



2018-2019 Catalog Addendum

This catalog addendum reflects updates and corrections to the 2018-2019 catalog.
New and modified program and courses are effective Spring 2019.
The complete catalog covers Summer semester (June-July 2018);
Fall semester (August-September 2018); and Spring semester (January-May 2019).
Catalog Revised 11/2018

www.solano.edu

A public community college serving the Northern California communities
of Benicia, Dixon, Fairfield, Suisun, Travis Air Force Base,
Vacaville, Vallejo, and Winters

Solano Community College Fairfield Campus
4000 Suisun Valley Road, Fairfield, CA 94534-3197
(707) 864-7000

Vacaville Center
2001 North Village Parkway, Vacaville, CA 95688
(707) 863-7836

Vallejo Center
545 Columbus Parkway, Vallejo, CA 94591
(707) 642-8188

Travis Air Force Base Center
530 Hickam Ave., Bldg. 249, Travis Air Force Base, CA 94535
(707) 424-2431

Accreditation and Approvals

- Solano Community College is accredited by the Accrediting Commission for Community and Junior Colleges, Western Association of Schools and Colleges, 10 Commercial Blvd., Suite 204, Novato, California 94949, (415) 506-0234, an institutional accrediting body recognized by the Council for Higher Education Accreditation and the U.S. Department of Education. Additional information about accreditation, including the filing of complaints against member institutions, can be found at: www.accjc.org.
- The Nursing program is approved by the California State Board of Registered Nursing.
- The Cosmetology program is approved by the California State Board of Barbering and Cosmetology.
- The Aeronautics program is certified by the Federal Aviation Administration (FAA) in accordance with CFR14, FAR Part 147.
- Solano Community College is approved for veterans training by the U.S. Department of State and for Foreign Student Education by the U.S. Immigration Service (USCIS).

Admissions and Registration

Students are responsible for officially dropping their courses before established deadlines. Nonattendance or non-payment of fees will not remove you from a course nor alleviate your responsibility to pay fees.

Students who do not officially drop courses may receive an "F" for the term and incur a student debt. Students should drop courses online.

FEES

Fees are due and payable at the time of registration. All debts to the College must be cleared before students may register for classes.

NON-RESIDENT TUITION

Non-residents (out-of-state and international students) must pay tuition fees at the time of registration. At the time of publication of this catalog, fees are \$258.00 per unit. All non-resident students are also required to pay a ~~\$46.00 per unit enrollment fee and~~ a \$5.00 per unit nonresidential capital outlay fee. Fees are subject to change.

GENERAL ENROLLMENT FEES AND OTHER COSTS

- Enrollment fee: \$46 per unit.* There is no enrollment fee for noncredit classes. Fees are due and payable at registration. All debts to the College must be cleared before students may register for classes.
- Parking permits are required for students parking their vehicles at the Fairfield campus, Vallejo and Vacaville Centers - \$20 fee per vehicle.
- Student transcript fee: \$4.00; Rush service \$7.50; \$1.00 unofficial transcript.
- Student on-campus enrollment verification fee: \$1.00; Verification service through the National Student Clearinghouse: Visit the Clearing House web site for current fees.
- Health fee: Fall/Spring-\$13.00; Summer-\$5.00**
- Student photo ID for on-campus students: \$5.00 (good for nine consecutive semesters when validated).
- Student Center fee: \$1 per unit, up to a maximum of \$10 per student fiscal year (July 1-June 30).
- Library fines: See website for fees.
- Parking citations: \$20 (for regular parking citations); \$275 (for handicapped parking citations).
- Instructional and required materials fees: See the Schedule of Classes.

*Fees Subject to change.

** The State of California has mandated this fee for credit courses through Section 72252 of the California State Education Code. The fee is not applicable to students who can demonstrate, at the time of enrollment, that they are recipients of benefits under the CalWORKS program, the Supplemental Security Income/State Supplementary program, or the General Assistance program. Fee waiver forms may be obtained from the Financial Aid Office. The enrollment fee is subject to change by the State Legislature.

Refer to Financial Aid Programs & Eligibility BOG fee Waiver (BOG FW) information.

APPLYING FOR REFUNDS

Classes dropped by appropriate deadlines are automatically refunded. Any outstanding debts are deducted from refunds. Fees are refunded by check 2-4 weeks after classes are dropped.

CALIFORNIA COMMUNITY COLLEGES ENROLLMENT AND NON-RESIDENT TUITION FEE Fall and Spring Semesters - Full Term Classes

Through refund deadline, 100% of the California Community College Enrollment Fee will be refunded.

Summer Session and Short-Term Courses

Through 10% of the course, 100% of the California Community College Enrollment Fee will be refunded.

HEALTH AND STUDENT CENTER FEES

The Health and Student Center fees are only refundable if all classes are dropped prior to the beginning of the semester.

Since the provision of health services is very expensive and the California Community College system does not have sufficient funds to subsidize student health services, the State Legislature mandates that the burden of supporting a student health center will be shared by all Solano Community College students through a general fee, regardless of whether they utilize the health center or have their own insurance.

~~The following students are exempt from paying the mandatory health fee:~~

- ~~(1) Students who depend exclusively upon prayer for healing in accordance with the teachings of a bona fide religious sect, denomination, or organization.~~
- ~~(2) Students who are attending a community college under an approved apprenticeship training program.~~

~~Students who fall within any one of the two grounds for exemption may apply for a fee waiver by submitting a written request to the Student Life Office.~~

Program Degrees and Certificates

	Associate Degree	Certificate of Achievement	Job Direct Certificate
Accounting*	✓	✓	
Account Clerk			✓
Advanced Manufacturing			
Mechatronics*	✓	✓	
Aeronautics			
Airframe Maintenance Technician*	✓	✓	
Powerplant Maintenance Technician*	✓	✓	
Airframe & Powerplant Maintenance Technician*	✓	✓	
American Sign Language			
ASL-English Interpreter Training*	✓	✓	
Anthropology	+		
Art			
Art History	+		
Graphic Design & Illustration*	✓		
Studio Arts	+		
Studio Arts with Emphasis	✓		
Astronomy	✓		
Automotive			
Automotive Technician*	✓		
Automatic Transmissions and Transaxles*		✓	
Electrical and Body Systems*		✓	
Maintenance and Light Repair*		✓	
Biology	✓+		
Biotechnology			
Biotechnology Laboratory Assistant*		✓	
Industrial Biotechnology*	✓	✓	
Biomanufacturing Bachelor of Science*			
Business	✓		
Business Administration	+		
Business Insurance: Property & Casualty*	✓	✓	
Insurance Specialist			✓
Chemistry	✓		
Child Development and Family Studies			
Early Childhood Education*	✓+	✓	
Associate Teacher*		✓	
Communication Studies	+		
Sports Broadcasting*		✓	
Computer Information Science			
Computer Programming*	✓	✓	
Microcomputer Applications*	✓	✓	
Web Development and Administration*	✓	✓	
Computer Applications Specialist			✓
Database Specialist			✓
Microsoft Office Specialist			✓
Microsoft Office Master			✓
Web Developer			✓
Web Programmer			✓
Cosmetology*	✓	✓	
Criminal Justice			
Administration of Justice	+		
Corrections*	✓	✓	
Law Enforcement*	✓	✓	
Drafting			
Drafting and Design Technician*	✓	✓	
Survey and Civil Drafting Technician*	✓	✓	
Computer Aided Drafting (CAD) Technician			✓
Maker Space Technology			✓
Economics	+		
Emergency Medical Technician			✓
Engineering	✓		
English	✓+		

	Associate Degree	Certificate of Achievement	Job Direct Certificate
Film and Television	✓		
Fire Technology*	✓	✓	
Foreign Languages			
General	✓		
Individual	✓		
Spanish	+		
Geography	+		
History	+		
Horticulture*	✓	✓	
Landscape Worker			✓
Human Services*	✓	✓	
Interdisciplinary Studies			
Science and Quantitative Reasoning	✓		
Wellness and Self Development	✓		
Journalism	✓+		
Kinesiology	+		
Sports Medicine/Athletic Training	✓		
Fitness Professional			✓
Liberal Studies	✓		
Management*	✓	✓	
Retail Management*	✓	✓	
Small Business Management*	✓	✓	
Marketing*	✓	✓	
Mathematics	✓+		
Music	+		
Instrumental	✓		
Theory-Composition	✓		
Vocal	✓		
Nursing, Registered*	✓		
Certified Nursing Assistant			✓
Nutrition	+		
Occupational Education			
Soft Skills for Technicians			✓
Office Technology			
Administrative Assistant*	✓	✓	
Medical Front Office Clerk*		✓	
Medical Office and Coding Specialist*	✓	✓	
Photography, Professional*	✓	✓	
Physics	✓+		
Political Science	+		
Psychology	✓+		
Real Estate*	✓	✓	
Science	✓		
Social Science	✓		
Social Justice/Ethnic Studies			
Social Justice Studies	+		
Ethnic Studies	✓		
Sociology	✓+		
Theatre Arts	✓+		
Theatre Arts Technical*		✓	
Water and Wastewater Technology*	✓	✓	
Welding*	✓	✓	

An asterisk (*) following a program name indicates a CTE discipline

+ Associate Degree for Transfer exists for this program

✓+ Both an Associate Degree and an Associate Degree for Transfer exist for this program.

Job Direct Low Unit Certificates

Awarded to students who satisfactorily complete one of the fast-track programs to prepare them for employment. Counselors, faculty, and administrators are glad to answer any questions about these programs. Requirements for the programs are listed in the corresponding sections of this catalog.

Associate Degree for Transfer (AD-T)

The Student Transfer Achievement Reform Act of 2010 (SB 1440 - Padilla) enables the California Community Colleges and California State University to collaborate on the creation of Associate in Arts Degree (AA) and Associate in Science (AS) Degree transfer programs. Upon completion of the associate degree, the student is eligible for transfer with junior standing into the California State University (CSU) system. Students are given guaranteed admission into the California State University (CSU) system, and further are given priority consideration when applying to a particular program that is similar to the student's community college major. For more information, see the California Chancellor's Office website on SB 1440 Associate Degrees for Transfer <http://www.sb1440.org/>

ADT Programs	A.A.-T	A.S.-T
Administration of Justice		•
Anthropology	•	
Art History	•	
Biology		•
Business Administration		•
Communication Studies	•	
Early Childhood Education		•
English	•	
Economics	•	
Geography	•	
History	•	
Journalism	•	
Kinesiology	•	
Mathematics		•
Music	•	
Nutrition		•
Physics		•
Political Science	•	
Psychology	•	
Social Justice Studies	•	
Sociology	•	
Spanish	•	
Studio Arts	•	
Theatre Arts	•	

Advanced Manufacturing

Mechatronics

Program Description

Mechatronics is the study of electronics, mechanics, electrical, and computers to produce a well-rounded technician capable of handling the complex maintenance and operations tasks demanded by modern manufacturing, transportation, communication, and other industries. The modularization of electro-mechanical devices no longer requires in-depth specialization of a single field of study as more emphasis is placed on troubleshooting and replacement skills for maintenance and generalized knowledge of how systems work together for operations and purchasing and planning.

Individuals with well-rounded knowledge of how electronic, mechanical, electrical, and computer systems work are in high demand in the grouping manufacturing, transportation, communication, and other industries in and around Solano County. Workers in these industries have traditionally been trained in only one of the trades, becoming specialists. The new trend is to train generalists with basic knowledge of all aspects of the industry. The modularization of electro-mechanical devices no longer requires in-depth specialization of a single field of study as more emphasis is placed on troubleshooting and replacement skills for maintenance and generalized knowledge of how systems work together for operations and purchasing and planning.

Opportunities exist throughout the greater San Francisco Bay area to the Sacramento Valley. Companies are using high tech equipment and systems automation for everything from maintenance to manufacturing to services to research and development. Work may be with a private firm, business under government contract, or civil service. Workers may work in one of the highly automated factories in the area or be called upon to provide services at businesses, hospitals, or even homes. Some graduates with a degree or certificate can expect to earn a starting salary in excess of \$2000 per month. Extensive experience and further education may more than double this amount.

Certificate of Achievement and Associate in Science Degree

A Certificate of Achievement can be obtained upon completion of the 39-40-unit major. The Associate in Science Degree can be obtained by completing a total of 60 units, including the 39-40 unit major, the general education requirements, and electives. All courses in the major must be completed with a minimum grade of C or a P if the course is taken on a Pass/ No Pass basis.

Program Outcomes

Students who complete the Mechatronics Certificate of Achievement/ Associate Degree will be able to:

1. Safely operate a variety of testing instruments and diagnostic tools.
2. Recognize complex systems and understand their function, operation, advantages and disadvantages.
3. Analyze complex systems and diagnose/troubleshoot problems.

REQUIRED COURSES	Units
CIS 001 Introduction to Computer Science.....	3
IT 101 Introduction to Mechatronics	3
IT 151 Vocational Mathematics.....	3
MT 120 Principles of Analog Electronics	3
MT 122 Principles of Digital Electronics	3
MT 130 Principles of Mechanical Power Systems	3
MT 132 Principles of Fluid Power Systems	3
MT 140 Principles of Industrial Electrical Systems	3
MT 142 Principles of Electrical Machinery	3
MT 162 Robotic Manufacturing Systems.....	3
MT 164 Programmable Logic Controllers.....	3
6-7 units from List A	6-7
Total Units	39-40

List A: (select 6-7 units)	Units
DRFT 045 Introduction to Computer-Aided Drafting (CAD)	4
DRFT 050 Basic Drafting.....	1.5
DRFT 079 Blueprint Reading	3
DRFT 151 3D Modeling with Fusion 360	1.5
IT 050 Alternative Energy Technologies	3
IT 120 Electrical Safety	3
IT 140 Industrial Materials	3
IT 174 Making Things 4 - Basic Electronics	1
OCED 070 Occupational Soft Skills.....	1.5
OCED 090 Occupational Work Experience	1-6

This is a Gainful Employment Program. For additional information, please visit http://www.solano.edu/gainful_employment/ and select "Mechatronics."

