:

	Units
MUS. 215 Music, Culture and History	3 units
MUS. 240 Latin American Music	3 units
MUS. 250 World Music	3 units

List B, choose 9 units from the following:

	Units
Select any course in List A not already used	3 units
MUS. 202 Music Appreciation	3 units
MUS. 210 Histories of Popular Music and Rock	3 units
MUS. 275 History of Jazz	3 units

List C (introductory applied music), choose a minimum of 3 units from the following:

	Units
MUS. 301 Piano I	2 units
MUS. 302 Piano II	2 units
MUS. 303 Piano III	2 units
MUS. 304 Piano IV	2 units
MUS. 371 Guitar I	2 units
MUS. 372 Guitar II	2 units
MUS. 373 Guitar III	2 units
MUS. 374 Guitar IV	2 units

Total Required Major Units: 21

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

PARALEGAL STUDIES

AS Associate in Science Degree Program

Paralegal..... 60 units

CA Certificate of Achievement

Litigation..... 18 units

Paralegal..... 27 units

AS Paralegal

The Paralegal Program at Cañada College was developed in cooperation with the San Mateo County Bar Association and the San Mateo County Legal Secretaries Association to train personnel to assist attorneys in both civil and criminal matters. Instruction centers on assisting the attorneys in interviewing clients and preparing legal documents. Courses must be evaluated by a letter grade, not by the Pass grade.

Career Opportunities

Students who earn the Paralegal Studies A.S. degree are entitled to be called paralegals under California law. This degree prepares students to be paralegals, prepares students who want to pursue a higher education degree related to law and the legal system, prepares students for law school, and prepares foreign attorneys for a Master of Laws (LLM) program, which must be completed before taking California Bar Exam. Career Opportunities: The demand for skilled paralegals is high, and employment opportunities exist in law firms, trial technology companies, technology companies, biotech companies, consulting firms, insurance companies, or in state or federal courts. Graduates are prepared for positions including but not limited to paralegals, law clerks, trial clerks, legal assistants, legal secretaries, or trial technology paralegals.

Program Learning Outcomes

Students completing this program will be able to:

1. Use effectively both book and electronic legal research tools, and to identify and use primary and secondary law sources.
2. Use California superior court judicial council forms, and at least one software program containing such forms.
3. Understand, follow and apply ethical rules for attorneys and paralegals and to identify potential ethical issues in the legal environment.

AS Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 18 units

	Units
CBOT 435 Spreadsheets	3 units
LEGL 241 Law Office Management	3 units
LEGL 249 Introduction to the Legal System	3 units
LEGL 250 Legal Research and Writing	3 units
LEGL 252 Civil Litigation and Trial Preparation	3 units
LEGL 261 Legal Ethics	3 units



Selective courses, choose a minimum of 9 units from the following:

		Units
BUS. 201	Business Law	3 units
LEGL 251	Torts	3 units
LEGL 254	Family Law	3 units
LEGL 260	Advanced Legal Research and Writing	3 units
LEGL 263	Intellectual Property Law	3 units
LEGL 264	Contracts	3 units
LEGL 267	Animal Law	3 units
LEGL 272	Immigration Law	3 units
LEGL 276	Electronic Litigation and Investigation	3 units
LEGL 672	Work Experience Education: Internship	1 - 3 units

Total Required Major Units: 27

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

CA Litigation

The Paralegal Program was developed in cooperation with the San Mateo County Bar Association and the San Mateo County Legal Secretaries Association (now the San Mateo County Legal Professionals Association) to train personnel to assist attorneys in both civil and criminal matters. The Litigation Certificate is designed for students who want to specialize in litigation, pursue a higher education degree related to law and the legal system, prepare for law school, or prepare foreign attorneys for a Masters in Law (LLM) program, which must be completed in order to take the California Bar Exam. The Litigation Certificate is a unique offering that enables our students to be more competitive and be better prepared for current industry needs.

Career Opportunities

Students who complete the Paralegal Certificate are entitled to be called paralegals under California law. The Litigation Certificate prepares students to be paralegals who focus their skills on litigation, prepares students for law school, and prepares foreign attorneys for a Master of Laws (LLM) program, which must be completed in order to take the California Bar Exam. The demand for skilled litigation paralegals is high, and employment opportunities exist in litigation law firms, trial technology companies, technology companies, biotech companies, consulting

firms, insurance companies, or in state or federal courts. Graduates are prepared for positions including but not limited to paralegals, law clerks, trial clerks, legal assistants, legal secretaries, or trial technology paralegals.

Program Learning Outcomes

Students completing this program will be able to:

1. Use effectively both book and electronic legal research tools, and to identify and use primary and secondary law sources.
2. Use California superior court judicial council forms, and at least one software program containing such forms.
3. Understand, follow and apply ethical rules for attorneys and paralegals and to identify potential ethical issues in the legal environment.

Major: Core and Selective Requirements**Complete Core Courses, 15 units**

		Units
LEGL 250	Legal Research and Writing	3 units
LEGL 251	Torts	3 units
LEGL 252	Civil Litigation and Trial Preparation	3 units
LEGL 260	Advanced Legal Research and Writing	3 units
LEGL 276	Electronic Litigation and Investigation	3 units

Selective courses, choose a minimum of 3 units from the following:

		Units
LEGL 254	Family Law	3 units
LEGL 263	Intellectual Property Law	3 units
LEGL 264	Contracts	3 units
LEGL 267	Animal Law	3 units
LEGL 269	Elder Law	3 units

Total Required Units: 18**CA Paralegal**

The Paralegal Program at Cañada College was developed in cooperation with the San Mateo County Bar Association and the San Mateo County Legal Secretaries Association to train personnel to assist attorneys in both civil and criminal matters. Instruction centers on assisting the attorneys in interviewing clients and preparing legal documents.



Courses must be evaluated by a letter grade, not by the Pass grade.

Career Opportunities

Students who complete this Paralegal Certificate are entitled to be called paralegals under California law. This Certificate prepares students to be paralegals, as well as students who are applying for law school or foreign attorneys preparing for a Master of Laws (LLM) degree program. This Certificate prepares students for the legal and business fields, including law firms, corporate legal departments, corporations, federal and state courts, and research firms. According to the Bureau of Labor Statistics, between 2016 and 2026, there is an 18% projected increase in paralegal and legal assistant jobs in the Bay Area. Certificate holders are prepared for positions including but not limited to paralegals, legal assistants, legal secretaries, legal clerks, title officers, and notaries.

Program Learning Outcomes

Students completing this program will be able to:

1. Use effectively both book and electronic legal research tools, and to identify and use primary and secondary law sources.
2. Use California superior court judicial council forms, and at least one software program containing such forms.
3. Understand, follow and apply ethical rules for attorneys and paralegals and to identify potential ethical issues in the legal environment.

Major: Core and Selective Requirements

Complete Core Courses, 18 units		Units
CBOT 435	Spreadsheets	3 units
LEGL 241	Law Office Management	3 units
LEGL 249	Introduction to the Legal System	3 units
LEGL 250	Legal Research and Writing	3 units
LEGL 252	Civil Litigation and Trial Preparation	3 units
LEGL 261	Legal Ethics	3 units

Selective courses, choose a minimum of 9 units from the following:

		Units
BUS. 201	Business Law	3 units
LEGL 251	Torts	3 units
LEGL 254	Family Law	3 units
LEGL 260	Advanced Legal Research and Writing	3 units
LEGL 263	Intellectual Property Law	3 units

LEGL 264	Contracts	3 units
LEGL 267	Animal Law	3 units
LEGL 269	Elder Law	3 units
LEGL 272	Immigration Law	3 units
LEGL 276	Electronic Litigation and Investigation	3 units
LEGL 672	Work Experience Education: Internship	1 - 3 units

Total Required Units: 27

PHILOSOPHY

AA Associate in Arts Degree Program

Philosophy..... 60 units

AA-T Associate in Arts Degree for Transfer

Philosophy..... 60 units

AA Philosophy

Philosophy is a disciplined reflection on the human condition. It can be an analysis and criticism of ideas and statements, or an attempt to synthesize all experience and knowledge, or an exploration of the meaning of life and how best to live it. Critical thinking is developed while examining peoples' responses to fundamental questions.

