



Section V

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Defining Your Educational Goals

Your educational goal is defined as your purpose for attending San Joaquin Delta College. Your major is the field of academic specialization that you choose, such as Business, Biological Sciences, Art, or Engineering. A major includes an organized set of required courses.

Your Options

1. Transfer

At Delta College you may complete your first two years of university work required for a Bachelor's Degree (four-year college degree) and transfer as a junior to the baccalaureate institution. You may transfer with or without an Associate Degree.

2. Associate in Arts (A.A.) or Associate in Science (A.S.) Degree

An Associate Degree is the first college degree you may earn, and it signifies the completion of at least 60 semester units of college work in general education (G.E.) courses and courses required for your major. Many students require remedial work to prepare for college curriculum and those students may be required to take more than 60 units to complete the Associate Degree.

3. Certificate Programs Certificate

A certificate program is a short-term program (usually two to four semesters for full-time students) in a career or technical field. Certificate programs focus on preparing you for a specific occupation or area of employment. Few courses outside of the major field are required.

4. Other Educational Goals

If you do not plan to complete a certificate, an Associate Degree or transfer to a four-year college or university, you may be interested in taking courses for your own personal development. In this case, your educational goal may be to...

- Learn new job skills
- Improve basic skills (i.e., English, mathematics)
- Pursue a personal interest
- Update current job skills
- Explore career interests

Counselors are available to assist you in defining your educational goals.

Planning Your Schedule

The unit: a working definition

The number of course units is generally the number of lecture hours per week a class meets. Classes that have labs or "directed study activities" meet more hours. For each unit you take, count on 2 or 3 hours of outside study per week. You must, therefore, manage your class and study time carefully. Keep in mind your employment and other personal responsibilities.

How many units should you take?

Some common-sense guidelines recommended by SJDC...

If you are employed and work,	take no more than...
40 hours per week	6 units
30 hours per week	9 units
20 hours per week	12 units
5 to 15 hours per week	14 - 16 units
"Full-time" Student Status.	12 or more units

How long will it take to complete a certificate or degree?

The time it takes to complete a certificate or degree is dependent on how many units you take each semester. Refer to the chart below to see on average how the number of units you complete will effect how long it takes to complete a certificate or degree.

If you take . . .	Certificate	Associate's Degree	Bachelor's Degree
One Class Per Semester (3 Units)	5 years	7-10 years	13-20 years
Two Classes Per Semester (6 Units)	2-30 years	5 years	10 years
Three Classes Per Semester (9 Units)	1.5-3 years	3 years	6-7 years
Four Classes Per Semester (12 units)	1-2 years	2.5 years	5 years
Five Classes Per Semester (15 units)	1 year	2 years	4 years

These times may be shortened by enrolling in summer session courses.

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

English Composition and Reading Requirements

Level II and III courses are Associate Degree applicable. Level I courses may not be used to meet associate degree requirements. Students who believe their initial assessment levels are incorrect may request a retake or apply for review through the Appeal Process. Appointments for retake may be arranged through the Assessment Center in Goleman 122, (209) 954-5535. Appeals may be made through Admissions and Records Office, Holt Center 101.

English Composition Sequence

Students are strongly encouraged to enroll in the appropriate English Composition class as soon as possible.

- Level I ENG 070 (prepares for entry into ENG 079 or ENG 087 with successful completion)
- Level II ENG 079 (prepares for entry into ENG 001A and satisfies the Associate degree requirement)
- Level III ENG 001A

Reading Sequence (fulfills the Reading requirement)

Students who place at Level I in reading and wish to enroll in a course with a corequisite of reading must enroll in reading. Students who score Level I in reading and wish to enroll in a course with a prerequisite of reading Level II must reach Level II before they will be allowed to enroll.

- Level I READING 098 and
AND
READING 090
OR
READING 091A, B, C, D, E, F
OR
READING 097 A, B, C, D, E, F, G, H, I

English as a Second Language (ESL) Sequence (fulfills the Reading requirement)

ESL students who do not have a United States of America high school diploma and Foreign students will be placed based upon an ESL assessment. ESL students who do have a United States of America high school diploma may either use the ESL assessment or the reading section of the assessment/placement assessment and the reading requirements above.

- Level I ENG 086G
ENG 085 program
ENG 084 program
ENG 083 program
ENG 082 program
ENG 080/081 program

Math Sequence Requirements

- High School Algebra I, completed with a grade of “C” or better is equivalent to MATH 080 or MATH 083A/B
- High School Algebra II, completed with a grade of “C” or better is equivalent to MATH 082 or MATH 084A/B

See Math Course Sequence Chart on page 46

Associate in Arts Degree Requirements

1. Unit Requirement

Completion of not less than sixty (60) associate degree applicable semester units of course work with not less than a 2.0 cumulative grade point average.

2. General Education

Students must complete one of the following General Education patterns:

- Completion of San Joaquin Delta College Associate Degree General Education pattern with a minimum of twenty-four (24) semester units.
OR
- Completion of California State University General Education pattern.
OR
- Completion of the Intersegmental General Education Transfer Curriculum (IGETC/CSU) General Education pattern.

NOTE: The Higher Education Consortium of Central California (HECCC) is a partnership of two universities and four community colleges committed to the advancement of academic excellence in a distinctly diverse region. Through dynamic and evolving collaborations member institutions combine resources, share intellectual capital, facilitate innovative projects, promote professional development, and increase equitable access to higher education. HECCC partners include San Joaquin Delta College, Columbia College, Merced College, Modesto Junior College, California State University Stanislaus, and the University of Merced.

General Education (GE) Breadth courses that have been used to satisfy a GE Area at another HECCC institution for an AA or AS degree will be accepted at San Joaquin Delta College in lieu of San Joaquin Delta College General Education Breadth course in the satisfied area. This is known as the HECCC Reciprocity Agreement. Consult a counselor for further information.

3. An Approved Major or Area of Concentration

- Completion of the requirements of an approved Major
OR
- Completion of a minimum of eighteen (18) semester units taken in a specific discipline as identified under “Areas of Concentration”
OR
- An approved program of study within an “Area of Concentration” with 9 to 15 units of course work in the specific discipline and 3 to 9 units of course work in a related discipline within the same area of concentration for a total of not less than 18 units;
OR
- Lower-division requirements for an accredited baccalaureate institution of their choice (transfer major);

*In discipline areas where there is a unit restriction, the student MUST use the 18-unit pattern. These disciplines cannot be used as a second discipline area.

4. Competency Requirement

A minimum competency must be demonstrated by a grade of “C” or higher in courses offered in satisfaction of written communication, oral communication, and quantitative reasoning (IV Learning Skills).

5. Residence Requirement

Of the minimum required sixty (60) semester units, the student must complete:

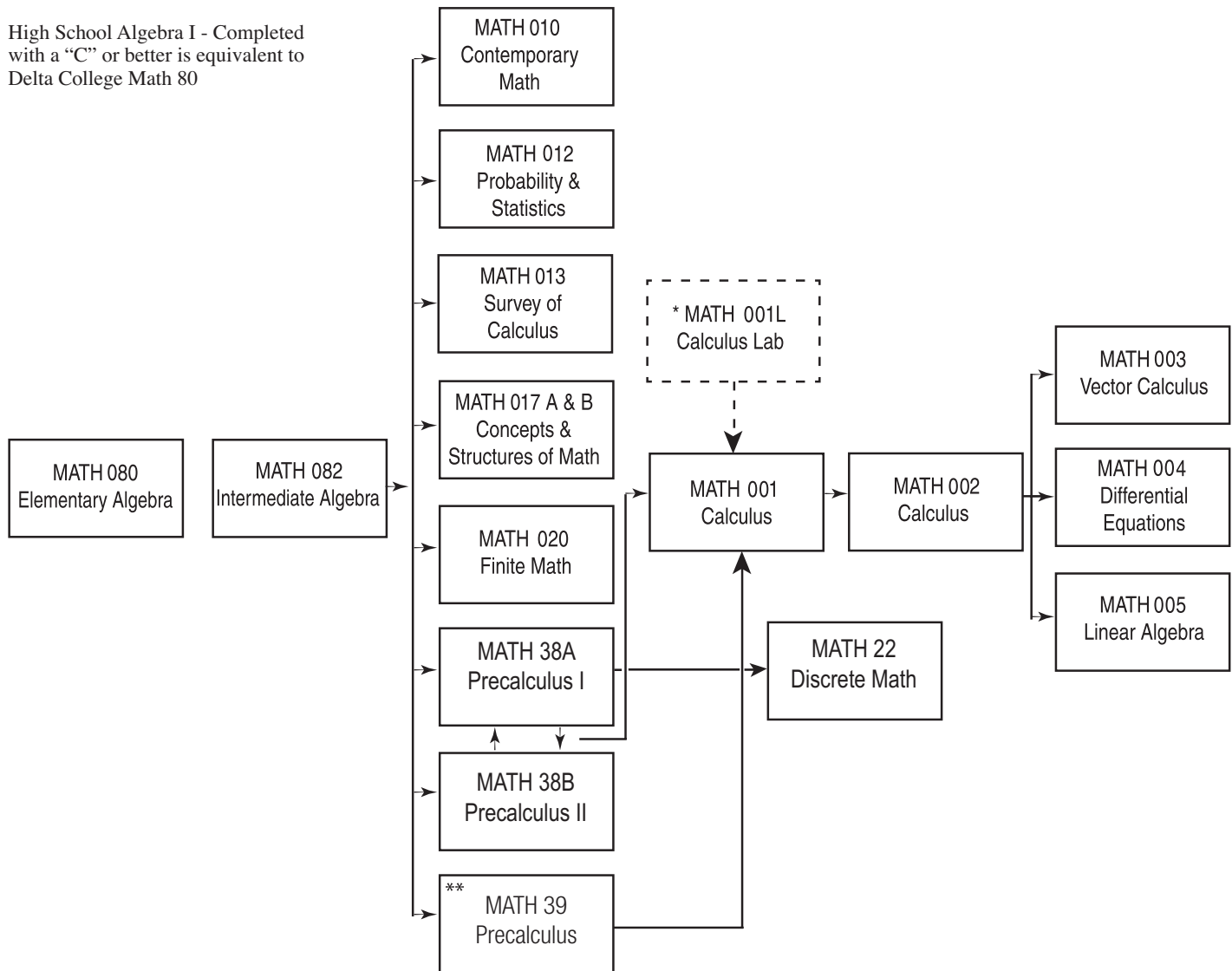
- The last twelve (12) semester units and attend during the semester of qualification for graduation at San Joaquin Delta College.
OR
- A total of at least twenty-four (24) units at San Joaquin Delta College.
Units earned through Credit by Examination do not apply to the residency requirement .

Students planning to transfer should see a counselor to choose the appropriate courses to complete the entire CSU or IGETC General Education pattern.

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Math Course Sequence

High School Algebra I - Completed with a "C" or better is equivalent to Delta College Math 80



*MATH 83A/B and MATH 84A/B have been deactivated as have MATH 80L and 82L.

**Math 38A and MATH 39B are needed for MATH 1 OR MATH 39 can be taken but only if the special prerequisites of this fast-paced course are met.

Math Skills Requisite Levels

MATH LEVEL I

- *DV ED 77 Applied Mathematic Laboratory
- *DV ED 79 Applied Mathematic Laboratory
- *DV ED 86A-D Applied Math
- *DV ED 78 Applied Math Lab
- *DV ED 87 Survival Math

MATH LEVEL II REQUIRED

- Math 80 Elementary Algebra
- Math 82 Intermediate Algebra
- *Math 88 Pre-Algebra

(Some of the above courses may have requirements other than test scores. Previous course work may qualify for some math classes.)

*Units earned in these courses do not count toward the Associate Degree.

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Associate in Arts Degrees

- Concentration in Agriculture
- Concentration in Business: General
- Concentration in Business: Specialized certificate Majors
- Concentration in Communications
- Concentration in Computer and Information Science
- Concentration in Engineering
- Concentration in Family and Consumer Sciences
- Concentration in Humanities
- Concentration in Liberal Arts and Science
- Concentration in Natural Resources
- Concentration in Natural Sciences
- Concentration in Radiological Technology
- Concentration in Social Sciences
- Concentration in Technical Education
- Concentration in Vocational Nursing
- Music

Associate in Arts Degree, Areas of Concentration and Course Requirements

Agriculture

- **Agriculture Business**
AGBUS 010, 012, 013, 015, 046, 050H
- **Agriculture Engineering**
AGEGR 021, 030C, 030D, 033, 050H, 064, 065, 066, 069V, 075, 087A, 096V
- **Animal Science**
AHSC 010, 010L, 011A, 011B, 011C, 011D, 025A, 025B, 025C, 025D, 034, 036, 050H, 069V, 096V
- **Horticulture**
HORT 001, 013, 015, 021A, 021B, 023, 030, 031, 032, 033, 034, 035, 036, 037, 040, 046, 050H, 060, 069V, 071, 080, 081, 083, 091A, 091B, 093, 094, 095, 096V
- **Plant Science**
PLANT 010, 010L, 012, 013, 014, 036A, 050H, 075

Business: General

- **Business**
Any BUS Course 001-069
- **Office Technologies (BIM)**
Any BIM Course 001-069

Business: Specialized Certificate Majors

- **Accounting**
BUS 001A, 001B, 003, 004, 010A, 010B, 011
- **Banking**
BUS 01A, 001B, 003, 018A, 026, 061, 063, 065A, 065B, 066
- **Business**
BUS 001A, 008, 009, 010A, 018A, 018B, 019, 020, 021, 022, 023, 024, 026, 030, 031, 032, 033, 034, 036, 037
- **Office Technologies (BIM)**
Any BIM Course 001-069
- **Real Estate**
BUS 018A, 040, 041, 042, 043, 044, 045, 046
- **Retail Management & Merchandising**
BUS 001A, 006, 008, 010A, 014, 017A, 017B, 018A, 018B, 019, 020, 021, 022, 023, 024, 031, 036
- **Risk Management & Insurance**
BUS 001A, 017A, 020, 027, 067, 069V, 074, 082C, CS 014 or 020
Minimum 9 units from: BUS 008, 009, 018A, 019, 021, 022, 094F,
BIM 095E, COMM ST 001A, 007, MATH 010, 012
- **Transportation**
BUS 020, 030, 031, 032, 051, 054, 055, 056, 057, 058, 020

Communications

- **Communication Studies**
COMM ST 001A, 001B, 003, 005, 006, 007, 008, 009, 010, 015, 050H, 052
- **English**
ENG 001B, 001C, 001D, 001E, 030, 034, 035A, 037, 038, 039, 040A, 040B, 042A, 042B, 044A, 044B, 044C, 044D, 045, 046A, 046B, 052, 053, 055, 056, 057
- **Journalism**
3 units from: MCOM 001, 015; additional units from: MCOM 002, 003, JOURN 002, 003, 004, 005, 053
- **Radio/Television**
RTV 1, MCOM 1, 13 UNITS FROM: RTV 011, 012, 013, 021, 022, 023, 071, MCOM 002, 003

Computer And Information Science

- **Computer Science**
Any CS, CSA, CSN, CSP, CSW Course 001-069
- **Computer Information Systems**
Any CS, CSA, CSN, CSP, CSW Course 001-069

Engineering

- **Civil Technology**
ETECH 011, 012, 013, 020, 022, 023, 024, 026, 027, 031, 034, 035, 041, 046, 076, 080, ENGR 050H, 069V
- **Electrical Technology**
ETECH 011, 012, 013, 020, 022, 023, 024, 026, 027, 031, 034, 035, 046, 047, 076, 080, ELECT 011, ENGR 050H, 069V
- **Electron Microscopy**
EM 022, 028, 030, 034, 035, 037, 038, 039, 041, 053, 058, 059
- **Engineering**
ENGR 001, 002, 004, 006, 008, 010, 015, 027, 029, 050H, 069V
- **Mechanical Technology**
ENGR 050H, 069V, ETECH 011, 012, 013, 020, 022, 023, 024, 026, 027, 031, 034, 035, 045, 046, 047, 076, 080

Family & Consumer Sciences

- **Apparel Design**
FASH 002, 004, 006, 008, 010, 030, 051, 056
- **Culinary Arts**
CUL ART 001, 003, 004, 005, 007, 009, 011, 013, 019, 025, 027, 029
- **Early Childhood Education**
CDEV 021, 026, 029, 030, 031A, 031B, 032A, 032B
- **Family And Consumer Sciences**
FCS 002, 003, 005, 006, 008, 010, 023, ID 002, CDEV 021, 028, 063, FASH 030
- **Fashion Merchandising**
FASH 002, 004, 006, 008, 010, 030, 051, 056
- **Interior Design**
ID 002, 008, 013, FASH 006, FCS 011, 014, 050H, ART 001A, 016, ARCH 001

Humanities

- **Art (including Art, Drawing, Graphic Arts, Painting, Photography, Sculpture)**
3 UNITS FROM: ART 001A, 001B, 002, 3 UNITS FROM: ART 006, 3 UNITS FROM: ART 007A, 007B, 007C, 016, 033A, 033B, 033C, 036A, 036B, 036C, 036D, 040A, 040B, 040C, 043A, 043B, 043C, 043D, PHOTO 001A, 001B, GRART 001A, 001B, 002A, 002B, 003A, 003B, 006A, 006B, 3 UNITS FROM: ART 020A, 020B, 020C, 020D, 044A, 044B, 044C, 044D, 045A, 045B, 045C, 045D, 046A, 046B, 046C, 046D, 048A, 048B, 048C, 048D, 064A, 064B, 065A, 065B, 6 UNITS FROM: ART 003, 004, 005, 050H, 080, PHOTO 001C, 006A, 006B, 015, 034, 050H, 075, GRART 004A, 004B, 005, 050H, 080

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- **Civilization**
CIVIL 003
- **Dance**
DANCE 002, 003A, 003B, 005A, 005B, 005C, 005D, 005E, 006A, 006B, 007A, 007B, 008A, 008B, 008C, 008D, 008E, 008F, 008G, 008H, 020A, 020B, 020C, 020D, 050H, 080
- **Drama**
DRAMA 001A, 015, 016A, 016B, 019A, 2 UNITS FROM: DRAMA 026A, 047A, 050A
- **History**
HIST 002A, 002B, 004A, 004B, 006A, 006B, 015, 017A, 017B, 019, 027, 030A, 030B, 031, 034, 037, 050H
- **Humanities**
ANTR 001, 004, ARAB, 051, 052, 053, 054, ART 001A, 001B, 002, 003, 004, 006, 007A, 007B, 007C, 020A, 020B, 020C, 020D, 033A, 036A, 036B, 036C, 036D, 040A, 040B, 040C, 043A, 043B, 043C, 043D, 044A, 044B, 044C, 044D, 045A, 045B, 045C, 045D, 046A, 046B, 046C, 046D, 048A, 048B, 048C, 048D, 050H, 064A, 064B, 065A, 065B, CHIN 001, 002, 003, 004, 050H, 051, 052, 053, 054, CIVIL 003, DANCE 003A, 003B, 005A, 005C, 005D, 005E, 006A, 006B, 007A, 007B, 008A, 008B, 008C, 008D, 008E, 008F, 008G, 008H, 020A, 020B, 020C, 020D, 050H, DRAMA 001A, 001B, 001C, 006A, 006B, 010, 016A, 016B, 017A, 017B, 017C, 017D, 018A, 018B, 018C, 019A, 019B, 019C, 019D, 025A, 025B, 025C, 025D, 025E, 031A, 031B, 038, 044A, 044B, 044C, 044D, 050A, 050B, 050C, 050D, 050E, 050F, 050G, 050H, ENG 030, 046A, 057, FREN 001, 002, 003, 004, 050H, 051, 052, 053, 054, GEOG 002, GERM 001, 002, 003, 004, 050H, 051, 052, 053, 054, HUM 003, 004, 014A, 014B, 050H, ITAL 001, 002, 003, 004, 051, 052, 053, 054, JAPAN 001, 002, 003, 004, 051, 052, 053, 054, MUSIC 001, 003A, 003C, 004, 007, 008, 012A, 015, 015M, 017, 017M, 026, 026M, 028, 029, 029M, 030A, 030B, 032, 036A, 036B, 036C, 036D, 038A, 038B, 038C, 038D, 040A, 040B, 040C, 040D, 050H, 051, 052, 053, 058, 061, 063A, 063B, 063C, 063D, PHILO 006, 030, 040, 045, RELGN 014A, 014B, 050H, RUSS 51, 052, 053, 054, SL 022, 023, 024, SPAN 001, 002, 003, 004, 050H, 051, 052, 053, 054, TAG 051, 052, 053, 054, VIET 051, 052, 053, 054
- **Language (including Sign Language)**
ARAB 051, 052, 053, 054, CAM 001, 002, 003, 004, 036A, 036B, 038A, 038B, 038C, 038D, 051, 052, 053, 054, CHIN 001, 002, 003, 004, 036A, 036B, 038A, 038B, 038C, 038D, 051, 052, 053, 054, FREN 001, 002, 003, 004, 036A, 036B, 038A, 038B, 038C, 038D, 051, 052, 053, 054, GERM 001, 002, 003, 004, 036A, 036B, 038A, 038B, 038C, 038D, 051, 052, 053, 054, GREEK 001, 002, 003, 004, 036A, 036B, 038A, 038B, 038C, 038D, 051, 052, 053, 054, ITAL 001, 002, 003, 004, 036A, 036B, 038A, 038B, 038C, 038D, 051, 052, 053, 054, JAPAN 001, 002, 003, 004, 036A, 036B, 038A, 038B, 038C, 038D, 051, 052, 053, 054, SPAN 001, 002, 003, 004, 036A, 036B, 038A, 038B, 038C, 038D, 051, 052, 053, 054, SL 001-004, 071-074, TAG 036A, 036B, 038A, 038B, 038C, 038D, 051, 052, 053, 054, VIET 036A, 036B, 038A, 038B, 038C, 038D, 051, 052, 053, 054
- **Literature (including English)**
ENG 001B, 030, 034, 035A, 037, 038, 039, 040A, 040B, 042A, 042B, 044A, 044B, 044C, 045, 046A, 046B, 052, 055, 056, 057
- **Music**
3 UNITS FROM: MUSIC 001, 003A, 003B, 003C, 003D, 3 UNITS FROM: MUSIC 002A, 002B, 004, 007, 008, 3 UNITS FROM: MUSIC 015, 015M, 017, 017M, 026, 026M, 029, 029M, 051, 052, 053, 057, 058, 064
- **Philosophy**
PHIL 006, 030, 040, 045, 050, 050H
- **Photography**
PHOTO 001A, 001B, 001C, 006A, 006B, 015, 034, 050H, 075
- **Religious Studies**
HUM 014A, 014B, 050H, RELGN 014A, 014B, 050H

Liberal Arts & Sciences

- **Transfer (CSU, UC, Private)**

Natural Resources

- **Conservation**
- **Forestry**
- **Natural Resources**

Natural Sciences

- **Astronomy**
ASTRO 001, 001L, 0050H
- **Biological Sciences**
BIOL 001, 002, 003, 010, 011, 012, 022, 023, 030, 031, 032, 033, 050H
- **Chemistry**
CHEM 001A, 001B, 003A, 003B, 010, 012A, 012B, 050H
- **Electron Microscopy**
EM 022, 028, 030, 034, 035, 037, 038, 039, 041, 053, 058, 059
- **Earth Sciences**
GEOL 001A, 050H
- **Mathematics**
MATH 001, 001L, 002, 003, 004, 005, 010, 012, 013, 015, 017A, 017B, 020, 030, 031, 036, 050H
- **Natural Resources**
NR 001, 002, 005, 006, 010, 050H, 068, 069, 069V, 094V
- **Physical Anthropology**
ANTHR 002, 002L, 006, 010, 012A, 012B, 015, 050H
- **Physical Education**
6 UNITS FROM: PE 042V, 048, 049, 050, 051, HED 001, 030, 031
4 UNITS FROM: PE 042J, 042K, 042L, 042M, 042O, 042Q, 042T,
4 UNITS FROM: PE 001D, 002, 009A, 009D, 009H, 009K, 014A,
015, 4 UNITS FROM (PE/ATH): PE 001A, 004A, 006, 010A, 021,
022A, 024A, 025A, 026A, 027B, 028E, 029A, 031A, 032A, 034A,
039E, 039F, 039I, 045, ATH 050, 051, 052, 053, 054, 055, 056, 057,
058, 059, 060, 061, 062, 063, 064, 065, 066, 067, 068, 069
- **Physical Geography**
GEOG 001, 001L, 020
- **Physical Science**
PHSCI 001
- **Physics**
PHYS 002A, 002B, 004A, 004B, 004C, 010, 050H

Radiological Technology

- **Radiological Technology**
RAD 010, 010A, 010B, 011, 012, 013, 014, 020, 020A, 021, 022,
023, 030, 030A, 030B, 031, 032, 040, 040A, 041

Social Sciences

- **Anthropology**
ANTHR 001, 002, 002L, 004, 006, 010, 012A, 012B, 015, 050H
- **Economics**
ECON 001A, 001B
- **Education**
EDU 010
- **History**
HIST 002A, 002B, 004A, 004B, 006A, 006B, 007, 015, 017A, 017B,
019, 027, 030A, 030B, 031, 034, 037, 050H
- **Political Science**
POLSC 001, 005, 010, 012, 015, 020, 050H, 051H
- **Psychology**
PSYCH 001, 003, 004, 006, 007, 008A, 008B, 012, 015, 020, 024,
030, 038, 039, 040, 045A, 045B, 046, 047, 048, 050H, 052, 053,
055, 056, 057
- **Social Science**
SOCSC 015, 030, 045A, 045B
- **Sociology**
SOCIO 001A, 001B, 015, 024, 027, 033, 045A, 045B, 050H

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Technical Education

- **Automotive Technology**
AUTO 050, 051, 052, 053, 054, 055, 056, 057, 062, 063, 064, 069V, 069W, 075, 080A, 080B, 080C, 080D, 080E, 080F, 080G, 080H, 081A, 081B, 081C, 081D, 084A, 084B, 084C, 084D, 087A, 087B, 087C, A-AUT 050, 051, 052, 053, 054, 055, 056, 057, 071A, 071B, 072A, 073A, 073B, 078A, 078B, 079A, 079B, 080A, 080B, 081A, 081B
- **Construction Technology (including Carpentry, Mill Cabinet, Heating and Air Conditioning/Refrigeration) Carpentry**
CONST 054, 069V, 071A, 071B, 071C, 071D, 072A, 072B, 072C, 074A, 074B, 074C, 074D, 074E, 074F, 074G, 074H, 075, 078, 087B, 087C, 090B, A-CON 080A, 080B, 081A, 081B, 082A, 082B, 083A, 083B, MECH 030A, 030B, 030C, 031A, 031B, 031C, 031D, 032A, 032B, 032C, 081A, 087C
- **Diesel Technology**
DIESL 041, 042, 043, 044, 045, 046, 047, 048, 049, 069V
AGEGR 030C, INDUS 035, MECH 010
- **Electrical Technology**
ELEC 030, 031, 032, 033, 034, 035, 036, 037, 075, 087A, 087B, A-ELE 070A, 070B, 071A, 071B, 072A, 072B, 073A, 073B, 074A, 075A, 075B, 075C, 075D, 075E, 075F
- **Electronics Technology**
ELECT 011, 012, 013A, 014A, 014B, 014C, 016, 050H, 077A, 077B, 077C, 077D, 077E, 077F, 077G, 077H, 077I
- **Engineering Technologies**
ETECH 011, 012, 013, 020, 022, 023, 024, 026, 027, 031, 034, 035, 041, 045, 046, 047, 076, 080
ENGR 050H, 069V
- **Graphic Arts**
GRART 001A, 001B, 002A, 002B, 003A, 003B, 004A, 004B, 06A, 06B
- **Industrial Technology (including Fluid Power)**
INDUS 015, 020, 031, 032, 035, 037, 041, 045, 050H, 069V, 076, 094, 095, A-IND 072A, 072B, 076, 077A, 077B, 077C, 077D, 077E, 077F, 077G, 077H, 077J, 077K, 077L, 077M, 077N, 078A, 078B, 078C, 078D, 078E, 078F, 078G, 078H, 078J, 078K, 078L, 078M, 078N, 078P
A-MEC 074A, 074B
A-ELE 075A, 075B, 075C, 075D, 075E, 075F
- **Mechanical Technology (including Machine Tool Technology, Small Engine Technology, Welding Technology)**
MECH 010, 015, 050A, 050B, 050C, 050D, 052A, 052B, 060, 067A, 067B, 067C, 067D, 069V, 077A, 077B, 077C, 078A, 078B, 078C, 087A, 087B, 088A, 088B, 088C, 088D
A-MEC 074A, 074B

Vocational Nursing

- **Nursing - Vocational**
VOC NUR 001, 002, 003, 004, 005, 006

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Associate in Arts Degree, Major Requirements**MUSIC***Fine Arts and Communication Division*

The Associate in Arts in Music degree is designed to develop a strong base of knowledge and skills within the discipline that will serve as a foundation for further study. Students majoring in music complete a series of university-transferable courses in the areas of musicianship, music theory, individual performance, and ensemble performance.