American Sign Language

ASL/English Interpreter Training

Program Description

The ASL program provides a foundation of interpreting skills for students seeking to transfer to a four-year institution in order to become an interpreter. The coursework presents American Sign Language in a cross-cultural context, addressing the ethics and standards expected of a professional interpreter.

Certificate of Achievement and Associate in Arts Degree

A Certificate of Achievement can be obtained upon successful completion of the 27-unit major. The Associate in Arts degree can be obtained upon completion of 60 units, including the major, the general education requirements, and electives. All courses in the major must be completed with a minimum grade of C or a P if the courses is taken on a Pass/No Pass basis.

Program Outcomes

Students who complete the ASL/English Interpreter Training Certificate of Achievement/Associate Degree will be able to:

1. Sign effectively, using appropriate skills, in working with the Deaf and Hard of Hearing.
2. Demonstrate an understanding of Deaf culture, and the ethics and standards of professional ASL environment.

REQUIRED COURSES.....Units

ASL001 American Sign Language 1.....	3
ASL002 American Sign Language 2.....	3
ASL003 American Sign Language 3	3
ASL004 American Sign Language 4.....	3
ASL005 American Deaf Culture.....	3
ASL006 Linguistics of American Sign Language.....	3
ASL052	
Fingerspelling, Classifiers, and Numbers.....	3
ASL053	
Introduction to American Sign Language	
Interpreting	3
ASL054 ASL Interpreting Field Work.....	2
OCED090 Occupational Work Experience.....	1
Total Units	27

These programs are Gainful Employment Programs. For additional information, please visit http://www.solano.edu/gainful_employment/ and select "ASL/English Interpreter Training."

Art

Associate in Arts in Art History for Transfer (ADT: A.A.-T)

Program Description

This program provides the academic and practical experience to prepare students for a career, or further education at a four-year institution, in art history and related fields, such as museum studies, art education and administration. The Associate in Arts in Art History for Transfer provides the academic and practical experience to transfer into the CSU system to complete a baccalaureate degree **in Art History**.

Associate in Arts in Art History for Transfer

Students wishing to transfer to a University of California system for an Art History B.A. should take all the art history courses in the program (ART 001, 002, 003A, 003B, 011 and 012). Students completing an Associate in Arts in Art History for Transfer degree are guaranteed admission to the CSU system, but not to a particular campus or major. Students transferring to a CSU campus that accepts the Associate in Arts in Art History for Transfer degree will be required to complete no more than 60 units after transfer to earn a bachelor's degree. Students should consult with a counselor for more information on university admission and transfer requirements.

To earn the Associate in Arts in Art History for Transfer degree, students must:

1. Complete 60 semester units that are eligible for transfer to the California State University, including both of the following:
 - a. The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education – Breadth Requirements
 - b. A minimum of 18 semester units in a major or area of emphasis, as determined by the community college district.
2. Obtain a minimum grade point average of 2.0.

Program Outcomes

Students who complete the Associate in Arts in Art History for Transfer degree will be able to:

1. Analyze, apply and integrate diverse visual experiences.
2. Develop and articulate with proficiency an understanding of visual and multi-cultural literacy.
3. Work independently and cooperatively to solve creative problems, applying critical thinking skills.

REQUIRED COURSES.....	Units		Units
ART 001 Art History	3	ART 032 Sculpture: Human Figure	3
ART 002 Art History	3	ART 038 Introduction to Printmaking	3
ART 014 Introduction to Drawing	3	ART 039 Etching and Engraving: Line Techniques.....	3
3 units from List A.....	3	ART 043 Printmaking: Relief Printing, Including Woodcut.....	3
3 units from List B	3	ART 045A Graphic Design I	3
3 units from List C.....	3	PHOT 030 Beginning Photography.....	3

List A: Non-Western Arts History (select 3 units)

ART 003A Arts of Asia	3
ART 003B Arts of Africa, Oceania, and the Americas.....	3

List B: Studio Art (select minimum of 3 units)

	Units
ART 004 Life Drawing	3
ART 006 Design Principles in 2-Dimensions	3
ART 007 Design-Color	3
ART 008 Design Principles in 3-Dimensions	3
ART 016 Beginning Painting	3
ART 019 Figure Painting	3
ART 023 Introduction to Ceramics: Hand Building	3
ART 026 Introduction to Ceramics: Wheel Throwing Techniques	3
ART 031 Sculpture.....	3

List C: Modern, Contemporary, and Theory

(select 3 units)	Units
ART 011 Survey of Modern Art	3
ART 012 Inside/Outside: The Cultures and Identities of Visual Artists in a Diverse America.....	3

Required Major Total Units.....	18
CSU General Education or IGETC Pattern units	37-39
CSU Transferable Electives (as needed to reach 60 transferable units)*	3-5
Total Degree Units.....	60

* 3 units may be double counted toward both the major area of emphasis and CSU General Education or IGETC Pattern. Consult with a counselor for more information on completing this degree.

Art

Studio Arts with Emphasis

Program Description

The Studio Arts Degree with Emphasis offers students a strong fine arts foundation, with core courses that develop essential technical skills, aesthetic vision, historical and contemporary art context, and an understanding of the artist's role as a global citizen. Students may select an Emphasis which will allow deeper technical, aesthetic, and conceptual study within a specific medium: drawing and mixed media; painting; printmaking; sculpture; and ceramics. The Studio Arts Degree with Emphasis is designed for students seeking to further their study at an art school or at one of the University of California art departments.

Students who earn this degree will also meet the requirements for the AA-T degree in Studio Arts, and should petition for the AA-T degree only if they plan to transfer to a California State University campus.

Associate in Arts Degree

The Associate in Arts Degree can be obtained upon completion of 60 units, including the 25 to 27 units in the major, general education requirements, and electives. All courses in the major must be completed with a minimum grade of C or a P if the course is taken on a Pass/No Pass basis.

Program Outcomes

Students who complete the Studio Arts with Emphasis Associate Degree will be able to:

1. Apply appropriate materials and techniques to solve creative problems.
2. Demonstrate an understanding of aesthetics to create and critique visually and conceptually effective works.

REQUIRED COURSES.....	Units
ART 002 Art History	3
ART 006 Design Principles in 2-Dimensions.....	3
ART 007 Design-Color.....	3
ART 008 Design Principles in 3-Dimensions.....	3
ART 014 Introduction to Drawing	3
One course from List A – Art History.....	3
Three courses from one of the Areas of Emphasis	7-9
Total Units	25-27

List A: Art History (select one course).....	Units
ART 001 Art History	3
ART 011 Survey of Modern Art.....	3

Drawing and Mixed Media Emphasis	Units
ART 004 Life Drawing.....	3
ART 005 Life Drawing.....	3
ART 015 Intermediate Drawing	3
ART 015B Collage & Assemblage	3
ART 020 Landscape Drawing and Painting – Reflections of Nature	2-3

Painting Emphasis	Units
ART 016 Beginning Painting.....	3
ART 017 Acrylic and Oil Painting.....	3
ART 018 Advanced Intermediate Painting: Acrylic and Oil Painting.....	3
ART 019 Figure Painting	3
ART 021 Watercolor	3

Printmaking Emphasis	Units
ART 038 Introduction to Printmaking	3
ART 039 Etching and Engraving: Line Techniques	3
ART 040 Etching and Engraving: Tone	3
ART 041 Etching and Engraving: Color	3
ART 042 Screen Printing.....	3
ART 043 Printmaking: Relief Printing, Including Woodcut.....	3

Sculpture Emphasis	Units
ART 031 Sculpture	3
ART 032 Sculpture: Human Figure	3
ART 033 Intermediate Sculpture.....	3
ART 034 Ceramic Sculpture	3

Ceramics Emphasis	Units
ART 023 Introduction to Ceramics: Hand Building.....	3
ART 024 Intermediate Ceramics: Hand Building.....	3
ART 025 Ceramic Design And Decoration: Hand Building Methods	3
ART 026 Introduction to Ceramics: Wheel Throwing Techniques	3
ART 027 Intermediate Ceramics: Wheel Throwing Techniques	3
ART 028 Ceramic Design: Wheel Throwing Techniques	3
ART 029 Raku Pottery.....	3
ART 030C Ceramics: History, Culture, Practice	3
ART 035A Introduction to Wood-Fired Ceramics	3
ART 037 Clay and Glazes for the Ceramic Artist.....	3

Art-Digital

ARTD 044 Introduction to Digital Design

3.0 Units

Hours: 32-36 lecture, 64-72 lab.

Transferable to UC/CSU

Introduction to digital tools used for the theory, practice and production of graphic design. Principles of color, resolution, pixels, vectors, image enhancement, layout, visual hierarchy, and typography. Emphasis on creating content for industry standards, including compliance with print and web specifications, and professional practices for presentation and communication skills.

ARTD 047C Introduction to 3D Animation

3.0 Units

Hours: 32-36 lecture, 64-72 lab.

Transferable to UC/CSU

Introduction to the theory, history and production of 3D animation using industry standard software. The traditional principles of animation are applied and translated to the computer generated 3D (CG 3D) environment.

ARTD 144A

3.0 Units

Design Bootcamp

Hours: 16-18 lecture, 8-9 lab.

An accelerated, in-depth course that covers the principles, practices and digital production of visual design. Topics covered include visual hierarchy, color, typography, composition, color theory, ideation, and professional practices within the industry.

Astronomy

ASTR 050 Astronomical Optics

1.0 Unit

Course Advisory: A minimum grade of B in ASTR 030 or ASTR 040; A minimum grade of C in MATH 104.

Transferable to CSU

Hours: 48-54 lab.

An introduction to principles of astronomical optics. The student will apply these principles to the design, fabrication, and use of a telescope, which will be tested under the night sky. Primary mirrors will be ground, smoothed, polished, and figured by hand. Optics and optical testing theories will be presented. Students will design and build a custom optical tube assembly and telescope mount. Field trips may be required. Required materials will be purchased by the students; estimated cost of \$250.

Automotive

Automotive Technician

Program Description

This program is designed to prepare graduates for entry level employment in the automotive industry as apprentice technicians, parts specialists, service consultants, or specialists in one of the many areas in the automotive service and repair industry.

Associate in Science Degree

The Associate in Science Degree can be obtained upon completion of the **45 unit** major, and the general education requirements. All courses in the major must be completed with a minimum grade of C or a P if the course is taken on a Pass/No Pass basis.

Program Outcomes

Students who complete the Associate Degree will be technically proficient in entry level skills as defined by the National Automotive Technician's Education Foundation (NATEF) by demonstrating:

1. Completion of 85 percent of the tasks established by NATEF for the Master Automobile Service Technology Certification.
2. Proper service and repair procedures of the following systems:
 - Engine Repair
 - Light Duty Hybrid/Electric Vehicle
 - Automatic Transaxles/Transmissions
 - Manual Drivetrain
 - Suspension, Steering and Alignment
 - Brakes
 - Electrical/Electronic Systems
 - Heating and Air Conditioning
 - Engine Performance
3. Proper safety procedures and techniques.
4. Efficient oral and written communication.
5. The ability to apply fundamental automotive technology principles.
6. Skills for successful employment in the field of Automotive Service and Repair
7. Appropriate methods for hazardous waste handling and disposal.

REQUIRED COURSES	Units
ATEC 070 Automotive Fundamentals.....	3
ATEC 130 Automotive Suspension and Steering.....	4
ATEC 131 Automotive Electrical Systems	4
ATEC 132 Automotive Brake Systems	4
ATEC 133 Automotive Engine Repair	4
ATEC 134 Automatic Transmissions/Transaxles	4
ATEC 135 Automotive Engine Performance	4
ATEC 136 Automotive Manual Drivetrain and Axles.....	4
ATEC 137 Automotive Heating and Air Conditioning ...	4
ATEC 138 Automotive Electronics.....	4
ATEC 139 Advanced Engine Performance	4
ATEC 140 Hybrid Vehicle Maintenance and Repair.....	2
Total Units	45

This is a Gainful Employment Program. For additional information, please visit http://www.solano.edu/gainful_employment/ and select "Automotive Technician."

Biology

BIO 012 Environmental Science

3.0 Units

Course Advisory: Eligibility for ENGL 001 and SCC minimum Math standard.

General Education: Option A: Area A; Option B: Area 5B; Option C: Area B2

Transferable to UC/CSU

Hours: 48-54 lecture.

Examines environmental issues from a scientific perspective by using an understanding of the physical, chemical, and biological processes of the Earth system to examine the interaction between humans and these processes. Topics include ecological principles, biodiversity, human population growth, climate change, air and water pollution, solid waste management, and the management of renewable and non-renewable energy, water, land, soil, and mineral resources. The course utilizes knowledge of these subject to find solutions to environmental challenges. Field trips may be required.

BIO 015 Introduction to Biology

4.0 Units

Course Advisory: Eligibility for ENGL 001; SCC minimum Math standard.

General Education: Option A: Area A; Option B: Area 5B, Area 5C; Option C: Area B2, Area B3

Transferable to UC/CSU

Hours: 48-54 lecture, 48-54 lab.

Intended for non-science majors, a survey of biology including biological chemistry, cell structure and function, genetics, evolution, and ecology. The laboratory component emphasizes the scientific method to reinforce lecture concepts. Off-campus field trips may be scheduled. NOTE: Not open for credit to students who have completed BIO 003.