Career Opportunities

Philosophy cultivates general purpose "transferable" work skills. Its emphasis on reasoning and argumentation fosters critical thinking and communication skills applicable to a wide range of professional contexts. Professions that are of particular relevance to philosophy include law, business, government, social work, and health management. Philosophy is also valuable preparation for law school as well as post-graduate studies in the humanities, social sciences, and/or natural sciences.

Program Learning Outcomes

Students completing this program will be able to:

1. Analyze social science concepts and theories.
2. Evaluate diverse viewpoints related to the human experience.
3. Produce evidence-based arguments.



AA Degree Requirements**Major: Core and Selective Requirements****Complete Core Courses, 6 units****Units**

PHIL 100	Introduction to Philosophy	3 units
OR		
PHIL 240	Introduction to Ethics	3 units
PHIL 200	Introduction to Logic	3 units

Selective Courses, choose a minimum of 12 units from the following:**List A, choose 3 units from the following:****Units**

Any Core course not already used		3 units
PHIL 160	History of Philosophy: Ancient and Medieval	3 units
PHIL 175	Modern Philosophy	3 units
PHIL 190	Contemporary Philosophy	3 units

List B, choose 6 units from the following:**Units**

Any List A course not already used		3 units
HIST 100	History of Western Civilization I	3 units
HIST 101	History of Western Civilization II	3 units
PHIL 312	Introduction to Philosophy of Religion	3 units

List C, chose 3 units from the following:**Units**

Select any List A course not already used		3 units
Select any List B course not already used		3 units
PHIL 103	Critical Thinking	3 units
PHIL 300	Introduction to World Religions	3 units

Total Required Major Units: 18

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

AA-T Philosophy

Philosophy is a disciplined reflection on the human condition. It can be an analysis and criticism of ideas and statements, or an attempt to synthesize all experience and knowledge, or an exploration of the meaning of life and how best to live it. Critical thinking is developed while

examining peoples' responses to fundamental questions. This degree prepares students for transfer to the CSU system for further study in philosophy.

Career Opportunities

Philosophy cultivates general purpose "transferable" work skills. Its emphasis on reasoning and argumentation fosters critical thinking and communication skills applicable to a wide range of professional contexts. Professions that are of particular relevance to philosophy include law, business, government, social work, and health management. Philosophy is also valuable preparation for law school as well as post-graduate studies in the humanities, social sciences, and/or natural sciences.

Program Learning Outcomes

Students completing this program will be able to:

1. Analyze social science concepts and theories
2. Evaluate diverse viewpoints related to the human experience
3. Produce evidence-based arguments

AA-T Degree Requirements**Major: Core and Selective Requirements****Complete Core Courses, 6 units****Units**

PHIL 100	Introduction to Philosophy	3 units
OR		
PHIL 240	Introduction to Ethics	3 units
PHIL 200	Introduction to Logic	3 units

Selective Courses, choose a minimum of 12 units from the following:**List A, choose 3 units from the following:****Units**

Any Core course not already used		3 units
PHIL 160	History of Philosophy: Ancient and Medieval	3 units
PHIL 175	Modern Philosophy	3 units
PHIL 190	Contemporary Philosophy	3 units

List B, choose 6 units from the following:**Units**

Any List A course not already used		3 units
HIST 100	History of Western Civilization I	3 units
HIST 101	History of Western Civilization II	3 units
PHIL 312	Introduction to Philosophy of Religion	3 units



List C, choose 3 units from the following: Units

Any List A course not already used	3 units
Any List B course not already used	3 units

Total Required Major Units: 18

General Education - certified completion of one of the following:

- California State University General Education-Breadth pattern (CSU GE Breadth),
- **OR**
- Intersegmental General Education Transfer Curriculum (IGETC/CSU) pattern

Elective courses: If applicable, additional courses to meet the minimum 60 CSU transferable units requirement.

Please refer to Associate Degree for Transfer (ADT) Requirements for more information.

PHOTONICS AND LASER TECHNOLOGY

CA Certificate of Achievement

Photonics and Laser Technology..... 18 units
Advanced Optics and Photonics Technology.....27 units

CA Photonics and Laser Technology

This program provides foundational hands-on skills and training in industry-relevant science and engineering principles of the field of photonics and laser technology (PALT). PALT is involved with the generation and harnessing of light and other forms of radiant energy. Photonics involves state-of-art use and applications of lasers, optics, fiber-optics, and electro-optical devices in diverse fields of technology " alternate energy, manufacturing, health care, telecommunication, environmental monitoring, homeland security, aerospace, solid state lighting, and many others. The applications of photonics and lasers in creating and enabling technologies are extremely broad. From an educational standpoint, this means that photonics courses in a postsecondary college curriculum in related technologies can qualify graduates for a far wider variety of jobs and increase the global competitiveness of the workforce.

Career Opportunities

Rapid growth in the number and complexity of photonics and photonics-enabled technologies has caused the demand for technicians to exceed supply. There are more than a dozen fields that utilize Photonics enabled technologies. Some example include: aerospace technology (LiDAR system), manufacturing (laser welding, drilling and 3D printing), construction (site topography, materials inventory, distance measuring and alignment, three-dimensional analysis to track the progress of construction), transportation (monitoring exhaust emissions, navigation with optical gyroscopes) and environmental technology (monitoring air quality and particulate emission from exhaust stacks). The primary occupations for students skilled in basic photonics and laser technology relates to middle-skill jobs in operation and maintenance of optics and photonics equipment and technology involving titles like Mechanical Technicians, Technical Associate, Manufacturing, Thin Film Technician and Calibration Technology Specialist.

Program Learning Outcomes

Students completing this program will be able to:

1. Apply knowledge of math, science, and engineering to identify, formulate, and solve optics and photonics problems.
2. Communicate effectively and work well in situations that require teamwork.
3. Design and perform tests or experiments, analyze and interpret data, and prepare a report summarizing the results of the tests or experiments.
4. Use techniques, skills, and modern engineering and computer tools necessary for optics and photonics engineering practice.

Major: Core Requirements

Complete Core Courses, 18 units

		Units
PALT 401	Introduction to Photonics and Laser Technology	2 units
PALT 402	Geometrical Optics	4 units
PALT 403	Optics and Photonics Modeling and Design	3 units
PALT 404	Wave Optics	4 units
PALT 405	Introduction to Laser Technology	3 units
PALT 406	Components and Devices in Photonics and Laser Technology	2 units

Total Required Units: 18



CA Advanced Optics and Photonics Technology

This program provides advanced hands-on skills and training in industry-relevant science and engineering principles of the field of Photonics and Laser technology (PALT). PALT deals with the generation, harnessing, sensing and manipulation of light and other forms of radiant energy (solid state lighting, lasers, lamps, LED's etc.) through various mechanical, optical, and electrical systems. This field plays a vital role in driving the innovation in many industries. For example, applications of optics and photonics occur in sectors like optical data communications, imaging, health, aerospace, military, environment, entertainment and lighting and displays. They also occur in manufacturing sectors like life sciences, health care, transportation, security and safety.