Fundamental to the study of music is the performance of music. Upon entering the program, the student declares a primary performance medium (instrument or voice) and is assigned an applied instructor with whom the student meets regularly throughout the program. Students also demonstrate basic keyboarding skill by passing a piano proficiency examination or completing appropriate coursework. In addition to individual performance, ensemble performance is fundamental for the developing musician. The department offers numerous performing organizations that serve to provide opportunities for majors and non-majors alike.

Minimum Units Required: 60**Recommended Sequence:****First Semester**

MUSIC 003A	Music Theory and Musicianship I	4
MUSIC 040A	Applied Music Large Performance Ensemble	1
MUSIC 017	Concert Choir	1
	or	
MUSIC 026	Symphonic Band	1 - 2
	or	
MUSIC 027	Orchestra	1 - 2
	or	
MUSIC 029	Jazz Band	1 - 2
MUSIC 038	Class Piano for Music Majors	1
	General Education	
MUSIC 002A	Music History from Antiquity to 1750 (Recommended)	6
	Electives	3

Second Semester

MUSIC 003B	Music Theory and Musicianship II	4
MUSIC 040B	Applied Music Large Performance Ensemble	1
MUSIC 017	Concert Choir	1
	or	
MUSIC 026	Symphonic Band	1 - 2
	or	
MUSIC 027	Orchestra	1 - 2
	or	
MUSIC 029	Jazz Band	1 - 2
	General Education	
MUSIC 002B	Music History from 1750 to Present (Recommended)	6
	Electives	3

Third Semester

MUSIC 003C	Music Theory and Musicianship III	4
MUSIC 040C	Applied Music Large Performance Ensemble	1
MUSIC 017	Concert Choir	1
	or	
MUSIC 026	Symphonic Band	1 - 2
	or	
MUSIC 027	Orchestra	1 - 2
	or	
MUSIC 029	Jazz Band	1 - 2
	General Education	6
	Electives	3

Fourth Semester

MUSIC 003D	Music Theory and Musicianship IV	4
MUSIC 040D	Applied Music Large Performance Ensemble	1
MUSIC 017	Concert Choir	1
	or	
MUSIC 026	Symphonic Band	1 - 2
	or	
MUSIC 027	Orchestra	1 - 2
	or	
MUSIC 029	Jazz Band	1 - 2
	General Education	6
	Electives	2

Minimum Units 60

Associate in Science Degree Requirements

1. Unit Requirement

Completion of not less than sixty (60) associate degree applicable semester units of course work with not less than a 2.0 cumulative grade point average.

2. General Education

Students must complete one of the following General Education patterns:

- Completion of San Joaquin Delta College Associate Degree General Education pattern with a minimum of twenty-four (24) semester units.

OR

- Completion of California State University General Education pattern.

OR

- Completion of the Intersegmental General Education Transfer Curriculum (IGETC/CSU) General Education pattern.

NOTE: The Higher Education Consortium of Central California (HECCC) is a partnership of two universities and four community colleges committed to the advancement of academic excellence in a distinctly diverse region. Through dynamic and evolving collaborations member institutions combine resources, share intellectual capital, facilitate innovative projects, promote professional development, and increase equitable access to higher education. HECCC partners include San Joaquin Delta College, Columbia College, Merced College, Modesto Junior College, California State University Stanislaus, and the University of Merced.

General Education (GE) Breadth courses that have been used to satisfy a GE Area at another HECCC institution for an AA or AS degree will be accepted at San Joaquin Delta College in lieu of San Joaquin Delta College General Education Breadth course in the satisfied area. This is known as the HECCC Reciprocity Agreement. Consult a counselor for further information.

3. An Approved Major

The student shall complete a discipline-specific major which will require an approved program of study with a minimum of 18 units of course work as specified in the College Catalog.

4. Competency Requirement

A minimum competency must be demonstrated by a grade of “C” or higher in courses offered in satisfaction of written communication, oral communication, and quantitative reasoning (IV Learning Skills).

5. Residence Requirement

Of the minimum required sixty (60) semester units, the student must complete:

- The last twelve (12) semester units and attend during the semester of qualification for graduation at San Joaquin Delta College.

OR

- A total of at least twenty-four (24) units at San Joaquin Delta College.

Units earned through Credit by Examination do not apply to the residency requirement .

Students planning to transfer should see a counselor to choose the appropriate courses to complete the entire CSU or IGETC General Education pattern.

Limitation on Enrollment

Limitation on enrollment is a condition of enrollment, which limits how students qualify for a particular program. Limitations apply to courses that include public performance or intercollegiate competition where a tryout or audition is necessary. Some courses require formal admission to a particular program in order to enroll (e.g. Associate Degree Nursing, Caterpillar Dealer Service Technician, Fire Academy, Peace Officer Academy, Psychiatric Technician, Radiologic Technology, and Speech-Language Pathology Assistant).

Associate in Science Degrees

- Accounting
- Agriculture Business
- Architectural Drafting
- Baking and Pastry
- Caterpillar Dealer Service Technician Apprenticeship
- Communication: Speech Language Pathology Assistant
- Computer Networking Technology
- Computer Science
- Correctional Science
- Culinary Arts
- Diesel Equipment Technician
- Engineering Technology - Civil Specialization
- Engineering Technology - Electro-Mechanical Specialization
- Engineering Technology - Mechanical Specialization
- Fire Science
- Fluid Power and Automation Technology
- Heating and Air Conditioning - Refrigeration
- Heavy Equipment Technician
- Horticulture
- Law Enforcement
- Network Software
- Nursing (Registered Nurse)
- Office Management

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Associate in Science Degree, Major Requirements**ACCOUNTING***Business Education Division*

Upon successful completion of the Associate in Science Degree, the student demonstrates the skills and training for employment and/or transfer to a four-year college or university.

Minimum Units Required: 64**Recommended Sequence:****First Semester**

		Units
BUS 001A	Principles of Accounting	5
BUS 011	Income Tax Procedures	3
BUS 081	California Income Tax Preparation	1
BUS 070	Payroll Accounting	2
BIM 031	Electronic Calculation	3
	or	
BIM 032A	Beginning Office Calculation	1
	and	
BIM 032B	Intermediate Office Calculation	1
	and	
BIM 032C	Advanced Office Calculation	1
MATH 010	Introduction to Contemporary Mathematics	3
	or	
MATH 013	Survey of Calculus	4

Second Semester

BUS 001B	Principles of Accounting	5
BUS 020	Introduction to Business	3
CSA 020	MS Word, Excel, and Access	3
ENG 001A	Written Communications	3
GE CHOICE*	Humanities Course	3 - 5

Third Semester

BUS 003	Financial Accounting	5
BUS 015	Computer Spreadsheets for Accounting	2
ECON 001A	Principles of Economics: Macro	3
BUS 008	Introduction to The American Legal System	3
	or	
BUS 018A	Business Law	3
GE CHOICE*	Natural Science Course	3 - 5

Fourth Semester

BUS 004	Managerial Accounting	5
CS 011	Fundamentals of Computer Science	3
COM ST 001A	Fundamentals of Speech	3
GE CHOICE*	Social Science, Group A, Course	3

***ELECTIVE**

Courses must be selected from the appropriate area of the General Education requirements for the Associate degree.

Minimum Units 64**AGRICULTURE BUSINESS***Applied Science & Technology Division*

Upon successful completion of the Agriculture Business A.S. Degree, the student demonstrates the skills, knowledge, and training for the following positions: Agricultural Accounting Assistant, Agricultural Administrative Assistant, Agricultural Inventory/Warehouse Technician, Agricultural Sales and Service Technician, Crop Insurance Agent, Customer Service Representative, Farm Insurance Agent, Farm/Ranch Personnel Supervisor, Field Representative, Food Processing Plant Shift Supervisor, Grain Elevator Manager, International Sales and Trade Technician Quality Control Inspector, Public Relations Specialist, Sales Agent, Sales Representative and Wholesale Produce Agent; the ability to: design and implement a record keeping system; design and implement farm accounts; compare and contrast the basis for farm income tax computing; calculate the basic measures of depreciation; construct inventory analysis procedures; operate a microcomputer; develop and use templates to make management decisions; evaluate a variety of software useful to agribusiness applications; identify and design a marketing strategy for a specific agricultural product; chart and interpret market information; analyze marketing reports; and make a sales presentation on a agricultural product; or fulfillment of both the lower division General Education requirements and the lower division Agriculture Business requirements for successful transfer to a university for a baccalaureate degree.

Minimum Units Required: 62**Recommended Sequence:****First Semester**

		Units
AGBUS 012	Agricultural Economics	3
AGBUS 015	Agribusiness Computer Applications	3
MATH 082	Intermediate Algebra	5
ENG 001A	Written Communications	3
AH SC 010	Principles of Animal Science	3
AH SC 010L	Principles of Animal Science Laboratory	1

Second Semester

AGBUS 010	Agricultural Accounting	3
ECON 001A	Principles of Economics: Macro	3
MATH 012	Introduction to Probability and Statistics	4
BUS 018A	Business Law	3
GE CHOICE	Social Science - Group A Course	3

Third Semester

AGBUS 046	Agricultural Marketing	3
COM ST 001A	Fundamentals of Speech	3
PLANT 010	Principles of Plant Science	3
	and	
PLANT 010L	Principles of Plant Science Laboratory	1
BUS 001A	Principles of Accounting	5

Fourth Semester

PLANT 014	Soil Science	4
BUS 020	Introduction to Business	3
GE CHOICE	Contemporary Perspectives Course	3
GE CHOICE	Humanities Course	3

Minimum Units 62

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Associate in Science Degree, Major Requirements**ARCHITECTURAL DRAFTING***Applied Science & Technology Division*

Upon successful completion of the Architectural Drafting certificate, the student demonstrates entry-level skills into the architectural drafting and construction fields. Positions may include computer-aided drafters, code enforcement officers, building and planning department checkers, sales representatives, construction schedulers and estimators, as well as entry into other related trades where plan reading and preparation is required. In addition, the student will have completed courses leading to admission into university level programs in architecture, environmental planning and design, and other related degrees, as well as all general electives required in earning an Associate of Science Degree. A grade of "C" or better is required in each course.

Minimum Units Required: 61.5**Recommended Sequence:****First Semester**

	Units
ARCH 001 Basic Architectural Drafting	3
ARCH 006 Digital Tools for Architecture	3
ARCH 020 Architectural Design and Drawing I	3.5
CS 011 Fundamentals of Computer Science	3
ENG 001A Written Communications	3

Second Semester

ARCH 004 Architectural Practice 1	2
ARCH 010 Computer-Aided Drafting for Architecture	3
ARCH 021 Architectural Design and Drawing II	3.5
COM ST 001A Fundamentals of Speech	3
MATH 082 Intermediate Algebra	5

Third Semester

ARCH 005 Architectural Detailing	4.5
ARCH 008 Materials of Construction	3
ARCH 022 Architectural Design and Drawing III	3.5
GE CHOICE* Natural Science Course	3 - 5
GE CHOICE* Social Science, Group A, Course	3

Fourth Semester

ARCH 002 Architectural Practice: Working Drawings	4.5
CONST 078 Building Codes	2
GE CHOICE* Social Science, Group B, Course	3
GE CHOICE* Humanities Course	3 - 5

***ELECTIVE**

Courses must be selected from the appropriate area of the General Education requirements for the Associate degree.

Minimum Units 61.5**BAKING & PASTRY***Family, Consumer & Health Sciences Division*

Upon completion of the Baking and Pastry AS Degree program the student will have a solid foundation of baking principles. This knowledge will allow them to perform at a high level in any pastry establishment. They will be able to produce high quality breads or chocolate candies, and everything in between.

Minimum Units Required: 60**Recommended Sequence:****First Semester**

	Units
CUL ART 001 Introduction to Hospitality Industry	2
CUL ART 003 Sanitation and Safety	2
CUL ART 007 Baking	3
GE CHOICE General Education Courses	6

Second Semester

CUL ART 004 Food and Beverage Cost Technologies	2
CUL ART 005 Commercial Food Preparation	4
CUL ART 008 European Pastry Production	4
GE CHOICE* General Education Courses	6

Third Semester

CUL ART 010 Plated Desserts	4
CUL ART 012 Retail Bakery Management	3
CUL ART 025 Food Service Management	2
GE CHOICE* General Education Courses	6

Fourth Semester

GE CHOICE* General Education Courses	16
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*Students must meet Associate Degree General Education requirements. See catalog for General Education requirements.

Minimum Units 60

Associate in Science Degree, Major Requirements**CATERPILLAR DEALER
SERVICE TECHNICIAN****Apprenticeship***Applied Science & Technology Division*

Upon successful completion of the Caterpillar Dealer Service Technician AS Degree Apprenticeship program, the apprentice will be prepared for completion of the related and supplemental instruction component of the State approved San Joaquin Valley Automotive Technician Apprenticeship Program. The apprentice is awarded a Journey Level Certificate from the State Division of Apprenticeship Standards upon completion of 7600 hours of On-The-Job training and satisfactory employer reports. The apprentices are qualified to perform service, maintenance, repairs and troubleshooting of diesel engines, transmissions, drive trains, transaxles, brakes, suspensions, steering systems, charging systems, electrical systems, electronic engine controls, fuel management controls, computer control systems and air conditioning systems on Caterpillar tractors and heavy equipment. A grade of "C" or better is required in each course.

Minimum Units Required: 78**Recommended Sequence:**

First Semester (Fall)		Units
CAT 080	Caterpillar Service Industry	3
CAT 081	Caterpillar Engine Fundamentals	4
AGEGR 021	Agricultural Welding	2
GE CHOICE	Learning Skills, Group B Course	3 - 5
CAT 069V	Internship: Heavy Equipment-Caterpillar	4

Second Semester (Spring)

CAT 082	Fundamentals of Hydraulics	3
CAT 083	Caterpillar Engine Fuel Systems	3
CAT 084	Fundamentals of Electrical Systems	3
GE CHOICE	Learning Skills, Group A Course	3 - 6
CAT 069V	Internship: Heavy Equipment-Caterpillar	4

Third Semester (Summer)

CAT 085	Caterpillar Air Conditioning	2
CAT 086	Fundamentals of Caterpillar Power Trains	3
CAT 087	Caterpillar Machine Hydraulic Systems	3

Fourth Semester (Fall)

CAT 069V	Internship: Heavy Equipment-Caterpillar	4
CAT 090	Caterpillar Undercarriage and Final Drive	3
CAT 091	Caterpillar Machine Electronic Systems	3
GE CHOICE	Learning Skills, Group C Course	3
GE CHOICE	Natural Sciences Course	3 - 5

Fifth Semester (Spring)

CAT 069V	Internship: Heavy Equipment-Caterpillar	4
CAT 092	Caterpillar Engine Performance	2
CAT 093	Caterpillar Diagnostic Testing	2
CAT 094	Caterpillar Machine Specific Systems	2
GE CHOICE	Social Science, Group A Course	3
GE CHOICE	Social Science, Group B Course	3

Sixth Semester (Summer)

GE CHOICE	Humanities Course	3 - 5
GE CHOICE	Contemporary Perspectives Course	3

A grade of "C" or better is required in each course.

Minimum Units 78



SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Associate in Science Degree, Major Requirements**COMMUNICATION: SPEECH LANGUAGE
PATHOLOGY ASSISTANT (SLPA)***English Language Arts Division*

Upon successful completion of the certificate, the student demonstrates skills, knowledge and training to conduct speech-language screening, without interpretation, and using screening protocols developed by the supervising speech-language pathologist; provide direct treatment assistance to patients or clients under the supervision of a speech-language pathologist; follow implementing documented treatment plans or protocols developed by a supervising speech-language pathologist; document patient or client progress toward meeting established objectives; report the information to a supervising speech-language pathologist; assist a speech-language pathologist during assessments, including, but not limited to, assisting with formal documentation, preparing materials, and performing clerical duties; schedule activities and prepare charts, records, graphs, and data; perform checks and maintain equipment, including, but not limited to, augmentative communication devices; and assist with speech-language pathology research projects, in-service training, and family or community education.

Minimum Units Required: 64**Recommended Sequence:****First Semester**

		Units
MATH 082	Intermediate Algebra	5
COMM DIS 001	Communication Disorders: Speech and Language Development	3
COMM DIS 002	Introduction to Communication Disorders	3
ENG 001A	Written Communications	3
P E 001D	Beginning Swim for Health	1.5 - 2
COM ST 007	Intercultural Communication	3

Second Semester

BIOL 011	Human Biology	4
COMM DIS 003	Communication Disorders: Therapy Analysis and Field Practice	4
CDEV 034	Children With Special Needs	3
P E 009A	Individual Conditioning I	1.5 - 2
COM ST 003	Interpersonal Communication	3

Third Semester

COMM DIS 005	Communications Disorders: Materials and Procedures	3
CDEV 021	Child and Adolescent Development	3
HUM 004/ANTHR 004	Introduction to Linguistics	3
POLSC 001	American Government and Institutions	3
PSYCH 001	Introduction to Psychology	3

Fourth Semester

BIM 038	Office Technologies	3
	or	
BIM 039	Office Management	3
	or	
BIM 081	Records Management and Filing	3
COMM DIS 007	Communication Disorders: Service Delivery Issues	3
COMM DIS 009	Communication Disorders: Assessment and Remediation	3
FCS 019/H S 019	Human Development	3
SL 001	Elementary American Sign Language	3

NOTE:

Please refer to SECTION III, Academic Programs, Special Admission Programs, Communication Speech-Language Pathology Assistant for Application Process and Selection Procedure

Minimum Units 64

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Associate in Science Degree, Major Requirements**COMPUTER NETWORKING
TECHNOLOGY***Applied Science & Technology Division*

Upon successful completion of the Computer Networking Technology A.S. Degree program, the student will demonstrate the ability to function as an entry-level computer networking technician. The student will attain the required skills to: design and implement Local Area Networks (LANs) and autonomous Wide Area Networks (WANs), wire infrastructure as per industry standards, select and implement appropriate protocols, configure network devices such as routers and switches, as well as manage, maintain and troubleshoot networks. The program prepares the students for industry certification such as CCNA and entry-level positions in the IT industry such as network technician, network administrator, network system installer, network system sales/marketing, or independent network services contractor. A grade of "C" or better is required in each course.

Minimum Units Required: 59.5

First Semester		Units
ELECT 030A	Basic Electronic Computer Networks	4
ELECT 030B	Advanced Electronic Computer Networks	4
ELECT 014C	Troubleshooting Computers	2.5
GE CHOICE	Social Science - Group B	3

Second Semester

ELECT 030C	Basic Electronic Network Systems	4
ELECT 030D	Advanced Electronic Network Systems	4
CS 014B	Microcomputer Evaluation and Installation	3
GE CHOICE	Natural Science	3 - 5

Third Semester

ELECT 030E	Network Hardware Application	2
CS 042	UNIX	3
CSA 035	Multimedia Presentations	3
GE CHOICE	Learning Skills - Group C	3
GE CHOICE	Social Science - Group A	3
GE CHOICE	Humanities	3 - 5

Fourth Semester

CSN 058A	Microsoft Windows XP Professional	3
CSA 020	MS Word, Excel, and Access	3
GE CHOICE	Contemporary Perspectives	3
GE CHOICE	Learning Skills - Group A	3 - 6
GE CHOICE	Learning Skills - Group B	3 - 5

Minimum Units 59.5**COMPUTER SCIENCE***Business Education Division*

Upon successful completion of the Associate in Science Degree, the student demonstrates the skills and training for employment and/or transfer to a four-year college or university.

Minimum Units Required: 60**Recommended Sequence:**

First Semester	Units	
CS 011	Fundamentals of Computer Science	3
CSP 017	Computer Logic	3
(CSP 17 is equivalent to CS 17)		
or		
CSP 029A	Pascal Programming	3
GE Choice*	Learning Skills, (Group A)	3
GE Choice	Social Science, (Group A)	3
ELECTIVE**	Course of Choice	3

Second Semester

CSA 020	MS Word, Excel, and Access	3
CS 054	Fundamentals of Data Communications	3
GE Choice*	Learning Skills, (Group B)	3
GE Choice*	Social Science, (Group B)	3
ELECTIVE**	Course of Choice	3

Third Semester

CSP 024	COBOL Programming	5
or		
CSP 026A	Java Programming	3
or		
CSP 028A	Visual Basic .NET Programming	3
or		
CSP 031A	C Programming	3
GE Choice*	Learning Skills, (Group C)	3
GE Choice*	Natural Science Course	3
ELECTIVE**	Course of Choice	3
ELECTIVE**	Course of Choice	3

Fourth Semester

CSP 026B	Data Structures with Java	3
or		
CSP 028B	Advanced Visual Basic .NET Programming	3
or		
CSP 031B	C++ Programming	3
GE Choice*	Humanities	3
GE Choice*	Contemporary Perspectives	3
ELECTIVE**	Course of Choice	3
ELECTIVE**	Course of Choice	3

***GE Choice**

Courses must be selected from the appropriate area of the General Education requirements for the Associate degree.

****GE Choice**

Any courses that are Associate degree applicable.

Minimum Units 60

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Associate in Science Degree, Major Requirements**CORRECTIONAL SCIENCE***Applied Science & Technology Division*

Upon successful completion of the Associate in Science Degree in Correctional Science, the student demonstrates fulfillment of the lower-division requirements for any accredited baccalaureate institution; preparation for participation in the Basic Corrections Peace Officer Academy; or a job in corrections.

Minimum Units Required: 62**Recommended Sequence:**

First Semester		Units
A J 031	Report Preparation	3
A J 051	Introduction to Correctional Science	3
ENG 001A	Written Communications	3
SOCIO 001A	Introduction to Sociology	3
ELECTIVE**	Course of Choice	3

Second Semester

A J 055	Control and Supervision in Corrections	3
A J 057	Legal Aspects of Corrections	3
POLSC 001	American Government and Institutions	3
	or	
HIST 017A	History of the United States	3
	or	
HIST 017B	History of the United States	3
COM ST 001A	Fundamentals of Speech	3
ELECTIVE**	Course of Choice	3

Third Semester

A J 022	Concepts of Criminal Law	3
A J 053	Correctional Interviewing and Interventions	3
MATH 082	Intermediate Algebra	5
CS 011	Fundamentals of Computer Science	3
ELECTIVE**	Course of Choice	3

Fourth Semester

A J 028	Juvenile Law and Procedures	3
	or	
A J 054	Introduction to Probation and Parole	3
A J 041	Narcotics Investigation and Control	3
GE CHOICE*	Humanities Course	3 - 5
GE CHOICE**	Natural Science Course	3 - 5
ELECTIVE**	Course of Choice	

*A course selected from the Humanities area of the General Education requirements for the Associate degree.

**A course selected from the Natural Science area of the General Education requirements for the Associate degree. 3

Minimum Units 62**CULINARY ARTS***Family, Consumer & Health Sciences Division*

Upon successful completion of the degree, the student demonstrates the skills, training, and knowledge to transfer to a four-year hospitality program or industry employment, where the degree would enable quick upward mobility to the sous-chef position.

Minimum Units Required: 68

Recommended Sequence:

First Semester		Units
CUL ART 001	Introduction to Hospitality Industry	2
CUL ART 003	Sanitation and Safety	2
CUL ART 005	Commercial Food Preparation	4
CUL ART 007	Baking	3
CUL ART 008	European Pastry Production	4
GE CHOICE*	General Education Course	3

Second Semester

CUL ART 004	Food and Beverage Cost Technologies	2
CUL ART 009	Restaurant Operations	9
CUL ART 011	Menu Planning	1.5
CUL ART 013	Purchasing and Receiving	1.5
FCS 006 **	Nutrition	3
FCS 006 satisfies the Natural Sciences General Education requirement)		

Third Semester

CUL ART 019	Kitchen Management	9
CUL ART 025	Food Service Management	2
CUL ART 027	Garde Manger	1.5
CUL ART 029	Beverage Management	1.5
FCS 093V	Work Experience: Family and Consumer Studies	1
GE CHOICE*	General Education Course	3

Fourth Semester

ELECTIVES* General Education Courses

*Courses that fulfill the General Education requirements for the Associate degree in the following categories: Social Sciences/A & B, Humanities, Learning Skills/A, B & C, Contemporary Perspectives
Natural Sciences *(Satisfied by FCS 006) 15

Minimum Units 68

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Associate in Science Degree, Major Requirements**DIESEL EQUIPMENT
TECHNICIAN***Applied Science & Technology Division*

Upon successful completion of the Diesel Equipment Technician AS Degree, the student demonstrates skills, knowledge, and training for entry-level employment for the following positions: technician for truck dealerships/repair shops, technician for truck fleet shops, technician for agricultural dealerships/repair shops, technician for industrial engine dealers, and technician for marine engine repair facilities. The student demonstrates skills to receive state and national certification in two areas: Heavy Duty Diesel Engine Emissions Control by the state of California Air Resource Board (ARB); and Air Conditioning Certification by Society of Automotive Engineers (SAE).

Minimum Units Required: 63**Recommended Sequence:****First Semester**

	Units
AGEGR 030C/ Industrial Equipment:	
SM ENG 030C Electrical and Electronic Systems	5
DIESL 041 Heavy Duty Brakes	3
DIESL 044 Diesel Engine Principles	3
DIESL 045 Diesel Engine Repair	4.5

Second Semester

DIESL 042 Heavy Duty Power Trains	3.5
DIESL 043 Heavy Duty Truck Components	3
DIESL 046 Diesel Engine Fuel and Tune-Up	3
GE CHOICE Social Science, Group A Course	3
GE CHOICE Learning Skills, Group C Course	3

Third Semester

DIESL 048 Allison Transmission Service	2
INDUS 035 Mobile Hydraulics	4
MECH 010 Basic Welding for the Trades	4
GE CHOICE Social Science, Group B Course	3
GE CHOICE Learning Skills, Group A Course	3 - 6

Fourth Semester

DIESL 047 Diesel Air Conditioning	2
DIESL 049 Computer Diagnosis and Troubleshooting	2
ELECTIVE Humanities	3 - 5
ELECTIVE Contemporary Perspectives	3
GE CHOICE Natural Sciences Course	3 - 5
GE CHOICE Learning Skills, Group B Course	3 - 5

Minimum Units 63**ENGINEERING TECHNOLOGY:
Civil Specialization***Applied Science & Technology Division*

Upon successful completion of the Associate in Science Degree, the student demonstrates skills for employment and/or transfer to a four-year college or university.

Minimum Units Required: 67**Recommended Sequence:****First Semester**

		Units
ENGR 001	Introduction to Engineering and Technology	3
E TECH 011	Engineering Drafting	3
E TECH 012	Computer-Aided Drafting	3
E TECH 013	Engineering Drafting Skills	3

Second Semester

ENGR 002	Engineering Graphics	3
E TECH 020	Materials and Measurements	3
E TECH 022	Three Dimensional Modeling	3
E TECH 026	Technical Statistics	3
	or	
E TECH 076	Applied Statistics	3

Third Semester

E TECH 031	Fundamentals of Civil Drafting	3
E TECH 034	Machine Drafting	3
E TECH 035	Machine Design	3
E TECH 080	Applied Surveying	3

Fourth Semester

E TECH 046	Mechanical and Electrical Systems	3
E TECH 041	Civil Drafting: Site Design and Improvement	4

Note the following General Education Requirements:

In addition to the above required courses for the Associate in Science degree with a major in Engineering Technology, the General Education requirements for the Associate degree must be satisfied as noted below:

NATURAL SCIENCE	One Course Minimum	3 - 5
SOCIAL SCIENCE	One Course Minimum from Group A	3
	One Course Minimum from Group B	3
HUMANITIES	One Course Minimum	3 - 5
LEARNING SKILLS	One Course Minimum from Group A	3 - 6
	One Course Minimum from Group B	3 - 5
	One Course Minimum from Group C	3
CONT. PERSPECTIVES	One Course Minimum	3

Minimum Units 67

Associate in Science Degree, Major Requirements

ENGINEERING TECHNOLOGY:

**Electro-Mechanical
Specialization**

Applied Science & Technology Division

Upon successful completion of the Associate in Science Degree, the student demonstrates skills for employment and/or transfer to a four-year college or university.

