


SAN BERNARDINO COMMUNITY COLLEGE DISTRICT

TO: Board of Trustees
FROM: Jose F. Torres, Interim Chancellor
REVIEWED BY: Diana Rodriguez, President, SBVC
PREPARED BY: Dina Humble, Vice President, Instruction, SBVC 
DATE: February 13, 2020
SUBJECT: Consideration of Approval of Curriculum - SBVC

RECOMMENDATION

It is recommended that the Board of Trustees approve the SBVC curriculum modifications.

OVERVIEW

The courses, certificates, and degrees at SBVC are continually being revised and updated to reflect and meet student needs.

ANALYSIS

These courses, certificates, and degrees have been approved for addition, modification, and deletion by the Curriculum Committee of the Academic Senate and will be included in the 2019-2020, 2020-2021, or 2021-2022 College Catalogs.

INSTITUTIONAL VALUES

II. Learning Centered Institution for Student Access, Retention, and Success.

FINANCIAL IMPLICATIONS

None.

**SAN BERNARDINO VALLEY COLLEGE
SUBMITTED FOR BOARD OF TRUSTEE APPROVAL
February 13, 2020**

CONTENT REVIEW

No Changes to the College Catalog

CS 074
ELEC 091
FTVM 130

CS 075
FTVM 111
FTVM 132

CS 076
FTVM 112
FTVM 233

CS 077
FTVM 114

Rationale: Content Review
Effective: Fall 2020

NEW COURSE

Addition to the 2020-2021 College Catalog

Course ID: ELEC 021
Course Title: Blueprint Reading for Building Energy Systems
Units: 3
Lecture: 3 contact hour(s) per week
48 - 54 contact hours per semester
Outside of Class Hours: 6 hour(s) per week
Departmental Advisory: TECALC 087
Catalog Description: This course is a study of basic information for reading blueprints and construction drawings. It is designed for those who must assimilate information found in working drawings and specifications.
Schedule Description: This course is a study of basic information for reading blueprints and construction drawings. It is designed for those who must assimilate information found in working drawings and specifications.
TOP Code: 0953.10
Equate: Course not offered at CHC.
Rationale: This course is part of the new Building and Energy Systems Professional (BESP) program in the Electricity Department.
Effective: Fall 2020

NEW COURSE

Addition to the 2020-2021 College Catalog

Course ID: ELEC 050
Course Title: Zero Net Energy Building Science
Units: 4
Lecture: 4 contact hour(s) per week
64 - 72 contact hours per semester
Outside of Class Hours: 8 hour(s) per week
Prerequisite: None
Catalog Description: Zero Net Energy (ZNE) Building Science includes an overview of many progressive measures that improve the energy performance of buildings. Studies focus on architectural design of building, construction methodology, green HVAC systems, renewable energy systems and the terminology used in the ZNE Industry. A survey of projects, policies and programs driving ZNE performance in residential and non-residential buildings will be studied.
Schedule Description: Zero Net Energy (ZNE) Building Science includes an overview of many progressive measures that will improve the energy performance of buildings. A

survey of projects, policies and programs driving ZNE performance in residential and non-residential buildings will be studied.

TOP Code:

0946.10

Equate:

Course not offered at CHC.

Rationale:

This course has been developed as a response to industry advisors' recommendations in our area, the Inland Empire.

Effective:

Fall 2020

COURSE MODIFICATION

Changes to the 2020-2021 or 2021-2022 College Catalogs

COURSE ID	COURSE TITLE
ACCT 200	FINANCIAL ACCOUNTING

Departmental Advisory:

ENGL 101 or ENGL 101H and MATH 095 or MATH 096

Catalog Description:

This course offers an introduction to accounting information as an aid to decision-making for external users of financial statements. Students learn to measure and record accounting data, prepare financial statements and analyze published financial accounting information. The focus is on the subjects of accounting cycle, the application of generally accepted accounting principles, ethics, the financial statements, and statement analysis.

Schedule Description:

This course offers an introduction to accounting information as an aid to decision-making for external users of financial statements. Students learn to measure and record accounting data, prepare financial statements and analyze published financial accounting information.

Equate:

ACCT 208 at CHC.

Rationale:

Updating departmental advisory, descriptions, and SLOs.

Effective:

Fall 2020

COURSE ID	COURSE TITLE
ACCT 201	MANAGERIAL ACCOUNTING

Catalog Description:

This course studies the use of accounting information in decision-making, planning, directing operations and controlling. It focuses on cost terms and concepts, cost behavior, cost structure and cost-volume-profit analysis. Issues relating to ethics, cost systems, cost control, profit planning, and performance analysis in manufacturing and service environments are also examined.