Biomanufacturing

BIOT 406

3.0 Units

Supply Chain and Enterprise Resource Planning in Biomanufacturing

Prerequisite: Admission into the Biomanufacturing Baccalaureate degree program; ~~Permission of faculty required. BIOT 402, BIOT 403, BIOT 404.~~

Hours: 48-54 lecture.

Students gain knowledge of how companies manage the complete flow of materials in a supply chain from suppliers to customers. This course covers the design, planning, execution, monitoring, and control of raw materials, personnel resources, inventory management, and distribution. At the end students will have the knowledge required to take the CPIM (Certified in Production and Inventory Management) certification test administered by APICS (the American Production and Inventory Control Society).

BIOT 408 Six Sigma and Lean Manufacturing 4.0 Units

Prerequisite: Admission into the Biomanufacturing Baccalaureate degree program; ~~Permission of faculty required; BIOT 402, BIOT 403, BIOT 404.~~

Hours: 64-72 lecture.

Covers the Six Sigma approach to the maintenance and improvement of biomanufacturing processes. It incorporates the DMAIC phases: design, measure, analyze, improve, and control. The course covers the use and implementation of lean manufacturing tools that biomanufacturing companies use to reduce waste. At the end of the course students will be prepared to take the certification test administered by the American Society for Quality for qualification with a white belt in Six Sigma.

BUS 400 Project Management

3.0 Units

Prerequisite: Admission into the Biomanufacturing Baccalaureate degree program; Permission of faculty required; ~~ENGL 001, MATH 011.~~

Corequisite: BIOT 409 and BIOT 410.

Hours: 48-54 lecture.

Learn the core characteristics of project management including project selection, initiation, planning, execution, monitoring and control, and closing. Students learn how the management of the project's scope, time, cost, quality, human resources, communication, procurement, stakeholders, and risk lead to the ability to deliver the project on-time and on-budget, while meeting performance specifications. This course is designed to fulfill the classroom component of a Project Management Professional credential.

Biotechnology

Industrial Biotechnology

Program Description

This program prepares graduates to work in the biotechnology industry as production technicians. A production technician operates and maintains the equipment used to manufacture protein pharmaceuticals or other products. Students will grow bacterial, yeast, and mammalian cells and recover the proteins that they produce. They will follow good manufacturing practices by maintaining records in order to comply with quality assurance procedures and government regulations. Students in the program must be able to adjust their time to a flexible schedule.

Associate in Science Degree

The Associate in Science Degree can be obtained upon completion of 60 units, including the major, general education requirements and electives. All courses in the major must be completed with a minimum grade of C or a P if the course is taken on a Pass/No Pass basis.

Program Outcomes

Students who complete the Industrial Biotechnology Associate Degree will be able to:

1. Explain how the structure and function of protein pharmaceuticals and evaluate which protein properties a production facility can exploit to purify a particular protein from other cellular components.
2. Construct a pathway analyzing how a drug or biologic is produced by genetically engineered cells and subsequently purified.
3. Explain how the manufacture of pharmaceuticals is regulated by the Food and Drug Administration and other international regulatory agencies and how quality systems assure the safety, purity, identity, consistency, potency, and stability of a product.

REQUIRED COURSES.....	Units
BIOT 001 Principles of Biotechnology	3
BIOT 052 Business, Regulatory, Regulatory, and Quality Practices in Biotechnology	3
BIOT 062 Cell Culture and Protein Recovery.....	4
BIOT 063 Biotechnology Instrumentation: Quality Control & Genetic Engineering.....	4
Select Option A or Option B	8-10
Total Units	22-24

Option A	Units
BIO 002 Principles of Cell and Molecular Biology	5
CHEM 001 General Chemistry	5

Option B	Units
BIO 014 Principles of Microbiology	4
CHEM 010 Intermediate Chemistry	4

NOTE: Prior knowledge and use of computers is advised, including word processing, spreadsheets, and databases.

Business

Business, General

Program Description

This program is designed for business students planning to transfer to the University of California and/or the California State University systems.

Certificate of Achievement and Associate in Science

A Certificate of Achievement can be obtained by completing the 23-25-unit major with a minimum grade of C in each course or a P if taken on a Pass/No Pass basis. The Associate in Science can be obtained upon completion of 60 units, including the major, general education requirements and electives. All courses in the major must be completed with a minimum grade of C or a P if the course is taken on a Pass/No Pass basis.

Program Outcomes

Students who complete the Business, General Certificate of Achievement/ Associate Degree will be able to:

1. Recognize the importance marketing, legal, economics, accounting, business forms, financing, risk, and personnel management in business and formulate hypotheses based on these concepts.

REQUIRED COURSES.....	Units
ACCT 001 Principles of Accounting - Financial.....	4
ACCT 002 Principles of Accounting - Managerial.....	4
BUS 005 Introduction to Business.....	3
BUS 018 Legal Environment of Business	3
CIS 001 Introduction to Computer Science.....	3
or	
CIS 050 Microcomputer Applications	3
ECON 001 Principles of Economics (Macroeconomics) ..	3
or	
ECON 002 Principles of Economics (Microeconomics) ...	3
3-5 units from the recommended electives.....	3-5
Total Units	23-25

Recommended Electives

(Select 3-5 units)	Units
BUS 092 Business Communication.....	3
CIS 020 Assembly Programming.....	3
CIS 022 Introduction to Programming.....	3
CIS 023 Data Structures and Algorithms.....	4
MATH 011 Elementary Statistics	4
MATH 020 Analytic Geometry and Calculus I.....	5
MATH 021 Analytic Geometry and Calculus II	5
MATH 030 Analytic Geometry and Calculus	3
MATH 031 Analytic Geometry and Calculus	3
OCED 090 Occupational Work Experience	1-8
OCED 091 General Work Experience.....	1-6

***Suggested general education math courses for the Business, General (Transfer) major are MATH 011 (Statistics) OR MATH 030 (Analytical Geometry and Calculus).**

This is a Gainful Employment Program. For additional information, please visit http://www.solano.edu/gainful_employment/ and select "Business, General."

Child Development and Family Studies

CDFS 063 Introduction to Curriculum 3.0 Units

Prerequisite: CDFS 038 with a minimum grade of C.

Course Advisory: CDFS 062 with a minimum grade of C; eligibility for ENGL 001.

Transferable to CSU

Hours: 48-54 lecture.

An overview of knowledge and skills related to providing appropriate curriculum and environments for young children from birth to age 6. Students will examine a teacher's role in supporting development and fostering children's curiosity and learning. Through observation and assessment strategies students will develop appropriate play-based curriculum. An overview of content areas will include but not be limited to: Language and literacy, social and emotional learning, sensory learning, art and creativity, music, math, and science. Field trip may be required. (C-ID ECE 130)

Drafting

Drafting and Design Technician

Program Description

This program is designed to provide students with entry level skills in the fields of mechanical, electrical, civil and architectural drafting and/or design.

Certificate of Achievement and Associate in Science Degree

A Certificate of Achievement can be obtained upon completion of the 31-31.5-unit major listed below. The Associate in Science Degree can be obtained by completing a total of 60 units, including the major, general education requirements, and electives. All courses in the major must be completed with a minimum grade of C or a P if the course is taken on a Pass/No Pass basis.

Program Outcomes

Students who complete the Drafting and Design Technician Certificate of Achievement/Associate Degree will be able to:

1. Demonstrate proficiency using industry standard computer aided drafting/design CAD (AutoCAD) software program.
2. Demonstrate proficiency at reading, drawing, and dimensioning industry standard mechanical drawings.
3. Demonstrate proficiency at reading, drawing, and dimensioning industry standard civil drawings.
4. Demonstrate proficiency at reading, drawing, and dimensioning industry standard electronic drawings.
5. Demonstrate proficiency at reading, drawing, and dimensioning industry standard architectural drawings.

REQUIRED COURSES Units

DRFT 045 Introduction to Computer-Aided Drafting (CAD)	4
DRFT 055 Mechanical Drafting - Level I.....	3
DRFT 058 Solid Modeling with Solidworks.....	3
DRFT 060 Architectural Drafting I.....	3
DRFT 075 Electronic Drafting.....	3
DRFT 080 Civil Drafting I.....	3
DRFT 161 Introduction to REVIT Architecture Software.....	3
IT 140 Industrial Materials.....	3
IT 151 Vocational Mathematics.....	3
IT 171 Making Things 1 - 3D Technology	1
IT 172 Making Things 2 - 2D Technology	1
One Course from List A	1-1.5
Total Units	31-31.5

List A: (Select one course)..... Units

OCED 070 Occupational Soft Skills	1.5
OCED 090 Occupational Work Experience.....	1
OCED 091 General Work Experience	1

This is a Gainful Employment Program. For additional information, please visit http://www.solano.edu/gainful_employment/ and select "Drafting Technician."

Drafting

Maker Space Technology

Program Description

This program is an overview of basic design of manufacturing skills and concepts. Students will learn basic 2D and 3D CAD (Computer Aided Design) skills and how to output those designs using common Maker Space machines and tools such as 3D printers, laser cutters, and CNC (Computer Numeric Controlled) machines. The program also provides a basic overview of manufacturing systems such as motors, wiring and controllers, and the related career opportunities available to individuals with these skills.

Job-Direct Low Unit Certificate

A Job-Direct Low Unit Certificate can be obtained upon completion of the 15.5-17-units listed below. All courses must be completed with a minimum grade of C or a P if the course is taken on a Pass/No Pass basis.

Program Outcomes

Students who complete the Maker Space Technology Job-Direct Low Unit Certificate will be able to:

1. Demonstrate an understanding of the main principles of Mechatronics.
2. Demonstrate an ability to safely use a 3D printer, laser cutter, CNC machine, basic hand and power tools, and basic electronics.
3. Demonstrate and ability to create a CAD drawing and output to a Maker Space machine.

REQUIRED COURSES	Units
DRFT 045 Introduction to Computer-Aided Drafting (CAD)	4
or	
DRFT 145 AutoCAD Basics	1
and	
DRFT 079 Blueprint Reading.....	3
DRFT 151 3D Modeling with Fusion 360.....	1.5
or	
DRFT 058 Solid Modeling with Solidworks	3
IT 101 Introduction to Mechatronics	3
IT 171 Making Things 1 - 3D Technology	1
IT 172 Making Things 2 - 2D Technology	1
IT 173 Making Things 3 - Tool Use and Safety	1
IT 174 Making Things 4 - Basic Electronics	1
IT 175 Maker Space Technology Lab.....	3
Total Units	15.5-17

Economics

Associate in Arts in Economics for Transfer (ADT: A.A.-T)

Program Description

This curriculum is designed to provide an opportunity for Economics majors to achieve an associate in arts degree in economics while completing the requirements for transfer to a California State University (CSU). This program is designed to introduce to students economic concepts and models, enabling them to analyze to specific situations and predict their outcomes.

Associate in Arts in Economics for Transfer

The Associate in Arts in Economics for Transfer is appropriate for students who plan to complete a bachelor's degree in Economics at a CSU campus. A baccalaureate degree is recommended preparation for those considering careers in economics. Students completing and Associate in Arts in Economics for Transfer degree are guaranteed admission to the CSU system, but not to a particular campus or major. Students transferring to a CSU campus with the Associate in Arts in Economics for Transfer will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree also prepares students for Economics at other four-year institutions, but does not come with the same guarantees. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

To earn the Associate in Arts in Economics for Transfer Degree, students must:

1. Complete 60 semester units that are eligible for transfer to the California State University, including both of the following:
 - a. The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education – Breadth Requirements
 - b. A minimum of 18 semester units in a major or area of emphasis, as determined by the community college district.
2. Obtain a minimum grade point average of 2.0.

Program Outcomes

Students who complete the Associate in Science in Early Childhood Education for Transfer degree will be able to:

1. Demonstrate an understanding of child development theory, current research, and trends in the field, and their application to responsive practice in early care settings.
2. Demonstrate an understanding of the context of individual development including the centrality of family, culture, and community through developing techniques for creating meaningful relationships between home and school.
3. Develop curriculum and early care environments that are derived from unbiased observation and assessment of children's interests and developmental levels.
4. Demonstrate reflective practice in their work with young children by building awareness of self as teacher, child as learner, and early childhood pedagogy.

REQUIRED COURSES..... Units

ECON 001 Principles of Economics (Macroeconomics)...	3
ECON 002 Principles of Economics (Microeconomics) ...	3
MATH 011 Elementary Statistics	4
MATH 020 Analytic Geometry and Calculus I.....	5
One Course from List A	3-5
One Course from List B.....	3-5
Total Units.....	21-24

List A: (select one course)	3-5
MATH 021 Analytic Geometry and Calculus II.....	5
MATH 022 Analytic Geometry and Calculus III	4
MATH 023 Differential Equations	4
CIS 015 Programming in Visual Basic.NET	3
BUS 018 Legal Environment of Business	3
ACCT 001 Principles of Accounting – Financial.....	4
ACCT 002 Principles of Accounting - Managerial	4

List B: (Select one course).....	3-5
Any course from List A not already used	3-5
MATH 040 Introduction to Linear Algebra	3

Required Major Total Units	21-24
CSU General Education or IGETC Pattern units	37-39
CSU Transferable Electives	
(as needed to reach 60 transferable units)*	7-12
Total Degree Units	60

**10 units may be double counted toward both the major area of emphasis and CSU General Education or IGETC Pattern. Consult with a counselor for more information on completing this degree.*

Education

EDUC 001 Elementary Teacher Education 3.0 Units

Corequisite: One unit of OCED 090; Course Advisory: A minimum grade of C in ENGL 001. Students will need to write a personal teaching Philosophy statement.

Transferable to UC/CSU

Hours: 32-36 lecture.