Minimum Units Required: 67

Recommended Sequence:

First Semester		Units
ENGR 001	Introduction to Engineering and Technology	3
E TECH 011	Engineering Drafting	3
E TECH 012	Computer-Aided Drafting	3
E TECH 013	Engineering Drafting Skills	3
Second Semester		
ENGR 002	Engineering Graphics	3
E TECH 020	Materials and Measurements	3
E TECH 022	Three Dimensional Modeling	3
E TECH 026	Technical Statistics	3
or		
E TECH 076	Applied Statistics	3
Third Semester		
E TECH 031	Fundamentals of Civil Drafting	3
E TECH 034	Machine Drafting	3
E TECH 035	Machine Design	3
E TECH 080	Applied Surveying	3
Fourth Semester		
E TECH 046	Mechanical and Electrical Systems	3
E TECH 047	Introduction to Industrial Control Systems	3
ELECT 011	AC and DC Network Analysis	4.5

Note the following General Education Requirements:

In addition to the above required courses for the Associate in Science degree with a major in Engineering Technology, the General Education requirements for the Associate degree must be satisfied as noted below:

NATURAL SCIENCE One Course Minimum	3 - 5
SOCIAL SCIENCE One Course Minimum from Group A	3
One Course Minimum from Group B	3
HUMANITIES One Course Minimum	3 - 5
LEARNING SKILLS One Course Minimum from Group A	3 - 6
One Course Minimum from Group B	3 - 5
One Course Minimum from Group C	3
CONT. PERSPECTIVES One Course Minimum	3

Minimum Units 67

ENGINEERING TECHNOLOGY:

Mechanical Specialization

Applied Science & Technology Division

Upon successful completion of the Associate in Science Degree, the student demonstrates skills for employment and/or transfer to a four-year college or university.

Minimum Units Required: 72

Recommended Sequence:

First Semester		Units
ENGR 001	Introduction to Engineering and Technology	3
E TECH 011	Engineering Drafting	3
E TECH 012	Computer-Aided Drafting	3
E TECH 013	Engineering Drafting Skills	3
Second Semester		
ENGR 002	Engineering Graphics	3
E TECH 020	Materials and Measurements	3
E TECH 022	Three Dimensional Modeling	3
E TECH 026	Technical Statistics	3
or		
E TECH 076	Applied Statistics	3
Third Semester		
E TECH 031	Fundamentals of Civil Drafting	3
E TECH 034	Machine Drafting	3
E TECH 035	Machine Design	3
E TECH 080	Applied Surveying	3
MECH 015	Machine Tool Process (mechanical students only)	0 - 3
Fourth Semester		
E TECH 046	Mechanical and Electrical Systems	3
E TECH 045	Practical Machine Design	3
E TECH 047	Introduction to Industrial Control Systems	3

Note the following General Education Requirements:

In addition to the above required courses for the Associate in Science degree with a major in Engineering Technology, the General Education requirements for the Associate degree must be satisfied as noted below:

NATURAL SCIENCE One Course Minimum	3 - 5
SOCIAL SCIENCE One Course Minimum from Group A	3
One Course Minimum from Group B	3
HUMANITIES One Course Minimum	3 - 5
LEARNING SKILLS One Course Minimum from Group A	3 - 6
One Course Minimum from Group B	3 - 5
One Course Minimum from Group C	3
CONT. PERSPECTIVES One Course Minimum	3

Minimum Units 72

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Associate in Science Degree, Major Requirements**FIRE SCIENCE***Applied Science & Technology Division*

Upon successful completion of the Fire Science Associate in Science Degree the student demonstrates skills for the fulfillment of the lower-division requirements for any accredited baccalaureate institution, preparation for participation in the Basic Fire Fighter Academy, and a job in law enforcement. NOTE: Please refer to catalog information for programs with Special Admission Requirements.

Minimum Units Required: 64

First Semester		Units
FIRE 070	Fire Protection Organization	3
FIRE 071	Fire Prevention Technology	3
POLSC 001	American Government and Institutions	3
or		
HIST 017A	History of the United States	3
or		
HIST 017B	History of the United States	3
SOCIO 001A	Introduction to Sociology	3
CS 011	Fundamentals of Computer Science	3

Second Semester

FIRE 074	Fire Behavior and Combustion	3
H S 077B	Emergency Medical Technician Basic	7
PSYCH 001	Introduction to Psychology	3
or		
PSYCH 020A	Stress Management	1
ENG 001A	Written Communications	3
ELECTIVES*	Elective course	3

Third Semester

FIRE 072	Fire Protection Equipment and Systems	3
FIRE 073	Building Construction for Fire Protection	3
PHILO 040	Ethics	3
COM ST 001A	Fundamentals of Speech	3
ELECTIVES	Elective course	3

Fourth Semester

FIRE 095A	Fire Command, Strategy and Tactics	3
MATH 082	Intermediate Algebra	5
GE CHOICE Humanities Course		3
GE CHOICE Natural Science Course		3 - 5
ELECTIVES	Elective course	3

Refer to SECTION III, Academic Programs, Special Admission Programs, for Admission Requirements.

Minimum Units 64**FLUID POWER & AUTOMATION TECHNOLOGY***Applied Science & Technology Division*

Upon successful completion of the Fluid Power and Automation Technology A.S. Degree, the student demonstrates the skills, knowledge and training for employment in the following fluid power industry positions: fluid power mechanic, fluid power technician, salesperson in fluid power industry; ability to apply his/her knowledge of physics and mathematics in solving applied fluid power problems; plan and install complex fluid power systems; maintain, troubleshoot, and repair control systems using proper tools and procedures; and select, compile, and use technical information from reference materials; and preparation to take the Fluid Power Society certification exams for fluid power mechanics, technicians, and specialists; preparation to transfer to a four-year Bachelors Degree program. This program is accredited by the Fluid Power Education Foundation (FPEF) as one of their nationally recognized Key Schools supporting the fluid power industry.

Minimum Units Required: 61**Recommended Sequence:**

First Semester		Units
INDUS 031	Industrial Hydraulics	4
E TECH 013	Engineering Drafting Skills	3
CS 011*	Fundamentals of Computer Science	3
ENG 001A*	Written Communications	3
MATH 082**	Intermediate Algebra	5

Second Semester

INDUS 037	Industrial Pneumatics	4
ELECT 011	AC and DC Network Analysis	4.5
or		
ELEC 030	Fundamentals of Electricity	5
PHYS 010	Introduction to Physics	4
COM ST 001A*	Fundamentals of Speech	3

Third Semester

INDUS 035	Mobile Hydraulics	4
ELECT 013A	Digital Integrated Circuits	4.5
ART 004*	Exploring Art	3
POLSC 001*	American Government and Institutions	3

Fourth Semester

INDUS 041	Instrumentation and Process Control	3
ELECT 016	Introduction to Microprocessors	4
MECH 015	Machine Tool Process	3
ECON 001A*	Principles of Economics: Macro	3

*Recommended General Education Electives

**Recommended General Education Mathematics Elective or another mathematics course from MATH 038B or 039.

Minimum Units 61

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Associate in Science Degree, Major Requirements

HEATING & AIR CONDITIONING: Refrigeration

Applied Science & Technology Division

Upon successful completion of the Heating and Air Conditioning A.S. Degree, the student demonstrates the skills, knowledge and training to service and repair heating and air conditioning equipment; ability to mechanically and electrically troubleshoot problems typically encountered in the industry; and completion of EPA refrigerant recovery exam for their certification. A grade of C or better is required in each course.

Minimum Units Required: 64

Recommended Sequence:

First Semester		Units
MECH 030A	Refrigeration and Air Conditioning	3
MECH 031A	Air Conditioning Components and Circuits	6
ELEC 030	Fundamentals of Electricity	5
GE CHOICE*	Learning Skills - Group B Course	3 - 5

Second Semester

MECH 030B	Intermediate Refrigeration	3
MECH 031B	Air Conditioning Troubleshooting	6
MECH 032A	Air Conditioning Control Circuit Analysis	3
GE CHOICE*	Natural Sciences Course	3 - 5
GE CHOICE*	Learning Skills - Group A Course	3 - 6

Third Semester

MECH 031C	Air Conditioning Systems and Heat Pumps	6
MECH 032B	Refrigeration Control Circuit Analysis	3
GE CHOICE*	Learning Skills - Group C Course	3
GE CHOICE*	Social Science - Group A Course	3

Fourth Semester

MECH 060	Metal Trade Layout and Forming	5
GE CHOICE*	Humanities Course	3 - 5
GE CHOICE*	Contemporary Perspective Course	3
GE CHOICE*	Social Science - Group B Course	3

***ELECTIVES**

Courses must be selected from the appropriate area of the General Education requirements for the Associate degree.

A grade of "C" or better is required in each course.

Minimum Units 64

HEAVY EQUIPMENT TECHNICIAN

Applied Science & Technology Division

Upon successful completion of the Heavy Equipment Technician AS Degree, the student demonstrates skills, knowledge, and training or entry-level employment for the following positions: technician or heavy equipment dealerships, technician for heavy equipment repair facilities, technician for agricultural dealerships/repair shops, and technician for industrial engine dealers. The student demonstrates skills to receive state and national certification in two areas: Heavy Duty Diesel Engine Emissions Control by the state of California Air Resource Board (ARB); and Air Conditioning Certification by Society of Automotive Engineers (SAE). A grade of C or better is required in each course.

Minimum Units Required: 64

Recommended Sequence:

First Semester		Units
AGEGR 030C/	Industrial Equipment:	
SM ENG 030C	Electrical and Electronic Systems	5
DIESL 044	Diesel Engine Principles	3
DIESL 045	Diesel Engine Repair	4.5
INDUS 035	Mobile Hydraulics	4

Second Semester

AGEGR 030D/	Industrial Equipment:	
SM ENG 030D	Power Trains	5
DIESL 046	Diesel Engine Fuel and Tune-Up	3
DIESL 047	Diesel Air Conditioning	2
GE CHOICE*	Social Science, Group A Course	3
GE CHOICE*	Learning Skills, Group C Course	3

Third Semester

AGEGR 033	Equipment Maintenance and Operation	2
MECH 010	Basic Welding for the Trades	4
GE CHOICE*	Contemporary Perspectives Course	3
GE CHOICE*	Social Science, Group B Course	3
GE CHOICE*	Learning Skills, Group A Course	3 - 6

Fourth Semester

SM ENG 066/		
AGEGR 066	Compact Diesel Engines	2.5
DIESL 049	Computer Diagnosis and Troubleshooting	2
INDUS 043	Electro-hydraulics	3
GE CHOICE*	Humanities Course	3 - 5
GE CHOICE*	Natural Sciences Course	3 - 5
GE CHOICE*	Learning Skills, Group B Course	3 - 5

Each course must be completed with a grade of "C" or higher.

Minimum Units 64

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Associate in Science Degree, Major Requirements**HORTICULTURE***Applied Science & Technology Division*

Upon successful completion of the Horticulture AS Degree, the student demonstrates skills, knowledge, and training for employment in the horticulture field with public and private employers. The student demonstrates his or her ability to grow and maintain plants, maintain landscapes, and communicate effectively. A grade of "C" or better is required in each course. Students must meet Associate Degree General Education requirements.

Minimum Units Required: 60**Recommended Sequence:**

First Semester		Units
HORT 001	Fundamentals of Horticulture	3
HORT 002	Identification of Fall Plants	3
HORT 010	Greenhouse Production	3
GE CHOICE	General Education Courses	6

Second Semester

HORT 003	Identification of Spring Plants	3
HORT 012	Plant Propagation	3
GE CHOICE	General Education Courses	9

Third Semester

HORT 005	Introduction to Plant Pests and Diseases	3
HORT 020	Landscape Maintenance	3
HORT 031A	Floral Arrangement I	1
PLANT 010	Principles of Plant Science	3
PLANT 010L	Principles of Plant Science Laboratory	1
ELECTIVES		5

Fourth Semester

HORT 004	History of Garden Design	3
HORT 023	Landscape Irrigation and Drainage	3
GE CHOICE	General Education Courses	6
ELECTIVES		5

A grade of "C" or better is required in each course. Students must meet Associate Degree General Education requirements.

Minimum Units 60**LAW ENFORCEMENT***Applied Science & Technology Division*

Upon successful completion of the Associate Degree in Law Enforcement, the student demonstrates the fulfillment of the lower-division requirements for any accredited baccalaureate institution; preparation for participation in the Basic Peace Officer Academy; and a job in law enforcement. NOTE: A minimum of 60 units is required for the Associate degree. Refer to Section III, Academic Programs, Special Admission Programs, for Special Admission Requirements.

Minimum Units Required: 62**Recommended Sequence:**

First Semester		Units
A J 021	Criminal Justice in Society	3
A J 022	Concepts of Criminal Law	3
ENG 001A	Written Communications	3
SOCIO 001A	Introduction to Sociology	3
ELECTIVE**	Course of Choice	3

Second Semester

A J 023	Principles and Procedures of The Justice System	3
A J 024	Legal Aspects of Evidence	3
POLSC 001	American Government and Institutions	3

or

HIST 017A	History of the United States	3
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or

HIST 017B	History of the United States	3
COM ST 001A	Fundamentals of Speech	3
ELECTIVE**	Course of Choice	3

Third Semester

A J 025	Criminal Investigation	3
A J 031	Report Preparation	3
MATH 082	Intermediate Algebra	5
CS 011	Fundamentals of Computer Science	3
ELECTIVE**	Course of Choice	3

Fourth Semester

A J 028	Juvenile Law and Procedures	3
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or

A J 054	Introduction to Probation and Parole	3
A J 040	Community Relations	3

GE CHOICE*	Humanities Course *	3 - 5
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GE CHOICE**	Natural Science Course **	3 - 5
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ELECTIVE**	Course of Choice	3
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NOTE:

A minimum of 60 units required for the Associate degree. Refer to Section III, Academic Programs, Special Admission Programs, for Admission Requirements.

Minimum Units 62

*A course selected from the Humanities area of the General Education requirements for the Associate degree.

**A course selected from the Natural Science area of the General Education requirements for the Associate degree.

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Associate in Science Degree, Major Requirements**NETWORK SOFTWARE***Business Education Division*

Upon successful completion of the Network Software Technician AS Degree program, the student demonstrates the skills, knowledge, and training for employment as an Information Technology Specialist, a Computer Technician, Network Support Technician, Microcomputer Specialist, sales in computer-network related fields, or for transfer to a four-year computer program. Individuals who complete this program demonstrate the skills necessary to design and implement network software using Microsoft Windows 2000 and/or similar operating systems software. Students will also demonstrate skills in improving networks through troubleshooting and problem solving techniques, install, administer and maintain networks, and train and support users to maximize the benefits of the use of networks. General education courses in the areas of Learning Skills, Social Science, Natural Science, the Humanities, and Contemporary Perspectives are required.

Minimum Units Required: 60**Recommended Sequence:****First Semester**

		Units
CS 011	Fundamentals of Computer Science	3
CSP 017	Computer Logic (CSP 17 is equivalent to CS 17)	3
CS 054	Fundamentals of Data Communications	3
	or	
CS 056	Networking Essentials	3
GE CHOICE	Learning Skills, (Group A)	3
GE CHOICE	Social Science, (Group A)	3

Second Semester

CS 014B	Microcomputer Evaluation and Installation	3
CS 042	UNIX	3
CSN 058A	Microsoft Windows XP Professional	3
CSW 023	HTML for Web Publishing	3
GE CHOICE	Learning Skills, (Group B) (MATH 010, MATH 013, or MATH 039)	3

Third Semester

CSN 058B	Microsoft Windows 2003 Server	3
CSW 021	JavaScript Programming	3
GE CHOICE	Social Science, (Group B) (ECON 001A, SOCS 030, SOCIO 001A, or POLSC 010)	3
GE CHOICE	Learning Skills, (Group C)	3
ELECTIVE		3

Fourth Semester

CSN 060	Network Security	3
CSW 021	JavaScript Programming	3
	or	
CSP 026A	Java Programming	3
	or	
CSP 028A	Visual Basic .NET Programming	3
	or	
CSP 031A	C Programming	3
	or	
CSP 031B	C++ Programming	3
GE CHOICE	(Humanities)	3
GE CHOICE	(Natural Science) (CHEM 001A, 003A, PHSCI 010, or PHYSC 010)	3
GE CHOICE	(Contemporary Perspective) (Choice of one: BUS 008, 020; COM ST 007; FCHS 002, 003, 005, 023)	3

Electives:

CS 070	Introduction to Internet	1
CS 032	Introduction to Computer Operating Systems	3
CS 033	Systems Analysis and Design	3
CS 042	UNIX	3
CSN 058C	Implementing Microsoft Windows 2003 Network Infrastructure	3
CSN 058D	Implementing Microsoft Windows 2003 Directory Services	3

Group I (Electives) Choose one

Learning Skills	Group B General Education Electives	
MATH 010	Introduction to Contemporary Mathematics	3
MATH 013	Survey of Calculus	4
MATH 039	Pre-Calculus	5

Group II (Electives) Choose one

Social Science	Group B General Education Electives	
ECON 001A	Principles of Economics: Macro	3
SOCS 030	American Immigrant Experience	3
SOCIO 001A	Introduction to Sociology	3
POLSC 010	Introduction to Political Science	3

Group III (Electives) Choose one

Natural Science	General Education Electives	
CHEM 001A	General Chemistry	5
CHEM 003A	Introduction to Chemistry	4
PHYSC 010	Introduction to Physics	4
PHSCI 001	Matter and Energy	3

Group IV (Electives) Choose one

Contemporary Perspective	General Education Electives	
BUS 008	Introduction to The American Legal System	3
BUS 020	Introduction to Business	3
COM ST 007	Intercultural Communication	3
FCS 002	Life Management	3
FCS 003	Home Management and Finance	3
FCS 005	Basic Nutrition	3
FCS 023	Marriage and the Family	3

Group V (Electives) 3 units minimum

CS 070	Introduction to Internet	1
CS 032	Introduction to Computer Operating Systems	3
CS 033	Systems Analysis and Design	3
CSN 058C	Implementing Microsoft Windows 2003 Network Infrastructure	3
CSN 058D	Implementing Microsoft Windows 2003 Directory Services	3
CS 042	UNIX	3

Minimum Units 60

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Associate in Science Degree, Major Requirements**NURSING (Registered Nurse)***Family, Consumer & Health Sciences Division*

Upon successful completion of the Associate Degree in Nursing Program, the graduate demonstrates the skills, knowledge and training to take the National Council Licensing Examination for Registered Nurses (NCLEX-RN) and qualified to provide patient care in a variety of health care settings within the Registered Nurse scope of practice. NOTE: All non-nursing courses may be taken prior to admission to the Nursing program. Refer to the catalog for information about programs with Special Admission Requirements.

A grade of "C" or better is required in each course.

Minimum Units Required: 74.5**Prerequisite Courses**

		Units
BIOL 031	Human Anatomy	4
BIOL 032	Human Physiology	5
BIOL 022 *	Introduction to Medical Microbiology	4
	or	
BIOL 023	General Microbiology	5
FCS 006	Nutrition	3
ENG 001A	Written Communications	3

First Semester

NURS 001	Fundamentals of Nursing	4.5
NURS 002	Introduction to Medical/Surgical Nursing	4.5
NURS 003/ H S 003	Administration of Medication	3

Second Semester

NURS 004	Beginning Medical/Surgical Nursing	5.5
NURS 005	Mental Health Nursing	4
PSYCH 001	Introduction to Psychology	3
SOCIO 001B	Problems of a Changing Society	3

Third Semester

NURS 006	Nursing The Childrearing Family	4
NURS 007	Intermediate Medical/Surgical Nursing	5.5
COM ST 001A	Fundamentals of Speech	3
POLSC 001	Course from Social Science Group A American Government and Institutions	3
	or	
HIST	General Education Requirements (See Group I)	3

Fourth Semester

NURS 008	Nursing of The Childbearing Family	4
NURS 009	Advanced Medical/Surgical Nursing	3.5
NURS 010	Community-Based Nursing	2
HUM (Select one course from Humanities Group III, Associate Degree General Education Pattern.)		3 - 5

Group I (Electives)

Social Science Group A General Education Electives		
HIST 017A	History of the United States	3
HIST 017B	History of the United States	3
HIST 027	Women in History	3
HIST 030A	African-American History to 1877	3
HIST 030B	African-American History Since 1877	3
HIST 031	Mexican-American History	3
HIST 034	Asian Pacific American History	3
POLSC 001	American Government and Institutions	3

Group II (Humanities Electives)

(Select a minimum of 3 units)

Only courses on this listing are accepted for ADN program		
ANTHR 004/ HUM 004	Introduction to Linguistics	3
ART 001A	Art History: Europe from Prehistory to 1400	3
ART 001B	Art History: Europe from the Fifteenth to the Twentieth Century	3
ART 002	Art History of the Non-Western World	3
ART 003	Introduction to Art	3
ART 004	Exploring Art	3
CIVIL 003/ HUM 003	Autobiography of Civilization	3
CUL ART 016	Gastronomies of the World	3
DRAMA 010	Theatre Appreciation	3
DRAMA 016A	History of Theatre: Primitive to 1800	3
ENG 030	The Film as Literature	3
ENG 035	Chicano Literature	3
ENG 037	Women in Literature	3
ENG 038	Mythology	3
ENG 039	Introduction to Folklore	3
ENG 040A	Current Literature: The Novel	3
ENG 040B	Current Literature: Short Story and Drama	3
ENG 042A	Survey of American Literature	3
ENG 042B	Survey of American Literature	3
ENG 045	The Reading of Shakespeare	3
ENG 046A	Survey of English Literature	3
ENG 046B	Survey of English Literature	3
ENG 047	The Bible as Literature	3
ENG 052	From Story to Screen	3
ENG 055	Reading Plays: Critical Approaches	3
ENG 057	Children's Literature	3
FASHION 008	History of Fashion	3
FOR LANG 001	Elementary	5
FOR LANG 051	Elementary	2.5
	and	
FOR LANG 052	Elementary	2.5
HUM 003/ CIVIL 003	Autobiography of Civilization	3
MUSIC 001	Music Fundamentals	3
MUSIC 002A	Music History from Antiquity to 1750	3
MUSIC 002B	Music History from 1750 to Present	3
MUSIC 004	Exploring Music	3
MUSIC 007	Excursions in Music of Our World	3
MUSIC 008	Exploring Jazz, Ragtime, and Blues	3
HORT 004	History of Garden Design	3
PHILO 006	Introduction to Philosophy	3
PHILO 045	God and the Person	3
SL 001	Elementary American Sign Language	3

Minimum Units 74.5

*Student may elect to complete BIOL 23 for the prerequisite.

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Associate in Science Degree, Major Requirements**OFFICE MANAGEMENT***Business Education Division*

Upon successful completion of an Associate in Science Degree, the student demonstrates skills for employment and/or transfer to a four-year college or university. A grade of "C" or better is required in each course.

Minimum Units Required: 60**Recommended Sequence:****First Semester**

		Units
BIM 001A	Beginning Keyboarding	1
	and	
BIM 001B	Document Processing	2
	or	
BIM 002	Intermediate Keyboarding	3.5
BIM 031	Electronic Calculation	3
	or	
BIM 032A	Beginning Office Calculation	1
	and	
BIM 032B	Intermediate Office Calculation	1
	and	
BIM 032C	Advanced Office Calculation	1
CSA 020	MS Word, Excel, and Access	3
ENG 079	Preparatory English	5
	or	
ENG 001A	Written Communications	3
GE CHOICE*	Humanities Course	3 - 5

Second Semester

BUS 010A	Bookkeeping	3
	or	
BUS 001A	Principles of Accounting	5
BUS 008	Introduction to The American Legal System	3
	or	
BUS 020	Introduction to Business	3
COM ST 001A	Fundamentals of Speech	3
GE CHOICE*	Natural Science Course	3 - 5

Third Semester

BIM 038	Office Technologies	3
BIM 007A	MS Word: Beginning Concepts and Applications	3
BUS 017A	Beginning Business Communications	3
CSA 035	Multimedia Presentations (equivalent to CS 035)	3
GE CHOICE*	Learning Skills, Group B, Course	3 - 5

Fourth Semester

BIM 039	Office Management	3
BUS 017B	Advanced Business Communications	3
ECON 001A	Principles of Economics: Macro	3
GE CHOICE*	Social Science, Group A, Course *	3
ELECTIVE**	Course of Choice **	1.5 - 6
*ELECTIVE		
Courses must be selected from the appropriate area of the General Education requirements for the Associate degree.		
**ELECTIVE		
Any courses that are Associate degree applicable.		

Minimum Units 60***ELECTIVE**

Courses must be selected from the appropriate area of the General Education requirements for the Associate degree

**Any courses that are Associate degree applicable.

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

General Education Requirements**Associate in Arts General Education Requirements**

The System Office of the California Community Colleges deems that the governing board of community colleges shall establish a general education program that symbolizes a successful attempt on the part of the college to lead students through patterns of learning experiences designed to develop certain capabilities and insights.

Among these are the ability to think and to communicate clearly and effectively both orally and in writing; to use mathematics; to understand the modes of inquiry of the major disciplines; be aware of other cultures and times; to achieve insight gained through experience in thinking about ethical problems; and to develop the capacity for self-understanding. In addition to these accomplishments, the student shall possess sufficient depth in some field of knowledge to contribute to lifetime interest.

General education is designed to introduce students to the variety of means through which people comprehend the modern world. It reflects the conviction of colleges that those who receive their degrees must possess in common, certain basic principles, concepts and methodologies both unique to and shared by the various disciplines. College educated persons must be able to use this knowledge when evaluating and appreciating the physical environment, the culture and the society in which they live.

The Board of Trustees of the San Joaquin Delta Community College District has adopted Board Policy 6001 to define the philosophy of general education at Delta College:

General education is an integrated curriculum designed to prepare the student for better self-understanding and for the responsibilities of living in a global society. Essential elements of general education include critical thinking, effective communication and knowledge of the multiple dimensions of the modern world. General education provides a core of knowledge which enables the student to:

- Develop new insights about the complex forces in the modern world.
- Develop the ability to think and communicate clearly and effectively through the use of oral, written, and mathematical skills, and to understand and apply critical thinking and the modes of inquiry of major disciplines.
- Become aware of other cultures and times.
- Achieve a deeper understanding about the ethical choices individuals face in contemporary society.
- Develop the capacity for self-understanding.
- Examine the values inherent in proposed solutions to major social problems.

Each candidate for San Joaquin Delta College's Associate in Arts degree or Associate in Science degree shall complete no fewer than twenty-four (24) semester units of course work among categories I through V below. Courses that satisfy the major area requirement, or the general education course requirement may be used to meet either requirement, but not both. For students planning to transfer, refer to CSU and UC general education patterns.

NOTICE TO STUDENTS: Selection of courses from this list may be affected by one or more factors, including choice of major, university transfer requirements, or prerequisite or sequencing requirements. Failure to plan appropriately WILL adversely affect timely graduation and/or transfer. Students are encouraged to consult with a counselor to develop an individualized education plan. Counseling Office, Danner Hall, Room 205, (209) 954-5650.

I. Natural Sciences (1 course minimum)

- Animal Husbandry Science 010, or 010/010L
- Anthropology 002 or 002/002L
- Astronomy 001 or 001/001L
- Biology 010, 011, 012
- Chemistry 001A, 003A, 010
- Family and Consumer Sciences 006
- Geography 001 or 001/001L
- Geology 001A, 010, 015, 016
- Natural Resources 002
- Physical Science 001
- Physics 010
- Plant Science 010, or 010/010L

II. Social Science (1 course minimum from each group)Group A

- History 017A, 017B, 027, 030A, 030B, 031, 034
- Political Science 001

Group B

- Agriculture Business 012
- Anthropology 001, 010
- Child Development 021, 026
- Economics 001A, 001B
- Geography 002, 010
- History 002A, 002B, 004A, 004B, 006A, 006B, 006C
- Political Science 002, 003, 010
- Psychology 001
- Social Science 030
- Sociology 001A

III. Humanities (1 course minimum)

- Anthropology 004
- Art 001A, 001B, 001C, 002, 002A, 003, 004
- Civilization 003
- Culinary Arts 016
- Drama 010, 016A, 016B
- English 030, 035, 037, 038, 039, 040A, 040B, 042A, 042B, 043C, 043D, 045, 046A, 046B, 047, 049, 052, 055, 057
- Fashion 008
- Foreign Language 001, 051-052
- Horticulture 004
- Humanities 003, 004
- Music 001, 002A, 002B, 004, 007, 008
- Philosophy 006, 045
- Sign Language 001

IV. Learning Skills (1 course minimum, from each group)Group A

- Communication Studies 005
- English 001A, 079, 079L

Group B

- Agriculture Business 013
- Math 001, 010, 012, 013, 017A, 020, 022, 038A, 038B, 039, 082
- Philosophy 030
- Psychology 002

Group C

- Communication Studies 001A, 003, 008

V. Contemporary Perspectives (1 course minimum)

- Administration of Justice 021
- Biology 030
- Business 008, 020
- Communication Studies 007, 011
- Computer Science 011
- Education 010
- English 034
- Family and Consumer Sciences 002, 003, 005, 023
- Guidance 008
- Health Education 001
- Library 003
- Mass Communication 001, 004
- Philosophy 040
- Political Science 005
- Psychology 030
- Sociology 001B, 027, 033

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SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

California State University General Education Requirements

Each candidate for the bachelor's degree from a California State University (CSU) institution shall complete a pattern of forty-eight (48) semester units of general education courses in addition to courses in American History and Institutions. A student may complete a maximum of thirty-nine (39) of the forty-eight (48) units at San Joaquin Delta College. The San Joaquin Delta College forty-two (42) unit requirement allows students to meet both the CSU General Education pattern and the CSU's 40404 requirement for American History and Institutions. Students completing the CSU general education pattern will meet the general education requirements of San Joaquin Delta College's Associate degrees.