Schedule Description:

This course studies the use of accounting information in decision-making, planning, directing operations and controlling. It focuses on cost terms and concepts, cost behavior, cost structure and cost-volume-profit analysis.

Equate:

ACCT 209 at CHC.

Rationale:

Updating descriptions, content, and SLOs.

Effective:

Fall 2020

COURSE ID	COURSE TITLE
ELECTR 280C	COMPUTER OPERATIONS AND MAINTENANCE

Catalog Description: This course provides a working knowledge of the principles and analysis techniques applicable to computer operations and maintenance. It includes the theory and experience necessary to understand and analyze computer circuitry as needed for entry-level work in the computer and electronics industry.

Equate: Course not offered at CHC.

Rationale: Content review. Updating catalog description, content, SLOs, and textbooks.

Effective: Fall 2020

COURSE ID	COURSE TITLE
PHYSIC 101	INTRODUCTORY PHYSICS

Prerequisite: MATH 095 or MATH 096

Departmental Advisory: ENGL 101 or ENGL 101H or READ 100

Equate: PHYSIC 101 at CHC.

Rationale: Updating prerequisite and advisory.

Effective: Fall 2020

COURSE ID	COURSE TITLE
PHYSIC 202	PHYSICS I

Prerequisite: ENGL 101 or ENGL 101H and MATH 250 and PHYSIC 101

Corequisite: MATH 250. Department highly recommends completing MATH 250 prior to enrollment in PHYSIC 202.

Equate: Course not offered at CHC.

Rationale: Updating prerequisite and corequisite.

Effective: Fall 2020

COURSE ID	COURSE TITLE
SPAN 104	COLLEGE SPANISH IV

Prerequisite: SPAN 103 or SPAN 103H or SPAN 157

Equate: SPAN 104 at CHC.

Rationale: Updating prerequisite from SPAN 158 to SPAN 157.

Effective: Fall 2021

COURSE ID	COURSE TITLE
SPAN 158	SPANISH FOR HERITAGE SPEAKERS II

Catalog Description: This course is designed for students who already communicate in Spanish and who want to develop and strengthen reading and writing skills with special emphasis on vocabulary expansion, through reading, discussion, and analysis of culturally representative works from Spain and Latin America. Emphasis is on correct usage of standard Spanish. Course is conducted primarily in Spanish, producing skills equivalent to Spanish 104.

Schedule Description: This course is designed for students who already communicate in Spanish and who want to develop and strengthen reading and writing skills with special emphasis on vocabulary expansion, through reading, discussion, and analysis of culturally representative works from Spain and Latin America. Emphasis is on correct usage of standard Spanish. Course is conducted primarily in Spanish, producing skills equivalent to Spanish 104.

Equate: SPAN 103 at CHC.

Rationale: Updating content and course descriptions.

Effective: Fall 2021

COURSE DELETION

CIT 020 CULART 020 SPAN 015 SPAN 016

Rationale: Courses are no longer offered.

Effective: Fall 2020

DISTANCE EDUCATION

ACCT 200	ACCT 201	CS 074	CS 075
CS 076	CS 077	FTVM 111	FTVM 112
FTVM 114	FTVM 130	FTVM 132	FTVM 233
SPAN 104*	SPAN 158*		

Rationale: **100% ONLINE**

One of the planning themes of San Bernardino Valley College (SBVC) is access. For career technical courses, the issue of scheduling is crucial. Students working the night shift can only take class in the morning while those working traditional day schedules can only take evening classes. Given these variables and difficult schedules, students need the flexibility of time that an online class affords. An asynchronous online class allows students to study when their schedules allow and where they have the space and materials to do so effectively. The online delivery method of these courses supports the mission of SBVC by providing access to education to a diverse community of learners who find themselves in a community with complicated lives and difficult and demanding schedules and responsibilities.

Effective: Fall 2020 or *Fall 2021

NEW CERTIFICATE

ZERO NET ENERGY CERTIFICATE

The Zero Net Energy (ZNE) Certificate is designed to offer the students a broad overview into the energy conservation industry and includes cross-disciplinary courses in Energy Systems, Heating Ventilation and Air Conditioning, Architecture, Computer Information Systems, and Building Inspection Technology. Completion of the ZNE Certificate is especially beneficial for support staff currently working in the energy sector, such as an Energy Auditor, Energy Consultant, ZNE Technician, Green HVAC Technician, Facility Management, Construction Management and Solar Residential Technician.