Career Opportunities

Photonics and lasers technology relates to generating and harnessing light and other forms of radiant energy. This technology can be applied to numerous other fields of technology and entertainment, including personal devices (displays, touchscreens), alternative energy (Solar), manufacturing (3D and laser additive manufacturing), health care, telecommunication, environmental monitoring, homeland security, aerospace, solid-state lighting, and many others. Due to the diverse applications of this technology, the optics and photonics job opportunities available to all students with optics and photonics skills are varied. The primary occupations for students skilled in optics and photonics relates to the development and operation of optics and photonics equipment and technology and job titles include Laser and/or Photonics Technicians.

Program Learning Outcomes

Students completing this program will be able to:

1. Apply knowledge of math, science, and engineering to identify, formulate, and solve optics and photonics problems.
2. Communicate effectively and work well in situations that require teamwork.
3. Design and perform tests or experiments, analyze and interpret data, and prepare a report summarizing the results of the tests or experiments.
4. Use techniques, skills, and modern engineering and computer tools necessary for optics and photonics engineering practice.

Major: Core Requirements

Complete Core Courses, 27 units		Units
PALT 401	Introduction to Photonics and Laser Technology	2 units
PALT 402	Geometrical Optics	4 units
PALT 403	Optics and Photonics Modeling and Design	3 units
PALT 404	Wave Optics	4 units
PALT 405	Introduction to Laser Technology	3 units
PALT 406	Components and Devices in Photonics and Laser Technology	2 units
PALT 407	Optical Coating Technology	3 units
PALT 408	Optical Fibers	3 units
PALT 409	Advanced Photonics Technology	3 units

Total Required Units: 27

PHYSICS

AS Associate in Science Degree Program

Physics.....60 units

AS-T Associate in Science Degree for Transfer

Physics.....60 units

AS Physics

The Physical Science Degree is designed to give the student breadth in the physical sciences while providing considerable strength in one of the specialized physical science fields. The lower-division program is virtually the same as that taken in the first two years of college by a chemistry, physics, or geology major.

Career Opportunities

A major in physical science can serve as preparation for further study in technical fields and serves as an excellent background for professional training in law, business, medicine, or education

Program Learning Outcomes

Students completing this program will be able to:



1. Use the scientific method and appreciate its importance to the development of scientific thought.
2. Demonstrate critical thinking and analyze physical systems in terms of scientific concepts.
3. Document and communicate their work effectively.

AS Degree Requirements
Major: Core and Selective Requirements

Complete Core Courses, 43 units		Units
CHEM 210	General Chemistry I	5 units
CHEM 220	General Chemistry II	5 units
CIS 250	Introduction to Object Oriented Programming: C++	3 units
MATH 251	Analytical Geometry and Calculus I	5 units
MATH 252	Analytical Geometry and Calculus II	5 units
MATH 253	Analytic Geometry and Calculus III	5 units
MATH 275	Ordinary Differential Equations	3 units
PHYS 250	Physics with Calculus I	4 units
PHYS 260	Physics with Calculus II	4 units
PHYS 270	Physics with Calculus III	4 units

Total Required Major Units: 43
And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

AS-T Physics

The Physics Transfer Degree is designed to give the student the typical lower division course work for physics. A major in physics can serve as preparation for further study in technical fields and serves as an excellent background for professional training in law, business, medicine, or education.

Career Opportunities

A bachelor's degree in physics is an excellent starting point for many science careers.

Program Learning Outcomes

Students completing this program will be able to:

1. Use the scientific method and appreciate its importance to the development of scientific thought.

2. Demonstrate critical thinking and analyze physical systems in terms of scientific concepts.
3. Document and communicate their work effectively.

AS-T Degree Requirements
Major: Core and Selective Requirements

Complete Core Courses, 27 units		Units
MATH 251	Analytical Geometry and Calculus I	5 units
MATH 252	Analytical Geometry and Calculus II	5 units
MATH 253	Analytic Geometry and Calculus III	5 units
PHYS 250	Physics with Calculus I	4 units
PHYS 260	Physics with Calculus II	4 units
PHYS 270	Physics with Calculus III	4 units

Total Required Major Units: 27
General Education - certified completion of one of the following:

- California State University General Education-Breadth pattern (CSU GE Breadth),
- **OR**
- Intersegmental General Education Transfer Curriculum (IGETC/CSU) pattern

Elective courses: If applicable, additional courses to meet the minimum 60 CSU transferable units requirement.

Please refer to Associate Degree for Transfer (ADT) Requirements for more information.

POLITICAL SCIENCE

AA Associate in Arts Degree Program	
Political Science.....	60 units
AA-T Associate in Arts Degree for Transfer	
Law, Public Policy, and Society.....	60 units
Political Science.....	60 units

AA Political Science

Political science is the study of governments, public policies and political processes, systems, and political behavior. Political science subfields include political theory, political



economy, policy studies and analysis, comparative politics, international relations, pre-law and a host of related fields. Political scientists use both humanistic and scientific perspectives and tools and a variety of methodological approaches to examine the process, systems, and political dynamics of all countries and regions of the world.

Career Opportunities

A bachelor's degree in political science can lead to exciting careers in federal, state and local governments; law; business; international organizations; nonprofit associations and organizations; campaign management and polling; journalism; pre-Collegiate education; electoral politics; research and university and college teaching. Political science majors gain analytical skills, administrative competence and communication abilities that are valued in a wide spectrum of potential career areas.

Program Learning Outcomes

Students completing this program will be able to:

1. Analyze social science concepts and theories.
2. Evaluate diverse viewpoints related to the human experience.
3. Produce evidence-based arguments.

AA Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 3 units		Units
PLSC 210	American Politics	3 units

Selective Courses, choose a minimum of 15 units from the following:

List A, complete a minimum of 9 units from the following courses:

		Units
MATH 200	Elementary Probability and Statistics	4 units
PLSC 130	Introduction to International Relations	3 units
PLSC 150	Introduction to Political Theory	3 units
PLSC 170	Introduction to Comparative Politics	3 units

List B, complete a minimum of 6 units from the following courses:

		Units
Any course from List A that has not already been used		3 - 4 units
COMM 110	Public Speaking	3 units
ECON 100	Principles of Macro Economics	3 units

GEOG 110	Cultural Geography	3 units
HIST 201	U.S. History through 1877	3 units
PLSC 103	Critical Thinking About World Politics	3 units
PLSC 310	California State and Local Government	3 units
SOCI 141	Ethnicity and Race in Society	3 units

Total Required Major Units: 18

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

AA-T Law, Public Policy, and Society

This interdisciplinary area of emphasis focuses on the development of communication skills, introduces students to the legal field, and prepares students for further study in a variety of majors such as Political Science, Communication Studies, Economics, Philosophy, Social and Behavioral Sciences. Students who opt to pursue this course of study are encouraged to engage in further exploration of one or more specific majors as they select electives for degree completion.

Career Opportunities

The coursework required for this degree has been identified as good preparation for law school upon completion of a Bachelor's degree.

Program Learning Outcomes

Students completing this program will be able to:

1. Analyze social science concepts and theories
2. Evaluate diverse viewpoints related to the human experience
3. Produce evidence-based arguments.