NOTICE TO STUDENTS: Selection of courses from this list may be affected by one or more factors, including choice of major, university transfer requirements, or prerequisite or sequencing requirements. Failure to plan appropriately WILL adversely affect timely graduation and/or transfer. Students are encouraged to consult with a counselor in developing an individual education plan. Counseling services are available in Danner Hall Room 205, (209) 954-5650.

Courses shall be selected from Areas A – E below:

A. Communication In The English Language And Critical Thinking:

A minimum of nine (9) units is required to include one course from each group.

1. **Oral Communication (#)**
 - Communication Studies 001A
2. **Written Communication (#)**
 - English 001A
3. **Critical Thinking (#)**
 - Communication Studies 005
 - English 001B, 001D
 - Philosophy 030

B. Physical Universe And Its Life Forms:

A minimum of nine (9) units is required, to include at least one course from each of first three groups listed below. A laboratory course from either Group 1 or 2 must be included. In order for a 1L, 2L, or 10L laboratory course to count as the required lab course, the corresponding lecture course is also required.

1. **Physical Science**
 - Astronomy 001, 001L*
 - Chemistry 001A*, 001B*, 003A*, 003B*, 012A*, 012B*
 - Geography 001, 001L*
 - Geology 001A*, 010, 015, 016
 - Physical Science 001
 - Physics 002A*, 004A*, 010*
 - Plant Science 014*
2. **Life Science**
 - Animal Husbandry Sciences 010, 010L*
 - Anthropology 002, 002L*
 - Biology 001*, 002*, 003*, 010*, 011*, 031*, 032*, 033*
 - Natural Resources 002
 - Plant Science 010, 010L*
3. **Mathematics Quantitative Reasoning#**
 - Mathematics 001, 002, 003, 004, 005, 010, 012, 013, 017A, 020, 038A, 039
 - Psychology 002

C. Arts, Literature, Philosophy And Foreign Languages:

A minimum of nine (9) units is required, to include at least three units from Group 1 and 2.

1. **Arts**
 - Art 001A, 001B, 002, 003, 004, 006, 007A, 020A, 033A, 040A, 064A
 - Drama 010, 016A, 016B
 - English 030
 - Fashion 008
 - Horticulture 004
 - Music 001, 002A, 002B, 004, 007, 008
 - Photography 001A
2. **Humanities**
 - Civilization 003
 - English 034, 035, 037, 038, 039, 040A, 040B, 042A, 042B, 045, 046A, 046B, 052
 - Humanities 003, 014A, 014B
 - Philosophy 006, 040, 045, 050
 - Religion 014A, 014B
3. **Foreign Language**
 - Any one course in the sequence 001-004 or any two courses in the sequence 051-054
 - French 005
 - Sign Language 001, 002, 003, 004
 - Spanish 001A, 002A

D. Social, Political, And Economic Institutions And Behaviors; Historical Background:

A minimum of twelve (12) units is required, to include at least six units from each group.

(*) 1. U.S. History/U.S. Constitution/ California State and Local Government**

Option 1**

For U.S. History/U.S. Constitution:

- History 017A
- California State and Local Government, one of the following:
- History 027, 030B, 034 or
 - Political Science 001.

OR

Option 2 **

For U.S. History, one of the following:

- History 017A, 017B, 027, 030A, 030B, 031

and for U.S. Constitution and California State and Local Government

- Political Science 001.

2. Human Social, Political, and Economic Institutions

A minimum of six (6) units from at least two separate disciplines.

- Administration of Justice 021
- Agriculture Business 012
- Anthropology 001, 006, 010
- Biology 030+
- Business 008, 026
- Child Development 021
- Communication Studies 007****, 011****
- Economics 001A, 001B
- Geography 002, 003, 010
- History 002A, 002B, 004A, 004B, 006A, 006B, 006C, 037
- Political Science 002, 005, 010
- Psychology 001, 003+, 004, 030+
- Social Science 030****
- Sociology 001A, 001B, 024, 027, 033****

E. Life-Long Understanding And Self-Development:

A minimum of three (3) units is required.**

- Anthropology 004
- Biology 030+
- Child Development 026
- Communication Studies 003
- Computer Science 011
- English 033G
- Family and Consumer Sciences 002, 003, 005, 006, 023
- Guidance 008
- Health Education 001, 030
- Humanities 004
- Physical Education 001D, 009A
- Psychology 003+, 024, 030+

NOTES:

* indicates laboratory course

** indicates "Meets Title 40404 requirement"

*** indicates "Entire three units may not be selected from Physical Education"

**** indicates CSU Sacramento "Race and Ethnicity in American society" general education requirement

(#) indicates with a "C" or better

(*) Effective Fall 2005 the courses accepted for satisfaction of the U.S. History, Constitution and American Ideals requirement has changed. If you completed this requirement prior to Fall 2005, you will not be affected. It is highly recommended that you make an appointment to see a counselor if you have any questions about this change in requirements. Counseling appointments may be made by calling (209) 954-5650.

+ Course may be listed in more than one area, but shall not be certified in more than one area.

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Intersegmental General Education Transfer Curriculum (IGETC) UC/CSU General Education Pattern (IGETC)

Completion and certification of the Intersegmental General Education Transfer Curriculum (IGETC) permits students to transfer from San Joaquin Delta College to a campus of either the California State University or the University of California without the need after transfer to take additional lower division general education courses to satisfy the campus' general education requirements. Students may also opt to fulfill the general education requirements by completing the specific lower division general education requirements of the school or college of the campus to which the student intends to transfer.

Both the California State University and the University of California have a specific American Institutions requirement that is separate from their general education requirements. Completion of the Intersegmental General Education Transfer Curriculum will not satisfy the American Institutions requirement. Courses used to satisfy the American Institutions requirement may not be counted to satisfy either of the Humanities (area 3) or a Social and Behavioral Science (area 4) requirement. Students are

encouraged to consult with a counselor to develop an individual education plan. Counseling services are available in Danner Hall Room 205, (209) 954-5650.

NOTICE TO STUDENTS: Students using the IGETC – UC/CSU GE pattern to meet requirements for the Associate Degree must also complete COM ST 1A. Selection of courses from this list may be affected by one or more factors, including choice of major, university transfer requirements, or prerequisite or sequencing requirements. Failure to plan appropriately WILL adversely affect timely graduation and/or transfer. Students are encouraged to consult with a counselor in developing an individual education plan. Counseling services are available in Danner Hall Room 205, (209) 954-5650.

Please see the Delta College online catalog for the most current CSU-GE and IGETC general education patterns. The SJDC catalog is published prior to the release of the most recent patterns.

Area 1 — Communication

(3 courses, 9 semester units)

Group A: English Composition (1 course, 3 semester units)

- English 001A

Group B: Critical Thinking — English Composition (1 course, 3 semester units)

- English 001D

Group C: Oral Communication (1 course, 3 semester units)

Students transferring to a UC do not have to meet the oral communication requirement. Students using the IGETC - UC GE pattern for the Associate Degree must also take COM ST 1A.

- Communication Studies 001A

Area 2 — Mathematical Concepts And Quantitative Reasoning

(1 course, 3 semester units)

- Mathematics 001+, 002, 003, 004, 012, 013+, 020, 038A, 039
- Psychology 002

Area 3 — Arts And Humanities

(At least 3 courses, 9 semester units)

At least one course from the Arts and one from the Humanities

Art Courses:

- Art 001A, 001B, 002, 003+
- Drama 010, 016A, 016B
- English 030
- Music 001+, 002A, 002B, 004, 008

Humanities Courses:

- Anthropology 004
- Cambodian 003*, 004*
- Chinese 003*, 004*
- Civilization 003
- English 035, 037, 038, 039, 040A, 040B, 042A, 042B, 045, 046A, 046B, 052
- French 003*, 004*, 005*
- German 003*, 004*

Humanities Courses: (continued)

- History 002A, 002B, 004A, 004B, 006A, 006B, 006C, 017A***, 017B***, 027***, 030A***, 030B***, 031***, 034, 037
- Humanities 003, 004, 014A, 014B
- Japanese 003*, 004*
- Philosophy 006, 040, 045, 050
- Religion 014A, 014B
- Sign Language 003*
- Spanish 003*, 004*

Area 4 — Social And Behavioral Sciences

(At least 3 courses, 9 semester units)

Courses from at least two disciplines or an interdisciplinary sequence.

- Anthropology 001, 006, 010
- Biology 030
- Child Development 021+
- Communication Studies 007
- Economics 001A, 001B
- Political Science 001***, 002, 005, 010
- Psychology 001, 003, 004, 030
- Social Science 030
- Sociology 001A, 001B, 024, 027, 033

Area 5 — Physical And Biological Sciences

(At least 2 courses required, 7-9 semester units)

One Physical Science course and one Biological Science course; at least one must include a laboratory.

Physical Science Courses: Courses with a laboratory component are underlined.

- Astronomy 001, 001L
- Chemistry 001A, 001B, 003A, 003B°, 012A°, 012B
- Geography 001, 001L
- Geology 001A, 010+, 015, 016
- Physical Science 001+
- Physic 002A+, 004A+, 010+
- Plant Science 014

Biological Science Courses: Courses with a laboratory component are underlined.

- Anthropology 002, 002L
- Biology 001, 002, 003, 010+, 011, 031+, 032+, 033+
- Plant Science 010, 010L

Area 6 - Language Other Than English

Proficiency equivalent to two years of high school study in the same language. Students transferring to CSU do not have to meet a proficiency requirement other than English**.

The following course(s) at SJDC fulfill this UC requirement:

- Cambodian 002, 003*, 004*, 054
- Chinese 002, 003*, 004*, 054
- French 002, 003*, 004*, 054
- German 002, 003*, 004*, 054
- Italian 002, 003*, 004*, 054
- Japanese 002, 003*, 004*, 054
- Sign Language 002, 003*, 004
- Spanish 054, 002, 002A, 003*, 004*, 005, 006

NOTES:

* Courses listed in multiple areas shall not be certified in more than one area except for courses in Languages Other Than English, which can be certified in both Area 3 and Area 6.

** Some individual CSU campuses have a foreign language graduation requirement. Some specific majors on CSU campuses require a foreign language as part of the major. Consult a counselor or the specific CSU catalog of the campus to which you wish to transfer for further information.

*** Courses which satisfy the American Institutions Requirement. These courses may not also be used to satisfy IGETC area. See note in Transfer To A Four-Year Institution on page 38.

+ Transfer credit may be limited by UC or CSU, or both. Students should consult a counselor for additional information.

++ UC Transferability of Physical Education courses is limited to a total of 4 units of activity courses and 8 units of Theory/Academic courses. See a counselor or www.assist.org for additional information.

o 003B and 012A combined: Maximum credit, one course

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SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Transferring to a Four-Year Institution

If you are planning to transfer to a four-year institution from San Joaquin Delta College, you should consult with a Delta College counselor, a representative of the campus to which you plan to transfer, and refer to the college catalog for that campus in order to obtain the most current information. Additional information is available on the world wide web. You are encouraged to visit the web sites published in this article. There are four things to research when planning the courses you will need to transfer:

1. Admission requirements for the university you plan to attend.
2. General education requirements. Consult with your counselor to select a general education pattern that best meets your transfer goals.
3. Major preparation courses which meet prerequisites for upper division coursework. Consult with your counselor to determine which lower division courses and major preparation courses you should complete at San Joaquin Delta College before you transfer.
4. Other requirements that can be completed at the community college, e.g., foreign language, diversity requirement, computer literacy.

Admission Requirements

Transfer to a California State University (CSU):

1. Admission requirements for students who have completed fewer than 60 transferable units at the time of entry to the CSU:
 - have a college grade point average of 2.0 or better in all transferable college units attempted;
 - be in good standing at the last college or university attended (eligible to reenroll);
 - meet the admission requirements for a first-time freshman or successfully complete necessary courses to make up the deficiencies;
 - meet the eligibility index required of a freshman (you may need SAT or ACT test scores, depending on your grade point average and the requirements for the campus you wish to attend);
 - contact the campus you wish to attend to determine whether there are limits on admission as a lower division transfer. Some campuses may require completion of English composition and general education mathematics.
2. Admission requirements for students who have completed 60 or more transferable units at the time of entry to the CSU:
 - have a college grade point average of 2.0 or better in all transferable college units attempted;
 - be in good standing at the last college or university attended (eligible to reenroll);
 - complete 30 semester units of courses equivalent to general education requirements with a grade of C or better. The 30 units must include all of the general education requirements in communication in the English language (English composition, oral communication, and critical thinking) and at least one course in college level mathematics.
3. Lower-Division Transfer Patterns (LDTP)

The Lower-Division Transfer Pattern (LDTP) project, sponsored by the California State University (CSU) and supported by the California Community Colleges, presents potential transfer students with the most direct path to a bachelor's degree in the CSU system. The LDTP project provides a set of "road maps" for students to follow that will ensure appropriate academic preparation and that will decrease time to graduation once LDTP students enter the CSU. Students may enter into an LDTP agreement up to the time they have completed 45 transferable units. Students who elect to follow the LDTP option will receive the highest priority for admissions to a CSU campus.

"Highest priority for admission" is defined as a written guarantee of admission to a particular CSU campus and major, and it goes into effect

when both the student and the CSU campus ratify an LDTP agreement. The guarantee is subject both to satisfactory completion of the agreement requirements and to the campus's ability to accommodate the student. Students will be asked to complete successfully a specified set of general education courses and major courses that will be common to all CSU campuses offering that major, and they will be asked to complete successfully an additional set of courses identified by the particular CSU campus named in the LDTP agreement. The coursework in the system-wide and campus-specific LDTP pattern will total at least 60 units, the number needed to transfer to CSU as an upper-division student. Through CSUMentor, www.csumentor.edu, and ASSIST, www.assist.org, students and counselors will be able to find road maps detailing coursework preparation by CSU campus and major. Consulting with a college counselor for additional ?? to transfer to CSU.

Transfer to a University of California (UC):

1. Admission requirements for students who have completed less than 60 transferable units at the time of entry to the UC:
 - meet the admission requirements for a first-time freshman (A-G subjects, grades, and test requirements) or successfully complete courses to make up any subject deficiencies;
 - have a college grade point average of 2.0 or better in all transferable college units attempted;
 - contact the campus you wish to attend to determine whether there are limits on admission as a lower division transfer.
2. Admission requirements for students who have completed 60 transferable units at the time of entry to the UC:
 - have a college grade point average of at least a 2.4;
 - complete two transferable college courses in English composition, one transferable college course in mathematical concepts and quantitative reasoning, and four transferable college courses chosen from at least two of the following subject areas: arts and humanities, social and behavioral sciences, and physical and biological sciences.

*NOTE: UC limits transferability of Physical Education courses to 4 units combined for activity courses and 8 units combined for theory courses. Please see a counselor for additional information. For more information visit www.ucop.edu/pathways or obtain printed materials in the Career Transfer Center, Danner 202-203, San Joaquin Delta College.

Transfer to a California Independent College or University:

Each of these campuses maintain different admission requirements. To begin exploring and identifying the campus suited to your needs, you should:

1. Visit www.aicccumentor.org. This web site provides more information about California's 77 independent colleges and universities. Visit specific campus websites for additional admissions information.
2. Visit the campuses you have selected, and see for yourself;
3. Learn how to apply for financial aid in California

General Education Requirements

The California State University (CSU) and the University of California (UC) campuses have different general education requirements. Depending on your choice of campus and major, you may be advised to complete minimum general education courses or an entire general education pattern. The minimum general education pattern is called the campus specific general education breadth pattern. There are two complete general education patterns. For transfer to CSU only, you may complete the CSU-GE pattern, depending upon your major. For transfer to UC and CSU, you may complete the Intersegmental General Education Transfer Curriculum (IGETC) depending upon your major. Consult a counselor, university representative, or university website to determine which GE pattern will satisfy the general education requirements needed at the institution you wish to attend.

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS**Major Preparation**

Each four-year institution has a specific list of courses required to prepare a student for a major. You should:

1. Meet with a counselor to discuss which courses are appropriate for the major you wish to pursue at a particular school;
2. Visit the web site www.assist.org to learn more about the preparation for the major at a UC/CSU you would like to attend. Visit the website for the school you would like to attend;
3. Visit the campus you would like to attend. Talk to an advisor in the department of your major to learn more about the specific preparation that is required. Meet with a representative from that school in the Delta College Transfer Center.

Other Requirements

You may be able to satisfy additional campus-specific requirements before transferring. Requirements may include a foreign language, diversity, or a literacy. Consult with a counselor to determine if the campus you are planning to attend has any special requirements you can satisfy before transferring.

Satisfying The American Institutions Requirement When Using (IGETC).

California State University, (CSU)

Students using the IGETC General Education Pattern to transfer to a CSU campus will need to complete the CSU American Institutions Requirement outlined on the CSU General Education Pattern located elsewhere in the catalog. This is not a requirement to transfer, but it is highly recommended that it be completed prior to transfer.

University of California, (UC)

Students using the IGETC to transfer to a UC campus may have satisfied the American Institutions requirement through high school coursework. Satisfactory completion in high school of a one-year course in U.S. History, or a half-year course in U.S. History, and a half-year course in American government, satisfies this requirement at all UC campuses except at UC Santa Barbara, which requires a college level course. UCLA requires that the student must have earned a B average in these high school courses. Student who did not satisfy the American Institutions requirement through high school coursework may do so by taking any course indicated by *** on the IGETC. It is highly recommended that you consult a Counselor to ensure successful transfer.

General Education Certification

After you have been admitted to a four-year institution that you wish to attend and during your last semester of enrollment at Delta College, request partial or full certification of your general education courses. If you have been following the CSU general education pattern, partial or full certification is available. If you have been following the IGETC general education pattern, only full certification is available. The certification process can help you avoid having to take additional lower division courses for general education after transferring to the four-year institution. Forms to apply for general education certification are available in the Evaluations Office, Holt 101, or in Guidance and Counseling, Danner 205.

Guaranteed Transfer Admission Programs (TAA, TAG, GATE)

Several Universities provide the student the opportunity to develop a Transfer Admission Agreement, (TAA) or a Guaranteed Admission for Transfer Entry, (GATE). These agreements, developed in conjunction with your Delta College counselor, will guarantee your admission to the university for which the agreement is written. With your counselor, you will develop a Student Education Plan, (SEP), which will ensure that you are taking the proper courses to become eligible for admission. Your SEP will include the courses necessary to complete your general education and major preparation requirements. If you fulfill your obligation as outlined in the TAA, the transfer institution will fulfill its obligation, and you will be automatically admitted upon your completion of the formal admissions process.

To determine which Colleges and Universities are offering a Guaranteed Transfer Admission Agreement and to develop your TAA, you should see a counselor as soon as possible during your first semester at Delta College. To see a counselor and find out more about the TAA, you may call the Counseling Office for an appointment at (209) 954-5650. In addition, the Central Valley Higher Education Consortium, (CVHEC) has developed a Guaranteed Transfer Admission Agreement in conjunction with UC Merced, CSU-Stanislaus, CSU-Fresno, CSU-Bakersfield, and University of the Pacific designed specifically for San Joaquin Valley community college students. As a San Joaquin Delta College student, you are eligible to participate in the CVHEC agreement, and receive guaranteed admission to the above four-year colleges or universities. At the time of publication, Guaranteed Transfer Admission Agreements were also available with CSU-Sacramento, UC Davis, UC Riverside, UC Santa Barbara, and UC Santa Cruz. Consult with a Delta College Counselor at (209) 954-5650 for additional information.

Associate in Arts Transfer Major

You may earn an Associate in Arts degree with an Area of Concentration in liberal arts and sciences by completing the CSU general education pattern, or the IGETC general education pattern and completing the following additional requirements:

- A minimum of sixty (60) transferable units with a grade point average of 2.0 or higher;
- Meet the residence requirement of completing the last twelve (12) semester units at Delta College;
- Attend Delta College during the semester of qualification for graduation, or complete a total of at least twenty-four (24) units at Delta College.

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Essential Transfer Information

The following information is a brief overview of what you need to do to successfully transfer.

- See a Counselor at least once a semester to serve as your guide to the transfer process.
- Your counselor can assist you in researching careers and majors that will fit with your personal interests and abilities.
- Research college campuses that have your selected major and fit the lifestyle you would like in a four-year college or university. Arrange to visit these institutions.
- Develop an educational plan with your Counselor that will serve as your map to transfer.
- Ascertain if the College or University you wish to attend has a guaranteed admission agreement that you can apply for with the help of your counselor.
- If appropriate, complete all prerequisite courses that must be taken prior to completion of your general education and major preparation coursework.
- Complete the appropriate general education pattern with the required GPA for the institution to which you plan to transfer.
- Complete the major preparation coursework with the required GPA, which will ready you for admission to your chosen major.
- Apply to the college or university of your choice within the posted deadlines for doing so. Failure to apply early in the application period may negatively affect your ability to transfer.
- Apply for your Associates Degree if applicable.
- Once you have been accepted to a college or university, have your general education pattern certified as completed by the evaluations office.
- Forward your spring (summer) semester grades to the college you will be attending as soon as they have been posted to your transcript.
- Follow all notices from the school you will be attending, making special note of any deadlines that may be approaching. Register for classes at the date and time assigned.

Congratulations! You've accomplished a goal of major importance that will help to transform the rest of your life.

Physical Education Courses and General Education Patterns

UC Transferability of Physical Education courses is limited to a total of 4 units of activity courses and 8 units of Theory/Academic courses. See a counselor or www.assist.org for additional information.

Please see the Delta College online catalog for the most current CSU-GE and IGETC general education patterns. The SJDC catalog is published prior to the release of the most recent patterns.

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

California Articulation Number System

Qualified Courses Report

January 24, 2005

San Joaquin Delta College

CAN (California Articulation Number System) is a cross-refencing numbering system used to identify lower division courses of comparable content that may be used in lieu of one another. CAN is a process to facilitate transfer from 2-year to 4-year institutions and between 2-year community colleges.

CAN ID	San Joaquin Delta College Course	CAN ID	San Joaquin Delta College Course
CAN AG 2	AG BUS 015: AgriBusiness Computer Applications	CAN CHIN 4	CHIN 002: Elementary Chinese
CAN AG 4	AGEGR 033: Equipment Maintenance and Operation	CAN CHIN 8	CHIN 003: Intermediate Chinese
CAN AG 6	AHSC 010: Principles of Animal Science	CAN CHIN SEQ A	CHIN 001+002: Elementary Chinese
CAN AG 8	PLANT 010+010L: Principles of Plant Science/Principles of Plant Science Lab	CAN CSCI 2	CS 011: Computer Science Fundamentals
CAN AG 14	PLANT 014: Soil Science	CAN CSCI 6	CS 028: Visual Basic Programming
CAN AJ 2	AJ 021: Criminal Justice in Society	CAN CSCI 10	CS 025: Assembly Language Programming (Macro)
CAN AJ 4	AJ 022: Concepts of Criminal Law	CAN CSCI 12	CS 029A: Pascal Programming
CAN AJ 6	AJ 024: Legal Aspects of Evidence	CAN CSCI 16	CS 031A: C Programming
CAN AJ 8	AJ 025: Criminal Investigation	CAN CSCI 18	CS 031B: C++ Programming
CAN ANTH 2	ANTHR 002: Physical Anthropology	CAN DRAM 8	DRAMA 031: Principles of Acting
CAN ANTH 4	ANTHR 001: Cultural Anthropology	CAN DRAM 18	DRAMA 010: Theatre Appreciation
CAN ANTH 6	ANTHR 010: Introduction to Archeology	CAN ECON 2	ECON 001A: Principles of Economics: Macro
CAN ART 2	ART 001A: Art History	CAN ECON 4	ECON 001B: Principles of Economics
CAN ART 4	ART 001B: Art History	CAN ENGL 2	ENG 001A: Written Communications
CAN ART 6	ART 044A+044B; or ART 064A: Introductory Ceramics	CAN ENGL 4	ENG 001B: Written Communications
CAN ART 8	ART 033A: Beginning Drawing	CAN ENGL 6	ENG 044A: Creative Writing: Short Story
CAN ART 10	ART 007A: Beginning Painting	CAN ENGL 8	ENG 046A: Survey of English Literature
CAN ART 12	ART 020A; or ART 046A+046B: Introductory Sculpture	CAN ENGL 10	ENG 046B: Survey of English Literature
CAN ART 14	ART 006: Color and Design	CAN ENGL 14	ENG 042A: Survey of American Literature
CAN ART 18	PHOTO 001A: Introduction to Photography	CAN ENGL 16	ENG 042B: Survey of American Literature
CAN ART 20	ART 040A: Beginning Printmaking	CAN ENGL SEQ A	ENG 001A+001B: Written Communications
CAN ART 24	ART 033C: Figure Drawing	CAN ENGL SEQ B	ENG 046A+046B: Survey of English Literature
CAN ART SEQ A	ART 001A+001B: Art History	CAN ENGL SEQ C	ENG 042A+042B: Survey of American Literature
CAN BIOL 2	BIOL 001: Core Biology	CAN ENGR 2	ENGR 002: Engineering Graphics
CAN BIOL 4	BIOL 002: General Zoology	CAN ENGR 4	ENGR 004: Engineering Materials
CAN BIOL 6	BIOL 003: General Botany	CAN ENGR 6	ENGR 006: Engineering Circuit Analysis
CAN BIOL 10	BIOL 031: Human Anatomy	CAN ENGR 8	ENGR 008: Statics
CAN BIOL 12	BIOL 032: Human Physiology	CAN ENGR 10	ENGR 010: Surveying
CAN BIOL 14	BIOL 022: Intro. to Medical Microbiology	CAN FCS 2	FCS 006: Nutrition
CAN BIOL SEQ A	BIOL 001 002+003: Core Biology + General Zoology + General Botany	CAN FCS 6	FCS 042: Textiles
CAN BIOL SEQ B	BIOL 031+032: Human Anatomy + Human Physiology	CAN FCS 8	FCS 008: Food Preparation
CAN BUS 2	BUS 003: Financial Accounting	CAN FCS 10	FCS 047A: Clothing Construction
CAN BUS 4	BUS 004: Managerial Accounting	CAN FCS 12	FCS 023: Marriage and the Family
CAN BUS 8	BUS 018A: Business Law	CAN FCS 14	FCS 021: Child Development
CAN BUS 12	BUS 019: Legal Environment of Business	CAN FREN 2	FREN 051+052; or FREN 001: Elementary French
CAN BUS SEQ A	BUS 003+004: Financial Accounting + Managerial Accounting	CAN FREN 4	FREN 053+054; or FREN 002: Elementary French
CAN CHEM 2	CHEM 001A: General Chemistry	CAN FREN 8	FREN 003: Intermediate French
CAN CHEM 4	CHEM 001B: General Chemistry	CAN FREN 10	FREN 004: Intermediate French
CAN CHEM 6	CHEM 003A: Introduction to Chemistry	CAN FREN SEQ A	FREN 051+052+053+054; or FREN 001+002: Elementary French
CAN CHEM 8	CHEM 003B: Introduction to General Chemistry	CAN FREN SEQ B	FREN 003+004: Intermediate French
CAN CHEM SEQ A	CHEM 001A+001B: General Chemistry + General Chemistry	CAN GEOG 2	GEOG 001: Physical Geography
CAN CHEM SEQ B	CHEM 003A+003B: Introduction to Chemistry + Introduction to General Chemistry	CAN GEOG 4	GEOG 002: Cultural Geography
CAN CHIN 2	CHIN 001: Elementary Chinese	CAN GEOG 6	GEOG 001+001L: Physical Geography + Physical Geography Lab
		CAN GEOL 2	GEOL 001A: Physical Geology
		CAN GERM 2	GERM 051+052; or GERM 001: Elementary German
		CAN GERM 4	GERM 053+054; or GERM 002: Elementary German