REQUIRED COURSES:

		Units
CIT 101	Introduction to Computer Literacy	3
ELEC 050	Zero Net Energy Building Science	4
ELEC 021	Blueprint Reading for Building Energy Systems	3
INSPEC 017	California State Energy Regulations for Residential Buildings	3
TECALC 087	Technical Calculations	4
WKEXP 099	General Work Experience	1 - 4
Total Units		18 - 21

Rationale: Completion of the ZNE Certificate is beneficial for both entry level employment and support staff currently working in the energy sector and when combined with other defined certificates within the ZNE industry, students will have the technical background that can lead to industry recognized credentials and careers as an Energy Auditor, Energy Consultant, ZNE Technician, Green HVAC Technician, Facility Management, Construction Management and Solar Residential Technician.

Effective: Fall 2020

CERTIFICATE MODIFICATION

BOOKKEEPING CERTIFICATE

Bookkeeping clerks along with accounting and auditing clerks are an organization's financial recordkeepers. They update and maintain one or more accounting records. All of these clerks make numerous computations each day. In small businesses, bookkeeping clerks handle all financial transactions and recordkeeping. In large offices and accounting departments, the clerks have more specialized tasks, such as accounts payable or accounts receivable. The responsibilities vary by level of experience.

REQUIRED COURSES:

		Units
ACCT 010	Bookkeeping	3
ACCT 090	Payroll Accounting	3
ACCT 047	Computerized Accounting	3
	or	
CIT 114	Spreadsheets: Excel	3
Total Units		9

Rationale: Lowering units from 16 to 9.

Effective: Fall 2020

DEGREE MODIFICATION

BIOLOGY ASSOCIATE OF SCIENCE TRANSFER DEGREE

The Associate in Science in Biology for Transfer (AS-T) is intended for students who plan to transfer and complete a Bachelor's degree in Biology, or a similar major at a CSU campus. It serves the diverse needs of students who wish to obtain a broad and an in-depth understanding of the field. The Biology Department offers comprehensive and integrative studies in each of the introductory courses of Biology. Courses in Biology prepare students interested in careers in cell biology, genetics, physiology, developmental biology, biotechnology, zoology, botany, microbiology, evolution, ecology, behavior, environmental studies, and the health sciences. The objective of this degree is to delineate a successful career path for our community college students entering the Biology program and to provide opportunities that explore the Biology major. Upon successful completion of the AS-T in Biology, students may be able to enter majors for any of these Biology subfields. Students should consult with a counselor to determine whether this degree is the best option for their transfer goals.

The Associate in Arts for Transfer (AA-T) or the Associate in Science for Transfer (AS-T) is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing these degrees (AA-T or AS-T) are guaranteed admission to the CSU system, but not to a particular campus or major.

To earn a Biology AS-T degree, students must meet the following requirements:

- completion of the following major requirements with grades of C or better;
- completion of 60 CSU transferable semester units with a grade point average of at least 2.0; and
- certified completion of the CSU General Education-Breadth (CSUGE) for STEM or Intersegmental General Education Transfer Curriculum (IGETC-CSU) for STEM which requires a minimum of 31-33 units.

It is highly recommended that students complete courses that satisfy the U.S. History, Constitution, and American Ideals requirement as part of CSUGE or IGETC before transferring to a CSU.

Students planning to transfer to a four-year institution and major in Biology should consult with a STEM counselor or general counselor regarding the transfer process and lower division requirements. Completion of CSU GE-Breadth for STEM or (IGETC-CSU) for STEM is required in addition to the major requirements.

REQUIRED CORE COURSES:		Units
BIOL 205	Cell and Molecular Biology	4
BIOL 206	Organismal Biology	4
BIOL 207	Evolutionary Ecology	4
LIST A:		Units
CHEM 150	General Chemistry I	5
CHEM 151	General Chemistry II	5
MATH 250	Single Variable Calculus I	4
PHYSIC 151	General Physics for the Life Sciences I	4
PHYSIC 152	General Physics for the Life Sciences II	4
Major Total:		34
Total Double-Count Units:		9-10
General Education (CSU-GE or IGETC for STEM) Unit:		31-33
CSU electives (as needed to reach 60 transferrable units):		0-3
<hr/> Total Units		<hr/> 60

Rationale: Removing remove Chemistry honors courses and updating Physics courses.
Effective: Fall 2020

DEGREE MODIFICATION

BIOLOGY ASSOCIATE OF SCIENCE DEGREE

The Associate of Science degree in Biology is intended to provide breadth in the aspects of biology that investigate the living world including cellular physiology, genetics, ecology, and evolutionary biology. Majors in Biology prepare for a wide variety of occupations in education, government, medicine, research, and biotechnology. This degree prepares students to transfer to four-year universities to pursue a Bachelor's degree. At the four-year institutions, students may choose to specialize in one particular field of Biology.