Introduction to careers in elementary teacher education. Students will study education from historical, philosophical, and ethical perspectives in K-12. Students will examine pedagogy; California content standards and frameworks; professional performance standards for elementary education; and approaches to teaching diverse learners in contemporary and complex learning environments. Concurrent enrollment in a one-unit OCED 090 class required, with 60 hours fieldwork in an approved elementary education setting.

English

English

Program Description

The Associate in Arts Degree in English provides the academic and practical experience for further education in English at a four-year institution or a career in English or further education or careers in fields related to English. By completing this program, students may complete transfer requirements to the CSU system and UC system as well as public and private universities both in and out of California to pursue a Bachelor's Degree in English, English Literature or Creative Writing. A Bachelor's Degree in English may also include various emphases such as creative writing, composition/rhetoric, education, literature, or linguistics. Students who complete the A.A. Degree in English will also satisfy the requirements for the AA-T degree in English. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

Associate in Arts Degree

Students will take courses in English as well as in related fields required for English majors. The English program teaches writing, critical thinking, reading, and research skills as they apply to the areas of composition, creative writing, and the analysis of literature. Course work in creative writing is presented in sequenced writing workshops and courses in literary publishing. Course work in literature explores primarily British and American writers through genre, survey, figure, and thematic courses.

The Associate in Arts Degree in English can be obtained by completing a total of sixty (60) units, including the twenty-five (25) units for the major, general education requirements, and electives. All courses in the major must be completed with a minimum grade of C or a P if the course is taken on a Pass/No Pass basis

Program Outcomes

Students who complete the English Associate Degree will be able to:

1. Demonstrate an ability to compose and communicate using appropriate rhetorical patterns and writing strategies.
2. Demonstrate college-level reading, writing, and analytical skills.
3. Demonstrate an understanding of the importance and influence of literature's study of the human condition in shaping and reflecting intellectual history and cultural identity.
4. Demonstrate, through the study and analysis of literature from a variety of cultural or ethnic backgrounds and sexual orientations, an ability to recognize and examine assumptions about difference and social norms and an understanding of how the experience of reading literature from different perspectives can better prepare one for meaningful participation in a diverse global community.
5. Explore and demonstrate through creative writing and/or analytical techniques, the practice and study of diverse literatures and publishing.

REQUIRED COURSES	Units
The courses are listed in the suggested sequence.	
ENGL 002 Critical Thinking and Writing About Literature.....	4
Two courses from List A.....	6
Two courses from List B	6
Two courses from List C.....	6
One course from List D	3
Total Units	25

List A: (select two courses).....	Units
ENGL 030 Survey of American Literature I.....	3
ENGL 031 Survey of American Literature II	3
ENGL 040 Survey of English Literature I	3
ENGL 041 Survey of English Literature II	3

List B: (select two courses)	Units
ENGL 006 Creative Writing 1	3
ENGL 021 Introduction to Poetry	3
ENGL 023 Introduction to the Modern Novel	3
ENGL 024 Introduction to the Short Story	3
Any course from LIST A not already used	3

List C: (select two courses)	Units
ENGL 007 Creative Writing II.....	3
ENGL 010 Creative Writing III.....	3
ENGL 058 Creative Writing: The Literary Magazine I....	3
ENGL 044 Introduction to Shakespeare	3
ENGL 018 Introduction to Mythology	3
ENGL 036 Multi-Ethnic Literature in America.....	3
Any course from List A or B not already used.....	3

List D: (select one course).....	Units
ENGL 049 English Honors	3
ENGL 059 Creative Writing: The Literary Magazine II...	3
HUMN 001 What it Means to be Human.....	3
Any course from List A, B, or C not already used.....	3

Ethnic Studies

Ethnic Studies

Program Description

This major is an interdisciplinary program which provides an opportunity for students to pursue organized studies of minority groups in American Society and to foster and expand general understanding of these groups. The courses allow for a wide latitude of study to meet a variety of interests with courses which fulfill competence in and an understanding of the unique contributions of American ethnic groups; interpretation of American ethnic culture as manifested in its history, its literature, and its social, economic, political, and philosophical development. (The course descriptions may be found under the appropriate disciplines.)

~~Certificate of Achievement and~~ Associate in Arts Degree

~~The Certificate of Achievement can be obtained by completing the 26-unit major with a minimum grade of C in each course or a P if taken on a Pass/No Pass basis.~~ The Associate in Arts Degree can be obtained by completing a total of 60 units, including the 18-22-unit major, general education requirements, and electives. All courses in the major must be completed with a minimum grade of C or a P if the course is taken on a Pass/No Pass basis.

Program Outcomes

Students who complete the Ethnic Studies Associate Degree will be able to:

1. Increase understanding of diverse ethnic groups in American society.
2. Identify and analyze the impact of culture and the significance of history and literature.
3. Develop competence as it pertains to various ethnic groups including an understanding of their social, economic, political and philosophical development.
4. Develop competence in understanding the unique contributions of ethnic groups in American Society.

REQUIRED COURSES	Units
SOCS 022 Ethnic, Racial and Minority Group Relations in Harmony and Conflict	3
One course from List A	3
One course from List B	3
One course from List C	3
Two courses from Recommended Electives	6-10
Total Units:	18-22

List A: (select one course)	Units
ART 012 Inside/Outside: The Cultures and Identities of Visual Artists in a Diverse America	3
MUSC 007 Jazz and Popular Music in America: Ragtime to Rock	3
MUSC 013 Multicultural Music in America	3

List B: (select one course)	Units
COUN 055 Valuing Diversity	3
SOCS 030 Peace, Non-Violence, and Conflict Resolution	3

List C: (select one course)	Units
HIST 028 African American History to 1877	3
HIST 029 African American History Since 1865	3
PLSC 005 Constitutional Rights in a Multicultural Society	3
SOCS 053 Civil Rights, Non-Violence, and Race Relations	3

Electives List (select two courses)	Units
ANTH 002 Cultural Anthropology	3
COUN 055* Valuing Diversity	3
ENGL 036 Multi-Ethnic Literature in America	3
HIST 028* African American History to 1877	3
HIST 029* African American History Since 1865	3
HIST 031 Mexican American/Chicano History	3
HS 053 Serving Special Populations	3
MUSC 007* Jazz and Popular Music in America: Ragtime to Rock	3
MUSC 013* Multicultural Music in America	3
PLSC 005* Constitutional Rights in a Multicultural Society	3
PSYC 007 Cross-Cultural Psychology	3
SOC 002 Social Issues and Problems	3
SOC 023 Sociology of African Americans	3
SOCS 025 Mexican-American Experience	3
SPAN 001 First Semester Spanish	5
SPAN 002 Second Semester Spanish	5
SPAN 003 Third Semester Spanish	5
SPAN 004 Fourth Semester Spanish	5
THEA 013 Diversity in American Theatre: A Contemporary Focus	3

** If not used for List A-C*

Human Services

Human Services

Program Description

This program is designed to equip students with the basic knowledge and skills necessary for the variety of jobs in the field of Human Services. These courses are intended to provide entry-level skills and training for students who are interested in employment in mental health, social welfare, developmental services, corrections, alcohol and drug treatment, or child/adolescent treatment services.

Certificate of Achievement and Associate of Arts Degree

A Certificate of Achievement can be obtained upon completion of the 23-unit major with a minimum grade of C (2.0) in each course. The Associate of Arts Degree can be obtained upon completion of 60 units, including the major, general education requirements, and electives. All courses in the major must be completed with a minimum grade of C or a P if the course is taken on a Pass/No Pass basis.

Program Outcomes

Students who complete the Human Services Certificate of Achievement/Associate Degree will be able to:

1. Development of basic knowledge within the field of Human Services.
2. Development of cultural competency, group facilitation, and case management skills.
3. Application of Human Services knowledge and skills.

REQUIRED COURSES Units (listed in recommended sequence)

HS 051 Introduction to Human Services.....	3
COUN 062 Helping Skills:	
Creating Alliances & Facilitating Change*	3
HS 053 Serving Special Populations	3
HS 055 Introduction to Case Management.....	3
COUN 064A Practicum I*	4
HS 054 Introduction to Group Processes	3
COUN 064B Practicum II*.....	4
Total Units	23

*See Counseling section for COUN course descriptions

This is a Gainful Employment Program. For additional information, please visit
http://www.solano.edu/gainful_employment/ and select "Human Services."

Interdisciplinary Studies

Science and Quantitative Reasoning

Program Description

This major is designed for students who are not certain of their specific academic major goals and do not have immediate transfer plans. It would enable them to earn the Associate Degree by completing general education and the 18-unit major. The program is intended to involve inquiry into the physical universe and its life forms with consideration of facts and principles which form the foundations of living and non-living systems. Students will explore scientific methodologies as investigative tools, the acquisition and use of evidence, and the past and present influences of science on world civilizations. Understanding and analysis of basic mathematical and quantitative reasoning concepts will be explored. This area includes courses in areas such as computer science, math, and science.

Associate in Arts Degree

The Associate in Arts Degree can be obtained by completing a total of 60 units, the Solano College Option A GE Pattern: Minimum 22 semester units, the 18 unit major, and electives. All courses for this major must be completed with a minimum grade of C or a P if the course is taken on a Pass/No Pass basis. Courses selected cannot be used to fulfill general education.

Program Outcomes

Students who complete an Associate Degree will be able to:

1. Discern the relationship between personal perspective and evidence-based evaluation of information.
2. Discover the nature and common themes of the disciplines represented
3. Acquire a knowledge base that encourages lifelong learning in order for them to effectively adapt to a complex and changing society.

REQUIRED COURSES:

Minimum 6 units from Science

Minimum 6 units from Quantitative Reasoning

**Chemistry courses may not be used in both areas, must choose one area.*

Total Units: Minimum of 18

SCIENCE

ANTH 001

ASTR 010, 020, 030, 040

BIO 002, 003, 004, 005, 012, 012L, 015, 016, 018, 019

CHEM* 001, 002, 003, 004, 010, 011, 051, 160

ENGR 017, 030, 045

GEOG 001, 001L

GEOL 001, 002, 005

HORT 050

KINE 020V, 020W

NUTR 010

PHYS 002, 004, 006, 007, 008, 010

PHSC 012

PSYC 002

QUANTITATIVE REASONING

CIS 001, 015, 020, 022, 023, 035, 050, 055, 057, 060, 073, 078

CHEM* 001, 002, 010, 160

GEOG 010 or GEOL 010

MATH 002, 004, 011, 012, 020, 021, 022, 023, 030, 031, 040, 051, 102, 103, 104, 112, 114

PSYC 004

Kinesiology

Sports Medicine/Athletic Training

Program Description

The Department of Kinesiology at Solano Community College offers a Sports Medicine Program. We are proud of our program and its students. The program is very strong academically with a core of science courses and hands-on laboratories. The intent of the program is to increase the students' breadth and depth of knowledge relative to the discipline of Kinesiology and Health Science; to provide the opportunity for students to engage in scholarly activity that includes creative, critical, and analytical thinking; and to provide a focus of study that will enhance career commitment and allow for experiences that will lead to continued self-development and growth..

Associate in Science Degree

The Associate in Science Degree can be obtained upon completion of a total 60 units, including the 25-unit major, the general education requirements, and electives. All courses for this major must be completed with a minimum grade of C or a P if the course is taken on a Pass/No Pass basis.

Program Outcomes

Students who complete the Sports Medicine/*Athletic Training* Associate Degree will be able to:

1. Recognize and identify common athletic injuries and the role the certified athletic trainer plays in injury assessment.
2. Complete athletic training competency skills required in first 2 years of ATEP Athletic Training programs.3.
Develop and apply strategies to prevent the incidence and/or severity of injury and illnesses
3. Apply clinical and decision making skills to respond to acute injury and illness; including emergencies
4. Assess patient status and develop treatment and rehabilitation that are consistent with contemporary disablement models
5. Identify, in the laboratory, major microscopic and gross structures of the major systems of the human body.

REQUIRED COURSES	Units
BIO 004 Human Anatomy.....	5
CHEM 010 Intermediate Chemistry	4
KINE 020A Introduction to Kinesiology	3
SPMD 054 Care and Prevention of Athletic Injuries	3
KINE 020S Advanced First Aid and Emergency Care	3
SPMD 055A Sports Medicine-Athletic Training Practicum Fall Sports	3
SPMD 055B Sports Medicine-Athletic Training Practicum Spring Sports	3
SPMD 071 Back Care and Injury Management	1
Total Units	25

Kinesiology

Associate in Arts in Kinesiology for Transfer (ADT: A.A.-T)

Program Description

The Associate in Arts in Kinesiology for Transfer degree is designed to provide a seamless transfer pathway for students interested in pursuing at least one Kinesiology degree option in the CSU system.

Associate in Arts in Kinesiology for Transfer

Successful completion of the Associate in Arts in Kinesiology for Transfer degree prepares students to transfer into the CSU system and work in the sub-fields of Kinesiology. Students will learn about human functioning during sport and exercise, how exercise science and biomechanics is integrated into exercise program development, and observation and assessment of human performance. The Associate in Arts in Kinesiology for Transfer degree can provide students with the foundational knowledge necessary for transfer to a 4-year Bachelor of Science (BS) or Bachelor of Arts (BA) degree program. Students are encouraged to meet with a counselor to develop their educational plans as degree options and general education requirements vary for each university.

To earn the Associate in Arts in Kinesiology for Transfer degree, students must:

1. Complete 60 semester units that are eligible for transfer to the California State University, including both of the following:
 - a. The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education – Breadth Requirements
 - b. A minimum of 18 semester units in a major or area of emphasis, as determined by the community college district.
2. Obtain a minimum grade point average of 2.0.

Program Outcomes

Students who complete the Associate in Arts in Kinesiology for Transfer degree will be able to:

1. Identify major microscopic and gross structures of the major systems of the human body.
2. Describe normal physiological processes.
3. Describe the different sub disciplines of Kinesiology
4. Describe how ethical, psychological, historical, and philosophical factors influence the discipline of Kinesiology and sports.
5. Explain the career options available to students graduating from departments of Kinesiology, and the qualifications associated with each.