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

CAN ID	San Joaquin Delta College Course	CAN ID	San Joaquin Delta College Course
CAN GERM 8	GERM 003: Intermediate German	CAN MUS 4	MUSIC 003B: Beginning Theory and Musicianship
CAN GERM 10	GERM 004: Intermediate German	CAN MUS 8	MUSIC 002A: Music History from Antiquity
CAN GERM SEQ A	GERM 051+052+053+054; or GERM 001+002: Elementary German	CAN MUS SEQ A	MUSIC 003A+003B: Introduction to Theory and Musicianship + Beginning Theory and Musicianship
CAN GERM SEQ B	GERM 003+004: Intermediate German	CAN PHIL 2	PHILO 006: Introduction to Philosophy
CAN GOVT 2	POLSC 001: American Government and Institutions	CAN PHIL 4	PHILO 040: Ethics
CAN HIST 2	HIST 004A: History of Western Civilization	CAN PHIL 6	PHILO 030: Introductory Logic
CAN HIST 4	HIST 004B: History of Western Civilization	CAN PHYS 2	PHYS 002A: General Physics
CAN HIST 8	HIST 017A: History of the United States	CAN PHYS 4	PHYS 002B: General Physics
CAN HIST 10	HIST 017B: History of the United States	CAN PHYS 8	PHYS 004A: Principles of Physics: Mechanics
CAN HIST SEQ A	HIST 004A+004B: History of Western Civilization	CAN PHYS 12	PHYS 004C: Principles of Physics: Electricity and Magnetism
CAN HIST SEQ B	HIST 017A+017B: History of the United States	CAN PHYS 14	PHYS 004B: Principles of Physics: Waves, Sound, and Thermodynamics
CAN ITAL 2	ITAL 051+052 or ITAL 001: Elementary Italian	CAN PHYS SEQ A	PHYS 002A+002B: General Physics
CAN ITAL 4	ITAL 053+054 or ITAL 002: Elementary Italian	CAN PHYS SEQ B	PHYS 004A+004B+004C: Principles of Physics: Mechanics + Principles of Physics: Waves, Sound, and Thermodynamics + Principles of Physics: Electricity and Magnetism
CAN ITAL 8	ITAL 003: Intermediate Italian	CAN PSY 2	PSYCH 001: Introduction to Psychology
CAN ITAL 10	ITAL 004: Intermediate Italian	CAN PSY 8	PSYCH 004: Introduction to Experimental Psychology
CAN ITAL SEQ A	ITAL 051+052+053+054 or ITAL 001+002: Elementary Italian	CAN SOC 2	SOCIO 001A: Introduction to Sociology
CAN JAPN 2	JAPAN 001: Elementary Japanese	CAN SOC 4	SOCIO 001B: Problems of a Changing Society
CAN JAPN 4	JAPAN 002: Elementary Japanese	CAN SPAN 2	SPAN 051+052; or SPAN 001: Elementary Spanish
CAN JAPN 8	JAPAN 003: Intermediate Japanese	CAN SPAN 4	SPAN 053+054; or SPAN 002: Elementary Spanish
CAN JAPN 10	JAPAN 004: Intermediate Japanese	CAN SPAN 8	SPAN 003: Intermediate Spanish
CAN JAPN SEQ A	JAPAN 001+002: Elementary Japanese	CAN SPAN 10	SPAN 004: Intermediate Spanish
CAN JOUR 2	JOURN 002: Newswriting	CAN SPAN SEQ A	SPAN 051+052+053+054; or SPAN 001+002: Elementary Spanish
CAN JOUR 4	MCOM 001: Fundamentals of Media Arts	CAN SPAN SEQ B	SPAN 003+004: Intermediate Spanish + Intermediate Spanish
CAN MATH 4	MATH 017A: Concepts and Structures of Math	CAN SPCH 4	COM ST 001A: Fundamentals of Speech
CAN MATH 12	MATH 020: Finite Mathematics	CAN SPCH 6	COM ST 005: Argumentation and Debate
CAN MATH 16	MATH 036: Pre-Calculus	CAN SPCH 8	COM ST 003: Interpersonal Communication
CAN MATH 18	MATH 001: Calculus	CAN STAT 2	MATH 012: Introduction to Probability and Statistics
CAN MATH 20	MATH 002: Calculus		
CAN MATH 22	MATH 003: Vector Calculus		
CAN MATH 24	MATH 004: Differential Equations		
CAN MATH 26	MATH 005: Linear Algebra		
CAN MATH 30	MATH 013: Survey of Calculus		
CAN MATH SEQ B	MATH 001+002: Calculus		
CAN MATH SEQ C	MATH 001+002+003: Calculus + Calculus + Vector Calculus		
CAN MUS 2	MUSIC 003A: Introduction to Theory and Musicianship		

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS**Certificate Programs**

- Accounting
- Administrative Assistant
- Advanced Culinary Arts
- Agriculture Business
- Agriculture Business: Animal Science
- Agriculture Business: Plant Science
- Agriculture Mechanics
- American Sign Language
- Apparel Design
- Architectural Drafting
- Automotive Body Repair
- Automotive Dealer Technician
- Automotive Electric Technology
- Automotive Master Technician
- Automotive Master Technician - Apprenticeship Option
- Automotive Mechanics Technology
- Baking and Pastry
- Bank Customer Service
- Bank Teller
- Banking and Finance
- Basic Academy: Institutions
- Basic Business
- Basic Culinary Arts
- Basic Peace Officer Academy
- Bookkeeping
- Carpentry Technology
- Clothing Alterations and Fit
- Communication: Speech Language Pathology Assistant
- Computer Networking
- Computer Networking - Essentials
- Computer Networking Technician
- Computer Operations
- Computer Programming
- Computer Programming - Essentials
- Computer Science
- Computer Science - Essentials
- Computer Security - Essentials
- Computer Support
- Computer Support - Applications
- Computer Support - Technician
- Computer Web Developer
- Computer Web Developer - Applications
- Construction Management Technology
- Correctional Science
- Data Entry
- Diesel Automotive Equipment Technician
- Diesel Equipment Technician
- Early Childhood Education Assistant
- Early Childhood Education Associate Teacher
- Early Childhood Education Master Teacher
- Early Childhood Education Site Supervisor
- Early Childhood Education Teacher
- Education Aide
- Electrical Technology
- Electrical Technology: Apprenticeship Option
- Electron Microscopy: Biological
- Electron Microscopy: Crystalline Material
- Electronics Technology
- Eligibility Worker
- Emergency Medical Technician (EMT-1)
- Engineering
- Engineering Computer-Aided Drafter
- Engineering Drafter/Technician: Civil Specialization
- Engineering Drafter/Technician: Electro-Mechanical Specialization
- Engineering Drafter/Technician: Mechanical Specialization
- Family & Consumer Sciences: Life Management
- Family Day Care Provider
- Fashion Merchandising
- Fire
- Fire Academy
- Fitness Specialist
- Fluid Power & Automation Technology
- General Office
- Graphic Arts
- Heating & Air Conditioning
- Heavy Equipment Mechanic
- Heavy Equipment Technician
- Help Desk
- Horticulture - Floral Design
- Horticulture - Landscape Design
- Horticulture - Landscape Management
- Horticulture - Landscape Technician
- Horticulture - Nursery Management
- Horticulture - Nursery Technician
- Horticulture Basics
- Horticulture: Turf Grass
- Human Services Worker
- Human Services Worker: Family Abuse Specialist
- Human Services Worker: Gerontology Specialist
- Industrial Technology
- Industrial Technology: Electrical Apprenticeship Option
- Industrial Technology: Maintenance Apprenticeship Option
- Industrial Technology: Mechanical Apprenticeship Option
- Industrial Technology: Operations Apprenticeship Option
- Interior Design
- International Business
- Law Enforcement
- Logistics & Transportation Supervisor
- Machine Shop Technology
- Media Studies with Concentration in Radio
- Media Studies with Concentration in Television
- Medical Office Assistant
- Mental Health Specialist
- Merchandising
- Mill Cabinet Technology
- Mill Cabinet Technology: Apprenticeship Option
- Municipal Clerk
- Natural Resources Management
- Nurse Assistant
- Nursing (Registered Nurse)
- Office Assistant
- Office Management
- Professional Mixology
- Psychiatric Technician
- Public Health Technician
- Radiologic Technology
- Real Estate
- Recreation Assistant
- Refrigeration
- Retail Management
- Risk Management & Insurance
- Small Business
- Substance Abuse Counselor
- Supervision & Management
- Tax Preparation
- Traffic Shipping & Receiving Technician
- Vocational Nursing
- Welding Technology
- Word Processing/Desktop Publishing

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement**Accounting***Business Education Division*

Upon successful completion of the Accounting Certificate program, the student demonstrates the skills, knowledge, and training for entry-level positions as a bookkeeper, accounting supervisor, payroll clerk, or accounts payable/receivable clerk; and the skills necessary to complete up-to-date and accurate records of accounts and financial records, reconcile business-related bank statements with checkbooks, calculate employee wages and taxes from time cards, prepare and issue payroll checks, post entries to accounts receivable and payable. Individuals are able to prepare bank deposits, maintain payroll and/or inventory records, prepare purchase orders, review expense reports, and find and correct errors in financial records.

Minimum Units Required: 35**Recommended Sequence:**

First Semester		Units
BUS 001A	Principles of Accounting	5
BUS 020	Introduction to Business	3
ELECTIVES	See Group I Below	6

Second Semester

BUS 001B	Principles of Accounting	5
BUS 003	Financial Accounting	5
ELECTIVES	See Group I Below	3

Third Semester

BUS 004	Managerial Accounting	5
ELECTIVES	See Group I Below	3

Group I (Electives)

(minimum of 12 units from the following)

BIM 001A	Beginning Keyboarding	1
BIM 031	Electronic Calculation	3
or		
BIM 032A	Beginning Office Calculation	1
and		
BIM 032B	Intermediate Office Calculation	1
and		
BIM 032C	Advanced Office Calculation	1
BUS 011	Income Tax Procedures	3
BUS 015	Computer Spreadsheets for Accounting	2
CSA 020	MS Word, Excel, and Access	3
BUS 018A	Business Law	3
BUS 026	Economics of Business	3
BUS 063	Analysis of Financial Statements	3
BUS 067	Introduction to Personal Finance	3
BUS 070	Payroll Accounting	2
BUS 072	QuickBooks	1.5
BUS 081	California Income Tax Preparation	1
BUS 082A	Business Mathematics	3
and		
BUS 082B	Business Mathematics	3
CS 011	Fundamentals of Computer Science	3

Minimum Units 35**Certificate of Achievement****Administrative Assistant***Business Education Division*

Upon successful completion of the Administrative Assistant Certificate, the student demonstrates the skills, knowledge, and training for employment available in private industry, non-profit organizations, and government offices for the following positions: Executive Assistant, Administrative Assistant, Office Professional, Executive Secretary; demonstrates his or her ability to plan and organize meetings, maintain schedules and calendars, make travel arrangements, and communicate effectively orally; manage document input, output, storage, and retrieval; prepare, write, and process a variety of business documents; prepare business presentations; and use critical thinking and problem-solving skills.

Minimum Units Required: 34.5**Recommended Sequence:**

First Semester		Units
BUS 017A	Beginning Business Communications	3
BIM 002	Intermediate Keyboarding	3.5
BIM 081	Records Management and Filing	3

Second Semester

BUS 001A	Principles of Accounting	5
or		
BUS 010A	Bookkeeping	3
BUS 017B	Advanced Business Communications	3
CSA 035	Multimedia Presentations	3
BIM 007A	MS Word: Beginning Concepts and Applications	3

Third Semester

BUS 015	Computer Spreadsheets for Accounting	2
BIM 007B	MS Word: Advanced Concepts and Applications	3
BIM 038	Office Technologies	3
ELECTIVES	See Group I Below	5

Group I (Electives)

(minimum of 5 units from the following)

BUS 030	Supervision and Human Relations	3
BIM 023P	Beginning Desktop Publishing, Using PageMaker	2
BIM 031	Electronic Calculation	3
or		
BIM 032A	Beginning Office Calculation	1
and		
BIM 032B	Intermediate Office Calculation	1
and		
BIM 032C	Advanced Office Calculation	1
CSP 043A	Database Design (CSP 043A is equivalent to CS 043A)	3
CSA 045	Microsoft Windows (CSA 045 is equivalent to CS 045)	1
GUID 033	Job Seeking Skills	1
COM ST 001A	Fundamentals of Speech	3
or		
BUS 006/ COM ST 006	Business and Professional Communication	3
or		
COM ST 003	Interpersonal Communication	3
or		
COM ST 007	Intercultural Communication	3

Minimum Units 34.5

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement
Agriculture Business
Applied Science & Technology Division

Upon successful completion of the Agriculture Business certificate, the student demonstrates the skills, knowledge, and training for employment in the following Agribusiness positions: Agricultural Accounting Assistant, Agriculture Administrative Assistant, Agricultural Inventory/Warehouse Technician, Agricultural Sales and Service Technician, Crop Insurance Agent, Customer Service Representative, Farm Insurance Agent, Farm/Ranch Personnel Supervisor, Feedlot Supervisor, Field Representative, Food Processing Plant Shift Supervisor, Grain Elevator Manager, International Sales and Trade Technician, Quality Control Inspector, Public Relations Specialist, Sales Agent, Sales Representative, and Wholesale Produce Agent, demonstrates his or her ability to design and implement a record keeping system, design and implement a set of farm accounts, explain the basis for farm income tax computing, calculate measure of earnings applicable to farm records, and calculate the basic measure of depreciation, constructs inventory analysis procedures, operates a microcomputer, develops and uses templates to make management decisions, and evaluates a variety of software useful to agribusiness applications, practice skills to identify and design a marketing strategy for a specific agricultural product, chart and interpret market information, analyze marketing reports, and make a sales presentation on an agricultural product, and prepare the student for a successful transfer to a university for a baccalaureate degree. The certificate program closely follows the design developed by the Central Valley Consortium Agricultural Education Tech Prep.

Minimum Units Required: 60**Required Courses:**

	Units
AGBUS 010 Agricultural Accounting	3
AGBUS 012 Agricultural Economics	3
AGBUS 015 Agribusiness Computer Applications	3
AGBUS 046 Agricultural Marketing	3
AH SC 010 Principles of Animal Science	3
and	
AH SC 010L Principles of Animal Science Laboratory	1
PLANT 010 Principles of Plant Science	3
and	
PLANT 010L Principles of Plant Science Laboratory	1
ENG 001A Written Communications	3
COM ST 001A Fundamentals of Speech	3
CS 011 Fundamentals of Computer Science	3
MATH* See Group I below	3 - 4
ECON 001A Principles of Economics: Macro	3
HIST** See Group II below	3
HUM*** See Group III below	3 - 5
ELECTIVES**** See Group IV below	19-20

***Group I (Electives)**

(one course from the following)

AGBUS 013 Agriculture and Natural Resource Mathematics	3
MATH 080 Elementary Algebra	4

****Group II (History or Political Science)**

(one course from the following)

HIST 017A History of the United States	3
HIST 017B History of the United States	3
POLSC 001 American Government and Institutions	3

*****Group III (Humanities)**

(minimum 3 units from Group III, Humanities, general education requirement for the Associate Degree)

******Group IV (Electives)**

(minimum of 19 units from the following)

BIOL 001 Core Biology	4
CHEM 003A Introduction to Chemistry	4
or	
CHEM 001A General Chemistry 5	
MATH 012 Introduction to Probability and Statistics	4
MATH 038A Precalculus I	4
BUS 001A Principles of Accounting	5

Minimum Units 60

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement
Agriculture Business:
Animal Science

Applied Science & Technology Division

Upon successful completion of the Animal Science Certificate, the student demonstrates skill, knowledge and training in preparing for employment in animal production and science and certain careers require education and experience beyond the A.A. Degree. Animal science careers for an advanced degree include Production, Science, Agribusiness, Food Industry, and Equine-Related Fields include Dairy Herdsman, Feedlot Herdsman, Poultry Operations, Meat Grading and Marketing, Feeding and Manufacturing, Animal Boarding, Animal Breeding, Animal Training, Association Representatives, Livestock Publications, Meat Inspections.

Minimum Units Required: 32

Recommended Sequence:

First Semester		Units
AGBUS 013	Agriculture and Natural Resource Mathematics	3
AH SC 010	Principles of Animal Science	3
AH SC 010L	Principles of Animal Science Laboratory	1
AH SC 025A	Introduction to Livestock Presentation	2

Second Semester

AGBUS 010	Agricultural Accounting	3
AH SC 025B	Beginning Livestock Presentation	2
AH SC 036	Livestock Breeding	3

Third Semester

AGBUS 012	Agricultural Economics	3
AGBUS 015	Agribusiness Computer Applications	3
AH SC 011A	Introduction to Livestock Evaluation	2

Fourth Semester

AGBUS 046	Agricultural Marketing	3
AH SC 034	Animal Health and Sanitation	3
AGBUS 096V	Work Experience: Agricultural Business	1 - 8

Each course must be completed with a grade of "C" or higher.

Minimum Unit 32

Certificate of Achievement
Agriculture Business:
Plant Science

Applied Science & Technology Division

Upon successful completion of the Agriculture Business/Plant Science certificate, the student demonstrates the skills, knowledge, and training for employment in the following positions: Crop Inspector; Cultivation Supervisor; Farm Supervisor; Crew Supervisor; Fertilizer and Chemical Applicator; Field Buyer; Field Representative; Field Soil Collector; Fruit Inspector; Nursery Technician; Greenhouse Technician; Produce Inspector; Laboratory Technician; Pest Control Operator; Plant Inspector; Plant Propagator; Quality Control Technician; Seed Technician; Seed and Supply Store Salesperson; Soil Conservation Technician; Soil Fumigator; Surveyor; and Tissue Culture Technician; demonstrates his/her ability to classify and identify plants using a botanical key; the principles of plant inheritance, plant physiology and plant growth; and the techniques for successful plant propagation; practice skills to identify types of pathogens and pests that affect plants; demonstrate local cultural practices including pruning, fertilization, planting, irrigation and harvesting; and understand the principles of plant tissue culture and gene transfer in plant breeding; and prepares the student for a successful transfer to a university for a baccalaureate degree. The certificate program closely follows the design developed by the Central Valley Consortium Agricultural Education Tech Prep.

Minimum Units Required: 32

Required Courses:

		Units
AGBUS 010	Agricultural Accounting	3
AGBUS 012	Agricultural Economics	3
AGBUS 013	Agriculture and Natural Resource Mathematics	3
AGBUS 015	Agribusiness Computer Applications	3
AGBUS 046	Agricultural Marketing	3
AGBUS 096V	Work Experience: Agricultural Business	1 - 8
AGEGR 033	Equipment Maintenance and Operation	2
PLANT 010	Principles of Plant Science	3
and		
PLANT 010L	Principles of Plant Science Laboratory	1
PLANT 014	Soil Science	4
PLANT 036A	Deciduous Fruit and Grape Production	3
HORT 022	Turf Practices	3

Minimum Units 32

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement

Agriculture Mechanics

Applied Science & Technology Division

Upon successful completion of the Agriculture Mechanics Certificate, the student demonstrates the skills, knowledge, and training for employment in equipment repair, equipment maintenance, and equipment assembly; and demonstrates his or her ability to troubleshoot equipment, properly adjust equipment, and perform necessary repairs. Upon completion of the certificate the student is prepared to take the Outdoor Power Equipment Certification Exams.

Minimum Units Required: 23

Required Courses:	Units
AGEGR 020A Agriculture and Natural Resource Shop Skills	2
or	
INDUS 076 Tools and Measurement	3
AGEGR 021 Agricultural Welding	2
or	
MECH 010 Basic Welding for the Trades	4
AGBUS 013 Agriculture and Natural Resource Mathematics	3
or	
INDUS 094 Industrial Mathematics	3
AGEGR 030C/ Industrial Equipment: Electrical and	
SM ENG 030C Electronic Systems	5
AGEGR 033 Equipment Maintenance and Operation	2
AGEGR 096V Work Experience: Agriculture Engineering	2
INDUS 035 Mobile Hydraulics	4
ELECTIVES See Group I below	3

Group I (Electives)

(one course from the following)

AUTO 063 Basic Engine Performance and Electrical Systems	3
DIESL 046 Diesel Engine Fuel and Tune-Up	3
MECH 015 Machine Tool Process	3

Each course must be completed with a grade of "C" or higher.

Minimum Units 23

Certificate of Achievement

American Sign Language

Disabled Support Programs and Services Department

The American Sign Language certificate program provides students with fluency in working with deaf persons. The ASL certificate is a two-year program of study of a second language that prepares students to communicate at a paraprofessional level. The program satisfies the majority of lower division transfer course work by establishing ASL fluency for students planning to transfer to an ASL interpreting program or Deaf Studies program.

Minimum Units Required: 20**Recommended Sequence:**

First Semester		Units
SL 001	Elementary American Sign Language	3
SL 071	Elementary American Sign Language Laboratory	
0.5-1		
ENG 001A	Written Communications	3
Second Semester		
SL 002	Elementary American Sign Language	3
SL 072	Elementary American Sign Language Laboratory	
0.5-1		
Third Semester		
SL 003	Intermediate American Sign Language	3
SL 073	Intermediate American Sign Language Laboratory	
0.5-1		
COM ST 007	Intercultural Communication	3
Fourth Semester		
SL 004	Intermediate American Sign Language	3
SL 074	Intermediate American Sign Language Laboratory	
0.5-1		

Minimum Units 20

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement

Apparel Design

Family, Consumer & Health Sciences Division

Upon successful completion of this certificate, the student demonstrates a general understanding of how to design apparel using flat design custom clothing techniques, a general understanding of the origins and history of textiles and fashion, and the training and skills for many new employment opportunities in the apparel design field.

Minimum Units Required: 32

Required Courses:

	Units
FASHION 006/ Textiles ID 006	3
FASHION 008 History of Fashion	3
FASHION 010 Clothing and Culture	3
FASHION 030 Basic Industry Sewing	3
FASHION 031 Intermediate Industry Sewing	3
FCS 048A Flat Pattern Design	3
FCS 049A Custom Clothing Techniques	3
FCS 048B Fashion Apparel	3
ELECTIVES See Group I Below	8

Group I (Electives)

(minimum of 3 units from the following)

FASHION 002 Introduction to the Fashion Industry	3
FASHION 004 Fashion Product Analysis	3
FCS 049B Custom Clothing Techniques	3
FASHION 051 Beginning Fashion Illustration	1.5
FASHION 056/ Internship and Portfolio Development ID 056 for Fashion & Interiors	3 - 4

Minimum Units 32

Certificate of Achievement
Architectural Drafting

Applied Science & Technology Division

Upon successful completion of the Architectural Drafting certificate, the student demonstrates entry-level skills into the architectural drafting and construction fields. Positions may include computer-aided drafters, code enforcement officers, building and planning department checkers, sales representatives, construction schedulers and estimators, as well as entry into other related trades where plan reading and preparation is required. In addition, the student will have completed courses leading to admission into university level programs in architecture, environmental planning and design, and other related degrees.

Minimum Units Required: 27.5

Recommended Sequence:

	Units
First Semester	
ARCH 001 Basic Architectural Drafting	3
ARCH 006 Digital Tools for Architecture	3
ARCH 010 Computer-Aided Drafting for Architecture	3
ARCH 020 Architectural Design and Drawing I	3.5

Second Semester

ARCH 002 Architectural Practice: Working Drawings	4.5
ARCH 004 Architectural Practice I	2
ARCH 005 Architectural Detailing	4.5
MATH 080 Elementary Algebra	4

Minimum Units 27.5

Certificate of Achievement

Automotive Body Repair

Applied Science & Technology Division

Upon successful completion of the Automotive Body Certificate, the student demonstrates skills for employment as an apprentice collision repairperson, apprentice paint technician, or as a painters helper; skills and knowledge of the trade for a position as an estimator, manager, as an insurance appraiser, or to open his or her own businesses; after becoming employed, the student may be certified by the Automotive Service Excellence (ASE) or receive certification for various courses taken through I-CAR, Inter-Industry Conference on Auto Collision Repair since both testing and courses are required for positions at many collision repair shops.

Minimum Units Required: 42

Recommended Sequence:

First Semester		Units
AUTO 084A	Introductory Auto Collision Repair	5
AUTO 081A	Introductory Auto Collision Repair Laboratory	1
MECH 010	Basic Welding for the Trades	4

Second Semester

AUTO 084B	Beginning Auto Collision Repair	5
AUTO 081B	Beginning Auto Collision Repair Laboratory	1
INDUS 094	Industrial Mathematics	3
INDUS 020	Industrial Safety and Health	3

Third Semester

AUTO 084C	Intermediate Auto Collision Repair	5
AUTO 081C	Intermediate Auto Collision Repair Laboratory	1
AUTO 064/ AGEGR 064	Basic Engines	3

Fourth Semester

AUTO 084D	Advanced Auto Collision Repair	5
AUTO 081D	Advanced Auto Collision Repair Laboratory	1
INDUS 045	Industrial Technology	5

Each course must be completed with a grade of "C" or higher.

Minimum Units 42

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement

Automotive Dealer Technician

Applied Science & Technology Division

Upon successful completion of the Automotive Dealer Technician certificate in partnership with the sponsoring General Motors dealership, the student demonstrates skills necessary to work as a fully trained General Motors Automotive Service educational Program (GM ASE) dealership technician; meet and exceed the requirements of training in all eight ASE areas: engine repair, automatic transmissions/transaxles, manual drive transaxles, suspension and steering, brakes, electrical/electronics, engine performance, and air conditioning. Students may also receive certification required for air conditioning repair and training for the California Headlamp Adjusters license. The student demonstrates skills, knowledge, and training for career opportunities that are available at General Motors dealerships as: GM Automotive Technician, GM Service Advisor, GM Service Manager or GM Corporate Employee.

The program is certified by the National Automotive Technicians Education Foundation (NATEF) in association with the National Institute for Automotive Service Excellence (ASE) and the General Motors Corporation (GM). This program is also certified by the California Department of Consumer Affairs/Bureau of Automotive Repair (DCA/BAR) to deliver the Basic and Advanced Clean Air Car course.

Minimum Units Required: 62

Recommended Sequence:

First Semester		Units
AUTO 054	Starting, Charging, and Electrical Systems	6
AUTO 052	Engine Rebuilding	6
INDUS 094	Industrial Mathematics	3
or AA degree math requirement		

Second Semester

AUTO 057	Air Conditioning, Heating, and Electrical Systems	6
AUTO 053	Brakes, Suspension, and Steering	7
AUTO 069V	Internship: Auto Mechanics	1

Third Semester

AUTO 069V	Internship: Auto Mechanics	4
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Fourth Semester

AUTO 050	Automatic Transmissions and Transaxles	6
AUTO 056	Fuel Management and Computer Controls	6
AUTO 069V	Internship: Auto Mechanics	1

Fifth Semester

AUTO 051	Manual Drivetrain and Axles	5
AUTO 055	Ignition Systems and Electronic Engine Controls	6
AUTO 069V	Internship: Auto Mechanics	1

Sixth Semester

AUTO 069V	Internship: Auto Mechanics	4
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Each course must be completed with a grade of "C" or higher.

Minimum Units 62

Certificate of Achievement

Automotive Electric Technology

Applied Science & Technology Division

Upon successful completion of Auto Electric Technology program, the student demonstrates skills knowledge, and training necessary to diagnose tests and repair today's vehicles including training in the areas of: Electrical/Electronics, Engine Performance/Driveability, Emissions, Air Conditioning and testing vehicles for state emission programs like Smog Check. This program is also certified by the California Department of Consumer Affairs/Bureau of Automotive Repair (DCA/BAR) to deliver the Basic and Advanced Clean Air Car course. The student may also receive certification required for air conditioning repair and training for the California Headlamp Adjusters license. The student demonstrates skills for career opportunities at dealerships, independent repair shops, test only stations, and public agencies such as: Auto Electric Technician, Auto Air Conditioning and Heating Technician, engine Performance/Driveability Technician, Smog Check Test and Repair Technician, Tune up Technician or Installer. The program is certified by the National Automotive Technicians Education Foundation (NATEF) in association with the National Institute for Automotive Service Excellence (ASE).