AA-T Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 25-27 units

1. Understanding the Law, 3 units		Units
BUS. 201	Business Law	3 units
2. Ethics, 3 units		Units
PHIL 240	Introduction to Ethics	3 units



3. Oral Communication, choose 3 units from the following:

		Units
COMM 110	Public Speaking	3 units
COMM 127	Argumentation and Debate	3 units
COMM 140	Small Group Communication	3 units

4. Written Communication, 3-5 units

		Units
ENGL 100	Reading and Composition	3 units
OR		
ENGL 105	Reading and Composition with Support	5 units

5. Critical Thinking, choose 3 units from the following:

		Units
ENGL 165	Advanced Composition	3 units
PHIL 200	Introduction to Logic	3 units

6. Quantitative Reasoning, 4 units

		Units
MATH 200	Elementary Probability and Statistics	4 units

7. US History, choose 3 units from the following:

		Units
HIST 201	U.S. History through 1877	3 units
HIST 202	U.S. History from 1877 to the Present	3 units

8. Introduction to American Government, 3 units

		Units
PLSC 210	American Politics	3 units

Selective Courses, choose two courses from two of the areas listed below for a total of 6 units:**1. Economics, choose 3 units from the following:**

		Units
ECON 100	Principles of Macro Economics	3 units
ECON 102	Principles of Micro Economics	3 units

2. Political Science, 3 units

		Units
PLSC 150	Introduction to Political Theory	3 units

3. Public Policy, 3 units

		Units
SOCI 105	Social Problems	3 units

4. Diversity, choose 3 units from the following:

		Units
COMM 150	Intercultural Communication	3 units
SOCI 141	Ethnicity and Race in Society	3 units

Total Required Major Units: 31 - 33

General Education - certified completion of one of the following:

- California State University General Education-Breadth pattern (CSU GE Breadth),
- **OR**
- Intersegmental General Education Transfer Curriculum (IGETC/CSU) pattern

Elective courses: If applicable, additional courses to meet the minimum 60 CSU transferable units requirement.

Please refer to Associate Degree for Transfer (ADT) Requirements for more information.

AA-T Political Science

Political science is the study of governments, public policies and political processes, systems, and political behavior. Political science subfields include political theory, political economy, policy studies and analysis, comparative politics, international relations, pre-law and a host of related fields. Political scientists use both humanistic and scientific perspectives and tools and a variety of methodological approaches to examine the process, systems, and political dynamics of all countries and regions of the world.

Career Opportunities

A bachelor's degree in political science can lead to exciting careers in federal, state and local governments; law; business; international organizations; nonprofit associations and organizations; campaign management and polling; journalism; pre-Collegiate education; electoral politics; research and university and college teaching. Political science majors gain analytical skills, administrative competence and communication abilities that are valued in a wide spectrum of potential career areas.



Program Learning Outcomes

Students completing this program will be able to:

1. Analyze social science concepts and theories.
2. Evaluate diverse viewpoints related to the human experience.
3. Produce evidence-based arguments.

AA-T Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 3 units		Units
PLSC 210	American Politics	3 units

Selective Courses, choose a minimum of 15-17 units from the following:

List A, select 3 Courses (9-10 units)		Units
MATH 200	Elementary Probability and Statistics	4 units
PLSC 130	Introduction to International Relations	3 units
PLSC 150	Introduction to Political Theory	3 units
PLSC 170	Introduction to Comparative Politics	3 units

List B, select at least 2 courses (minimum 6-7 units)		Units
Any course from list A not already used		3 - 4 units
COMM 150	Intercultural Communication	3 units
OR		
COMM 180	Introduction to Communication Studies	3 units
ECON 100	Principles of Macro Economics	3 units
GEOG 110	Cultural Geography	3 units
HIST 201	U.S. History through 1877	3 units
PLSC 103	Critical Thinking About World Politics	3 units
PLSC 310	California State and Local Government	3 units
SOCI 141	Ethnicity and Race in Society	3 units

Total Required Major Units: 18 - 20

General Education - certified completion of one of the following:

- California State University General Education-Breadth pattern (CSU GE Breadth),
- **OR**
- Intersegmental General Education Transfer Curriculum (IGETC/CSU) pattern

Elective courses: If applicable, additional courses to meet the minimum 60 CSU transferable units requirement.

Please refer to Associate Degree for Transfer (ADT) Requirements for more information.

PSYCHOLOGY

AA Associate in Arts Degree Program

Psychology..... 60 units

AA-T Associate in Arts Degree for Transfer

Psychology..... 60 units

AA Psychology

Psychology, the science concerned with behavior and mental processing, is a broad discipline, essentially spanning subject matter from biology to sociology. It covers the intersection of two critical relationships: one between brain function (biology) and behavior, and one between the environment (sociology) and behavior. Psychology is concerned with the study of human and nonhuman animal behavior and mental processing. While the individual is usually the focal point (as in personality, developmental, clinical and therapy areas) the influence of group behavior on the individual is also considered. Psychology involves both pure science and practical application to everyday living. The field of psychology follows scientific methods, using careful observation, experimentation, and analysis that results in scientific findings of natural and social science.

Career Opportunities

The U.S. Bureau of Labor expects opportunities for careers in psychology to continue growth over the next decade. Numerous opportunities will develop in secondary and postsecondary education, public and private social service agencies, and management consulting service. Careers in health care will grow fastest in outpatient mental health and substance abuse treatment clinics. Businesses will use psychologists' expertise for analysis and research to provide marketing evaluation and statistical analysis as well as employee assistance programs, which offer employees help with personal problems.



Program Learning Outcomes

Students completing this program will be able to:

1. Analyze social science concepts and theories.
2. Evaluate diverse viewpoints related to the human experience.
3. Produce evidence-based arguments.

AA Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 10 units		Units
MATH 200	Elementary Probability and Statistics	4 units
PSYC 100	General Psychology	3 units
PSYC 205	Social Science Research Methods	3 units
OR		
SOCI 205	Social Science Research Methods	3 units

Selective courses: choose a minimum of 9 units from the following:

List A, complete a minimum of 3 units from the following:		Units
BIOL 110	Principles Of Biology	4 units
BIOL 130	Human Biology	3 units

List B, complete a minimum of 3 units from the following:		Units
Any List A course not already used		3 - 4 units
PSYC 200	Developmental Psychology	3 units
PSYC 300	Social Psychology	3 units
PSYC 410	Abnormal Psychology	3 units

List C, complete a minimum of 3 units from the following:		Units
Any course from List A or B not already used		3 - 4 units
PSYC 106	Psychology of Prejudice and Discrimination	3 units
PSYC 340	Introduction to Human Sexuality	3 units
SOCI 100	Introduction to Sociology	3 units

Total Required Major Units: 19

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

AA-T Psychology

Psychology, the science concerned with behavior and mental processing, is a broad discipline, essentially spanning subject matter from biology to sociology. It covers the intersection of two critical relationships: one between brain function (biology) and behavior, and one between the environment (sociology) and behavior. Psychology is concerned with the study of human and nonhuman animal behavior and mental processing. While the individual is usually the focal point (as in personality, developmental, clinical and therapy areas) the influence of group behavior on the individual is also considered. Psychology involves both pure science and practical application to everyday living. The field of psychology follows scientific methods, using careful observation, experimentation, and analysis that results in scientific findings of natural and social science.

Career Opportunities

The U.S. Bureau of Labor expects opportunities for careers in psychology to continue growth over the next decade. Numerous opportunities will develop in secondary and postsecondary education, public and private social service agencies, and management consulting service. Careers in health care will grow fastest in outpatient mental health and substance abuse treatment clinics. Businesses will use psychologists' expertise for analysis and research to provide marketing evaluation and statistical analysis as well as employee assistance programs, which offer employees help with personal problems.

Program Learning Outcomes

Students completing this program will be able to:

1. Analyze social science concepts and theories.
2. Evaluate diverse viewpoints related to the human experience.
3. Produce evidence-based arguments.

AA-T Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 10 units		Units
MATH 200	Elementary Probability and Statistics	4 units
PSYC 100	General Psychology	3 units
PSYC 205	Social Science Research Methods	3 units
OR		
SOCI 205	Social Science Research Methods	3 units



Selective Courses, choose a minimum of 9 units from the following:

List A, complete a minimum of 3 units from the following:

	Units
BIOL 110 Principles Of Biology	4 units
BIOL 130 Human Biology	3 units

List B, complete a minimum of 3 units from the following:

	Units
Any List A course not already used	3 - 4 units
PSYC 200 Developmental Psychology	3 units
PSYC 300 Social Psychology	3 units
PSYC 410 Abnormal Psychology	3 units

List C, complete a minimum of 3 units from the following:

	Units
PSYC 106 Psychology of Prejudice and Discrimination	3 units
PSYC 340 Introduction to Human Sexuality	3 units
SOCI 100 Introduction to Sociology	3 units

Total Required Major Units: 19

General Education - certified completion of one of the following:

- California State University General Education-Breadth pattern (CSU GE Breadth),
- **OR**
- Intersegmental General Education Transfer Curriculum (IGETC/CSU) pattern

Elective courses: If applicable, additional courses to meet the minimum 60 CSU transferable units requirement.