REQUIRED CORE	Units
BIO 004 Human Anatomy.....	5
BIO 005 Introductory Physiology	5
KINE 020A Introduction to Kinesiology	3
3 units from Movement-based courses (maximum of one course from any group).....	3
Two courses from List A.....	7-10

Movement-based Courses

Aquatics: (maximum of one course).....	Units
KINE 002A Beginning Swimming	1
KINE 002B Intermediate Swimming	1
KINE 002D Swim for Fitness	1

Combatives: (maximum of one course)	Units
KINE 003A Beginning Self Defense	1
KINE 003D Beginning Judo	1
KINE 003E Intermediate Judo	1
KINE 006A Cardio Kickboxing	1

Dance: (maximum of one course).....	Units
DANC 004A Beginning Contemporary Modern Dance.....	1
DANC 004B Beginning Tap Dance.....	1
DANC 004C Intermediate Tap Dance.....	1
DANC 004D Advanced Jazz Dance	1
DANC 004F Beginning Hip-Hop Dance	1
DANC 004H Beginning Jazz Dance	1
DANC 004J Beginning Ballroom Dance	1
DANC 004K Beginning Ballet.....	1
DANC 004M Intermediate Ballet	1
DANC 004N Beginning Swing Dance	1
DANC 004P Intermediate Jazz Dance	1
DANC 004S Intermediate Swing Dance.....	1
DANC 004T Intermediate Ballroom Dance	1

Kinesiology

Fitness: (maximum of one course)	Units
KINE 005D Circuit Training	1
KINE 005E Cardio Conditioning	1
KINE 005J Beginning Body Conditioning	1
KINE 005K Intermediate Body Conditioning	1
KINE 005M Beginning Weight Training	1
KINE 005N Intermediate Weight Training	1
KINE 005P Step Aerobics	1
KINE 005Q Elite Fitness Training	1
KINE 005R Functional & Core Training	1
KINE 005S Advanced Elite Fitness	1
KINE 006C Pilates for Fitness	1
KINE 006E Fundamentals of Yoga	1
KINE 006F Intermediate Yoga	1
KINE 078 Fit Ball Training	1

Individual Sports: (maximum of one course).....	Units
KINE 007F Beginning Archery	1
KINE 008A Beginning Tennis	1
KINE 008B Intermediate Tennis.....	1
KINE 008E Beginning Badminton	1
KINE 008F Intermediate Badminton	1

Team Sports: (maximum of one course).....	Units
KINE 009A Beginning Basketball	1
KINE 009E Intermediate Basketball	1
KINE 009F Beginning Baseball	1
KINE 009G Softball	1
KINE 009H Beginning Volleyball	1
KINE 009P Intermediate Volleyball	1

List A (select two courses, only one from same subject such as CHEM or PHYS)	Units
BIO 016 Introduction to Human Biology	3
CHEM 001 General Chemistry	3
CHEM 012 Chemistry for Health Services.....	3
KINE 020S Advanced First Aid and Emergency Care....	3
MATH 011 Elementary Statistics	4
PHYS 002 General Physics (Non-calculus)	5
PHYS 006 Physics for Science and Engineering	5

Required Major Total Units	22-26
CSU General Education or IGETC Pattern Units ...	37-39
CSU Transferable Electives (as needed to reach 60 transferable units)*	6-8
Total Degree Units	60

** 6-15 units may be double counted toward both the major area of emphasis and CSU General Education or IGETC Pattern. Consult with a counselor for more information on completing this degree*

Kinesiology

Athletics

ATHL 001

1.0 Unit

Women's Intercollegiate Volleyball (Fall)

Course Advisory: SCC minimum English and Math standards.

General Education: Option A: Local District Requirements Transferable to UC/CSU

Hours: 160-180 lab.

A comprehensive course designed for the student-athlete covering advanced intercollegiate volleyball skills. The course includes the theories and analyses of offensive and defensive strategies, skill acquisition, development of fitness skills and mental preparation for competition. Repeatable 3 times.

ATHL 001B

1.0 Unit

Pre-season Intercollegiate Volleyball

Transferable to UC/CSU

Hours: 48-54 lab.

A comprehensive course designed for the intercollegiate student-athlete. The course focus is on continued development and enhancement of physical performance and maintenance level required of each student-athlete participating in intercollegiate volleyball. The course will focus on learning and execution of fitness/conditioning parameters as well as pre and post tests on volleyball skills. Repeatable 3 times.

ATHL 002A

1.0 Unit

Women's Intercollegiate Basketball (Fall)

Course Advisory: SCC minimum English and Math standards.

General Education: Option A: Local District Requirements Transferable to UC/CSU

Hours: 64-72 lab.

A comprehensive course designed for the student-athlete covering advanced intercollegiate basketball skills. The course includes the theories and analyses of offensive and defensive strategies, acquisition and development of physical skills, and mental preparation for competition. Repeatable 3 times.

ATHL 002B

2.0 Units

Women's Intercollegiate Basketball (Spring)

Course Advisory: SCC minimum English and Math standards.

General Education: Option A: Local District Requirements Transferable to UC/CSU

Hours: 96-108 lab.

A comprehensive course designed for the student-athlete covering advanced intercollegiate basketball skills. The course includes the theories and analyses of offensive and defensive strategies, acquisition and development of physical skills, and mental preparation for competition. Repeatable 3 times.

ATHL 003 Intercollegiate Softball (Women)

3.0 Units

Course Advisory: SCC minimum English and Math standards.

General Education: Option A: Local District Requirements Transferable to UC/CSU Hours: 160-180 lab.

A comprehensive course designed for the student-athlete covering advanced softball skills. The course includes the theories and analyses of offensive and defensive strategies, skill acquisition, development of fitness skills and mental preparation for competition. Repeatable 3 times.

ATHL 004B Pre-season Intercollegiate Soccer

Prerequisite: Athletic Tryout and Team Selection.

General Education: Option A: Local District Requirements Transferable to UC/CSU

Hours: 80-90 lab.

A comprehensive course designed to develop the pre-season student athlete covering fundamental soccer skills. This is a course designed for the intercollegiate student-athlete. The course focus is on continued development and enhancement of physical performance and maintenance level required of each student-athlete participating in intercollegiate soccer. The course will focus on learning and execution of fitness/conditioning parameters as well as pre and post tests on soccer skills.

Kinesiology

Athletics

ATHL 010

3.0 Units

Men's and Women's Intercollegiate Swimming and Diving (Spring)

Course Advisory: SCC minimum English and Math standards.

Transferable to UC/CSU

Hours: 160-180 lab.

A comprehensive course designed for the student-athlete covering advanced intercollegiate swimming and diving skills. The course includes theories and analyses of skill acquisition, development of fitness skills and mental preparation for competition. Repeatable 3 times.

ATHL 015 Men's Intercollegiate Baseball

3.0 Units

Course Advisory: SCC minimum English and Math standards.

General Education: Option A: Local District Requirements

Transferable to UC/CSU

Hours: 160-180 lab.

A comprehensive course designed for the student-athlete covering advanced intercollegiate baseball skills. The course includes the theories and analyses of offensive and defensive strategies, skill acquisition, development of fitness skills and mental preparation for competition. Repeatable 3 times.

ATHL 016A

1.0 Unit

Men's Intercollegiate Basketball (Fall)

Course Advisory: SCC minimum English and Math Standards.

General Education: Option A: Local District Requirements

Transferable to UC/CSU

Hours: 64-72 lab

A comprehensive course designed for the student-athlete covering advanced intercollegiate basketball skills. The course includes the theories and analyses of offensive and defensive strategies, acquisition and development of physical skills, and mental preparation for competition.

Repeatable 3 times.

ATHL 016B

2.0 Units

Men's Intercollegiate Basketball (Spring)

Course Advisory: SCC minimum English and Math standards.

General Education: Option A: Local District Requirements

Transferable to UC/CSU

Hours: 96-108 lab.

A comprehensive course designed for the student-athlete covering advanced intercollegiate basketball skills. The course includes the theories and analyses of offensive and defensive strategies, acquisition and development of physical skills, and mental preparation for competition. Repeatable 3 times.

ATHL 025

1.0-1.5 Units

In-Season Intercollegiate Conditioning

Corequisite: Course is for Intercollegiate student athletes, must enroll in both ATHL (team course) and ATHL 020 in the same season. Each Sport has their own ATHL ____ (#). Take ATHL course that is represented with course of study.

General Education: Option A: Local District Requirements

Transferable to UC/CSU

Hours: 48-54 or 72-81 lab.

A comprehensive course designed for the intercollegiate student athlete. The course focus is on continued development and enhancement of physical performance and maintenance in intercollegiate sports. The course will focus on learning and execution of fitness/conditioning parameters as well as pre- and post-test. Students will analyze advanced offensive and defensive strategies.

Kinesiology

DANC 004 Dance Appreciation

3.0 Units

Course Advisory: Eligibility for ENGL 001.

Transferable to UC/CSU

Hours: 48-54 lecture.

The development of dance in Western Europe and the U.S. from ancient times to the present. Explores dance as an emerging art form from the Renaissance to the 20th century. Emphasizes the contemporary dance heritage of the United States. Field Trip may be requested.

DANC 004A

1.0 Unit

Beginning Contemporary Modern Dance

Course Advisory: SCC minimum English and Math standards.

General Education: Option A: Physical Education;

Option C: Area E

Transferable to UC/CSU

Hours: 48-54 lab.

Introduction to basic contemporary modern dance techniques. This class will focus on proper contemporary modern dance alignment, terminology, center work, movement across the floor, composition and self-expression through movement. Students will study posture and alignment for dance, alignment reference points and basic postural muscles. Students will develop physical strength, flexibility, coordination, and an increase in movement memory. Students will study the basic components of fitness as they relate to dance training and basic health guidelines for nutrition and injury care and prevention. Students will explore a variety of common accompaniments for contemporary modern dance. Basic music notation will be presented in preparation for future dance composition. The history of Modern Dance is included. Interval skills exams and written exams serve to measure student achievement.

DANC 004B Beginning Tap Dance

1.0 Unit

Course Advisory: SCC minimum English and Math standards.

General Education: Option A: Physical Education;

Option C: Area E

Transferable to UC/CSU

Hours: 48-54 lab.

Introduction to body placement, body balance, rhythm, coordination, musicality, and a repertoire of the traditional tap (foot) techniques. This course presents lecture information on music, music analysis, understanding basic components of fitness as related to dance, nutrition and basic first aid and injury prevention. History of tap dance as an indigenous American dance form is included. Skills exams and written exams are used to evaluate student achievement.

DANC 004C Intermediate Tap Dance

1.0 Unit

Prerequisite: A minimum grade of C in KINE 004B.

Course Advisory: SCC minimum English and Math standards.

General Education: Option A: Physical Education;

Option C: Area E

Transferable to UC/CSU

Hours: 48-54 lab.

Explore intermediate tap dance step, patterns, combinations, and choreography. Music theory concepts as they apply to the syncopated rhythms of tap dance are included. The history of tap dance as an indigenous American dance form is discussed. Interval performance exams are used to evaluate student achievement. Written exams are used to evaluate the student's knowledge of technique, music theory, rhythmic patterns, and the historical and cultural significance of tap dance in America. Students will learn to appreciate this dance form via attendance at a dance concert or musical theater performance.

Kinesiology

DANC 004D Advanced Jazz Dance

1.0 Unit

Prerequisite: A minimum grade of C in KINE 004P.

Course Advisory: SCC minimum English and Math standards.

General Education: Option A: Physical Education; Option C: Area E

Transferable to UC/CSU

Hours: 48-54 lab.

Designed for students who have vocational or avocational interests in dance. Course emphasis is on the skill development and analysis of intermediate-level and advanced-level techniques and patterns. Selected technique syllabi of various dance artists will be presented and studied. Jazz idioms, styles, and the historical and cultural development are included. Participation in the annual dance concert is encouraged. Interval skills exams and written exams serve to evaluate student achievement. Recommended for Kinesiology and Theatre Arts majors.

DANC 004E Dance Production

3.0 Units

Course Advisory: SCC minimum English and Math standards.

General Education: Option A: Physical Education

Transferable to UC/CSU

Hours: 16-18 lecture, 96-108 lab.

Designed for dance students interested in public performance. Experiences in student choreography are included in addition to participation in the annual college dance concert. Interval skills exams and written exams serve to evaluate student achievement. Recommended for Theatre Arts Majors.

DANC 004F Beginning Hip-Hop Dance

1.0 Unit

Course Advisory: SCC minimum English and Math Standards.

General Education: Option A: Physical Education; Option C: Area E

Transferable to UC/CSU

Hours: 48-54 lab.

Introduction to the fundamentals of beginning hip-hop dance style. Students will learn general patterns as well as the basics of creating their own style and routines. Information describing the history and cultural development of hip-hop as a dance form will be presented

DANC 004G Dance Choreography

2.0 Units

Course Advisory: SCC minimum English and Math standards.

General Education: Option A: Physical Education Transferable to UC/CSU

Hours: 16-18 lecture, 48-54 lab.

An overview of the field of choreography and a study of the elements of dance composition as related to a specific form of dance, such as Jazz, Modern, Ballet, Hip-Hop, Ballroom, and Tap, based on individual student need. Students will choreograph dance studies applying a variety of choreographic approaches and techniques. Students will participate in a class, community and/or college performance. Recommended for Kinesiology, Dance/Theatre, or related arts majors. Dance experience recommended.

DANC 004H Beginning Jazz Dance

1.0 Unit

Course Advisory: SCC minimum English standard.