Minimum Units Required: 43

Recommended Sequence:

First Semester		Units
AUTO 054	Starting, Charging, and Electrical Systems	6
INDUS 094	Industrial Mathematics	3

Second Semester

AUTO 055	Ignition Systems and Electronic Engine Controls	6
INDUS 020	Industrial Safety and Health	3

Third Semester

AUTO 056	Fuel Management and Computer Controls	6
INDUS 045	Industrial Technology	5

Fourth Semester

AUTO 057	Air Conditioning, Heating, and Electrical Systems	6
ELECTIVES	See Group I Below	8 -13

ELECTIVES See Group I Below

Group I (Electives)
(minimum of 8 units from the following. At least one course must be from List A)

List A

AUTO 050	Automatic Transmissions and Transaxles	6
AUTO 051	Manual Drivetrain and Axles	5
AUTO 052	Engine Rebuilding	6
AUTO 053	Brakes, Suspension, and Steering	7
DIESL 044	Diesel Engine Principles	3
DIESL 046	Diesel Engine Fuel and Tune-Up	3
DIESL 049	Computer Diagnosis and Troubleshooting	2

List B

AUTO 062	Basic Brakes, Suspensions, and Powertrain Systems	3
AUTO 063	Basic Engine Performance and Electrical Systems	3
AUTO 064/ AGEGR 064	Basic Engines	3

Each course must be completed with a grade of "C" or higher.

Minimum Units 43

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement

Automotive Master Technician

Applied Science & Technology Division

Upon successful completion of the Auto Master Technician certificate, the student demonstrates skills necessary to work as a fully trained automotive technician in all eight ASE areas: engine repair, automatic transmissions/transaxles, manual drive trains/axles, suspension and steering, brakes, electrical/electronics, engine performance, air conditioning advanced engine performance, and the Clean Air Car Course for emission training. The student demonstrates skills, knowledge, and training for career opportunities at dealerships, independent repair shops, test only stations, and public agencies such as: Automotive Technician, Service Advisor, Service Manager, Engine Repair Technician, Automotive Transmission Technician, Transmission Technician, Alignment/Suspension Specialist, Brake Specialist, electrical Technician, Engine Performance Driveability Technician, Auto Air Conditioning and Heating Technician, Smog Check Test and Repair Technician, Tune Up Technician or Installer.

The program is certified by the National Automotive Technicians Education Foundation (NATEF) in association with the National Institute for Automotive Service Excellence (ASE). This program is also certified by the California Department of Consumer Affairs/Bureau of Automotive Repair (DCA/BAR) to deliver the Basic and Advanced Clean Air Car course. The student may also receive certification required for air conditioning repair and training for the California Headlamp Adjusters license.

Minimum Units Required: 59

Recommended Sequence:

First Semester		Units
AUTO 052	Engine Rebuilding	6
AUTO 054	Starting, Charging, and Electrical Systems	6
INDUS 094	Industrial Mathematics	3
Second Semester		
AUTO 051	Manual Drivetrain and Axles	5
AUTO 055	Ignition Systems and Electronic Engine Controls	6
INDUS 045	Industrial Technology	5
or		
INDUS 035	Mobile Hydraulics	4
Third Semester		
AUTO 050	Automatic Transmissions and Transaxles	6
AUTO 056	Fuel Management and Computer Controls	6
MECH 010	Basic Welding for the Trades	4
Fourth Semester		
AUTO 053	Brakes, Suspension, and Steering	7
AUTO 057	Air Conditioning, Heating, and Electrical Systems	6

Minimum Units 59

Certificate of Achievement

Automotive Master Technician

Apprenticeship Option

Applied Science & Technology Division

Upon successful completion of the Automotive Master Technician: Apprenticeship certificate, the student demonstrates skills necessary to work as a fully trained automotive technician in all eight ASE areas: engine repair, automatic transmissions/transaxles, manual drive trains/axles, suspension and steering, brakes, electrical/electronics, engine performance, air conditioning advanced engine performance, and the Clean Air Car Course for emission training. The student demonstrates skills, knowledge, and training for career opportunities at dealerships, independent repair shops, test only stations, and public agencies such as: Automotive Technician, Service Advisor, Service Manger, Engine Repair Technician, Automotive Transmission Technician, Transmission Technician, Alignment/Suspension Specialist, Brake Specialist, electrical Technician, Engine Performance Driveability Technician, Auto Air Conditioning and Heating Technician, Smog Check Test and Repair Technician, Tune Up Technician or Installer.

The program is certified by the National Automotive Technicians Education Foundation (NATEF) in association with the National Institute for Automotive Service Excellence (ASE). This program is also certified by the California Department of Consumer Affairs/Bureau of Automotive Repair (DCA/BAR) to deliver the Basic and Advanced Clean Air Car course. The student may also receive certification required for air conditioning repair and training for the California Headlamp Adjusters license. A "C" or better is required in each course.

Minimum Units Required: 40

Recommended Sequence:

First Semester		Units
A-AUT 050	Automatic Transmissions and Transaxles	5
Second Semester		
A-AUT 051	Manual Drivetrain and Axles	5
Third Semester		
A-AUT 052	Engine Rebuilding	5
Fourth Semester		
A-AUT 053	Brakes, Suspension, and Steering	5
Fifth Semester		
A-AUT 054	Starting, Charging, and Electrical Systems	5
Sixth Semester		
A-AUT 055	Ignition Systems and Electronic Engine Controls	5
Seventh Semester		
A-AUT 056	Fuel Management and Computer Controls	5
Eighth Semester		
A-AUT 057	Air Conditioning, Heating, and Electrical Systems	5

Minimum Units 40

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement

Automotive Mechanics Technology

Applied Science & Technology Division

Upon successful completion of the Automotive Mechanics Technology certificate, the student demonstrates skills, knowledge and training for employment for the following industry positions: technician for repair of engines, automatic transmissions and transaxles, manual drive train and axles, suspension and steering and brakes. The student demonstrates the high level skills including ASE (Automotive Service Excellence) technician competence for these areas, service managers, shop owners of specialty shops, and major automotive corporation employees. The program is accredited by NATEF (National Automotive Technicians Education Foundation). The program is certified in five ASE areas.

Minimum Units Required: 41

Recommended Sequence:

First Semester		Units
AUTO 050	Automatic Transmissions and Transaxles	6
AUTO 052	Engine Rebuilding	6
INDUS 035	Mobile Hydraulics	4
INDUS 094	Industrial Mathematics	3

Second Semester

AUTO 051	Manual Drivetrain and Axles	5
AUTO 053	Brakes, Suspension, and Steering	7
MECH 010	Basic Welding for the Trades	4
*ELECTIVES	See Group I below	6

*Group I (Electives)

(6 units from the following courses)

AUTO 054	Starting, Charging, and Electrical Systems	6
AUTO 055	Ignition Systems and Electronic Engine Controls	6
AUTO 056	Fuel Management and Computer Controls	6
AUTO 057	Air Conditioning, Heating, and Electrical Systems	6
AUTO 062	Basic Brakes, Suspensions, and Powertrain Systems	3
AUTO 063	Basic Engine Performance and Electrical Systems	3

Each course must be completed with a grade of "C" or higher.

Minimum Units 41

Certificate of Achievement

Baking & Pastry

Family, Consumer & Health Sciences Division

Upon completion of the Baking and Pastry Certificate program the student will have a solid foundation of baking principles. This knowledge will allow them to perform at a high level in any pastry establishment. They will be able to produce high quality breads or chocolate candies, and everything in between.

Minimum Units Required: 26

Recommended Sequence:

First Semester		Units
CUL ART 001	Introduction to Hospitality Industry	2
CUL ART 003	Sanitation and Safety	2
CUL ART 007	Baking	3

Second Semester

CUL ART 004	Food and Beverage Cost Technologies	2
CUL ART 005	Commercial Food Preparation	4
CUL ART 008	European Pastry Production	4

Third Semester

CUL ART 010	Plated Desserts	4
CUL ART 012	Retail Bakery Management	3
CUL ART 025	Food Service Management	2

Minimum Units 26

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement

Bank Customer Service Representative

Business Education Division

Upon successful completion of the Bank Customer Service Certificate, the student demonstrates skills and competences for positions such as the Customer Service Representative or Teller in a financial institution. The student competences in Customer Service program include receiving and paying out money and keeping the necessary records; selling foreign currencies and travelers checks; accepting payments for utility bills, accounts, or notes; and opening new accounts; sorting incoming deposits and assisting in processing incoming and outgoing mail; count, verifying and posting armored car deposits; preparing statements and currency-received tickets for banks, savings and loan associations, personal finance companies, credit unions and large businesses that operate credit offices. The student builds good public relations by providing prompt, efficient, courteous and personalized service to customers and helps increase business by promoting additional products and services.

Minimum Units Required: 29.5

Recommended Sequence:

First Semester		Units
BUS 061	Principles and Operations of Financial Institutions	3
CSA 020	MS Word, Excel, and Access	3
BIM 031	Electronic Calculation	3
	or	
BIM 032A	Beginning Office Calculation	1
	and	
BIM 032B	Intermediate Office Calculation	1
	and	
BIM 032C	Advanced Office Calculation	1
BUS 010A	Bookkeeping	3
	or	
BUS 001A	Principles of Accounting	5
BUS 094F	Customer Service Strategies	1

Second Semester

BUS 078	Introduction to Teller Training	1.5
BUS 022	Professional Selling	3
BUS 082A	Business Mathematics	3
	and	
BUS 082B	Business Mathematics	3
ELECTIVES	See Group I Below	6

Group I (Electives)

(minimum of 6 units from the following)

BUS 017A	Beginning Business Communications	3
BUS 018A	Business Law	3
BUS 020	Introduction to Business	3
BUS 066	Principles of Money and Banking	3
BUS 067	Introduction to Personal Finance	3
BIM 001A	Beginning Keyboarding	1
BIM 081	Records Management and Filing	3
COM ST 001A	Fundamentals of Speech	3
COM ST 007	Intercultural Communication	3

Minimum Units 29.5

Certificate of Completion

Bank Teller

Business Education Division

Upon successful completion of the Bank Customer Service Certificate program the student demonstrates skills for positions such as an entry-level Customer Service Representative or Teller in a financial institution, receiving and paying out money and keeping necessary records; selling foreign currencies and travelers checks; accepting payments for utility bills, accounts, or notes, sorting incoming deposits and assisting in processing incoming and outgoing mail for banks, savings and loan associations, personal finance companies, credit unions and large businesses that operate credit offices.

Minimum Units Required: 14.5

Recommended Sequence:

First Semester		Units
BUS 061	Principles and Operations of Financial Institutions	3
	or	
BUS 066	Principles of Money and Banking	3
BUS 078	Introduction to Teller Training	1.5
BIM 031	Electronic Calculation	3
	or	
BIM 032A	Beginning Office Calculation	1
	and	
BIM 032B	Intermediate Office Calculation	1
	and	
BIM 032C	Advanced Office Calculation	1
BUS 082A	Business Mathematics	3
BUS 094F	Customer Service Strategies	1
COM ST 007	Intercultural Communication	3
	or	
COM ST 003	Interpersonal Communication	3

Minimum Units 14.5

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement**Banking & Finance***Business Education Division*

Upon successful completion of the Banking and Finance Certificate, the student demonstrates the skills, knowledge, and training for positions such as loan and credit clerks; to process loan and credit applications for major consumer purchases, to call or write to credit bureaus, employers, and personal references to verify information; notify customers by mail, telephone, or in person of acceptance or rejection of their application. Individual are capable of recording credit transactions, deposits and payments; send letters or call customers about overdue accounts and accept payment on accounts; solicit business by sending form letters and brochures to prospective customers; adjust incorrect credit charges and compute interest and payments, using small business machines such as adding machines or calculators.

Minimum Units Required: 31**Recommended Sequence:**

First Semester		Units
BUS 061	Principles and Operations of Financial Institutions	3
BUS 001A	Principles of Accounting	5
ELECTIVE	See Group I Below	3

Second Semester

BUS 001B	Principles of Accounting	5
BUS 065	Introduction to Consumer and Business Loans	3

Third Semester

BUS 063	Analysis of Financial Statements	3
	or	
BUS 003	Financial Accounting	5
ELECTIVE	See Group I Below	3

Fourth Semester

BUS 066	Principles of Money and Banking	3
	or	
BUS 026	Economics of Business	3
ELECTIVE	See Group I Below	3

Group I (Electives)

(minimum of 9 units from the following)

BUS 004	Managerial Accounting	5
CSA 020	MS Word, Excel, and Access	3
BUS 017A	Beginning Business Communications	3
BUS 018A	Business Law	3
	or	
BUS 018B	Business Law	3
BUS 020	Introduction to Business	3
BUS 022	Professional Selling	3
BUS 042	Real Estate Finance	3
BUS 067	Introduction to Personal Finance	3

Minimum Units 31**Certificate of Completion****Basic Academy: Institutions***Applied Science & Technology Division*

Upon successful completion of the Basic Academy Institutions, the student demonstrates skills, knowledge, and training for employment as a California Youth Authority peace officer. The student demonstrates his or her ability to demonstrate ethical conduct; make judgments concerning the enforcement of the law without prejudice; apply the level of force that can lawfully be used by a youth guidance officer. Skills demonstrated enable the student to recognize the importance of initial and ongoing training in coping with dangerous situations found in a custodial setting; analyze and solve behavioral problems; write reports that conform to accepted professional standards of quality; recognize and understand concepts and terminology that is needed to understand the California criminal justice system.

Minimum Units Required: 14**Required Course:**

	Units
AJ 071 Basic Academy: Institutions	14

Course must be completed with a grade of "C" or higher.

Minimum Units 14

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Completion**Basic Business***Business Education Division*

Upon successful completion of the Basic Business Certificate program, the student demonstrates the skills, knowledge, and training a foundation of a variety of accepted business practices; principles and concepts; employment in the fields of clerical assistant or administrative clerk, doing mail sorting and distribution, supply room inventories, copy clerk, record keeping.

Minimum Units Required: 12**Complete in any sequence, four of the six course options****First Semester****Course Option 1 (3-5 units)**

	Units
BUS 001A Principles of Accounting	5
or	
BUS 010A Bookkeeping	3

Course Option 2 (3 units)

BUS 008 Introduction to The American Legal System	3
or	
BUS 018A Business Law	3
or	
BUS 018B Business Law	3
or	
BUS 019 Legal Environment of Business	3

Second Semester**Course Option 3 (3 units)**

BUS 020 Introduction to Business	3
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Course Option 4 (3 units)

BUS 021 Marketing	3
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Third Semester**Course Option 5 (3 units)**

BUS 022 Professional Selling	3
or	
BUS 023 Advertising	3

Course Option 6 (3 units)

BUS 030 Supervision and Human Relations	3
or	
BUS 031 Introduction to Management	3

Minimum Units 12**Certificate of Completion****Basic Culinary Arts***Family, Consumer & Health Sciences Division*

Upon completion of the Basic Culinary Arts Program, having attained a grade level of C or better in three Culinary Arts courses: Introduction to Hospitality (Cul Art 001), Safety and Sanitation (Cul Art 003), and Commercial Food Preparation (Cul Art 005), the student demonstrates knowledge and skills for an entry-level food preparation job in the foodservice field.

Minimum Units Required: 8**Required Courses:**

	Units
CUL ART 001 Introduction to Hospitality Industry	2
CUL ART 003 Sanitation and Safety	2
CUL ART 005 Commercial Food Preparation	4

Minimum Units 8**Certificate of Achievement****Basic Peace Officer Academy***Applied Science & Technology Division*

Upon successful completion of the Basic Peace Officer Academy, the student will receive a certificate of completion that qualifies them for employment as a California Peace Officer, Deputy Sheriff, adult/juvenile probation or Parole Officer, Reserve Officer, or Corrections. The student will have successfully demonstrated his or her ability to demonstrate ethical conduct; make judgments concerning the enforcement of the law without prejudice; apply the level of force that can lawfully be used by a peace officer; recognize the importance of initial and ongoing training in coping with dangerous situations; analyze and solve problems; write reports that conform to accepted professional standards of quality; recognize and understand the concepts and terminology that is needed to understand the California criminal justice system. The California Commission on Peace Officer Standards and Training accredits this program.

Minimum Units Required: 18**Required Course:**

	Units
A J 093 Basic Peace Officer Academy	18

Minimum Units 18

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement**Bookkeeping***Business Education Division*

Upon successful completion of the Bookkeeping Certificate program, the student demonstrates the skills, knowledge, and training for entry-level positions in bookkeeping and payroll or accounts payable/receivable; preparation to complete up-to-date and accurate records of expenses, records and financial files, reconcile business bank statements, track and maintain records of employee wage and tax expenses; preparing business requisitions, posting accounts receivable and payable; preparing bank deposits; maintain inventory records; computing account and expense totals; and finding and correcting errors in financial records.

Minimum Units Required: 23**Recommended Sequence:****First Semester**

		Units
BUS 010A	Bookkeeping	3
BUS 082A	Business Mathematics	3
	and	
BUS 082B	Business Mathematics	3
BIM 032A	Beginning Office Calculation	1
	and	
BIM 032B	Intermediate Office Calculation	1
ELECTIVES	See Group I or Group II Below	2 - 3

Second Semester

BUS 070	Payroll Accounting	2
	and	
BUS 072	QuickBooks	1.5
	or	
BUS 010B	Bookkeeping	3
BIM 032C	Advanced Office Calculation	1
ELECTIVES	See Group I or II Below	6

Group I (Electives)

(minimum of 5 units from the following)

CSA 020	MS Word, Excel, and Access	3
CSA 045	Microsoft Windows	1
BIM 001A	Beginning Keyboarding	1

Group II (Electives)

(minimum of 3 units from the following)

BUS 018A	Business Law	3
BUS 020	Introduction to Business	3
BUS 011	Income Tax Procedures	3
BUS 067	Introduction to Personal Finance	3

Minimum Units 23**Certificate of Achievement**
Carpentry Technology*Applied Science & Technology Division*

Upon successful completion of the Carpentry Technology Certificate Program, the student demonstrates skills, knowledge, and training for employment in the construction field: a framer, estimator, construction supernatant, roofer, drywall installer, siding installer, and setting concrete forms. The students demonstrates his or her ability to lay out a foundation, set forms, layout walls, frame walls, install trusses, install siding, install roofing, install drywall, do finish work, draw a set of working drawings for a home, and estimate the material for the home. The student demonstrates skills in taking the test for a contractor's license.

Minimum Units Required: 47**Recommended Sequence:****First Semester**

		Units
CONST 072A	Beginning Residential Carpentry	10
ARCH 001	Basic Architectural Drafting	3

Second Semester

CONST 072B	Intermediate Residential Carpentry	10
INDUS 094	Industrial Mathematics	3
	or	
MATH 080	Elementary Algebra	4

Third Semester

CONST 072C	Advanced Residential Carpentry	10
CONST 078	Building Codes	2

Fourth Semester

INDUS 020	Industrial Safety and Health	3
CONST 054	Estimating and Specifications	3
ELECTIVE	See Group I Below	3 - 4

Group I (Electives)

(minimum of 3 units from the following)

BUS 018A	Business Law	3
BUS 060	Small Business Management	3
CONST 071B	Beginning Mill Cabinet	4
E TECH 012	Computer-Aided Drafting	3
CONST 089	Methods and Planning	3

Minimum Units 47**Certificate of Completion****Clothing Alterations & Fit***Family, Consumer & Health Sciences Division*

Upon successful completion of the Clothing Alterations and Fit certificate, the student demonstrates skills, knowledge, and training to perform alterations and repair of ready-to-wear and custom garments utilizing industrial sewing equipment and to work in a variety of settings providing specialized sewing and alterations.

Minimum Units Required: 9**Recommended Sequence:****First Semester**

		Units
FASHION 030	Basic Industry Sewing	3

Second Semester

FASHION 031	Intermediate Industry Sewing	3
FCS 084	Clothing Alterations and Fit	3

Minimum Units 9

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement
Communication: Speech
Language Pathology Assistant
(SLPA)

English Language Arts Division

Upon successful completion of the certificate, the student demonstrates skills, knowledge and training to conduct speech-language screening, without interpretation, and using screening protocols developed by the supervising speech-language pathologist; provide direct treatment assistance to patients or clients under the supervision of a speech-language pathologist; follow implementing documented treatment plans or protocols developed by a supervising speech-language pathologist; document patient or client progress toward meeting established objectives; report the information to a supervising speech-language pathologist; assist a speech-language pathologist during assessments, including, but not limited to, assisting with formal documentation, preparing materials, and performing clerical duties; schedule activities and prepare charts, records, graphs, and data; perform checks and maintain equipment, including, but not limited to, augmentative communication devices; and assist with speech-language pathology research projects, in-service training, and family or community education.

Minimum Units Required: 64

Recommended Sequence:

First Semester		Units
MATH 082	Intermediate Algebra	5
COMM DIS 001	Communication Disorders: Speech and Language Development	3
COMM DIS 002	Introduction to Communication Disorders	3
ENG 001A	Written Communications	3
P E 001D	Beginning Swim for Health	1.5-2
COM ST 007	Intercultural Communication	3

Second Semester

COMM DIS 003	Communication Disorders: Therapy Analysis and Field Practice	4
BIOL 011	Human Biology	4
CDEV 034	Children With Special Needs	3
P E 009A	Individual Conditioning I	1.5-2
COM ST 003	Interpersonal Communication	3

Third Semester

COMM DIS 005	Communications Disorders: Materials and Procedures	3
CDEV 021	Child and Adolescent Development	3
HUM 004/ ANTHR 004	Introduction to Linguistics	3
POLSC 001	American Government and Institutions	3
PSYCH 001	Introduction to Psychology	3

Fourth Semester

BIM 038	Office Technologies	3
	or	
BIM 039	Office Management	3
	or	
BIM 081	Records Management and Filing	3
COMM DIS 007	Communication Disorders: Service Delivery Issues	3
COMM DIS 009	Communication Disorders: Assessment and Remediation	3
FCS 019/ H S 019	Human Development	3
SL 001	Elementary American Sign Language	3

Minimum Units 64

Certificate of Completion

Computer Networking -
Essentials

Business Education Division

The Computer Networking - Essentials Certificate is designed to prepare students for entry-level careers in information technology specifically in the area of computer networking. Students learn how to design and implement network software using Microsoft Windows and/or similar operating systems.

Minimum Units Required: 17.5

First Semester		Units
CS 011	Fundamentals of Computer Science	3
CS 014B	Microcomputer Evaluation and Installation	3
	or	
ELECT 014C	Troubleshooting Computers	2.5
CS 056	Networking Essentials	3
ENG 001A	Written Communications	3
	or	
COM ST 001A	Fundamentals of Speech	3

Second Semester

CS 032	Introduction to Computer Operating Systems	3
CSP 017	Computer Logic	3
	or	
CSP 029A	Pascal Programming	3

Minimum Units 17.5

Certificate of Achievement

Computer Networking
Technician

Applied Science & Technology Division

Upon successful completion of the Computer Networking Technician Certificate program, the student demonstrates the knowledge required to function as an entry-level computer networking technician. The student will attain the necessary skills to: design and implement Local Area Networks (LANs) and Wide Area Networks (WANs), wire infrastructure as per industry standards, select and implement appropriate protocols, configure network devices such as routers and switches, as well as manage, maintain and troubleshoot networks. The program prepares the students for industry certifications such as CCNA as well as for entry-level positions as network technician, network administrator, network system installer, network system sales/marketing, or independent network services contractor.

Minimum Units Required: 18

Recommended Sequence:

First Semester		Units
ELECT 030A	Basic Electronic Computer Networks	4
ELECT 030B	Advanced Electronic Computer Networks	4
	Second Semester	
ELECT 030C	Basic Electronic Network Systems	4
ELECT 030D	Advanced Electronic Network Systems	4
ELECT 030E	Network Hardware Application	2

Minimum Units 18

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement

Computer Networking

Business Education Division

The Computer Networking Certificate is designed to prepare students for careers in information technology specifically in the area of computer networking. Students learn how to design and implement network software using Microsoft Windows and/or similar operating systems; and preparations for an AS degree and/or for transfer to a four-year college.

Minimum Units Required: 47.5

First Semester		Units
CS 011	Fundamentals of Computer Science	3
CS 014B	Microcomputer Evaluation and Installation	3
or		
ELECT 014C	Troubleshooting Computers	2.5
CS 056	Networking Essentials	3
ENG 001A	Written Communications	3
or		
COM ST 001A	Fundamentals of Speech	3
Second Semester		
CS 032	Introduction to Computer Operating Systems	3
CSN 058A	Microsoft Windows XP Professional	3
CSP 017	Computer Logic	3
or		
CSP 029A	Pascal Programming	3
ENG 001A	Written Communications	3
or		
COM ST 001A	Fundamentals of Speech	3
Third Semester		
CS 054	Fundamentals of Data Communications	3
CSN 058B	Microsoft Windows 2003 Server	3
CSN 060	Network Security	3
CSW 023	HTML for Web Publishing	3
Fourth Semester		
CS 042	UNIX	3
At least two of the following:		
CSP 026A	Java Programming	3
or		
CSP 026B	Data Structures with Java	3
or		
CSP 028A	Visual Basic .NET Programming	3
or		
CSP 028B	Advanced Visual Basic .NET Programming	3
or		
CSP 031A	C Programming	3
or		
CSP 031B	C++ Programming	3
CSN 058C	Implementing Microsoft Windows 2003 Network Infrastructure	3
or		
CSN 058D	Implementing Microsoft Windows 2003 Directory Services	3

Minimum Units 47.5

Certificate of Achievement

Computer Operations

Business Education Division

Upon successful completion of the Computer Operations Certificate, the student demonstrates skills, knowledge, and training for employment as a beginning computer operator; his or her ability to use an operating system; and his or her ability to logically solve and write a solution in a first semester programming language course.

Minimum Units Required: 28**Recommended Sequence:**

First Semester		Units
CS 011	Fundamentals of Computer Science	3
CSP 017	Computer Logic	3
CSA 045	Microsoft Windows	1
BIM 001A *	Beginning Keyboarding	1
MATH 080	Elementary Algebra	4
Second Semester		
CS 032	Introduction to Computer Operating Systems	3
CS 054	Fundamentals of Data Communications	3
or		
CS 056	Networking Essentials	3
ENG 072	Technical Writing	3
ELECTIVES	See Group I below	3 - 4
Third Semester		
CS 033	Systems Analysis and Design	3
CS 050H	Special Studies: Computer Science	1 - 4
or		
CS 069V	Internship: Computer Science	1 - 8
or		
CS 098V	Work Experience: Computer Science	1 - 4
Group I (Electives)		
(minimum of 3 units from the following)		
CSP 024	COBOL Programming	5
CSP 025	ASSEMBLY Language Programming: Macro	3
CSP 026A	Java Programming	3
CSP 028A	Visual Basic .NET Programming	3
CSP 029A	Pascal Programming	3
CSP 031A	C Programming	3
CSP 031B	C++ Programming	3
CS 042	UNIX	3

Each course must be completed with a grade of "C" or higher.

Minimum Units 28

*or Typing Certificate for 40 WPM+

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement
Computer Programming
Business Education Division

Upon successful completion of the Computer Programming Certificate, the student demonstrates skills, knowledge, and training for employment as a programmer or programmer trainee and to logically solve problems in at least two programming languages; and for an AA degree and/or for transfer to a four-year college.

Minimum Units Required: 46.5**First Semester**

		Units
CS 011	Fundamentals of Computer Science	3
CSA 020	MS Word, Excel, and Access	3
CS 014B	Microcomputer Evaluation and Installation	3
	or	
ELECT 014C	Troubleshooting Computers	2.5
ENG 001A	Written Communications	3
	or	
ENG 072	Technical Writing	3

Second Semester

CS 032	Introduction to Computer Operating Systems	3
CSP 017	Computer Logic	3
	or	
CSP 029A	Pascal Programming	3
COM ST 001A	Fundamentals of Speech	3
	or	
COM ST 003	Interpersonal Communication	3
MATH 001	Calculus	5
	or	
MATH 012	Introduction to Probability and Statistics	4
	or	
MATH 020	Finite Mathematics	3
	or	
MATH 039	Pre-Calculus	5

Third Semester

CSP 026A	Java Programming	3
	or	
CSP 028A	Visual Basic .NET Programming	3
	or	
CSP 031A	C Programming	3
CS 033	Systems Analysis and Design	3
CS 056	Networking Essentials	3
	or	
CS 054	Fundamentals of Data Communications	3
BUS 001A *	Principles of Accounting	5
	or	
BUS 010A	Bookkeeping	3

Fourth Semester

CSP 025	ASSEMBLY Language Programming: Macro	3
CSP 024	COBOL Programming	5
	or	
CSP 026A	Java Programming	3
	or	
CSP 028A	Visual Basic .NET Programming	3
	or	
CSP 031A	C Programming	3
	or	
CSP 043A	Database Design	3
CSP 026B	Data Structures with Java	3
	or	
CSP 028B	Advanced Visual Basic .NET Programming	3
	or	
CSP 031B	C++ Programming	3
BUS 010B	Bookkeeping	3

Minimum Units 46.5

*Students may either take BUS 001A or BUS 010A and BUS 010B.