Please refer to Associate Degree for Transfer (ADT) Requirements for more information.

RADIOLOGIC TECHNOLOGY

AS Associate in Science Degree Program

Radiologic Technology.....70.5 units

AS Radiologic Technology

The Radiologic Technology program offers a comprehensive curriculum leading to an AS degree and qualifications for employment in medical facilities throughout the country. Students participate in classroom instruction and clinical education in our affiliated hospitals. Program graduates must take the licensure examination required by the State of California and the certification examination given by the American Registry of Radiologic Technologists.

Prospective students must complete a separate application to the program (available in November for the following Fall entrance) in addition to the regular college application. An information meeting is held annually in November for prospective students. For more information, please call the Science and Technology Division office at 306-3291.

Program Learning Outcomes

Students completing this program will be able to:

1. Select and manipulate appropriate technical factors for examinations, both routine and non-routine.
2. Apply correct positioning skills.
3. Pass the ARRT national certification on the first attempt.
4. Use effective written and oral communication skills with clinical staff and patients.

AS Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 70.5 units*		Units
PHYS 405	Applied Radiographic Physics	3 units
RADT 400	Orientation to Radiologic Technology	2 units
RADT 408	Perspectives in Radiology	1.5 units
RADT 410	Radiographic Positioning	4 units
RADT 415	Radiation Protection and Biology	3 units
RADT 418	Clinical Education I RADT 418, 428, 438, 448, 458, 468 Clinical Education I-VI (total approx. 1900 hours)	4.5 units
RADT 420	Radiographic Positioning II	4 units
RADT 428	Clinical Education II	6.5 units
RADT 430	Principles of Radiographic Image Production	3.5 units
RADT 435	Imaging Equipment and Quality Control	1.5 units
RADT 438	Clinical Education III	4.5 units



RADT 440	Advanced Imaging Modalities & Specialized Procedures	4 units
RADT 441	Sectional Anatomy	1.5 units
RADT 442	Radiographic Pathology	1.5 units
RADT 448	Clinical Education IV	9.5 units
RADT 450	Registry Review	1.5 units
RADT 458	Clinical Education V	9 units
RADT 468	Clinical Education VI	4.5 units
RADT 474	Venipuncture for Contrast Media Administration	1 unit

RADT 418, 428, 438, 448, 458, 468 Clinical Education I-VI (total approx. 1912 hours)

A grade of C or better is necessary for progression in the sequence.

Students must obtain current certification in CPR for health care providers.

Total Required Major Units: 70.5

***and required General Education coursework and electives as needed to meet the Associate degree requirements.**

It is recommended that the majority of the General Education requirements for the AS degree be completed prior to entry to the program.

SOCIAL SCIENCES

AA Associate in Arts Degree Program

International Studies..... 60 units

AA International Studies

International Studies is a broad, interdisciplinary social sciences degree that prepares students to engage with the global community. The social sciences integrate curriculum from the disciplines of anthropology, economics, geography, history, philosophy, political science, psychology, and sociology.

Career Opportunities

Prepares students for transfer and diverse career opportunities in such fields as: law and justice, education, journalism, government and foreign service work, non-

profit and humanitarian work, international trade and business management, and travel and tourism.

Program Learning Outcomes

Students completing this program will be able to:

1. Analyze social science concepts and theories.
2. Evaluate diverse viewpoints related to the human experience.
3. Produce evidence-based arguments.

AA Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 12 units		Units
ANTH 110	Cultural Anthropology	3 units
ECON 100	Principles of Macro Economics	3 units
HIST 106	World History II	3 units
PLSC 130	Introduction to International Relations	3 units

Selective Courses, choose a minimum of 9 units from the following:

		Units
ECON 102	Principles of Micro Economics	3 units
GEOG 100	Physical Geography	3 units
GEOG 150	World Regional Geography	3 units
HIST 202	U.S. History from 1877 to the Present	3 units
HIST 245	Race, Ethnicity and Immigration in the U.S.	3 units
HIST 422	Modern Latin America	3 units
PHIL 300	Introduction to World Religions	3 units
PLSC 103	Critical Thinking About World Politics	3 units
PLSC 170	Introduction to Comparative Politics	3 units
PSYC 106	Psychology of Prejudice and Discrimination	3 units
SOCI 105	Social Problems	3 units
SOCI 141	Ethnicity and Race in Society	3 units
SPAN 130	Intermediate Spanish	4 units
SPAN 140	Advanced Intermediate Spanish	4 units
SPAN 220	Spanish for Heritage Speakers I	4 units
SPAN 230	Spanish for Heritage Speakers II	4 units

Total Required Major Units: 21



And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

SOCIOLOGY

AA Associate in Arts Degree Program

Sociology..... 60 units

AA-T Associate in Arts Degree for Transfer

Sociology..... 60 units

AA Sociology

Both a scientific and humanistic discipline, sociology is concerned with the study of systems of social action and their interrelations. It attempts to discover the factors that determine social organization and behavior and promotes an understanding of the social world from personal problems to public issues.

Career Opportunities

Sociology provides a strong foundation in education, social work, law, business, criminal justice, health care, government service, human resources, counseling, public policy research, and much more.

Program Learning Outcomes

Students completing this program will be able to:

1. Analyze social science concepts and theories.
2. Evaluate diverse viewpoints related to the human experience.
3. Produce evidence-based arguments.

AA Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 10 units		Units
MATH 200	Elementary Probability and Statistics	4 units
PSYC 205	Social Science Research Methods	3 units
OR		
SOCI 205	Social Science Research Methods	3 units
SOCI 100	Introduction to Sociology	3 units

Selective Courses, choose a minimum of 9-10 units from the following:

List A, complete 6 units from the following: **Units**

PSYC 300	Social Psychology	3 units
SOCI 105	Social Problems	3 units
SOCI 141	Ethnicity and Race in Society	3 units

List B, complete 3-4 units from the following: **Units**

ANTH 110	Cultural Anthropology	3 units
GEOG 110	Cultural Geography	3 units
HIST 201	U.S. History through 1877	3 units
HIST 202	U.S. History from 1877 to the Present	3 units
PLSC 170	Introduction to Comparative Politics	3 units
PLSC 210	American Politics	3 units
PSYC 100	General Psychology	3 units
SOCI 325	Honors Colloquium: Sociology of Human Personhood	1 unit

Total Required Major Units: 19 - 20

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

AA-T Sociology

Both a scientific and humanistic discipline, sociology is concerned with the study of systems of social action and their interrelations. It attempts to discover the factors that determine social organization and behavior and promotes an understanding of the social world from personal problems to public issues.

Career Opportunities

Sociology provides a strong foundation in education, social work, law, business, criminal justice, health care, government service, human resources, counseling, public policy research, and much more.

Program Learning Outcomes

Students completing this program will be able to:

1. Analyze social science concepts and theories.
2. Evaluate diverse viewpoints related to the human experience.
3. Produce evidence-based arguments.