To graduate with the A.S degree in Biology, students must complete the following required courses plus the general breadth requirements for the Associate's Degree (minimum total = 60 units).

REQUIRED COURSES:		Units
BIOL 205	Cell and Molecular Biology	4
BIOL 206	Organismal Biology	4
BIOL 207	Evolutionary Ecology	4
CHEM 150	General Chemistry I	5
CHEM 151	General Chemistry II	5
MATH 250	Single Variable Calculus I	4
MATH 251	Single Variable Calculus II	4
RECOMMENDED COURSES:		Units
CHEM 212	Organic Chemistry I	4
CHEM 213	Organic Chemistry II	4
PHYSIC 151	General Physics for the Life Sciences I	4
PHYSIC 152	General Physics for the Life Sciences II	4
Total Units		30

Rationale: Removing remove Chemistry honors courses and updating Physics courses.
Effective: Fall 2020

DEGREE MODIFICATION

GEOLOGY ASSOCIATE OF SCIENCE DEGREE

The Geology Associate of Science Degree equips students with a comprehensive understanding of the Earth's history, structure, economic resources, climate, and environment. This degree program meets student needs for: (1) transfer into a geological, environmental, or Earth sciences program at a four-year institution, (2) preparing for a career within the geological sciences or related fields, including energy exploration and development, environmental protection and remediation, hydrology, meteorology, hazard analysis and mitigation, and secondary and higher education, (3) fulfilling the undergraduate general education science requirement, and (4) a better understanding of the integration of natural systems with human-environment interactions within and upon the Earth.

Students who wish to pursue a degree in geology should take GEOL 101 and 111 before enrolling in additional geology courses. GEOL 101 is a prerequisite for most geology courses offered at San Bernardino Valley College and GEOL 111 will give students a more hands-on, in-depth exposure to the geological and Earth sciences. To graduate with a specialization in geology, students must complete the following required courses plus the general breadth requirements for the Associate Degree (total = 60 units)

Required Courses:		Units
CHEM 150	General Chemistry I	5
CHEM 151	General Chemistry II	5
GEOL 101	Introduction to Physical Geology	3
GEOL 111	Introduction to Physical Geology Laboratory	1
GEOL 112	Historical Geology	4
MATH 250	Single Variable Calculus I	4
MATH 251	Single Variable Calculus II	4
Choose two courses from the following:		Units
GEOL 122	Environmental Geology	3
GEOL 170	Geological History of the Great Basin Province	1
GEOL 201	Mineralogy	4
GEOL 250	Geology of California	3
GEOL 251	Geology of National Parks and Monuments	3
GEOL 260	Introduction to Field Geology	3
GEOL 270	Geology of the Eastern Sierra Nevada	1
Recommended Courses:		Units
BIOL 100	General Biology	4
	or	
BIOL 109	History of Life	4
	or	
BIOL 109H	History of Life - Honors	4
CS 110	Fundamentals of Computer Science	3
CS 190	Programming in C++	4
GEOG 110	Physical Geography	3
GIS 130	Introduction to Geographic Information Systems (GIS)	3
PHYSIC 151	General Physics for the Life Sciences I	4
	and	
PHYSIC 152	General Physics for the Life Sciences II	4
	or	
PHYSIC 200	Physics I	6
	and	
PHYSIC 201	Physics II	6
Total Units		28 - 33

Rationale: Removing remove Chemistry honors courses and updating Physics courses.
Effective: Fall 2020

DEGREE MODIFICATION

GEOLOGY ASSOCIATE OF SCIENCE TRANSFER DEGREE

The Associate of Geology for Transfer (AS-T) in Geology is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus.

The Associate in Arts for Transfer (AA-T) or the Associate in Science for Transfer (AS-T) is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing these degrees (AA-T or AS-T) are guaranteed admission to the CSU system, but not to a particular campus or major. In order to earn this Geology AS-T degree students must meet the following requirements:

- completion of the following major requirements with grades of C or better;
- completion of a minimum of 60 CSU transferable semester units with a grade point average of at least 2.0; and
- certified completion of the CSU General Education-Breadth (CSUGE) or Intersegmental General Education Transfer Curriculum (IGETC) for CSU, which requires a minimum of 39 units.

It is highly recommended that students complete courses that satisfy the U.S. History, Constitution, and American Ideals requirement as part of CSUGE or IGETC before transferring to a CSU.

Students planning to transfer to a four-year institution and major in Geology should consult with a counselor regarding the transfer process and lower division requirements.