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Completion

Computer Programming - Essentials

Business Education Division

Upon successful completion of the Computer Programming - Essentials Certificate, the student demonstrates skills, knowledge, and training for employment as a programmer trainee and to logically solve problems; and begins preparation for an AA degree and/or for transfer to a four-year college.

Minimum Units Required: 17.5

First Semester		Units
CS 011	Fundamentals of Computer Science	3
CSA 020	MS Word, Excel, and Access	3
CS 014B	Microcomputer Evaluation and Installation	3
	or	
ELECT 014C	Troubleshooting Computers	2.5
ENG 001A	Written Communications	3
	or	
ENG 072	Technical Writing	3
Second Semester		
CS 032	Introduction to Computer Operating Systems	3
CSP 017	Computer Logic	3
	or	
CSP 029A	Pascal Programming	3

Minimum Units 17.5

Certificate of Achievement

Computer Science

Business Education Division

Upon successful completion of the Computer Science Certificate, the student demonstrates skills, knowledge, and training for employment as a programmer or programmer trainee; and preparation for an AS degree in Computer Science.

Minimum Units Required: 50.5

Recommended Sequence:

First Semester		Units
CS 011	Fundamentals of Computer Science	3
CS 014B	Microcomputer Evaluation and Installation	3
	or	
ELECT 014C	Troubleshooting Computers	2.5
MATH 039	Pre-Calculus	5
	or	
MATH 001	Calculus	5
ENG 001A	Written Communications	3
	or	
COM ST 001A	Fundamentals of Speech	3
Second Semester		
CSP 017	Computer Logic	3
	or	
CSP 029A	Pascal Programming	3
ENG 001A	Written Communications	3
	or	
COM ST 001A	Fundamentals of Speech	3
MATH 001	Calculus	5
	or	
MATH 002	Calculus	4
CS 032	Introduction to Computer Operating Systems	3
Third Semester		
CSP 026A	Java Programming	3
	or	
CSP 028A	Visual Basic .NET Programming	3
	or	
CSP 031A	C Programming	3
CS 033	Systems Analysis and Design	3
CS 042	UNIX	3
CSP 043A	Database Design	3
CS 056	Networking Essentials	3
	or	
CS 054	Fundamentals of Data Communications	3
Fourth Semester		
CSP 025	ASSEMBLY Language Programming: Macro	3
CSP 026A	Java Programming	3
	or	
CSP 028A	Visual Basic .NET Programming	3
	or	
CSP 031A	C Programming	3
	or	
CSP 043B	Database Programming for the Web	3
CSP 026B	Data Structures with Java	3
	or	
CSP 028B	Advanced Visual Basic .NET Programming	3
	or	
CSP 031B	C++ Programming	3

Each course must be completed with a grade of "C" or higher.

Minimum Units 50.5

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Completion**Computer Science - Essentials***Business Education Division*

Upon successful completion of the Computer Science - Essentials Certificate, the student demonstrates skills, knowledge, and training for employment as an information technology trainee; and begins preparation for an AS degree and/or for transfer to a four-year college.

Minimum Units Required: 14.5

First Semester		Units
CS 011	Fundamentals of Computer Science	3
CS 014B	Microcomputer Evaluation and Installation	3
or		
ELECT 014C	Troubleshooting Computers	2.5
ENG 001A	Written Communications	3
or		
COM ST 001A	Fundamentals of Speech	3
Second Semester		
CS 032	Introduction to Computer Operating Systems	3
CSP 017	Computer Logic	3
or		
CSP 029A	Pascal Programming	3

Minimum Units 14.5**Certificate of Completion****Computer Security - Essentials***Business Education Division*

The Computer Security - Essentials Certificate is designed to prepare students for entry-level careers in information technology specifically in the area of computer security. Students learn how to design and implement computer security systems, protect an enterprise's information technology assets, and assess the benefits and risks associated with security systems.

Minimum Units Required: 17.5

First Semester		Units
CS 011	Fundamentals of Computer Science	3
CS 014B	Microcomputer Evaluation and Installation	3
or		
ELECT 014C	Troubleshooting Computers	2.5
CS 056	Networking Essentials	3
Second Semester		
CSN 058A	Microsoft Windows XP Professional	3
or		
CSN 058B	Microsoft Windows 2003 Server	3
Third Semester		
CSN 058A	Microsoft Windows XP Professional	3
or		
CSN 058B	Microsoft Windows 2003 Server	3
CSN 060	Network Security	3

Minimum Units 17.5**Certificate of Achievement****Computer Support***Business Education Division*

Upon successful completion of the Computer Support Certificate, the student will demonstrate skills, knowledge, and training for employment in a computer support position. The student demonstrates the ability to use common business software applications, creates basic web pages, and writes computer programs in a working environment.

Minimum Units Required: 41.5

First Semester		Units
CS 011	Fundamentals of Computer Science	3
CSA 018	Microcomputers and Small Business Applications: Apple-Mac	3
or		
CSA 020	MS Word, Excel, and Access	3
CS 014B	Microcomputer Evaluation and Installation	3
or		
ELECT 014C	Troubleshooting Computers	2.5
CS 056	Networking Essentials	3
or		
CS 054	Fundamentals of Data Communications	3
Second Semester		
CS 012	Introduction to Management Information Systems	3
CSP 017	Computer Logic	3
or		
CSP 029A	Pascal Programming	3
CSW 023	HTML for Web Publishing	3
CSA 035	Multimedia Presentations	3
Third Semester		
CSP 026A	Java Programming	3
or		
CSP 028A	Visual Basic .NET Programming	3
or		
CSP 031A	C Programming	3
CSP 043A	Database Design	3
BUS 001A *	Principles of Accounting	5
or		
BUS 010A	Bookkeeping	3
ENG 001A	Written Communications	3
or		
ENG 072	Technical Writing	3
Fourth Semester		
BUS 010B is required only if BUS 010A is taken in lieu of BUS 001A.		
BUS 010B	Bookkeeping	3
COM ST 001A	Fundamentals of Speech	3
or		
COM ST 003	Interpersonal Communication	3
MATH 001	Calculus	5
or		
MATH 012	Introduction to Probability and Statistics	4
or		
MATH 020	Finite Mathematics	3
or		
MATH 039	Pre-Calculus	5

Minimum Units 41.5

*Students may either take BUS 001A or BUS 010A and BUS 010B.

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Completion

Computer Support - Applications

Business Education Division

Upon successful completion of the Computer Support - Applications Certificate, the student will demonstrate skills, knowledge, and training for employment in a computer support position. The student demonstrates the ability to use common business software applications in a working environment.

Minimum Units Required: 11.5

First Semester		Units
CS 011	Fundamentals of Computer Science	3
CSA 018	Microcomputers and Small Business Applications: Apple-Mac	3
	or	
CSA 020	MS Word, Excel, and Access	3
CS 014B	Microcomputer Evaluation and Installation	3
	or	
ELECT 014C	Troubleshooting Computers	2.5

Second Semester

CS 012	Introduction to Management Information Systems	3
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Minimum Units 11.5

Certificate of Achievement

Computer Support - Technician

Business Education Division

Upon successful completion of the Computer Support - Technician Certificate, the student will demonstrate skills, knowledge, and training for employment in a computer support position. The student demonstrates the ability to use common business software applications in a working environment and create basic web pages.

Minimum Units Required: 29.5

First Semester		Units
CS 011	Fundamentals of Computer Science	3
CSA 018	Microcomputers and Small Business Applications: Apple-Mac	3
	or	
CSA 020	MS Word, Excel, and Access	3
CS 014B	Microcomputer Evaluation and Installation	3
	or	
ELECT 014C	Troubleshooting Computers	2.5
CS 056	Networking Essentials	3
	or	
CS 054	Fundamentals of Data Communications	3

Second Semester

CS 012	Introduction to Management Information Systems	3
CSP 017	Computer Logic	3
	or	
CSP 029A	Pascal Programming	3
CSW 023	HTML for Web Publishing	3
CSA 035	Multimedia Presentations	3

Third Semester

ENG 001A	Written Communications	3
	or	
ENG 072	Technical Writing	3
COM ST 001A	Fundamentals of Speech	3
	or	
COM ST 003	Interpersonal Communication	3

Minimum Units 29.5

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement
Computer Web Developer
Business Education Division

Upon successful completion of the requirements for a Computer Web Developer Certificate, the student demonstrates skills, knowledge, and training to set up a web pages; and secure employment as a technician at a web page design business. The student demonstrates his or her ability to set up, change and maintain web pages.

Minimum Units Required: 48

Recommended Sequence:

First Semester		Units
CS 011	Fundamentals of Computer Science	3
CSA 020	MS Word, Excel, and Access	3
CSW 023	HTML for Web Publishing	3
CSW 037	Web Page Development	3
or		
CSW 038	Web Animation with Flash	3
Second Semester		
CSP 017	Computer Logic	3
or		
CSP 029A	Pascal Programming	3
CSW 037	Web Page Development	3
or		
CSW 038	Web Animation with Flash	3
CSW 039	Dreamweaver	3
CS 042	UNIX	3
Third Semester		
CSW 021	JavaScript Programming	3
CSP 026A	Java Programming	3
or		
CSP 028A	Visual Basic .NET Programming	3
or		
CSP 031A	C Programming	3
CSW 036	Microsoft FrontPage	3
CSP 043A	Database Design	3
Fourth Semester		
CSP 026A	Java Programming	3
or		
CSP 026B	Data Structures with Java	3
or		
CSP 028A	Visual Basic .NET Programming	3
or		
CSP 028B	Advanced Visual Basic .NET Programming	3
or		
CSP 031A	C Programming	3
or		
CSP 031B	C++ Programming	3
CSW 034	Introduction to Adobe Go-Live	3
CSP 043B	Database Programming for the Web	3
CS 056	Networking Essentials	3
or		
CS 054	Fundamentals of Data Communications	3

Minimum Units 48

Certificate of Completion
Computer Web Developer - Applications
Business Education Division

Upon successful completion of the requirements for a Computer Web Developer - Applications Certificate, the student demonstrates skills, knowledge, and training to set up a basic web page with simple scope and graphics or to secure entry-level employment at a web page design business. The student demonstrates his or her ability to set up, change and maintain web pages for themselves and others.

Minimum Units Required: 15

First Semester		Units
CS 011	Fundamentals of Computer Science	3
CSA 020	MS Word, Excel, and Access	3
CSW 023	HTML for Web Publishing	3
CSW 037	Web Page Development	3
or		
CSW 038	Web Animation with Flash	3
Second Semester		
CSW 039	Dreamweaver	3

Minimum Units 15

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement
Construction Management
Technology

Applied Science & Technology Division

Upon successful completion of the Construction Management Technology Certificate, the student demonstrates skills, knowledge, and training for entry-level employment in the building industry related to the construction of architectural structures in positions: construction scheduling, estimating, construction management, employee relations, and liaison positions between the architectural, legal, and construction trades; employment in building and planning departments as plan checkers, code enforcement officers, and related positions such as sales representatives for materials suppliers within the construction industry; plan reading and basic technical preparation of construction documents; estimating, code analysis, employee relations, and construction related business skills.

Minimum Units Required: 33

Recommended Sequence:

First Semester		Units
ARCH 001	Basic Architectural Drafting	3
ARCH 008	Materials of Construction	3
MATH 080	Elementary Algebra	4
Second Semester		
CONST 054	Estimating and Specifications	3
BUS 060	Small Business Management	3
or		
BUS 094A	Small Business Start Up	1
and		
BUS 094B	Essential Topics for Small Business	1
and		
BUS 094C	The New Entrepreneur	1
E TECH 012	Computer-Aided Drafting	3
Third Semester		
BUS 018A	Business Law	3
CONST 078	Building Codes	2
Fourth Semester		
INDUS 020	Industrial Safety and Health	3
E TECH 046	Mechanical and Electrical Systems	3
CONST 089	Methods and Planning	3

Each course must be completed with a grade of "C" or higher.

Minimum Units 33

Certificate of Achievement
Correctional Science
Applied Science & Technology Division

Upon successful completion of the Correctional Science Certificate, the student demonstrates knowledge and skills for a job in corrections, probation, and or adult or juvenile probation; and the student successfully demonstrates his or her ability to recognize and apply the concepts and terminology that is needed to understand the California criminal justice system. The Chancellors Office approves the program.

Minimum Units Required: 24

Recommended Sequence:

First Semester		Units
A J 031	Report Preparation	3
A J 051	Introduction to Correctional Science	3
A J 053	Correctional Interviewing and Interventions	3
ELECTIVE	See Group I below	3
Second Semester		
A J 022	Concepts of Criminal Law	3
A J 055	Control and Supervision in Corrections	3
A J 057	Legal Aspects of Corrections	3
ELECTIVE	See Group I below	3
Group I (Electives)		
A J 028	Juvenile Law and Procedures	3
A J 041	Narcotics Investigation and Control	3
A J 054	Introduction to Probation and Parole	3

Minimum Units 24

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement**Culinary Arts***Family, Consumer & Health Sciences Division*

Upon successful completion of the Culinary Arts Program, the student demonstrates knowledge and skills as established by the American Culinary Federation as a nationally recognized "Culinarian." Students will have the training and skills to enter the foodservice industry as a chef's assistant or to work in related areas of foodservice management, purchasing, sales or service. Individuals will also be prepared to transfer to a four-year college to major in Hotel Restaurant Management.

Minimum Units Required: 47**Recommended Sequence:****First Semester**

	Units
CUL ART 001 Introduction to Hospitality Industry	2
CUL ART 003 Sanitation and Safety	2
CUL ART 004 Food and Beverage Cost Technologies	2
CUL ART 005 Commercial Food Preparation	4

Second Semester

CUL ART 007 Baking	3
CUL ART 008 European Pastry Production	4
CUL ART 009 Restaurant Operations	9
CUL ART 011 Menu Planning	1.5
CUL ART 013 Purchasing and Receiving	1.5
FCS 006 *(Natural Sciences) Nutrition	3

Third Semester

CUL ART 019 Kitchen Management	9
CUL ART 025 Food Service Management	2
CUL ART 027 Garde Manger	1.5
CUL ART 029 Beverage Management	1.5
FCS 093V Work Experience: Family and Consumer Studies	1

Each course must be completed with a grade of "C" or higher.

Minimum Units 47**Certificate of Achievement****Data Entry***Business Education Division*

Upon successful completion of the Data Entry Certificate program, the student demonstrates the skills and knowledge for entry level jobs as a data entry clerk. Data Entry employees are responsible for the entry of information into computer database or program.

Minimum Units Required: 18**Recommended Sequence:****First Semester**

	Units
BIM 001A Beginning Keyboarding	1
BIM 001B Document Processing	2
BIM 007A MS Word: Beginning Concepts and Applications	3
BUS 010A Bookkeeping	3
CSA 045 Microsoft Windows	1
(CSA 045 is equivalent to CS 045)	

Second Semester

BIM 070 Computer Keyboarding for Speed and Accuracy	1.5
BIM 031 Electronic Calculation	3
or	
BIM 032A Beginning Office Calculation	1
and	
BIM 032B Intermediate Office Calculation	1
and	
BIM 032C Advanced Office Calculation	1
BUS 072 QuickBooks	1.5
BUS 015 Computer Spreadsheets for Accounting	2
or	
BIM 007B MS Word: Advanced Concepts and Applications	3

Minimum Units 18

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement**Diesel Automotive Equipment Technician***Applied Science & Technology Division*

Upon successful completion of the Diesel Equipment Technician Certificate, the student demonstrates skills, knowledge, and training for entry-level employment for the following positions: technician for truck dealerships/repair shops, technician for truck fleet shops, technician for agricultural dealerships/repair shops, technician for industrial engine dealers, and technician for marine engine repair facilities. The student demonstrates skills to receive state and national certification in two areas: Heavy Duty Diesel Engine Emissions Control by the state of California Air Resource Board (ARB); and Air Conditioning Certification by Society of Automotive Engineers (SAE).

Minimum Units Required: 54**Recommended Sequence:****First Semester**

	Units
DIESL 041 Heavy Duty Brakes	3
DIESL 044 Diesel Engine Principles	3
DIESL 045 Diesel Engine Repair	4.5
AGEGR 030C/ Industrial Equipment: Electrical and SM ENG 030C Electronic Systems	5

Second Semester

DIESL 042 Heavy Duty Power Trains	3.5
DIESL 043 Heavy Duty Truck Components	3
DIESL 046 Diesel Engine Fuel and Tune-Up	3
DIESL 047 Diesel Air Conditioning	2
DIESL 049 Computer Diagnosis and Troubleshooting	2

Third Semester

INDUS 035 Mobile Hydraulics	4
INDUS 094 Industrial Mathematics	3
DIESL 048 Allison Transmission Service	2
MECH 010 Basic Welding for the Trades	4

Fourth Semester (minimum of 12 units from the following)

AUTO 050 Automatic Transmissions and Transaxles	6
AUTO 053 Brakes, Suspension, and Steering	7
AUTO 055 Ignition Systems and Electronic Engine Controls	6
AUTO 057 Air Conditioning, Heating, and Electrical Systems	6

Each course must be completed with a grade of "C" or higher.

Minimum Units 54

Certificate of Achievement**Diesel Equipment Technician***Applied Science & Technology Division*

Upon successful completion of the Diesel Equipment Technician certificate, the student demonstrates skills, knowledge, and training for entry-level employment for the following positions: technician for truck dealerships/repair shops, technician for truck fleet shops, technician for agricultural dealerships/repair shops, technician for industrial engine dealers, and technician for marine engine repair facilities. The student demonstrates skills to receive state and national certification in two areas: Heavy Duty Diesel Engine Emissions Control by the state of California Air Resource Board (ARB); and Air Conditioning Certification by Society of Automotive Engineers (SAE).

Minimum Units Required: 42**Recommended Sequence:****First Semester**

	Units
DIESL 041 Heavy Duty Brakes	3
DIESL 044 Diesel Engine Principles	3
DIESL 045 Diesel Engine Repair	4.5
AGEGR 030C/ Industrial Equipment: Electrical and SM ENG 030C Electronic Systems	5

Second Semester

DIESL 042 Heavy Duty Power Trains	3.5
DIESL 043 Heavy Duty Truck Components	3
DIESL 046 Diesel Engine Fuel and Tune-Up	3
DIESL 047 Diesel Air Conditioning	2
DIESL 049 Computer Diagnosis and Troubleshooting	2

Third Semester

INDUS 035 Mobile Hydraulics	4
DIESL 048 Allison Transmission Service	2
INDUS 094 Industrial Mathematics	3
MECH 010 Basic Welding for the Trades	4

Minimum Units 42

Certificate of Completion
Early Childhood Education
Assistant

Family, Consumer & Health Sciences Division

Upon successful completion of the Early Childhood Education Assistant Certificate, the student demonstrates the knowledge and skills of an assistant in a private child care center or a publicly-funded child care center in accordance with the Child Development Permit Matrix issued by the California Commission on Teacher Credentialing. Skills demonstrated and practiced by a student include an awareness of normal developmental characteristics of children, ability to follow a curriculum plan and schedule that meets childrens needs as directed, and a basic understanding of family dynamics and differences in child rearing styles.

Minimum Units Required: 6

Required Courses:		Units
CDEV 026	Child, Family, and Community	3
CDEV 028	Health and Safety in Child Care	2
CDEV 063	Child Discipline	1

Each course must be completed with a grade of "C" or higher.

Minimum Units 6

Certificate of Completion
Early Childhood Education
Associate Teacher

Family, Consumer & Health Sciences Division

Upon successful completion of the Early Childhood Education Associate Teacher Certificate, the student demonstrates knowledge, training, and skills to be a teacher in a private childcare center and an assistant teacher in a publicly funded child care center in accordance with the Child Development Permit Matrix issued by the California Commission on Teacher Credentialing. Skills demonstrated and practiced by a student include developmentally appropriate lesson planning and implementation for preschool children, conducting of observations, demonstrated use of appropriate guidance techniques, and exhibited understanding of optimal room and yard arrangement.

Minimum Units Required: 12

Recommended Sequence:		Units
First Semester		
CDEV 021	Child and Adolescent Development	3
CDEV 026	Child, Family, and Community	3

Second Semester

CDEV 031A	ECE Theory: Working with Children	3
CDEV 032A	Early ECE Practicum	3

Each course must be completed with a grade of "C" or higher.

Minimum Units 12

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement**Early Childhood Education Master Teacher***Family, Consumer & Health Sciences Division*

Upon successful completion of the Early Childhood Education Master Teacher Certificate, the student demonstrates knowledge, training, and skills to be a master teacher in a privately or publicly funded child care center in accordance with the Child Development Permit Matrix issued by the California Commission on Teacher Credentialing. Skills demonstrated and practiced by the student include the ability to provide instruction to young children utilizing knowledge of a specialized area of early childhood education, supervise adults in the classroom, and coordinate curriculum and staff development.

Minimum Units Required: 48**Recommended Sequence:****First Semester**

	Units
CDEV 021 Child and Adolescent Development	3
CDEV 026 Child, Family, and Community	3
ENG 001A * Written Communications	3
or	
ENG 079 * Preparatory English	5
ELECTIVE* General Education Requirement: Social Science Course	3

Second Semester

CDEV 029 Early Childhood Experiences: Arts and Sciences	3
CDEV 031A ECE Theory: Working with Children	3
CDEV 032A Early ECE Practicum	3
ELECTIVE* General Education Requirement: Humanities Course	3 - 5

Third Semester

CDEV 030 Early Childhood Experiences: Language Arts	3
CDEV 031B ECE Theory: Early Cognitive Learning	3
CDEV 032B ECE Practicum	3
ELECTIVE Early Childhood Specialization (Group II)	3
ELECTIVE* General Education Requirement: Math or Science	3 - 5

Fourth Semester

CDEV 076 Early Childhood Education Adult Supervision	2
ELECTIVE Early Childhood Specialization (Group II)	3
ELECTIVE* General Education Electives (as needed)	4 -10

*General Education requirements must total 16 units or more.

Group I (General Education Requirement)

(minimum of one course from the following Associate degree General Education areas and a minimum of 16 units)

Learning Skills: Group A
Learning Skills: Group B or Natural Science
Humanities
Social Sciences

Group II (Specialization) (minimum of six units selected from any ONE of the following specializations)Special Needs

CDEV 034 Children With Special Needs	3
CDEV 064 Impact of Violence on Children and Families	3
FCS 099A Meeting the Developmental Needs of Children at Risk	1
FCS 099B Sexual Development and Signs of Sexual Abuses	0.5
FCS 099I The Impact of Chemical Dependency on Children and Families	1
GUID 064 Helping Skills for the Early Childhood Educator	1
COMM DIS 002 Introduction to Communication Disorders	3
SP ED 015 Selected Topics: Special Education	1 - 4
SL 001 Elementary American Sign Language	3

Language and Literature for Children

CDEV 071 Children, Imagination, and Books	1
HUM 004/ ANTHR 004 Introduction to Linguistics	3
ENG 039 Introduction to Folklore	3

Creative Arts

CDEV 073 Preschool Art	1
ART 004 Exploring Art	3
DRAMA 044A Children's Theatre Production: Acting	3

School Age Child Care

CDEV 036 Activities and Environments for School Age Child Care	3
P E 046 Recreational Leadership	3

Infant Development

CDEV 033 Infant Development and Care-giving	3
CDEV 039 Infant Toddler Practicum	3

Parent-Child Relationships

CDEV 061A Parent Child Learning	2
CDEV 061B Parent Child Communication	2
CDEV 062 Positive Parenting	1
CDEV 064 Impact of Violence on Children and Families	3
FCS 099C Supporting Relationships between Children and Their Families	0.5
FCS 099E Nurturing Lifetime Relationships	0.5
FCS 099H The Impact of Placement on Foster Families	0.5
FCS 099I The Impact of Chemical Dependency on Children and Families	1
GUID 064 Helping Skills for the Early Childhood Educator	1
PSYCH 048 Family Counseling in Human Service Programs	2

Each course must be completed with a grade of "C" or higher.

Minimum Units 48

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement

Early Childhood Education Site Supervisor

Family, Consumer & Health Sciences Division

Upon successful completion of the Early Childhood Education Site Supervisor Certificate, the student demonstrates knowledge, training and skills to supervise single site child development programs, provide instruction to children, and serve as the coordinator of curriculum and staff development in both public and private child care centers in accordance with the Child Development Permit Matrix issued by the California Commission on Teacher Credentialing. Skills demonstrated and practiced by the student include development of program policies, personnel handbooks and budgets, techniques in adult supervision, and demonstrated understanding of licensing regulations overseeing both public and private child care programs.

Minimum Units Required: 60

Recommended Sequence:

First Semester	Units
CDEV 021 Child and Adolescent Development	3
CDEV 026 Child, Family, and Community	3
ELECTIVE General Education Requirement: ENG 001A Written Communications	3
or	
ENG 079 Preparatory English	5
ELECTIVE General Education Requirement: Social Science: See Group I	3
ELECTIVE General Education Requirement: See Group I	3 - 5

Second Semester

CDEV 029 Early Childhood Experiences: Arts and Sciences	3
CDEV 031A ECE Theory: Working with Children	3
CDEV 032A Early ECE Practicum	3
CDEV 037 Administration of Child Care Programs	3
ELECTIVE General Education Requirement: Humanities: See Group I	3 - 5

Third Semester

CDEV 030 Early Childhood Experiences: Language Arts	3
CDEV 031B ECE Theory: Early Cognitive Learning	3
CDEV 032B ECE Practicum	3
CDEV 038 Financial and Personnel Administration in Child Care	3
ELECTIVE General Education Requirement: Mathematics or Science: See Group I	3 - 5

Fourth Semester

CDEV 076 Early Childhood Education Adult Supervision	2
ELECTIVE General Education Requirement: See Group I	3 - 13

Group I (General Education Requirements) (minimum of one course from the following Associate Degree General Education areas and a minimum of 28 units)

Learning Skills: Group A
Learning Skills: Group B or Natural Science
Humanities
Social Sciences

Each course must be completed with a grade of "C" or higher.

Minimum Units 60

Certificate of Achievement

Early Childhood Education Teacher

Family, Consumer & Health Sciences Division

Upon successful completion of the Early Childhood Education Teacher Certificate, the student demonstrates the knowledge, training, and skills of a teacher in a private child care center or a publicly funded child care center in accordance with the Child Development Permit Matrix issued by the California Commission on Teacher Credentialing. Skills demonstrated and practiced by a student include developmentally appropriate lesson planning and implementation for infant/toddlers, preschool and school-age children in subject areas including science, mathematics and language arts.

Minimum Units Required: 40

Recommended Sequence:

First Semester	Units
CDEV 021 Child and Adolescent Development	3
CDEV 026 Child, Family, and Community	3
ELECTIVE General Education Requirement: ENG 001A Written Communications	3
or	
ENG 079 Preparatory English	5
ELECTIVE General Education Requirement: Social Sciences	3

Second Semester

CDEV 029 Early Childhood Experiences: Arts and Sciences	3
CDEV 031A ECE Theory: Working with Children	3
CDEV 032A Early ECE Practicum	3
ELECTIVE General Education Requirement: Humanities	3 - 5

Third Semester

CDEV 030 Early Childhood Experiences: Language Arts	3
CDEV 031B ECE Theory: Early Cognitive Learning	3
CDEV 032B ECE Practicum	3
ELECTIVE General Education Requirement: Mathematics or Science	3 - 5
ELECTIVE General Education Requirement: Electives: See Group I	0 - 4

General Education Requirement (minimum of one course from the following Associate degree General Education areas and a minimum of 16 units)

Learning Skills: Group A
Learning Skills: Group B or Natural Sciences
Humanities
Social Science

Each course must be completed with a grade of "C" or higher.

Minimum Units 40

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement**Education Aide***Communication Skills Division*

Upon successful completion of the certificate, the student demonstrates the ability to perform of any combination of following instructional tasks in classroom to assist teaching staff of public or private elementary or secondary schools: discuss assigned teaching area with classroom teacher to coordinate instructional efforts; prepare lesson outline and plan in assigned area and submits outline to teacher for review; plan, prepare, and develop various teaching aids, such as bibliographies, charts, and graphs; present subject matter to students, utilizing variety of methods and techniques, such as lecture, discussion, and supervised role playing; prepare, administer, and grade examinations; assist students, individually or in groups, with lesson assignments to present or reinforce learning concepts; and confer with parents on progress of students.