General Education: Option A: Physical Education; Option C: Area E

Transferable to UC/CSU

Hours: 48-54 lab.

Basic jazz techniques, styles, terminology, and history. This course presents lecture information on posture for the dancer, music analysis, understanding basic components of fitness as related to dance, nutrition and injury prevention, and choreography dance notation. The course focuses on sequential development of basic jazz patterns in preparation for future dance composition. Interval skills exams and written exams serve to evaluate student achievement.

Kinesiology

DANC 004J Beginning Ballroom Dance

1.0 Unit

Course Advisory: SCC minimum English and Math standards.

General Education: Option A: Physical Education; Option C: Area E

Transferable to UC/CSU

Hours: 48-54 lab.

Introduction to the basic skills and techniques of ballroom dance. This course will also provide a short history, demonstration, and instruction of popular ballroom dances. Following good practice of exercise in dance execution, the students benefit from the activity and the cultural experiences. Dances selected from the following: Cha-Cha, Rumba, Nightclub Two-Step, East & West Coast Swing, Lindy-Hop, Salsa, Tango, Waltz, Samba, Rumba and Merengue. Attention on proper techniques in both lead and follow dance positions, including proper form, footwork, alignment, and correct posture. Music is varied to broaden the experience with different tempo and styles. No prior experience in dance required; partner not required.

DANC 004K Beginning Ballet

1.0 Unit

Course Advisory: SCC minimum English and Math standards.

General Education: Option A: Physical Education; Option C: Area E

Transferable to UC/CSU

Hours: 48-54 lab.

An introduction to beginning classical ballet dance forms, positions, body alignment, patterns, and barre work. The lesson is conducted with the associated French terminology for all movements and steps. The history of ballet is presented and significant choreographers and ballets are discussed. Students will study proper dance posture, the muscular system as it relates to ballet movement and proper nutritional guidelines for the dancer. Basic first aid and injury prevention and treatment for self-care injuries will also be included in lectures.

Performance exams and written exams are given to evaluate student achievement. Students will be required to submit a term project on the history of Ballet.

DANC 004M Intermediate Ballet

1.0 Unit

Prerequisite: KINE 004K with a minimum grade of C.

Course Advisory: SCC minimum English and Math standards.

General Education: Option A: Physical Education; Option C: Area E

Transferable to UC/CSU

Hours: 48-54 lab.

Exposes students to intermediate ballet skills and will expand technical development for artistic growth. Emphasis is on style and the aspects of interpretation of movement needed for development of the classical dancer. Skills exams and written exams are given to evaluate student achievement leading to studio recital or performance.

DANC 004N Beginning Swing Dance

1.0 Unit

Course Advisory: SCC minimum English and Math standards.

General Education: Option A: Physical Education; Option C: Area E

Transferable to UC/CSU

Hours: 48-54 lab.

An introductory experience of the popular American social dances known as "Swing" and an exploration of the cultural scene that created them. The course surveys historical dance varieties and East Coast/West Coast regional differences as well as the latest trends and styles. Instruction, history, and open dancing will be included in class. Attention is paid to proper technique in both lead and follow dance positions, footwork alignment and posture.

DANC 004P Intermediate Jazz Dance

1.0 Unit

Prerequisite: KINE 004H with a minimum grade of C.

Course Advisory: SCC minimum English and Math standards.

General Education: Option A: Physical Education; Option C: Area E

Transferable to UC/CSU

Hours: 48-54 lab.

Intermediate-level jazz techniques, styles, and terminology. Students will gain increased knowledge of dance posture and of the muscular functions of the major muscles that affect basic dance movements. Intermediate musical analysis will include 8 count phrasing. The course focuses on sequential development of intermediate jazz dance patterns in preparation for dance composition. Interval skills exams and written exams serve to evaluate student achievement.

Kinesiology

DANC 004S Intermediate Swing Dance 1.0 Unit

Prerequisite: KINE 004N with a minimum grade of C.

Course Advisory: SCC minimum English and Math standards.

General Education: Option A: Physical Education;

Option C: Area E

Transferable to UC/CSU

Hours: 48-54 lab.

Gain a higher level of understanding of terminology, music, and history of swing dance and improve their technique around steps, lifts, patterns, and rhythms. A partner is not required.

DANC 004T Intermediate Ballroom Dance 1.0 Unit

Prerequisite: KINE 004J with a minimum grade of C.

Course Advisory: SCC minimum English and Math standards.

General Education: Option A: Physical Education;

Option C: Area E

Transferable to UC/CSU

Hours: 48-54 lab.

Intermediate techniques and styles of ballroom dance. Students will gain improved rhythm, skills, and an increased knowledge of patterns and variations of popular ballroom dances: American Style Waltz, Tango, Cha-Cha, Nightclub Two-Step, Rumba, East Coast Swing, West Coast Swing, Salsa, and Merengue. Increased attention on proper techniques in both lead and follow dance positions including proper form, footwork, alignment, and correct posture. Music is varied to broaden the experience with different tempo and styles.

KINE 007D Beginning Golf 1.0 Unit

Course Advisory: SCC minimum English and Math standards.

General Education: Option A: Physical Education;

Option C: Area E

Transferable to UC/CSU

Hours: 48-54 lab.

Beginning instruction and practice in fundamental golf strokes such as putting, chipping, pitching, and driving with irons and woods. Golf rules, strategies, etiquette, and selection and care of equipment are also covered. A field trip to a municipal golf course and golfing range may be required. Golf clubs are available for student use. Students may be responsible for reasonable greens fees.

KINE 007E Intermediate Golf 1.0 Unit

Course Advisory: KINE 007D; SCC minimum English and Math standards.

General Education: Option A: Physical Education;

Option C: Area E

Transferable to UC/CSU

Hours: 48-54 lab.

An activity course that provides intermediate-level instruction and practice in golf strokes such as putting, chipping, pitching, and driving with irons and woods. Golf rules, strategies, etiquette, and selection and care of equipment are also covered. A field trip to a municipal golf course and golfing range may be required. Golf clubs are available for student use. Students may be responsible for reasonable greens fees

KINE 007G Intermediate Archery 1.0 Unit

Course Advisory: KINE 007F with a minimum grade of C.

General Education: Option A: Physical Education;

Option C: Area E

Transferable to UC/CSU

Hours: 48-54 lab.

Improve archery skills and introduce field archery and dynamic (moving) target shooting. Students will learn to perform at international and Olympic distances.

Kinesiology

KINE 009B Indoor/Outdoor Soccer

1.0 Unit

Course Advisory: SCC minimum English and Math standards.

General Education: Option A: Physical Education;

Option C: Area E

Transferable to UC/CSU

Hours: 48-54 lab.

Fundamental techniques of soccer: terminology, rules, and history. Practice, skills drills, and class competitions are provided to enhance skill development and game strategy. A written final exam and skills exams serve to evaluate student achievement.

KINE 009C Intermediate Soccer

1.0 Unit

Prerequisite: KINE 009B with a minimum grade of C.

General Education: Option A: Physical Education; Option

C: Area E

Transferable to UC/CSU

Hours: 48-54 lab.

Intermediate soccer skills acquired through team competition. Emphasis is placed upon offensive and defensive tactics and strategies. Develop knowledge and understanding of the current collegiate soccer rules.

Mathematics

MATH 055 Mathematical Concepts for Elementary School Teachers **3.0 Units**

Prerequisite: MATH 104 or MATH 112 with a minimum grade of C or Successful completion of two years of high school algebra and placement by the Multiple Measures process. Course Advisory: SCC minimum English Standard.

General Education: Option A: Physical Education;

Option C: Area E

Transferable to CSU

Hours: 48-54 lecture.

Focuses on the development of quantitative reasoning skills through in-depth, integrated explorations of topics in mathematics, including real number systems and subsystems. Emphasis is on comprehension and analysis of mathematical concepts and applications of logical reasoning.

Nursing

REQUIRED COURSES

First Year Courses Units

NURS 071A Foundations of Nursing I*	6
NURS 071B Foundations of Nursing II*	6
NURS 071S Nursing Simulation and Skills Lab I	2
NURS 072A Medical/Surgical I and Geriatrics*	5
NURS 072B Maternal-Newborn Nursing*	5
NURS 072S Nursing Simulation and Skills Lab II	2

Second Year Courses Units

NURS 073 Issues and Leadership in Health Care Today	2
NURS 073A Medical/Surgical II*	5
NURS 073B Psychiatric and Mental Health Nursing*	5
NURS 073S Nursing Simulation and Skills Lab III	1
NURS 074A Medical/Surgical III*	6
NURS 074B Pediatric Nursing*	5
NURS 074S Nursing Simulation and Skills Lab IV	1

Students are encouraged to attend a Registered Nursing Information Workshop prior to seeing a counselor individually. These workshops provide a basic understanding of the nursing program and the requirements for application. After attending the Nursing Information Workshop, students planning to major in Nursing should make an appointment with a counselor for assistance in developing an education plan.

REQUIREMENTS FOR ADMISSION TO THE PROGRAM

1. Graduation from an accredited high school in the United States or successful completion of the General Education Development (GED) or California High School Proficiency Exam (CHSPE) per requirements of the Nurse Practice Act, Title 16, California Code of Regulations, Section 1412, prior to time of application.
 - Students with a high school diploma from a school outside the United States must have transcripts evaluated by a National Association of Credential Evaluation Service (NACES) approved independent agency.
 - Students who possess an Associate of Arts/ Associate of Science degree or higher from a regionally accredited college in the U.S. are exempt from the educational requirements stated above.
 - Students who have attended college outside the

United States must have transcripts evaluated by a NACES approved independent agency, demonstrating equivalency to an AA/AS degree or higher from a U.S. regionally accredited college.

2. A Composite Score of 73% or greater. This is calculated using the applicant's College GPA, Core Biology GPA, English GPA and the applicant's Core Biology Repetitions (This includes grades of D or less and W's on the applicant's transcript).
3. A minimum grade of C in the following pre-major and general education courses:

BIO 004	NUTR 010
BIO 005	PSYC 001
BIO 014	CDFS 070
NURS 052	3 units from Critical Thinking
All GE Graduation Requirements	

Critical Thinking

COMM 001	COMM 006
COMM 002	ENGL 002

4. Students are required to take the "Test of Essential Academic Skills (TEAS)" developed by the Assessment Technologies Institute. A minimum passing composite score of 62% is required within the first two (2) attempts. Further information can be found on the <http://www.atitesting.com/solutions/pre-program/TEAS-Discover.aspx> website regarding TEAS preparation, registration and testing.
5. First-time applicants are strongly encouraged to meet with an SCC counselor before August of the application year to obtain a NURSING PRE-MAJOR AND GENERAL EDUCATION REQUIREMENT CHECK SHEET and document completion of all eligibility requirements. Call (707) 864-7101 or go online to schedule an appointment.

**Concurrent enrollment in corresponding Skills Lab course is required*

Nutrition

Associate in Science in Nutrition for Transfer (A.S.-T)

Program Description

The Associate in Science transfer degree is designed to meet the general education requirements at California State Universities and prepare students for a Bachelor of Science degree in Nutrition and Food Science. The program will prepare individuals to integrate and apply the principles of the food and nutrition sciences, human behavior, and the biomedical sciences to design and manage effective nutrition programs. Students will learn how to utilize food for human growth and development in a variety of settings including health care organizations, food service operations, business and industry (product development, marketing, consulting), education and research, health promotion and private practice counseling.

Associate in Science in Nutrition for Transfer

The Associate in Science in Nutrition for Transfer (AS-T in Nutrition) is designed to prepare students for transfer into the CSU system to complete a Bachelor of Science degree in Nutrition.

To earn the Associate in Science in Nutrition for Transfer degree, students must:

1. Completion of 60 semester units or 90 quarter units that are eligible for transfer to the California State University, including both of the following:
 - a. The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education – Breadth Requirements.
 - b. A minimum of 18 semester units or 27 quarter units in a major or area of emphasis, as determined by the community college district.
2. Obtain a minimum grade point average of 2.0.

ADTs also require that students must earn a minimum grade of C in all courses required for the major or area of emphasis.

Program Outcomes

Upon completion of the A.S.-T in Nutrition students will be able to:

1. Explain the principles of nutrition and its effect on health and wellness.
2. Analyze a diet for adequacy, balance, and moderation.
3. Demonstrate an understanding of the relationships between chemistry, biology, and nutrition.
4. Meet the requirements for transfer to a California State University with a major in Nutrition.

REQUIRED COURSES Units

BIO 014 Principles of Microbiology	4
CHEM 001 General Chemistry	5
or	
CHEM 001 General Chemistry	5
and	
CHEM 002 General Chemistry	5
NUTR 010 Nutrition	3
PSYC 001 Introduction to Psychology	3
One to Two courses from List A	4-10
One course from List B	3
Total Units	27-28
List A: (select one to two courses)**	Units
BIO 004 Human Anatomy	5
or	
BIO 005 Human Physiology	5
CHEM 002 General Chemistry	5
CHEM 003 Organic Chemistry I	5
MATH 011 Elementary Statistics	4

List B:	Units
ANTH 002 Cultural Anthropology	3
PSYC 002 Biological Psychology	3
SOC 001 Introduction to Sociology	3

Required Major Total Units	27-28
CSU General Education or IGETC Pattern Units	37-39
CSU Transferable Electives (as needed to reach 60 transferable units)*	5-12
Total Degree Units	60

*10-18 units may be double counted toward both the major area of emphasis and CSU General Education or IGETC Pattern. Consult with a counselor for more information on completing this degree.

**select one course if CHEM 001 + CHEM 002 is completed in Required Core or select two courses if only CHEM 001 is completed in Required Core

Photography

Photography, Professional

Program Description

Pre-employment training in professional photography is designed to prepare students for self-employment and employment in the private and public sectors and covers a broad spectrum of photographic fields, e.g., advertising illustration, industrial, portraiture, medical, commercial, photojournalism, and landscape.