AA-T Degree Requirements**Major: Core and Selective Requirements**

Complete Core Courses, 10 units		Units
MATH 200	Elementary Probability and Statistics	4 units
PSYC 205	Social Science Research Methods	3 units
OR		
SOCI 205	Social Science Research Methods	3 units
SOCI 100	Introduction to Sociology	3 units

Selective Courses, choose a minimum of 9 units from the following:

List A, complete 6 units from the following:		Units
PSYC 300	Social Psychology	3 units
SOCI 105	Social Problems	3 units
SOCI 141	Ethnicity and Race in Society	3 units

List B, complete 3 units from the following:		Units
ANTH 110	Cultural Anthropology	3 units
GEOG 110	Cultural Geography	3 units
HIST 201	U.S. History through 1877	3 units
HIST 202	U.S. History from 1877 to the Present	3 units
PLSC 170	Introduction to Comparative Politics	3 units
PLSC 210	American Politics	3 units
PSYC 100	General Psychology	3 units

Total Required Major Units: 19

General Education - certified completion of one of the following:

- California State University General Education-Breadth pattern (CSU GE Breadth),
- **OR**
- Intersegmental General Education Transfer Curriculum (IGETC/CSU) pattern

Elective courses: If applicable, additional courses to meet the minimum 60 CSU transferable units requirement.

Please refer to Associate Degree for Transfer (ADT) Requirements for more information.

SPANISH**AA Associate in Arts Degree Program**

Spanish.....60 units

AA-T Associate in Arts Degree for Transfer

Spanish.....60 units

CA Certificate of Achievement

Bilingualism and Bileracy in English/Spanish.... 13 - 15 units

AA Spanish

The Spanish department offers classes at a variety of levels, from beginner to literature. There are classes for students of Spanish as a foreign language, as well as classes specifically designed for native Spanish speakers. In addition to improving students' linguistic abilities, all courses include discussion of aspects of the culture of Spanish speakers.

The ability to speak another language is an important advantage in today's world. In particular, given the demographics in California, knowledge of Spanish is a plus in many occupations and may be a requirement for certain positions.

Career Opportunities

Spanish majors may go on to become bilingual teachers or teachers of Spanish, translators or interpreters. A working knowledge of Spanish is a valuable skill for those wishing to pursue careers in business, international relations, social work, health services, education and tourism. Given the demographics in California, knowledge of Spanish is a plus, and may be a requirement, in occupations that involve communication with Spanish-speakers.

Program Learning Outcomes

Students completing this program will be able to:

1. Compare and contrast cultural elements from Spanish speaking countries with their own culture, both within the Latino culture in the United States and American culture in general.
2. Produce and understand oral and written communication at an Advanced High level, as defined by the ACTFL.
3. Recognize their own errors and self-correct in order to improve accuracy in Spanish grammar and spelling.



- Compare and contrast cultural aspects of Spanish-speaking countries, including art, music, history, socio-economic and political realities.

AA Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 8 or 9 units*

* For native speakers of Spanish: complete Core Courses, 8 units

		Units
SPAN 220	Spanish for Heritage Speakers I	4 units
SPAN 230	Spanish for Heritage Speakers II	4 units

* For non-native speakers of Spanish: complete Core Courses, 8 units

		Units
SPAN 130	Intermediate Spanish	4 units
SPAN 140	Advanced Intermediate Spanish	4 units

Selective Courses, choose a minimum of 12 units from the following:

		Units
ENGL 200	Introduction to Linguistics: A Survey of Language	3 units
OR		
LING 200	Introduction to Linguistics: A Survey of Language	3 units
HIST 246	History of Latinos in the U.S.	3 units
OR		
HIST 422	Modern Latin America	3 units
LIT. 371	Mexican-American Literature	3 units
OR		
LIT. 372	Myth and Folklore of La Raza	3 units
OR		
LIT. 373	Latin American Literature in Translation	3 units
MUS. 240	Latin American Music	3 units
SPAN 110	Elementary Spanish	5 units
OR		
SPAN 111	Elementary Spanish I	3 units
AND		
SPAN 112	Elementary Spanish II	3 units
SPAN 120	Advanced Elementary Spanish	5 units
OR		
SPAN 121	Advanced Elementary Spanish I	3 units

AND

SPAN 122	Advanced Elementary Spanish II	3 units
SPAN 140	Advanced Intermediate Spanish	4 units
SPAN 145	Spanish Conversation through Film	3 units
SPAN 162	Latino Literature II	3 units
SPAN 220	Spanish for Heritage Speakers I	4 units
SPAN 230	Spanish for Heritage Speakers II	4 units
Any language other than ENGL or SPAN		3 - 10 units

Total Required Major Units: 20 - 21

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

AA-T Spanish

The Spanish department offers classes at a variety of levels, from beginner to literature. There are classes for students of Spanish as a foreign language, as well as classes specifically designed for native Spanish speakers. In addition to improving students' linguistic abilities, all courses include discussion of aspects of the culture of Spanish speakers.

The ability to speak another language is an important advantage in today's world. In particular, given the demographics in California, knowledge of Spanish is a plus in many occupations and may be a requirement for certain positions.

Career Opportunities

Spanish majors may go on to become bilingual teachers or teachers of Spanish, translators or interpreters. A working knowledge of Spanish is a valuable skill for those wishing to pursue careers in business, international relations, social work, health services, education and tourism. Given the demographics in California, knowledge of Spanish is a plus, and may be a requirement, in occupations that involve communication with Spanish-speakers.

Program Learning Outcomes

Students completing this program will be able to:

- Compare and contrast cultural elements from Spanish speaking countries with their own culture, both within the Latino culture in the United States and American culture in general.



2. Produce and understand oral and written communication at an Advanced High level, as defined by the ACTFL.
3. Recognize their own errors and self-correct in order to improve accuracy in Spanish grammar and spelling.
4. Compare and contrast cultural aspects of Spanish-speaking countries, including art, music, history, socio-economic and political realities.

AA-T Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 18-21 units.

If a student places out of any core course(s), the student will need to compensate for the course(s)/units required to reach at least 18 units in the major by taking courses chosen from the selectives list or the substitution list.

1. First Year College Level Spanish, 10-12 units:

		Units
SPAN 110	Elementary Spanish	5 units
OR		
SPAN 111	Elementary Spanish I	3 units
AND		
SPAN 112	Elementary Spanish II	3 units
SPAN 120	Advanced Elementary Spanish	5 units
OR		
SPAN 121	Advanced Elementary Spanish I	3 units
AND		
SPAN 122	Advanced Elementary Spanish II	3 units

2. Second Year College Level Spanish: Choose A or B, 8 units:

A. For students of Spanish as a Foreign Language (8 units)

		Units
SPAN 130	Intermediate Spanish	4 units
SPAN 140	Advanced Intermediate Spanish	4 units

B. For Spanish-speaking students (8 units)

		Units
SPAN 220	Spanish for Heritage Speakers I	4 units
SPAN 230	Spanish for Heritage Speakers II	4 units

Selective Courses, choose a minimum of 3 units from the following:

		Units
HIST 246	History of Latinos in the U.S.	3 units
HIST 422	Modern Latin America	3 units
SPAN 162	Latino Literature II	3 units

Course Substitutions: Choose from these courses, if needed, to reach 18 units in the major.

		Units
Any course from the Selective Courses list not already used		3 units
ENGL 200	Introduction to Linguistics: A Survey of Language	3 units
OR		
LING 200	Introduction to Linguistics: A Survey of Language	3 units
LIT. 371	Mexican-American Literature	3 units
LIT. 372	Myth and Folklore of La Raza	3 units
LIT. 373	Latin American Literature in Translation	3 units
MUS. 240	Latin American Music	3 units

Total Required Major Units: 21 - 25

General Education - certified completion of one of the following:

- California State University General Education-Breadth pattern (CSU GE Breadth),
- **OR**
- Intersegmental General Education Transfer Curriculum (IGETC/CSU) pattern

Elective courses: If applicable, additional courses to meet the minimum 60 CSU transferable units requirement.