Required Courses

		Units
GEOL 101	Introduction to Physical Geology	3
	and	
GEOL 111	Introduction to Physical Geology Laboratory	1
GEOL 112	Historical Geology	4
CHEM 150	General Chemistry I	5
CHEM 151	General Chemistry II	5
MATH 250	Single Variable Calculus I	4
MATH 251	Single Variable Calculus II	4
Major Total:		26
Total Units that may be double-counted:		6
General Education (CSU-GE or IGETC) Units:		37-39
Elective (CSU Transferable) Units: 0-3		0-3
<hr/>		
Total Units		60

Rationale: Removing remove Chemistry honors courses recommended courses.
Effective: Fall 2020

DEGREE MODIFICATION

Kinesiology Associate of Arts Transfer Degree, AA-T

Kinesiology is the study of the principles of mechanics and anatomy in relation to human movement. The Kinesiology Associate in Arts Degree for Transfer (Kinesiology AA-T degree) provides students with an education in the core aspects of Kinesiology. The Kinesiology AA-T degree prepares students for transfer to CSU campuses that offer bachelor's degrees in Kinesiology.

The Associate in Arts for Transfer (AA-T) or the Associate in Science for Transfer (AS-T) is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing these degrees (AA-T or AS-T) are guaranteed admission to the CSU system, but not to a particular campus or major.

To earn a Kinesiology AA-T degree, students must complete the following Associate Degree for Transfer requirements:

- completion of the following major requirements with grades of C or better;
- completion of 60 CSU transferable semester units with a grade point average of at least 2.0; and
- certified completion of the CSU General Education-Breadth (CSUGE) or Intersegmental General Education Transfer Curriculum (IGETC) for CSU, which requires a minimum of 37-39 units.

It is highly recommended that students complete courses that satisfy the U.S. History, Constitution, and American Ideals requirement as part of CSUGE or IGETC before transferring to a CSU.

Students planning to transfer to a baccalaureate institution and major in Kinesiology should consult with a counselor regarding the transfer process and lower division requirements.

REQUIRED CORE: (11 units)		Units
KIN 200	Introduction to Physical Education and Kinesiology	3
BIOL 250	Human Anatomy and Physiology I	4
	and	
BIOL 251	Human Anatomy and Physiology II	4
	or	
BIOL 260	Human Anatomy	4
	and	
BIOL 261	Human Physiology	4

MOVEMENT BASED COURSES: (3 UNITS MINIMUM)

SELECT ONE COURSE MAXIMUM FROM ANY THREE OF THE FOLLOWING AREAS.

COMBATIVE:

KINF 190A	Beginning Tai Chi	1
KINF 190B	Intermediate Tai Chi	1
KINF 190C	Advanced Tai Chi	1

DANCE:

DANCE 101A	Beginning Modern Dance	2
DANCE 101B	Beginning/Intermediate Modern Dance	2
DANCE 102A	Intermediate Modern Dance	2
DANCE 102B	Intermediate/Advanced Modern Dance	2
DANCE 103A	Beginning Ballet	2

DANCE 103B	Beginning/Intermediate Ballet	2
DANCE 105A	Beginning Jazz Dance	2
DANCE 105B	Beginning/Intermediate Jazz Dance	2
DANCE 106A	Intermediate Jazz Dance	2
DANCE 106B	Intermediate/Advanced Jazz Dance	2
DANCE 107x2	Beginning Tap Dance	2

FITNESS:

		Units
KINF 101A	Beginning Boxing for Fitness	1
KINF 101B	Intermediate Boxing for Fitness	1
KINF 105A	Beginning Low Impact Aerobics	1
KINF 105B	Intermediate Low Impact Aerobics	1
KINF 105C	Advanced Low Impact Aerobics	1
KINF 108A	Beginning Weight Training	1
KINF 108B	Intermediate Weight Training	1
KINF 108C	Advanced Weight Training	1
KINF 112A	Beginning Body Conditioning	1
KINF 112B	Intermediate Body Conditioning	1
KINF 127A	Beginning Walking for Fitness	1
KINF 127B	Intermediate Walking for Fitness	1
KINF 132A	Beginning Distance Running	1
KINF 132B	Intermediate Distance Running	1
KINF 138A	Beginning Physical Fitness	1
KINF 138B	Intermediate Physical Fitness	1
KINF 138C	Advanced Physical Fitness	1
KINF 150A	Beginning Table Tennis	1
KINF 150B	Intermediate Table Tennis	1
KINF 150C	Advanced Table Tennis	1
KINF 168A	Beginning Yoga	1
KINF 168B	Intermediate Yoga	1
KINF 168C	Advanced Yoga	1

INDIVIDUAL SPORTS:

		Units
KINS 103A	Beginning Badminton	1
KINS 103B	Intermediate Badminton	1
KINS 103C	Advanced Badminton	1

TEAM SPORTS:

		Units
KINS 104A	Beginning Basketball	1
KINS 104B	Intermediate Basketball	1
KINS 104C	Advanced Basketball	1
KINS 116A	Beginning Soccer	1
KINS 116B	Intermediate Soccer	1
KINS 116C	Advanced Soccer	1
KINS 120A	Beginning Softball	1
KINS 120B	Intermediate Softball	1
KINS 120C	Advanced Softball	1

KINS 124A	Beginning Volleyball	1
KINS 124B	Intermediate Volleyball	1
KINS 124C	Advanced Volleyball	1

LIST A: SELECT TWO COURSES (6 UNITS MINIMUM) FROM THE FOLLOWING:		Units
MATH 108	Introduction to Probability and Statistics	4
	or	
ECON 208	Business and Economic Statistics	4
	or	
PSYCH 105	Statistics for the Behavioral Sciences	4
BIOL 100	General Biology	4
CHEM 150	General Chemistry I	5
KIN 231	First Aid and CPR	3
PHYSIC 151	General Physics for the Life Sciences I	4
Major Total: 21-24		21-24
CSU GE-Breadth or IGETC for CSU requirements: 37-39		37-39
Total Units that may be Double Counted for CSU-GE or IGETC: 10-13		10-13
CSU electives (as needed to reach 60 transferable units): 9-13		9-13
Total Units		60

Rationale: Removing remove Chemistry honors courses, updating Physics courses, and adding Table Tennis courses.

Effective: Fall 2020

DEGREE MODIFICATION

MATHEMATICS ASSOCIATE OF SCIENCE TRANSFER DEGREE

Mathematics is one of the oldest sciences. Mathematicians usually work in two general areas of mathematics, theoretical or applied mathematics. Mathematicians expand mathematical knowledge, by discovering mathematical principles or expanding on known mathematical theory. Mathematicians develop models indirectly or directly to solve problems in other fields such as business, chemistry, biology, physics, engineering, statistics, computer science, and other sciences.

An AS-T degree in mathematics includes a general study of calculus, with additional study in linear algebra, differential equations, or computer science. The degree will prepare students to successfully complete additional study in mathematics at CSU.

The Associate in Arts for Transfer (AA-T) or the Associate in Science for Transfer (AS-T) is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing these degrees (AA-T or AS-T) are guaranteed admission to the CSU system, but not to a particular campus or major.

To earn this Mathematics AS-T degree, students must meet the following requirements:

- completion of the following major requirements with grades of C or better;
- Completion of a minimum of 60 CSU transferrable semester units with a grade point average of at least 2.0; and

- certified completion of the CSU General Education-Breadth (CSUGE) or Intersegmental General Education Transfer Curriculum (IGETC) for CSU, which requires a minimum of 37-39 units.

It is highly recommended that students complete courses that satisfy the U.S. History, Constitution, and American Ideals requirement as part of CSUGE or IGETC before transferring to a CSU.

Students planning on transferring to a four-year institution and major in Early Childhood Education should consult with a counselor regarding the transfer process and lower division requirements.

Required Core Courses: (13 units)	Units
MATH 250 Single Variable Calculus I	4
MATH 251 Single Variable Calculus II	4
MATH 252 Multivariable Calculus	5

Select 8 units from Lists A and B, with at least 4 units from List A. **Units**

List A: Select one to two courses from the following (4-8 units)	Units
MATH 265 Linear Algebra	4
MATH 266 Ordinary Differential Equations	4

List B: Select one course from the following (4 units)	Units
CS 190 Programming in C++	4
PHYSIC 202 Physics I	4
MATH 108 Introduction to Probability and Statistics	4
or	
ECON 208 Business and Economic Statistics	4

Major Total: **21**

CSU-GE Breadth or IGETC Requirements: **37-39**

Total units that may be double-counted for CSUGE or IGETC: **3**

CSU Electives (as needed to reach 60 transferable units): **3-5**

Total Units **60**

Rationale: Content Review.
Effective: Fall 2020

DEGREE MODIFICATION

PHYSICS ASSOCIATE OF SCIENCE DEGREE

To graduate with a specialization in Physics, students must complete the following required courses plus the general breadth requirements for the Associate Degree (minimum total = 60 units).