Certificate of Achievement and Associate in Science Degree

A Certificate of Achievement can be obtained upon completion of the 24-unit major. The Associate in Science Degree can be obtained by completing a total of 60 units, including the major and the general education requirements. All courses for this major must be completed with a minimum grade of C or a P if the course is taken on a Pass/No Pass basis.

Program Outcomes

Students who complete the Photography, Professional Certificate of Achievement/ Associate Degree will be able to:

1. Demonstrate and comprehend the technical components of digital/analog cameras to effectively photograph varied subject matter with visual literacy.
2. Analyze and distinguish creative components of a photograph within its contextual usage (light, composition, impact, etc.) and apply knowledge in producing successful images as they pertaining to the photographic usage, i.e., fine art or applied world.

REQUIRED COURSES	Units
PHOT 029 Introduction to Photography	3
PHOT 071 Digital Imaging	3
PHOT 151 Professional Photography: Introduction	4
PHOT 156 Portfolio Development	3
Eight units from List A	8
Three units from List B	3
Total Units	24

List A: (select 8 units)	Units
PHOT 152 Professional Photography: Portraiture	4
PHOT 153 Professional Photography: Product and Advertising	4
PHOT 154 Professional Photography: Interior & Exterior	4

List B: (select 3 units)	Units
PHOT 030 Beginning Photography	3
PHOT 031 Intermediate Photography	3
PHOT 035 Art of Photography	3
PHOT 040 Alternative Photography	3
PHOT 045 DSLR Videography	3
PHOT 052 Alternative Photography	3
PHOT 056 Photojournalism & Documentary Photography	3
PHOT 161 Workshop: Camera Intensive	1
PHOT 162 Workshop: Portraiture and Studio Lighting	1
PHOT 163 Landscape and Nature Photography	1

This is a Gainful Employment Program. For additional information, please visit http://www.solano.edu/gainful_employment/ and select "Professional Photography."

Photography

PHOT 029 Introduction to Photography

3.0 Units

Course Advisory: SCC minimum English and Math standards.

Transferable to UC/CSU

Hours: 32-36 lecture, 48-54 lab.

An introduction to photography, including a brief history and discussion of image composition, camera usage, workflow and output options. Most of the course will concern digital cameras and processes, but there will be a short component on film photography. This course is a prerequisite to the Professional Photography program and most other photography courses. Students will have access to the department labs. DSLR (Digital Single Lens Reflex) camera is required. Department has some cameras for loan to students who cannot supply their own camera. **Formerly PHOT 070.**

PHOT 045 DSLR Videography

3.0 Units

Course Advisory: PHOT 029 with a minimum grade of C; ENGL 001; SCC minimum MATH standard.

Transferable to UC/CSU

Hours: 32-36 lecture, 48-54 lab.

Designed to augment the professional photography courses with the ability to create digital video content via a DSLR camera. DSLR camera is required.

Psychology

Psychology

Program Description

The psychology program provides a broad overview of psychology as a science, in particular regard to major theories, methods, and applications. The program emphasizes critical thinking, skeptical inquiry and the scientific approach to understanding behavior and mental processes. In addition, personal, social, and organizational issues are explored using psychological principles.

Associate in Arts Degree

The Associate in Arts Degree can be obtained by completing a total of 60 units, including the 22-unit major, general education requirements and electives. All courses for this major must be completed with a minimum grade of C or a P if the course is taken on a Pass/No Pass basis.

Program Outcomes

Students who complete the Psychology Associate Degree will be able to:

1. Demonstrate an understanding of psychology as a science in regard to major theories, methods, and applications.
2. Successfully complete required psychology (major) program courses

REQUIRED COURSES	Units
MATH 011 Elementary Statistics.....	4
PSYC 001 Introduction to Psychology.....	3
PSYC 002 Biological Psychology	3
PSYC 004 Research Methods in Behavioral Science	3
Three courses from List A.....	9
Total Units	22

List A: (select three courses)	Units
PSYC 005 Abnormal Psychology	3
PSYC 006 Developmental Psychology	3
PSYC 007 Cross-Cultural Psychology	3
PSYC 012 Gender	3
PSYC 020 Personal and Social Behavior	3
PSYC 030 Introduction to Social Psychology	3
PSYC 034 Human Sexual Behavior.....	3
PSYC 040 Drugs, Society, & Behavior.....	3
HS 051 Introduction to Human Services.....	3

Psychology

Associate in Arts in Psychology for Transfer (ADT: A.A.-T)

Program Description

The psychology program provides academic instruction in basic psychological concepts, theories, terminology, and research methods, and promotes life skills, personal growth, and interpersonal effectiveness.

Associate in Arts in Psychology for Transfer

The Associate in Arts for Transfer is especially appropriate for students who plan to complete a bachelor's degree in Psychology at a CSU campus. Students completing an A.A.-T degree are guaranteed admission to the CSU system, but not to a particular campus or major. Students transferring to a CSU campus that does accept the A.A.-T will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree also prepares students for psychology degree programs at other four-year institutions, but does not come with the same guarantees. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

To earn the Associate in Arts in Psychology for Transfer degree, students must:

1. Complete 60 semester units that are eligible for transfer to the California State University, including both of the following:
 - a. The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education – Breadth Requirements
 - b. A minimum of 18 semester units in a major or area of emphasis, as determined by the community college district.
2. Obtain a minimum grade point average of 2.0.

Program Outcomes

Students who complete the Associate in Arts in Psychology for Transfer degree will be able to:

1. Demonstrate an understanding of the major theories in psychology
2. Produce an APA formatted research proposal
3. Demonstrate an ability to apply psychological concepts

REQUIRED COURSES.....	Units
PSYC 001 Introduction to Psychology	3
MATH 011 Elementary Statistics.....	4
PSYC 004 Research Methods in Behavioral Science.....	3
One course from List A	3-4
One course from List B.....	3
One course from List C	3

List A: (select one course).....	Units
BIO 015 Introduction to Biology	4
BIO 016 Introduction to Human Biology	3

List B: (select one course)	Units
PSYC 002 Biological Psychology	3

List C: (select one course).....	Units
PSYC 005 Abnormal Psychology	3
PSYC 006 Developmental Psychology	3
PSYC 007 Cross-Cultural Psychology	3
PSYC 012 Gender.....	3
PSYC 020 Personal and Social Behavior	3
PSYC 030 Introduction to Social Psychology	3
PSYC 034 Human Sexual Behavior	3
PSYC 040 Drugs, Society & Behavior	3

Required Major Total Units	19-20
CSU General Education or IGETC Pattern Units ...	37-39
CSU Transferable Electives (as needed to reach 60 transferable units)*	10-19
Total Degree Units.....	60

* 9-15 units may be double counted toward both the major area of emphasis and CSU General Education or IGETC Pattern. Consult with a counselor for more information on completing this degree.

Psychology

PSYC 012 Gender

3.0 Units

Course Advisory: PSYC 001, ENGL 001, LR 010, and SCC minimum math standard.

General Education: Option A: Area B2; Option B: Area 4I;

Option C: Area D4

Transferable to UC/CSU

Hours: 48-54 lecture.

An examination of the psychological, sociological, biological, cognitive, and cultural theories and research of sex and gender. Analysis of the effects of gender expectations and practices on individual development, health, relationships, and the workplace. Includes agents of socialization, impact of economic and political change, social construction of sexuality and gender identities, and intersectional aspects of gender. Open to all students.

Social Justice/Ethnic Studies

Associate in Arts in Social Justice Studies for Transfer (ADT: A.A.-T)

Program Description

The Associate in Arts in Social Justice Studies for Transfer at Solano Community College prepares students to provide social leadership in creating greater equity and inclusion in the local community and in larger societal contexts. With a focus on Ethnic Studies, and Gender and Sexuality Studies, Social Justice Studies majors are given opportunities to critically examine the experiences of various communities in relation to issues of power and social inequality. The program's interdisciplinary coursework allows students exposure to a variety of theoretical frameworks including Psychology, English, Sociology, History, Art, Political Science, Communications and more, as well as the fundamentals of methodology needed for social inquiry. Critical thinking and problem solving are emphasized throughout the program, especially in the analysis of historical and current examples of social engagement and change. Social Justice Studies provides a strong academic preparation for upper division coursework, a range of career paths, and meaningful social awareness and public engagement over students' lifetimes.

Associate in Arts in Social Justice Studies for Transfer

The Associate in Art in Social Justice Studies for Transfer Degree is intended for seamless transfer to local California State University campuses (CSUs). Students who successfully complete degree requirements will be ensured preferential transfer status to local CSU campuses in degree programs identified as "similar to" Social Justice Studies by those CSU campuses. While coursework in Social Justice Studies is designed to provide lower division preparatory requirements for many related degree programs, students should meet with a counselor to determine specific course requirements for local CSUs/programs and to properly identify which CSUs are considered local.

To earn the Associate in Arts in Social Justice Studies for Transfer degree, student must:

1. Complete 60 semester units that are eligible for transfer to the California State University, including both of the following:
 - a. The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education - Breadth Requirements
 - b. A minimum of 18 semester units in a major or area of emphasis, as determined by the community college district.
2. Obtain a minimum grade point average of 2.0.

Program Outcomes

Students who complete the Associate in Arts in Social Justice Studies for Transfer degree will be able to:

1. Identify and analyze historical and modern-day factors that contribute to social inequities in the United States and globally, especially those related to race, gender, and sexuality.
2. Demonstrate knowledge of the unique experiences and social, artistic, and intellectual contributions of key social groups studied.
3. Apply critical thinking and problem-solving skills to complex social issues related to equality, inclusion, and social justice.

REQUIRED COURSES Units

SJS 001 Introduction to Social Justice Studies	3
SJS 002 Introduction to Race and Ethnicity	3
PSYC 012 Gender	3
3 courses from at least 2 of the following 4 areas	9-10

Area 1: History or Government

HIST 028 African American History to 1877	3
HIST 029 African American History Since 1865	3
HIST 031 Mexican American/Chicano History	3
HIST 037 Women in American History	3
PLSC 005 Constitutional Rights in a Multicultural Society	3

Area 2: Arts and Humanities

Art 012 Inside/Outside: The Cultures and Identities of Diverse Visual Artists in the U.S.	3
CINA 011 American Cultures in Film	3
ENGL 036 Multi-Ethnic Literature in America	3
MUSC 013 Multicultural Music in America	3

Area 3: Social Science

ANTH 002 Cultural Anthropology	3
CDFS 053 Teaching in a Diverse Society	3
COMM 012 Intercultural Communication	3
PSYC 007 Cross-Cultural Psychology	3
PSYC 034 Human Sexual Behavior	3

Social Justice/Ethnic Studies

Area 4: Quantitative Reasoning and Research Methods
MATH 011 Elementary Statistics4

Required Major Total Units..... 18-19
CSU General Education or IGETC Pattern Units ... 37-39
CSU Transferable Electives (as needed to reach 60 transferable units)* 14-24
Total Degree Units..... 60

** 12-19 units may be double counted toward both the major area of emphasis and CSU General Education or IGETC Pattern. Consult with a counselor for more information on completing this degree.*

Sociology

Sociology

Program Description

Sociology is the study of society and human behavior. Students who obtain a degree in Sociology gain a fundamental understanding of culture, socialization, inequality, racial and ethnic relations, sex roles, deviance, social issues and problems, and the distribution of political and economic power. Sociology students prepare themselves for a job in the field of business, health, education, criminal justice, government/law, or social service, and a variety of other areas.

Associate in Arts Degree

The Associate in Arts Degree can be obtained by completing a total of 60 units, including the 18-19-unit major, general education requirements and electives. All courses for this major must be completed with a minimum grade of C or a P if the course is taken on a Pass/No Pass basis

Program Outcomes

Students who complete the Sociology Associate Degree will be able to:

1. Gain a basic knowledge of the history of the development of sociology as a separate discipline.
2. Become more aware of cultural, social, political, environmental, and economic forces within the world they live.
3. Critically think, in addition to increase reading, writing and basic research skills.

REQUIRED COURSES	Units
SOC 001 Introduction to Sociology.....	3
SOC 002 Social Issues and Problems	3
PSYC 004 Research Methods in Behavioral Science	3
Two courses from List A.....	6
One course from List B.....	3-4
Total Units	18-19

List A: (select two courses)	Units
SOC 023 Sociology of African Americans.....	3
SOC 040 Sociology of the Family	3
SOC 045 Sociology of Religion	3
SOC 075 Introduction to Sociology of Sport.....	3

List B: (select one course)	Units
ANTH 002 Cultural Anthropology.....	3
MATH 011 Elementary Statistics.....	4
PLSC 019 Human Rights and Sexual Orientation	3
PSYC 030 Introduction to Social Psychology	3
SJS 002 Introduction to Race and Ethnicity	3

Liberal Studies

Liberal Studies

Program Description

The Associate in Arts Degree in Liberal Studies is designed to broaden their knowledge, abilities, and skills to create a foundation in the liberal arts. Students gain a broad background in the social and behavioral sciences, humanities, communication, fine and performing arts, mathematics, and the physical and biological sciences. The students are able to complete lower division major preparation and general education for transfer while simultaneously completing the Liberal Studies Associate Degree. This major provides opportunities for students who are exploring degree options and are not yet certain about their specific degree goals at the four-year level.

Students are encouraged to develop a transfer plan in consultation with a counselor and to refer to www.as-sist.org for current articulation of Solano Community College and university courses.