Please refer to Associate Degree for Transfer (ADT) Requirements for more information.

CA Bilingualism and Biliteracy in English/Spanish

The Certificate of Bilingualism and Biliteracy in English/Spanish shows that the student has literacy and oral skills at the collegiate level in both Spanish and English. A student who earns this certificate is able to continue studies in both languages at the transfer level, as well as present him or herself as employable in two languages.



Career Opportunities

A Certificate of Bilingualism and Biliteracy in English/ Spanish increases the range of career opportunities in the United States and abroad for the certificate holder. The ever-increasing global economy requires or gives preference to job candidates who not only are bilingual, but also display college-level literacy skills in two or more languages.

Program Learning Outcomes

Students completing this program will be able to:

- 1. Compare and contrast cultural elements from Spanish speaking countries with their own culture, both within the Latino culture in the United States and American culture in general.
- 2. Produce and understand oral and written communication at an Advanced High level, as defined by the American Council on the Teaching of Foreign Languages (ACTFL).
- 3. Recognize their own errors and self-correct in order to improve accuracy in Spanish grammar and spelling.
- 4. Compare and contrast cultural aspects of Spanish-speaking countries, including art, music, history, socio-economic and political realities.

Major: Core and Selective Requirements

Complete Core Courses, 3 units		Units
SPAN 162	Latino Literature II	3 units

Selective Courses, choose a minimum of 10-12 units from the following:		Units
ENGL 100	Reading and Composition	3 units
OR		
ENGL 105	Reading and Composition with Support	5 units
ENGL 200	Introduction to Linguistics: A Survey of Language	3 units
OR		
LING 200	Introduction to Linguistics: A Survey of Language	3 units
SPAN 220	Spanish for Heritage Speakers I	4 units
OR		
SPAN 230	Spanish for Heritage Speakers II	4 units

Total Required Units: 13 - 15

THEATRE ARTS

AA Associate in Arts Degree Program

Theatre Arts.....60 units

AA-T Associate in Arts Degree for Transfer

Theatre Arts.....60 units

AA Theatre Arts

The Cañada College Theatre Arts Department presents a program rich in depth and diversity. Students pursuing a career in the theatre arts or simply desiring creative expression will find in the drama department a wide array of relevant and exciting courses, as well as an extensive opportunity to put their developing knowledge and talent to work in both the creative and technical aspects of production. Students have the opportunity to perform, direct, design, build, crew, and manage both live productions and radio plays.

The Cañada Theatre Arts Department can point with satisfaction to a significant and steadily growing number of its former students who go on to professional stage, film, and television work as performers, producers, and technicians - and also to the many gratified amateurs.

Career Opportunities

The Theatre Arts program is designed for students of all levels of experience. Graduates can pursue careers in: acting for stage, film, and television; voiceover for radio, TV, and video games, disk jockey; teaching drama and public speaking to children and adults in schools, theatres, and professional environments; directing for film, television, and the stage; writing for film, television, and the stage; stage management, event management, talent agent, casting director, company manager, executive director; public relations, marketing; sound design, broadcast technician, light design, makeup artist, hair stylist, wardrobe manager; carpentry, electric engineering.

Program Learning Outcomes

Students completing this program will be able to:

- 1. Apply critical thinking in the creative process.
- 2. Use the language of the discipline; demonstrate to command of critical vocabulary
- 3. Describe the roles of creative expression in human cultures
- 4. Engage with the arts; integrate the arts into life.



5. Use critical thinking in evaluating works of art in intrinsic terms, expressive content, and social context

AA Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 9 units		Units
DRAM 140	Introduction to the Theatre	3 units
DRAM 200	Acting I: Acting For the Stage and the Camera	3 units
DRAM 305	Technical Production I	3 units

Selective Courses, choose a minimum of 12 units from the following:

Group A, complete 3 units from the following:		Units
DRAM 233	Introduction to New Play Development	3 units
DRAM 300.1	Rehearsal and Performance I	3 units

Group B, complete 9 units from the following:		Units
DRAM 101	History of Theatre	3 units
DRAM 150	Script Analysis	3 units
DRAM 151	Introduction to Shakespeare I	3 units
DRAM 201	Acting II	3 units

Total Required Major Units: 21

And required General Education coursework and electives as needed to meet the minimum 60 units required for the Associate degree.

AA-T Theatre Arts

The discipline of theatre arts includes theoretical and practical courses in all aspects of theatre, providing preparation in acting, directing, and technical theatre through productions. The degree program allows for a course of study that expands and increases creativity. It is a meaningful journey of personal discovery and self expansion. It connects the study of script analysis to creating complex characters or theatrical designs. In addition, a solid foundation of fundamental skills learned through a variety of performance as well as technical theatre courses will help the student build confidence and

emphasize the importance of responsibility, dedication, collaboration commitment.

Career Opportunities

The Theatre Arts program is designed for students of all levels of experience. Graduates can pursue careers in: acting for stage, film, and television; voiceover for radio, TV, and video games, disk jockey; teaching drama and public speaking to children and adults in schools, theatres, and professional environments; directing for film, television, and the stage; writing for film, television, and the stage; stage management, event management, talent agent, casting director, company manager, executive director; public relations, marketing; sound design, broadcast technician, light design, makeup artist, hair stylist, wardrobe manager; carpentry, electric engineering.

Program Learning Outcomes

Students completing this program will be able to:

1. Apply critical thinking in the creative process.
2. Use the language of the discipline; demonstrate to command of critical vocabulary.
3. Describe the roles of creative expression in human cultures.
4. Engage with the arts; integrate the arts into life.
5. Use critical thinking in evaluating works of art in intrinsic terms, expressive content, and social context.

AA-T Degree Requirements

Major: Core and Selective Requirements

Complete Core Courses, 18 units		Units
DRAM 140	Introduction to the Theatre	3 units
DRAM 150	Script Analysis	3 units
DRAM 200	Acting I: Acting For the Stage and the Camera	3 units
DRAM 201	Acting II	3 units
DRAM 300.1	Rehearsal and Performance I	3 units
DRAM 305	Technical Production I	3 units

Total Required Major Units: 18

General Education - certified completion of one of the following:

- California State University General Education-Breadth pattern (CSU GE Breadth),
- **OR**
- Intersegmental General Education Transfer Curriculum (IGETC/CSU) pattern

Elective courses: If applicable, additional courses to meet the minimum 60 CSU transferable units requirement.



Please refer to Associate Degree for Transfer (ADT) Requirements for more information.

UNIVERSITY TRANSFER

CA Certificate of Achievement

Option 1: CSU General Education (CSU GE).....39 units

Option 2: Intersegmental General Education Transfer Curriculum (IGETC) - CSU.....37 units

Option 3: Intersegmental General Education Transfer Curriculum (IGETC) - UC.....34 units

CA Option 1: CSU General Education (CSU GE)

The Certificate of Achievement in California State University General Education (CSU GE), will be awarded upon completion of the CSU GE requirements as outlined below. Students must complete a minimum of 39 units, which are distributed among six areas. CSU GE requirements are designed to be taken with a major area of concentration and elective courses in preparation for transfer to a California State University.

This certificate recognizes the completion of lower-division general education requirements for the CSU. For many majors, students are encouraged to complete the CSU GE pattern; however, it is not required for admission to the CSU. An official petition must be filed with the Admission and Records Office prior to the graduation deadlines as stated in the Academic Calendar.

Program Learning Outcomes

Students completing this program will be able to:

1. Select, evaluate, and use information to solve problems, investigate a point of view, support a conclusion, or engage in creative expression.
2. Use language to effectively convey an idea or set of facts, including the ability to use source material and evidence according to institutional and discipline standards.
3. Understand and interpret various points of view that emerge from a diverse world of peoples and/or cultures.
4. Represent complex data in various mathematical forms (e.g., equations, graphs, diagrams, tables, and words) and analyze these data to make judgments and draw appropriate conclusions.