REQUIRED COURSES:	Units
PHYSIC 202 Physics I	4
PHYSIC 203 Physics II	4
PHYSIC 204 Physics III	4
PHYSIC 210 Modern Physics	4
MATH 250 Single Variable Calculus I	4
MATH 251 Single Variable Calculus II	4
MATH 252 Multivariable Calculus	5
RECOMMENDED COURSES:	Units

CHEM 150	General Chemistry I	5
CHEM 151	General Chemistry II	5
Total Units		29

Rationale: Removing remove Chemistry honors courses.
Effective: Fall 2020

COURSE CORRECTION

Correction to the 2020-2021 College Catalog

Course ID: AERO 626
Catalog Description: This noncredit course is designed to familiarize the aviator or prospective pilot with the fundamentals of aircraft design and construction including: aircraft structural components, fundamentals of aerodynamics and flight, materials and hardware, ice and rain protection, hydraulic and pneumatic systems, landing gear systems, fire protection systems, electrical systems, instrument systems, weight and balance control, and blueprint reading.
Schedule Description: This noncredit course is designed to familiarize the student with design and construction, principles of aerodynamics and flight and aircraft systems and components.
Rationale: Updating course descriptions to state that the course is a noncredit course.
Previous Board Approval: December 12, 2019
Effective: Fall 2020

COURSE CORRECTION

Correction to the 2020-2021 College Catalog

Course ID: MACH 027
Updated Course ID: MACH 024
Title: Introduction to Piping
Rationale: Course was submitted to board with the incorrect Course ID. The June 2019 board stated this course was MACH 027, but should be correct to MACH 024.
Previous Board Approval: June 20, 2019
Effective: Fall 2020

COURSE CORRECTION

Correction to the 2020-2021 College Catalog

Course ID: PHT 071
Catalog Description: This course continues to apply the therapeutic uses of administered medications into the human anatomy and physiology by a drug's pharmacokinetics and pharmacodynamics. Emphasis is placed on but not limited to a medication's brand/generic name, mechanisms of action, dosage forms, routes of administration, directions of use, standard dosage schedules, indications, basic side effects, adverse effects, contraindications, precautions, drug interactions, and any special black box warnings. Added topics to the course includes medication adjustments for special populations and use of common antidotes for medications.
Schedule Description: This course continues to focus on the therapeutic uses of administered medications applicable to the human anatomy and physiology by a drug's pharmacokinetics and pharmacodynamics.

Rationale: Removing formerly PHT 067 note from course descriptions.
Previous Board Approval: December 12, 2019
Effective: Fall 2020

CERTIFICATE CORRECTION

Correction to the 2019-2020 College Catalog

AIRFRAME MAINTENANCE TECHNICIAN CERTIFICATE

This certificate is designed to prepare students to qualify for the Airframe Certificate issued by the Federal Aviation Administration (FAA), which enables the holder to perform 100 hours and annual inspections on aircraft ranging from small aircraft used in general aviation to jets utilized by commercial airlines. The written examinations are administered by the FAA at computer testing centers. The total program requires 1,150 hours of lecture and laboratory.

REQUIRED COURSES:

		Units
AERO 050	General/Calculations and Basic Electricity Airframe and Powerplant Technologies	5
AERO 050L	General Laboratory/Calculations and Basic Electricity Airframe and Powerplant Technologies	2
AERO 051	General/Materials and Servicing Airframe and Powerplant Technologies	5
AERO 051L	General Laboratory/Materials and Servicing Airframe and Powerplant Technologies	2
AERO 052	Airframe Maintenance - Structures	6
AERO 052L	Airframe Maintenance Laboratory - Structures	5
AERO 053	Airframe Maintenance - Systems and Components	6
AERO 053L	Airframe Maintenance Laboratory - Systems and Components	5

RECOMMENDED COURSE:

		Units
AERO 015	Nano Composite Technology	2

Total Units **36**

Rationale: Updating total units from 36-38 to 36, not including the units from the recommended course.
Previous Board Approval: February 9, 2017
Effective: Fall 2019

DEGREE CORRECTION

Correction to the 2019-2020 College Catalog

LIBERAL ARTS - BIOLOGICAL & PHYSICAL SCIENCES A.A. DEGREE MAJOR

The Associate Degree in Liberal Arts is designed for students who wish to pursue a broad knowledge of liberal arts and sciences plus additional coursework in an "Area of Emphasis". The area of emphasis includes the following options: Biological and Physical Science; Social and Behavioral Sciences; and Humanities and Fine Arts. In order to earn an Associate of Arts Degree in Liberal Arts the following must be completed: 1. Students must complete one of the general education breadth patterns (SBVC Graduation requirements, CSU-GE, or IGETC). Note: Students planning to transfer to the California State University (CSU) or University of California (UC) systems are advised to complete either the CSU-GE or IGETC general education patterns. 2. Students must complete 18 units in one "Area of Emphasis". For depth of study, a minimum of two courses in one discipline is required. Note: All courses used to satisfy the area of emphasis for the Associate degree must be completed with a grade of "C" or higher. Additional notes: Where appropriate, courses in the "Area of Emphasis" may also be counted in a general education breadth pattern. Courses that include a symbol X in the number,

such as MUS 141X2, indicate the course may be taken two times for credit. Students may apply each course with a symbol X only one time towards graduation requirements. Students pursuing multiple areas of emphasis can only be counted in one area only.