- Choose either Solano Community College Option B or C for the General Education pattern related to your educational goal.
- Complete a Cross Cultural Studies Graduation Requirement.
- Complete the 23-25 units within the major.
- Choose electives if necessary to complete the 60 units required for the Associate Degree.
- All courses for this major must be completed with a minimum grade of C or a P if the course is taken on a Pass/No Pass basis.

Program Outcomes:

Students completing the University Studies Associate Degree will be able to:

1. Apply an understanding of how diverse cultural beliefs and social, political and/or historical context impact forms of human expression.
2. Demonstrate quantitative reasoning skills through problem solving.
3. Students will successfully communicate ideas through various forms of expression.

REQUIRED COURSES Units

COMM 001 Introduction to Public Speaking..... 3

ENGL 001 College Composition..... 4

ENGL 002 Critical Thinking and Writing
About Literature..... 4

or
ENGL 004 Critical Thinking and Composition:
Language in Context..... 4

MATH 011 Elementary Statistics 4

or
MATH 012 Mathematical Ideas 3

One course from List A: Social Sciences 3

One course from List B: Health and Science 3-4

One course from List C: Arts and Humanities..... 3

Total Units..... 23-25

List A: Social Sciences (select one course)..... 3

ANTH 002 Cultural Anthropology 3

GEOG 002 Cultural Geography 3

PLSC 001 Introduction to American Government
and Politics..... 3

PSYC 001 Introduction to Psychology 3

PSYC 012 Gender 3

SOC 001 Introduction to Sociology..... 3

SOC 002 Social Issues and Problems 3

SOC 040 Sociology of the Family 3

SOC 075 Introduction to Sociology of Sport..... 3

List B: Health and Science (select one course)..... 3-4

ASTR 010 General Astronomy 3

BIO 015 Introduction to Biology 4

BIO 016 Introduction to Human Biology 3

KINE 020A Introduction to Kinesiology 3

GEOG 001 Physical Geography 3

GEOL 001 Physical Geology 3

GEOL 005 Geology of California..... 3

List C: Arts and Humanities (select one course)..... 3

ART 001 Art History 3

ART 002 Art History 3

ART 010 Art Appreciation 3

ART 012 Inside/Outside: The Cultures and Identities of
Diverse Visual Artists in the U.S..... 3

CINA 011 American Cultures in Film..... 3

HIST 017 History of the United States to 1877 3

HIST 018 History of the United States from 1865 3

HIST 028 African American History to 1877 3

HIST 029 African American History Since 1865 3

MUSC 008 Music Appreciation..... 3

MUSC 013 Multicultural Music in America 3

PHIL 003 Introduction to Philosophy 3

PHIL 004 Introduction to Moral Philosophy 3

Page # Catalog	Course/Program/Heading	In Printed 2018-2019 Catalog	Spring 2019 Addendum
38	Non-Resident Tuition	Non-residents (out-of-state and international students) must pay tuition fees at the time of registration. At the time of publication of this catalog, fees are \$258.00 per unit. All non-resident students are also required to pay a \$46.00 per unit enrollment fee and a \$5.00 per unit nonresidential capital outlay fee. Fees are subject to change.	Non-residents (out-of-state and international students) must pay tuition fees at the time of registration. At the time of publication of this catalog, fees are \$258.00 per unit. All non-resident students are also required to pay a \$5.00 per unit nonresidential capital outlay fee. Fees are subject to change.
38	Health and Student Center Fees	The following students are exempt from paying the mandatory health fee: (1) Students who depend exclusively upon prayer for healing in accordance with the teachings of a bona fide religious sect, denomination, or organization. (2) Students who are attending a community college under an approved apprenticeship training program. Students who fall within any one of the two grounds for exemption may apply for a fee waiver by submitting a written request to the Student Life Office.	Exemption Removed
65	Program Degrees and Certificates	--	Update Program List
66	Associate Degree for Transfer (AD-T)	--	Add Economics AA-T and Social Justice Studies AA-T
67	Job Direct Low Unit Certificates	--	Remove list as it is combined with Program Degrees and Certificates page
76	Advanced Manufacturing	Industrial Technology	Mechatronics – update in Program Description, Classes and Units
85	American Sign Language	Total Units – 45	Total Units - 27
89	Anthropology	ANTH 049 Anthropology Honors	Inactivated and Removed from Catalog
90	Art	Art-Two-Dimensional	Inactivated and Removed from Catalog
91	Art	Art-Three Dimensional	Inactivated and Removed from Catalog
92	Art History	Art History Associate in Arts	Inactivated and Removed from Catalog
93	Associate in Arts in Art History for Transfer (ADT: A.A.-T)	--	Update Program Description
--	Art	--	New Program - Studio Arts with Emphasis A.A.
--	Art-Digital	--	New courses – ARTD 044 Introduction to Digital Design and Computer Technology; ARTD 047C Introduction to 3D Animation; ARTD 144A Design Bootcamp
107	Astronomy	ASTR 050 Course Advisory: A minimum grade of B in ASTR 030 and ASTR 040	ASTR 050 Course Advisory: A minimum grade of B in ASTR 030 or ASTR 040
108	Automotive Technician	The Associate in Science Degree can be obtained upon completion of 66 units, including the major...	The Associate in Science Degree can be obtained upon completion of the 45 unit major,...
117	Biology	BIO 012 – Course Description: Examine the basic concepts of biology (especially ecology), chemistry, and physics to study: human population growth; short- and long-term use of resources (such as soil, food, land, renewable and nonrenewable energy, water, and air); and the production of pollution and other wastes. Field trips may be required.	BIO 012 – Course Description: Examines environmental issues from a scientific perspective by using an understanding of the physical, chemical, and biological processes of the Earth system to examine the interaction between humans and these processes. Topics include ecological principles, biodiversity, human population growth, climate change, air and water pollution, solid waste management, and the management of renewable and non-renewable energy, water, land, soil, and mineral resources. The course utilizes knowledge of these subject to find solutions to environmental challenges. Field trips may be required.

117	Biology	BIO 015 – Course Description: An introduction to basic concepts of living organisms including aspects of biological chemistry, cell structure and function, physiology, genetics, evolution, and ecology. Students must successfully complete both the lecture AND lab portions of the course. Off-campus field trips may be required and may involve a fee. This is a course for nonmajors. NOTE: Not open for credit to students who have completed BIO 001, 002 or 012.	BIO 015 – Course Description: Intended for non-science majors, a survey of biology including biological chemistry, cell structure and function, genetics, evolution, and ecology. The laboratory component emphasizes the scientific method to reinforce lecture concepts. Off-campus field trips may be scheduled. NOTE: Not open for credit to students who have completed BIO 003.
125	Biomanufacturing	BIOT 406 - Prerequisite: Admission into the Biomanufacturing Baccalaureate degree program; Permission of faculty required. BIOT 402, BIOT 403, BIOT 404.	Prerequisite: Admission into the Biomanufacturing Baccalaureate degree program.
125	Biomanufacturing	BIOT 408 - Prerequisite: Admission into the Biomanufacturing Baccalaureate degree program. Permission of faculty required. BIOT 402, BIOT 403, BIOT 404.	Prerequisite: Admission into the Biomanufacturing Baccalaureate degree program.
126	Biomanufacturing	BUS 400 - Prerequisite: Admission into the Biomanufacturing Baccalaureate degree program. Permission of faculty required. ENGL 001, MATH 011. Corequisite: BIOT 409 and BIOT 410.	Prerequisite: Admission into the Biomanufacturing Baccalaureate degree program.
127	Biotechnology	Industrial Biotechnology A.S.	Industrial Biotechnology A.S. – Update Program Outcomes and Courses
133	Business, General	--	Correct units
145	Child Development and Family Studies	CDFS 063 – Course Description An overview of knowledge and skills related to providing appropriate curriculum and environments for young children from birth to age 6. Students will examine a teacher’s role in supporting development and fostering children’s curiosity and learning. Through observation and assessment strategies students will develop appropriate play-based curriculum. An overview of content areas will include but not be limited to: Language and literacy, social and emotional learning, sensory learning, art and creativity, music, math, and science. (C-ID ECE 130)	CDFS 063 – Course Description An overview of knowledge and skills related to providing appropriate curriculum and environments for young children from birth to age 6. Students will examine a teacher's role in supporting development and fostering children's curiosity and learning. Through observation and assessment strategies students will develop appropriate play-based curriculum. An overview of content areas will include but not be limited to: Language and literacy, social and emotional learning, sensory learning, art and creativity, music, math, and science. Field trip may be required. (C-ID ECE 130)
177	Drafting and Design Technician	-DRFT 045 Introduction to Computer-Aided Drafting (CAD) – 3 units -IT 172 Making Things 1 – 3D Technology -IT 172 Making Things 1 – 2D Technology	-DRFT 045 Introduction to Computer-Aided Drafting (CAD) – 4 units -IT 171 Making Things 1 – 3D Technology -IT 172 Making Things 2 – 2D Technology
	Drafting	--	New Program – Maker Space Technology Job-Direct Low Unit Certificate
180	Drafting	DRFT 057 Mechanical Drafting – Level II	Inactivated and Removed from Catalog
181	Drafting	DRFT 065 Architectural Drafting II	Inactivated and Removed from Catalog
183	Economics	--	New Program - Associate in Arts in Economics for Transfer (A.A.-T)
184	Education	--	New Course – EDUC 001 Elementary Teacher Education
188	English	List D: (select two courses)	List D: (select one course)
198	Ethnic Studies	Ethnic Studies Certificate of Achievement	Inactivated and Removed from Catalog
224	Human Services	--	Update course sequence and add “*See Counseling section for COUN course descriptions”
--	Interdisciplinary Studies	--	Interdisciplinary Studies - Science and Quantitative Reasoning A.A.
232	Kinesiology	Sports Medicine/Fitness Science	Sports Medicine/Athletic Training
233-234	Kinesiology	--	Update Dance courses to have DANC prefix, Remove KINE 005Q and KINE 005S, and add KINE 009E
236	Athletics	ATHL 001 – Units 1.0	ATHL 001 – Units 3.0
236	Athletics	ATHL 001B – Hours 64-72 lab	ATHL 001B – Hours 48-54 lab
236	Athletics	ATHL 002A – Hours 120-135 lab	ATHL 002A – Hours 64-72 lab
236	Athletics	ATHL 002B – Units 1.0, Hours 90-101.25 lab	ATHL 002B – Units 2.0, Hours 96-108 lab
237	Athletics	ATHL 003 – Units 2.0	ATHL 003 – Units 3.0
	Athletics	--	New Course - ATHL 004B Pre-season Intercollegiate Soccer
237	Athletics	ATHL 010 – Units 1.0 to 2.0	ATHL 010 – Units 3.0
238	Athletics	ATHL 015 – Units 2.0	ATHL 015 – Units 3.0
238	Athletics	ATHL 016A – Hours 120-135 lab	ATHL 016A – Hours 64-72 lab
238	Athletics	ATHL 016B – Units 1.0, Hours 90-101.25 lab	ATHL 016B – Units 2.0, Hours 96-108 lab

	Athletics	--	New Course – ATHL 025 In-Season Intercollegiate Conditioning
241-244	Kinesiology	Prefix: KINE 004-004T KINE 004E – Hours: 16-18 lecture, 112-126 lab, 16-18 lab by arrangement	Prefix DANC 004-004T DANC 004E – Hours: 16-18 lecture, 96-108 lab.
--	Kinesiology	--	New Courses – KINE 007D Beginning Golf and KINE 007E Intermediate Golf, KINE 007G Intermediate Archery
247	Kinesiology	KINE 009B – 1.0-1.5 Units: Hours 8-9 lecture, 24-45 lab.	KINE 009B – 1.0 Units; Hours 48-54 lab.
247	Kinesiology	KINE 009C – 1.0-1.5 Units; Hours 8-9 lecture, 24-45 lab.	KINE 009C – 1.0 Units; Hours 48-54 lab.
--	Mathematics	--	New Course – MATH 055 Mathematical Concepts for Elementary School Teachers
283	Nursing	--	Update program prerequisites
293	Nutrition	Subheading Associate in Arts in Nutrition for Transfer	Subheading Associate in Science in Nutrition for Transfer And add Unit totals
305	Photography, Professional	Total major units 28	Total major units 24 Update Courses
306	Photography	PHOT 029	PHOT 029 - Formerly PHOT 070
306	Photography	PHOT 045 – Prerequisite PHOT 070 with a minimum grade of C	PHOT 045 – Prerequisite PHOT 029 with a minimum grade of C
307	Photography	PHOT 070	Inactivated and removed from Catalog
317	Psychology	Psychology A.A. PSYC 010 Psychology of Woman	Psychology A.A. PSYC 012 Gender
318	Associate in Arts in Psychology for Transfer (ADT: A.A.-T)	--	Update Course Sequence and add PSYC 012
320	Psychology	PSYC 012 – Psychology of Gender An examination of the research and theory from psychology and related fields to evaluate the behavioral, cognitive, psychological, biological, social, and cultural foundations in which women and men function. This course will explore classical and contemporary views of gender roles and the effects of gender role on individual development and relationships.	PSYC 012 - Gender An examination of the psychological, sociological, biological, cognitive, and cultural theories and research of sex and gender. Analysis of the effects of gender expectations and practices on individual development, health, relationships, and the workplace. Includes agents of socialization, impact of economic and political change, social construction of sexuality and gender identities, and intersectional aspects of gender. Open to all students.
	Social Justice/Ethnic Studies	--	New Program - Associate in Arts in Social Justice Studies for Transfer (ADT: A.A.-T)
326	Sociology	Sociology A.A. SOCS 022 Ethnic, Racial and Minority Group Relations in Harmony and Conflict	Sociology A.A. SJS 002 Introduction to Race and Ethnicity
328	Sociology	SOC 030	Inactivated and Removed from Catalog
338	University Studies	University Studies – Liberal Studies	Liberal Studies – Complete program modification