Major: Core and Selective Requirements

Please refer to the Certificate of Achievement General Requirements section of the catalog for additional certificate major requirements that **MUST** be met.

Selective Courses, complete a minimum of 39 units of coursework to meet the California State University General Education requirements as listed below:

Complete 9 units from GE Area A: English Language Communication and Critical Thinking

One course required from each subsection.	Units
A1: Oral Communication	3 units
A2: Written Communication	3 units
A3: Critical Thinking	3 units

Complete a minimum of 9 units from GE Area B: Scientific Inquiry and Quantitative Reasoning*

Select one course from Physical Science, Life Science, and Math Concepts.	Units
B1: Physical Science*	3 units
B2: Life Science*	3 units
B3*: Lab (the course selected to meet either B1 or B2 must be a lab course or have a lab component to meet the B3 requirement)	
B4: Math Concept	3 units

*the course selected to meet either B1 or B2 must be a lab course or have a lab component to meet the B3 requirement

Complete 9 units from GE Area C: Arts and Humanities as shown below**

Chose at least one course from the Arts and at least one course from the Humanities**	Units
C1: Arts**	3 units
C2: Humanities**	3 units
C1 or C2:**	3 units

**Courses must be from at least two disciplines.

Complete 6 units from GE Area D: Social Sciences

	Units
Area D	6 units



NOTE: CSU United States History, Constitution and American Ideals (The California State University, before awarding a degree, requires students to complete courses or examinations that address: the historical development of American institutions and ideals Area US-1; and the Constitution of the United States and the operation of representative democratic government under that Constitution Area US-2; and the process of California state and local government Area US-3. Courses approved in two US areas may be used to satisfy both areas.

Complete 3 units from GE Area E: Lifelong Learning & Self Development***

See note below:	Units
Areas E1/E2***	3 units
***Note: maximum of 2 units from E2.	

Complete 3 units from GE Area F: Ethnic Studies

	Units
Area F	3 units

Total Required Units: 39

CA Option 2: Intersegmental General Education Transfer Curriculum (IGETC) - CSU

The Certificate of Achievement in Intersegmental General Education Transfer Curriculum (IGETC) " CSU, will be awarded upon completion of the IGETC requirements as outlined below. Students must complete a minimum of 37 (CSU) units, which are distributed among six areas. IGETC requirements are designed to be taken with a major area of concentration and elective courses in preparation for transfer to a California State University.

This certificate recognizes the completion of lower division general education requirements for IGETC. For many majors, students are encouraged to complete the IGETC pattern; however, it is not required for admission to the CSU. An official petition must be filed with the Admission and Records Office prior to the graduation deadlines as stated in the Academic Calendar.

Program Learning Outcomes

Students completing this program will be able to:

1. Select, evaluate, and use information to solve problems, investigate a point of view, support a conclusion, or engage in creative expression.

2. Use language to effectively convey an idea or set of facts, including the ability to use source material and evidence according to institutional and discipline standards.
3. Understand and interpret various points of view that emerge from a diverse world of peoples and/or cultures.
4. Represent complex data in various mathematical forms (e.g., equations, graphs, diagrams, tables, and words) and analyze these data to make judgments and draw appropriate conclusions.

Major: Core and Selective Requirements

Please refer to the Certificate of Achievement General Requirements section of the catalog for additional certificate major requirements that MUST be met.

Selective Courses, complete a minimum of 37 units of coursework to meet the IGETC/CSU requirements as listed below.

Complete 9 units in Area 1: English Communication	Units
Area 1A: English Composition	3 units
Area 1B: Critical Thinking - English Composition	3 units
Area 1C: Oral Communication	3 units

Complete a minimum of 3 units in Area 2: Mathematical Concepts and Quantitative Reasoning	Units
Area 2	3 units

Complete 9 units in Area 3: Arts and Humanities*	Units
Area 3A: Arts	3 units
Area 3B: Humanities	3 units
Area 3A or 3B	3 units

*At least one course must be selected from Arts and one course from Humanities. The third course can be selected from either Arts or Humanities.

Complete 9 units in Area 4: Social and Behavioral Sciences**	Units
Area 4**	9 units

**Three courses selected from at least 2 disciplines or an interdisciplinary sequence



**Complete a minimum of 7 units in Area 5:
Physical and Biological Sciences*****

	Units
Area 5A: Physical Science	3 - 4 units
Area 5B: Biological Science	3 - 4 units

***At least one course must include a laboratory component

Total Required Units: 37

CA Option 3: Intersegmental General Education Transfer Curriculum (IGETC) - UC

The Certificate of Achievement in Intersegmental General Education Transfer Curriculum (IGETC) " UC, will be awarded upon completion of the IGETC requirements as outlined below. Students must complete a minimum of 34 (UC) units, which are distributed among six areas. IGETC requirements are designed to be taken with a major area of concentration and elective courses in preparation for transfer to a University of California campus.

This certificate recognizes the completion of lower division general education requirements for IGETC. For many majors, students are encouraged to complete the IGETC pattern; however, it is not required for admission to the UC. An official petition must be filed with the Admission and Records Office prior to the graduation deadlines as stated in the Academic Calendar.

Program Learning Outcomes

Students completing this program will be able to:

1. Select, evaluate, and use information to solve problems, investigate a point of view, support a conclusion, or engage in creative expression.
2. Use language to effectively convey an idea or set of facts, including the ability to use source material and evidence according to institutional and discipline standards.
3. Understand and interpret various points of view that emerge from a diverse world of peoples and/or cultures.
4. Represent complex data in various mathematical forms (e.g., equations, graphs, diagrams, tables, and words) and analyze these data to make judgments and draw appropriate conclusions.

Major: Core and Selective Requirements

Please refer to the Certificate of Achievement General Requirements section of the catalog for additional certificate major requirements that **MUST** be met.

Selective Courses, complete a minimum of 34 units of coursework to meet the IGETC/UC requirements as listed below.

**Complete 6 units in Area 1: English
Communication****Units**

Area 1A: English Composition	3 units
Area 1B: Critical Thinking - English Composition	3 units

**Complete a minimum of 3 units in Area 2:
Mathematical Concepts and Quantitative
Reasoning.****Units**

Area 2	3 units
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**Complete 9 units in Area 3: Arts and
Humanities*****Units**

Area 3A: Arts	3 units
Area 3B: Humanities	3 units
Area 3A or 3 B	3 units

*At least one course must be selected from Arts and one course from Humanities. The third course can be selected from either Arts or Humanities

**Complete 9 units in Area 4: Social and
Behavioral Sciences******Units**

Area 4**	9 units
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**Three courses selected from at least 2 disciplines or an interdisciplinary sequence

**Complete 7 units in Area 5: Physical and
Biological Sciences*******Units**

Area 5A: Physical Science	3 - 4 units
Area 5B: Biological Science	3 - 4 units

***At least one course must include a laboratory component

Area 6: Language other than English

To demonstrate proficiency in a LOTE, one of the following must be completed:



- *Successful completion of two years of high school in one language (grade of C or higher) – must be verified by an official high school transcript*
- *Successful completion of a course at a college or university (with a grade of C or higher) - must be verified by an official College or University transcript*
- *Successful completion, grade of C or higher (2.0), of two years of formal schooling at six grade level or higher in an institution where the language of instruction is not English*
- *Satisfactory score of 3 or higher on College Board Advanced placement examinations in languages Other than English*
- *Satisfactory score of 5 or higher on International Baccalaureate higher level examinations in languages other than English*
- *Successful completion of one of the following Cañada courses: SPAN 120, 122, 130, 140, 150, 152, 161, 162*
- *Other – Please consult with a counselor*

Total Required Units: 34