A. Biological and Physical Sciences

These courses emphasize the natural sciences, which examine the physical universe, its life forms, and natural phenomena. Courses in mathematics emphasize the development of mathematical and quantitative reasoning skills beyond the level of intermediate algebra. Students will be able to demonstrate an understanding of the methodologies of science as investigative tools. Students will also examine the influence that the acquisition of scientific knowledge has on the development of world civilization.

Students must choose a minimum of 18 units.

Anthropology (ANTHRO)		Units
ANTHRO 106	Biological Anthropology	3
	or	
ANTHRO 106H	Biological Anthropology - Honors	3
ANTHRO 106L	Biological Anthropology Laboratory	1
Astronomy (ASTRON)		Units
ASTRON 120	Introduction to Astronomy	3
ASTRON 125	Astronomy Laboratory	1
Biology (BIOL)		Units
BIOL 100	General Biology	4
BIOL 102	Human Biology	3
BIOL 104	Human Ecology	3
BIOL 109	History of Life	4
	or	
BIOL 109H	History of Life - Honors	4
BIOL 141	Genetics	3
BIOL 155	Introductory Anatomy and Physiology	4
BIOL 205	Cell and Molecular Biology	4
BIOL 206	Organismal Biology	4
BIOL 207	Evolutionary Ecology	4
BIOL 250	Human Anatomy and Physiology I	4
BIOL 251	Human Anatomy and Physiology II	4
BIOL 260	Human Anatomy	4
BIOL 261	Human Physiology	4
BIOL 270	Microbiology	5
Chemistry (CHEM)		Units
CHEM 101	Introductory Chemistry	4
CHEM 104	Introduction to Organic Chemistry and Biochemistry	4
	or	
CHEM 104H	Introduction to Organic Chemistry and Biochemistry - Honors	4
CHEM 105	Introduction to General, Organic and Biochemistry	5
CHEM 110	Environmental and Consumer Chemistry	3
CHEM 150	General Chemistry I	5

	or		
CHEM 150H	General Chemistry I - Honors		5
CHEM 151	General Chemistry II		5
	or		
CHEM 151H	General Chemistry II - Honors		5
CHEM 212	Organic Chemistry I		4
	or		
CHEM 212H	Organic Chemistry I - Honors		4
CHEM 213	Organic Chemistry II		4
	or		
CHEM 213H	Organic Chemistry II - Honors		4
Economics (ECON)			Units
ECON 208	Business and Economic Statistics		4
Geography (GEOG)			Units
GEOG 110	Physical Geography		3
GEOG 111	Physical Geography Laboratory		1
	or		
GEOG 111H	Physical Geography Laboratory - Honors		1
GEOG 114	Weather and Climate		4
Geology (GEOL)			Units
GEOL 101	Introduction to Physical Geology		3
GEOL 111	Introduction to Physical Geology Laboratory		1
GEOL 112	Historical Geology		4
GEOL 122	Environmental Geology		3
GEOL 250	Geology of California		3
GEOL 251	Geology of National Parks and Monuments		3
Mathematics (MATH)			Units
MATH 102	College Algebra		4
MATH 103	Plane Trigonometry		4
MATH 108	Introduction to Probability and Statistics		4
MATH 115	Ideas of Mathematics		3
MATH 141	Business Calculus		4
MATH 151	Precalculus		4
MATH 250	Single Variable Calculus I		4
MATH 251	Single Variable Calculus II		4
MATH 252	Multivariable Calculus		5
MATH 265	Linear Algebra		4
MATH 266	Ordinary Differential Equations		4
Oceanography (OCEAN)			Units
OCEAN 101	Elements of Oceanography		3
OCEAN 111	Elements of Oceanography Laboratory		1
Physical Science (PS)			Units
PS 101	Introduction to Physical Science		3
Physics (PHYSIC)			Units
PHYSIC 101	Introductory Physics		4
PHYSIC 150A	General Physics for the Life Sciences I		4
PHYSIC 150B	General Physics for the Life Sciences II		4

PHYSIC 200	Physics I	6
PHYSIC 201	Physics II	6
Psychology (PSYCH)		Units
PSYCH 105	Statistics for the Behavioral Sciences	4
Completed Fall 2009 or Later		0
PSYCH 141	Introduction to Biological Psychology	3
Total Units		18

Rationale: Updating to remove BIOL 292
Previous Board Approval: November 14, 2019
Effective: Fall 2019