Minimum Units Required: 26

Required Courses	Units
EDUC 010 Introduction to Education	3
SOCIO 001A Introduction to Sociology	3
or	
PSYCH 001 Introduction to Psychology	3
SOCIO 033 Social Inequality in the United States	3
COM ST 001A Fundamentals of Speech	3
ENG 001A Written Communications	3
CDEV 021 Child and Adolescent Development	3
PSYCH 045A/ Beginning Field Practicum	2
SOCIO 045A	
or	
SOCIO 045A/ Beginning Field Practicum	2
PSYCH 045A	
CSA 020 MS Word, Excel, and Access	3
(equivalent to CS 020)	
ELECTIVES See Group I below	3

Group I (Electives)

(three units from the following)	
ART 004 Exploring Art	3
DRAMA 006A Improvisational Theatre I	3
MUSIC 036A Class Piano	1

Each course must be completed with a grade of "C" or higher.

Minimum Units 26**Certificate of Achievement****Electrical Technology***Applied Science & Technology Division*

Upon successful completion of the Electrical Technology certificate program, the student demonstrates skills in the electrical industry in the capacity of a beginning electrician, preferably as an indentured electrical apprentice where the students compare, contrast, and apply basic electrical theory and other major portions of the electrical field. Training and skills demonstrated by the student in this program are crucial to safe entry into electrical apprenticeships in the electrical field for programs like the IBEWs (International Brotherhood of Electrical Workers) Joint Apprenticeship Training Committee, WECA (Western Electrical Contractors Association) electrical apprenticeship, ABC program (another indentured electrical apprenticeship program).

Minimum Units Required: 38

Required Courses:	Units
ELEC 030 Fundamentals of Electricity	5
ELEC 031 Electrical Wiring Methods	7
ELEC 032 Electrical Motors	5
ELEC 033 Industrial Wiring Methods	5
ELEC 034 Motor Controls	5
INDUS 045 Industrial Technology	5
or	
PHYS 010 Introduction to Physics	4
MATH 080 Elementary Algebra	4
INDUS 031 Industrial Hydraulics	4
or	
MECH 015 Machine Tool Process	3

Minimum Units 38

Certificate of Achievement
Electrical Technology:
Apprenticeship Option
Applied Science & Technology Division

Upon successful completion of the Electrical Technology Certificate - Apprenticeship Option, the student demonstrates the skills and knowledge of a Journeylevel electrician. The student applies electrical skills and knowledge to construct, repair and troubleshoot electrical circuits, motors, motor controllers and electrical systems. The training and skills acquired prepares the apprentice to be employed in the electrical field as a Journeylevel electrical worker for residential, commercial and industrial electrical construction projects.

Minimum Units Required: 40**Recommended Sequence:****First Semester**

		Units
A-ELE 070A	Introduction to Electricity	4
VO-ED 080V	Work Experience: Apprenticeship	2

Second Semester

A-ELE 070B	Electrical Fundamentals	4
VO-ED 080V	Work Experience: Apprenticeship	2

Third Semester

A-ELE 071A	Electrical Circuits and Code	4
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Fourth Semester

A-ELE 071B	Electrical Circuits and Equipment	4
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Fifth Semester

A-ELE 072A	Electrical Motors	4
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Sixth Semester

A-ELE 072B	Electrical Motor Control Systems	4
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Seventh Semester

A-ELE 073A	Electrical Motor Control Circuits	4
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Eighth Semester

A-ELE 073B	Programmable Logic Controllers and Variable Frequency Drives	4
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Ninth Semester

A-ELE 074A	Motor Control Systems	4
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Each course must be completed with a grade of "C" or higher.

Minimum Units 40



SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement**Electron Microscopy: Biological***Science & Mathematics Division*

Upon successful completion, the student demonstrates skills, knowledge and training for employment as a microscopist to work with research scientists in industry, research laboratories, medical schools, hospitals, colleges and universities, as well as being qualified for technical sales and marketing for Electron Microscopy. The student demonstrates his or her ability to: use theory in hands-on work, specimen preparation, electron/ion/light/scanned probe microscope operation, digital imaging, routine maintenance of equipment, experimental design, and data interpretation. The student demonstrates skills, knowledge, and training in organization, team work, oral and written communication, problem solving, and critical thinking. The student demonstrates a variety of skills for employment in disciplines including the following: metallurgy, ceramics, computer and electronics industries, biology, environmental areas, biotechnology, geology, forensics, food and cosmetic industries, and medicine. Required Certificate Courses must be completed with at least a "C" Grade.

Minimum Units Required: 59**Recommended Sequence:****First Semester (Fall)**

		Units
CSA 018	Microcomputers and Small Business Applications:	
Apple-Mac	3	
E M 011	Photography for Laboratory Technicians	2
E M 021	Introductory Techniques for Electron Microscopy	3
BIOL 001	Core Biology	4
MATH 080	Elementary Algebra	4

Second Semester (Spring)

E M 022	Ultramicrotomy for Electron Microscopy	4.5
CHEM 003A	Introduction to Chemistry	4
PHYS 010	Introduction to Physics	4
MATH 082	Intermediate Algebra	5

Third Semester (Fall)

E M 028	Biological Ultrastructure	2
E M 037	Advanced Techniques in Biological Electron Microscopy	3.5
E M 038	Scanning Electron Microscopy	3
E M 053	Electron Microscopy Equipment Maintenance	3
E M 058	Digital Imaging for Microscopy	2
MATH 038B	Precalculus II	4

Fourth Semester (Spring)

E M 030	Current Microscopies: Optics, Theory, and Application	3
E M 039	Advanced Biological Scanning Electron Microscopy	3
E M 059	Advanced Projects in Electron Microscopy	2

Suggested Electives

E M 079	Applied Microscopy Principles	1 - 3
E M 034	Introduction to Materials Electron Microscopy	4
E M 041	Analytical Scanning Electron Microscopy	3
E M 050H	Special Studies: Electron Microscopy	1 - 2
E M 062	Focused Ion Beam (FIB) Operation and Use	2
E TECH 020	Materials and Measurements	3
MATH 012	Introduction to Probability and Statistics	4
ELECT 011	AC and DC Network Analysis	4.5
BIOL 033	Anatomy & Physiology	6
BIOL 002	General Zoology	5

Required Certificate Courses must be completed with at least a "C" grade.

Equivalent courses may be accepted by transfer from other colleges but at least 12 units of the certificate must be completed at San Joaquin Delta College. Students who desire transfer credit for courses taken elsewhere must have the courses approved before taking them for certificate credit.

NOTE: It is recommended that during the summer, required core courses (Non-EM) be taken.

Minimum Units 59

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement**Electron Microscopy: Crystalline Material***Science & Mathematics Division*

Upon successful completion, the student demonstrates skills, knowledge and training for employment as a microscopist to work with research scientists in industry, research laboratories, medical schools, hospitals, colleges and universities, as well as being qualified for technical sales and marketing for Electron Microscopy. The student demonstrates his or her ability to: use theory in hands-on work, specimen preparation, electron/ion/light/scanned probe microscope operation, digital imaging, routine maintenance of equipment, experimental design, and data interpretation. The student demonstrates skills, knowledge, and training in organization, team work, oral and written communication, problem solving, and critical thinking. The student demonstrates a variety of skills for employment in disciplines including the following: metallurgy, ceramics, computer and electronics industries, biology, environmental areas, biotechnology, geology, forensics, food and cosmetic industries, and medicine. Required Certificate Courses must be completed with at least a C Grade.

Minimum Units Required: 55.5**Recommended Sequence:****First Semester (Fall)**

	Units
CSA 018	Microcomputers and Small Business Applications:
Apple-Mac	3
E M 011	Photography for Laboratory Technicians 2
E M 021	Introductory Techniques for Electron Microscopy 3
MATH 080	Elementary Algebra 4

Second Semester (Spring)

E TECH 020	Materials and Measurements 3
CHEM 003A	Introduction to Chemistry 4
PHYS 010	Introduction to Physics 4
E M 034	Introduction to Materials Electron Microscopy 4
MATH 082	Intermediate Algebra 5

Third Semester (Fall)

E M 035	Physical Electron Microscopy Laboratory 3.5
E M 038	Scanning Electron Microscopy 3
E M 053	Electron Microscopy Equipment Maintenance 3
E M 058	Digital Imaging for Microscopy 2
MATH 038B	Precalculus II 4

Fourth Semester (Spring)

E M 030	Current Microscopies: Optics, Theory, and Application 3
E M 041	Analytical Scanning Electron Microscopy 3
E M 059	Advanced Projects in Electron Microscopy 2

Suggested Electives

E M 079	Applied Microscopy Principles 1 - 3
E M 062	Focused Ion Beam (FIB) Operation and Use 2
E M 022	Ultramicrotomy for Electron Microscopy 4.5
E M 039	Advanced Biological Scanning Electron Microscopy 3
CSP 017	Computer Logic 3
ELECT 011	AC and DC Network Analysis 4.5
E TECH 013	Engineering Drafting Skills 3
MATH 012	Introduction to Probability and Statistics 4
E M 050H	Special Studies: Electron Microscopy 1 - 2

Required Certificate Courses must be completed with at least a "C" Grade.

Equivalent courses may be accepted by transfer from other colleges but at least 12 units of the certificate must be completed at San Joaquin Delta College. Students who desire transfer credit for courses taken elsewhere must have the courses approved before taking them for certificate credit.

NOTE: It is recommended that during the summer, required core courses (Non-EM) be taken.

Minimum Units 55.5

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement

Electronics Technology

Applied Science & Technology Division

Upon successful completion of the Electronics Technician Certificate the student will have demonstrated skills to operate electronic test equipment, diagnose malfunctions and electronic circuits, isolate and replace defective components, disassemble and reassemble complex electronic chassis. The International Electronics Technician Articulation Committee accredits the program. The program prepares the student for positions in the electronics industry such as electronics service technician, and industrial equipment repair technician.

Minimum Units Required: 30.5**Required Courses:**

	Units
ELECT 011 AC and DC Network Analysis	4.5
ELECT 012 Solid State Devices	6
ELECT 013A Digital Integrated Circuits	4.5
ELECT 014A Electronic Troubleshooting	2.5
ELECT 014B Advanced Electronics Troubleshooting	2.5
ELECT 014C Troubleshooting Computers	2.5
ELECT 016 Introduction to Microprocessors	4
MATH 080 Elementary Algebra	4

Minimum Units 30.5

Certificate of Achievement

Eligibility Worker

Social Science Division

Upon successful completion of the certificate, the student will have demonstrated his/her ability to: work on a computer, perform calculations, organize data, and work effectively with diverse populations. The Eligibility Certificate prepares the student to take the Civil Service Examination for the position of Eligibility Worker at Human Services Agency. The program is approved by San Joaquin County.

Minimum Units Required: 25.5**Recommended Sequence:**

	Units
First Semester	
SOCIO 001B Problems of a Changing Society	3
SOCIO 024 Social Welfare	3
SOCIO 045A/ Beginning Field Practicum	2
PSYCH 045A	
ENG 001A Written Communications	3
or	
ENG 079 Preparatory English	5
DV ED 086A Applied Mathematics: Whole Number	
Computational Skills	0.5
DV ED 086B Applied Mathematics: Word Problems	0.5
DV ED 086C Applied Mathematics: Fractions	0.5
DV ED 086D Applied Mathematics: Decimals and Percents	0.5

Second Semester

CSA 020 MS Word, Excel, and Access	3
(equivalent to CS 020)	
SOCSC 030 American Immigrant Experience	3
or	
SOCIO 027 Gender in Contemporary Society	3
or	
SOCIO 033 Social Inequality in the United States	3
SOCIO 045B/ Intermediate Field Practicum	2
PSYCH 045B	
COM ST 007 Intercultural Communication	3

Group I (Electives)

(Select any one of the following)

BIM 001A Beginning Keyboarding	1
PSYCH 052 Introduction to Substance Abuse Counseling	3
PSYCH 053 Drugs and Society	3
PSYCH 055 Introduction to Child Abuse Counseling	2
PSYCH 056 Assisting Sexual Assault Victims	2

and

Must have achieved Level II on the mathematical portion of the assessment test, or have completed a Level II mathematical course

Minimum Units 25.5

Certificate of Completion

**Emergency Medical Technician
(EMT - 1)**

Family, Consumer & Health Sciences Division

Upon successful completion of the Emergency Medical Technician Program, the student demonstrates skills, training, and knowledge to meet the certification examination for Emergency Medical Technician I. Upon certification, the student demonstrates minimal training required by state and local agencies for employment in many fire and ambulance service industries.

Minimum Units Required: 7

Prerequisites to the Program:

Current CPR certificate at health care provider level.

Recertification Prerequisites:

Current EMT-I certificate.

Current CPR certificate at health care provider level.

Required Courses:

H S 077B	Emergency Medical Technician Basic	7
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Refresher Course:

H S 081	Emergency Medical Technician 1 Refresher	1
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Minimum Units 7

Certificate of Achievement

Engineering

Applied Science & Technology Division

Upon successful completion of the Engineering Certificate, the student demonstrates skills, knowledge, and ability for transfer to a Bachelors Degree program at a college or university, and the mathematical, scientific, and basic engineering theory courses required for upper division study in an engineering specific major. Delta Colleges program meets the lower division requirements established by the California Engineering Liaison Committee.

Minimum Units Required: 52

Recommended Sequence:

First Semester

	Units
ENGR 001 Introduction to Engineering and Technology	3
MATH 001 Calculus	5
ENG 001A Written Communications	3

Second Semester

ENGR 002 Engineering Graphics	3
MATH 002 Calculus	4
CHEM 001A General Chemistry	5
PHYS 004A Principles of Physics: Mechanics	4

Third Semester

ENGR 004 Engineering Materials	3
ENGR 029 Engineering Applications for Digital Computations	3
MATH 003 Vector Calculus	4

Fourth Semester

ENGR 008 Statics	3
ENGR 006 Engineering Circuit Analysis	4
MATH 004 Differential Equations	4
PHYS 004C Principles of Physics: Electricity and Magnetism	4

NOTE:

The courses listed above fulfill the recommended core of the Engineering Articulation Guideline for engineering transfer students as formulated by the statewide Engineering Liaison Council.

Completion of the above sequence of classes will meet the requirements necessary for admission to most four-year institutions.

PREREQUISITES:

E TECH 012, E TECH 013, CHEM 003A and MATH 080, MATH 082, MATH 039 (or MATH 038A/038B) or their equivalents, are prerequisites for some courses in this program.

You may not be required to complete some of the above prerequisites, depending upon high school preparation. It is essential to see a counselor prior to, or during the first semester of attendance at SJDC to determine the additional requirements necessary for admission to specific four-year institutions. Failure to do so may result in the completion of unnecessary courses and/or the omission of necessary courses and will significantly delay transfer.

Minimum Units 52

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Completion**Engineering: Computer-Aided Drafter***Applied Science & Technology Division*

Upon successful completion of the Computer Computer-Aided Drafter Certificate, the student demonstrates the skills, knowledge, and training for employment as an entry-level computer-aided drafting (CAD) technician. The student demonstrates his/her ability to construct two-dimensional and three-dimensional drawings using typical CAD hardware and software.

Minimum Units Required: 18**Recommended Sequence:**

First Semester		Units
ENGR 001	Introduction to Engineering and Technology	3
E TECH 011	Engineering Drafting	3
E TECH 012	Computer-Aided Drafting	3
E TECH 013	Engineering Drafting Skills	3
Second Semester		
ENGR 002	Engineering Graphics	3
E TECH 022	Three Dimensional Modeling	3

Minimum Units 18**Certificate of Achievement****Engineering Technology: Civil Specialization***Applied Science & Technology Division*

Upon successful completion of the Engineering Drafter/Technician Certificate, the student demonstrates skills, knowledge, and training for employment as an engineering aide; computer aided drafter, designer, surveyor, engineering technician, or other technical support position in the field of engineering. The student demonstrates his or her ability to document designs with appropriate technical drawings, and develop solutions for common engineering problems.

Minimum Units Required: 43**Recommended Sequence:**

First Semester		Units
ENGR 001	Introduction to Engineering and Technology	3
E TECH 011	Engineering Drafting	3
E TECH 012	Computer-Aided Drafting	3
E TECH 013	Engineering Drafting Skills	3
Second Semester		
ENGR 002	Engineering Graphics	3
E TECH 020	Materials and Measurements	3
E TECH 022	Three Dimensional Modeling	3
E TECH 026	Technical Statics	3
or		
E TECH 076	Applied Statics	3
Third Semester		
E TECH 031	Fundamentals of Civil Drafting	3
E TECH 034	Machine Drafting	3
E TECH 035	Machine Design	3
E TECH 080	Applied Surveying	3
Fourth Semester		
E TECH 041	Civil Drafting: Site Design and Improvement	4
E TECH 046	Mechanical and Electrical Systems	3

Minimum Units 43

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement
Engineering Technology:
Electro-Mechanical
Specialization

Applied Science & Technology Division

Upon successful completion of the Engineering Drafter/Technician Certificate, the student demonstrates skills, knowledge, and training for employment as an engineering aide; computer aided drafter, designer, surveyor, engineering technician, or other technical support position in the field of engineering. The student demonstrates his or her ability to document designs with appropriate technical drawings, and develop solutions for common engineering problems.

Minimum Units Required: 46.5**Recommended Sequence:**

First Semester		Units
ENGR 001	Introduction to Engineering and Technology	3
E TECH 011	Engineering Drafting	3
E TECH 012	Computer-Aided Drafting	3
E TECH 013	Engineering Drafting Skills	3

Second Semester

ENGR 002	Engineering Graphics	3
E TECH 020	Materials and Measurements	3
E TECH 022	Three Dimensional Modeling	3
E TECH 026	Technical Statics	3
or		
E TECH 076	Applied Statics	3

Third Semester

E TECH 031	Fundamentals of Civil Drafting	3
E TECH 034	Machine Drafting	3
E TECH 035	Machine Design	3
E TECH 080	Applied Surveying	3

Fourth Semester

ELECT 011	AC and DC Network Analysis	4.5
E TECH 046	Mechanical and Electrical Systems	3
E TECH 047	Introduction to Industrial Control Systems	3

Minimum Units 46.5

Certificate of Achievement
Engineering Technology:
Mechanical Specialization
Applied Science & Technology Division

Upon successful completion of the Engineering Drafter/Technician Certificate, the student demonstrates skills, knowledge, and training for employment as an engineering aide; computer aided drafter, designer, surveyor, engineering technician, or other technical support position in the field of engineering. The student demonstrates his or her ability to document designs with appropriate technical drawings, and develop solutions for common engineering problems.

Minimum Units Required: 48**Recommended Sequence:**

First Semester		Units
ENGR 001	Introduction to Engineering and Technology	3
E TECH 011	Engineering Drafting	3
E TECH 012	Computer-Aided Drafting	3
E TECH 013	Engineering Drafting Skills	3

Second Semester

ENGR 002	Engineering Graphics	3
E TECH 020	Materials and Measurements	3
E TECH 022	Three Dimensional Modeling	3
E TECH 026	Technical Statics	3
or		
E TECH 076	Applied Statics	3

Third Semester

E TECH 031	Fundamentals of Civil Drafting	3
E TECH 034	Machine Drafting	3
E TECH 035	Machine Design	3
E TECH 080	Applied Surveying	3
MECH 015	Machine Tool Process	3

Fourth Semester

E TECH 045	Practical Machine Design	3
E TECH 046	Mechanical and Electrical Systems	3
E TECH 047	Introduction to Industrial Control Systems	3

Minimum Units 48

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement**Family & Consumer Sciences:
Life Management***Family, Consumer & Health Sciences Division*

Upon successful completion of the Family and Consumer Science (Life Management) Program, the student demonstrates a general knowledge of life skills that can be applied to family life and to success in the workplace; to transfer toward a bachelors degree as a generalist in Family and Consumer Science or in one of the specific program areas; or to pursue specific certificates in Child Care, Home Health Care, Convalescent Care, Consumer Credit Counseling, or Consumer Affairs.

Minimum Units Required: 33**Recommended Sequence:**

	Units
FCS 002 Life Management	3
FCS 003 Home Management and Finance	3
FCS 005 Basic Nutrition	3
or	
FCS 006 Nutrition	3
ID 002 Introduction to Interior Design	3
CDEV 021 Child and Adolescent Development	3
FCS 023 Marriage and the Family	3
FASHION 006/ Textiles ID 006	3
FASHION 030 Basic Industry Sewing	3
ELECTIVES See Group I below	9

Group I (Electives)

(minimum of 9 units from any courses in the following departments)
Family and Consumer Sciences 1-99
Culinary Arts 1-99

Minimum Units 33**Certificate of Completion****Family Day Care Provider***Family, Consumer & Health Sciences Division*

Upon successful completion of this program, the student demonstrates skills, knowledge, and training of a family day care provider. Skills demonstrated by the student include an understanding of child discipline and child development that can be applied to providing developmentally appropriate nurturing care to children in the family childcare setting.

Minimum Units Required: 7**Required Courses:**

	Units
CDEV 021 Child and Adolescent Development	3
CDEV 063 Child Discipline	1
CDEV 070 * Introduction to Family Child Care	1
H ED 030 ** Community First Aid and Safety	2

*Individuals who are already licensed Family Day Care Providers may substitute one unit from the following:

CDEV 071 Children, Imagination, and Books	1
CDEV 072 Play and Learning	1
CDEV 073 Preschool Art	1
CDEV 074 Preschool Science	1

**A current Red Cross CPR and First Aid certificate may be substituted for H ED 030.

Each course must be completed with a grade of "C" or higher.

Minimum Units 7**Certificate of Achievement****Fashion Merchandising***Family, Consumer & Health Sciences Division*

Upon successful completion of the Fashion Merchandising program, the student demonstrates the basic skills and knowledge required for careers in the Fashion Industry. Completion of this certificate opens and expands employment opportunities in the field of fashion.

Minimum Units Required: 33**Recommended Sequence:****First Semester**

	Units
FASHION 002 Introduction to the Fashion Industry	3
FASHION 004 Fashion Product Analysis	3
FASHION 006/ Textiles ID 006	3
FASHION 008 History of Fashion	3
FASHION 010 Clothing and Culture	3
FASHION 022 Fashion Promotion and Marketing	3
FASHION 024 Visual Merchandising/Store Design I	3
FASHION 030 Basic Industry Sewing	3
FASHION 056/ Internship and Portfolio Development for ID 056 Fashion & Interiors	3 - 4
ELECTIVES See Group I Below	6

Group I (Electives)

(minimum of 6 units from the following)

BUS 021 Marketing	3
BUS 022 Professional Selling	3
BUS 023 Advertising	3
BUS 082A Business Mathematics	3
or	
BUS 082B Business Mathematics	3
or	
MATH (any course)	3 - 4
COM ST 001A Fundamentals of Speech	3

Minimum Units 33

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement

Fire

Applied Science & Technology Division

Upon successful completion of the Fire Science certificate program, the student demonstrates skills, knowledge, and training for a position in the fire service. The student demonstrates his or her ability to recognize and understand the concepts and terminology that is needed to understand the fire service. Note: Please refer to catalog section for Special Admission Requirement programs information.

Minimum Units Required: 41

Recommended Sequence:

First Semester		Units
FIRE 070	Fire Protection Organization	3
FIRE 071	Fire Prevention Technology	3
A J 031	Report Preparation	3
ENG 079	Preparatory English	5

Second Semester

FIRE 074	Fire Behavior and Combustion	3
H S 077B	Emergency Medical Technician Basic	7
PSYCH 001	Introduction to Psychology	3
or		
PSYCH 020A	Stress Management	1

Third Semester

FIRE 072	Fire Protection Equipment and Systems	3
FIRE 073	Building Construction for Fire Protection	3
MATH 080	Elementary Algebra	4

Fourth Semester

GROUP 1	Natural Sciences Elective	3
ELECTIVE	See Group I below	3

Group I (Electives)

(minimum of 3 units from the following)

FIRE 075	Fire Hydraulics	3
FIRE 092	Fire Investigation	3
FIRE 095A	Fire Command, Strategy and Tactics	3

Note: Refer to SECTION III, Academic Programs, Special Admission Programs, for Admission Requirements.

Each course must be completed with a grade of "C" or higher.

Minimum Units 41

Certificate of Completion

Fire Academy

Applied Science & Technology Division

Upon successful completion of the Basic Firefighter 1 Academy, students will receive a certificate of completion that qualifies them for employment as a California Firefighter. The student will have successfully demonstrated his or her ability to demonstrate ethical conduct; understand the organization structure for managing fire incidents; make judgments concerning emergencies including medical, hazardous materials, rescues, and hazard abatement and prevention. The California State Fire Marshal accredits this program.

Minimum Units Required: 10

Required Course:

		Units
FIRE 091	Basic Fire Academy	10

Course must be completed with a grade of "C" or higher.

Minimum Units 10

Certificate of Achievement

Fitness Specialist

Physical Ed, Recreation & Athletics Division

Upon successful completion of the Fitness Specialist certificate, the student demonstrates skills, knowledge, and training for entry level or higher positions in the fitness industry. The student demonstrates skills, knowledge, and training for employment as strength and condition instructors, exercise testing technicians, weight training coaches, and personal fitness trainers; to conduct fitness evaluations for individual design programs that include nutrition, exercise plans, and motivation approaches; and to transfer to a bachelors degree program in physical education or kinesiology.

Minimum Units Required: 19

Recommended Sequence:

First Semester		Units
P E 048	Exercise Science	3

Second Semester

P E 049	Psychology of Sports	3
P E 050	Nutrition for Fitness and Sport	3

Third Semester

P E 051	Fitness Assessment and Exercise Prescription	2
P E 042V	Theory and Application of Weight Training	3

Fourth Semester

H ED 031	Emergency Response	3
P E 045	Special Projects: Physical Education	2

Minimum Units 19

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement

Fluid Power & Automation Technology

Applied Science & Technology Division

Upon successful completion of the Fluid Power and Automation certificate, the student demonstrates skills, knowledge and training for employment in the following fluid power industry positions: fluid power mechanic, fluid power technician, and salesperson in fluid power industry. The student demonstrates his or her ability to apply knowledge of physics and mathematics in solving applied fluid power problems; plan and install complex fluid power systems; maintain, troubleshoot, and repair control systems using proper tools and procedures; and select, compile, and use technical information from reference materials. The student demonstrates the skills, knowledge and training to take the Fluid Power Society certification exams for fluid power mechanics, technicians, and specialists. This program is accredited by the Fluid Power Education Foundation (FPEF).

Minimum Units Required: 28.5

Recommended Sequence:

First Semester		Units
INDUS 031	Industrial Hydraulics	4
INDUS 037	Industrial Pneumatics	4
INDUS 094	Industrial Mathematics	3
INDUS 095	Principles of Technology	3
Second Semester		
INDUS 035	Mobile Hydraulics	4
INDUS 041	Instrumentation and Process Control	3
ELECT 011	AC and DC Network Analysis	4.5
or		
ELEC 030	Fundamentals of Electricity	5
MECH 015	Machine Tool Process	3

Each course must be completed with a grade of "C" or higher.

Minimum Units 28.5

Certificate of Achievement

General Office

Business Education Division

Upon successful completion of the General Office Certificate, the student demonstrates skills, knowledge, and training for employment in private industry, non-profit organizations, and government offices for the following positions: General Office Clerk, Office Assistant, Office Clerk, Receptionist, or Information Clerk. The student demonstrates his or her ability to: answer the telephone effectively; utilize customer service skill; open, sort and distribute incoming mail and prepare outgoing mail; keyboard documents; address envelopes and labels; file correspondence and documents; use a fax and copy machine.

Minimum Units Required: 30.5

Recommended Sequence:

First Semester		Units
BIM 002	Intermediate Keyboarding	3.5
BIM 007A	MS Word: Beginning Concepts and Applications	3
BUS 001A	Principles of Accounting	5
or		
BUS 010A	Bookkeeping	3
BUS 017A	Beginning Business Communications	3
ELECTIVES	See Group I Below	3

Second Semester

BIM 038	Office Technologies	3
BIM 081	Records Management and Filing	3
BUS 017B	Advanced Business Communications	3
ELECTIVES	See Group I Below	6

Group I (Electives)

(minimum of 9 units from the following)

BIM 007B	MS Word: Advanced Concepts and Applications	3
BIM 031	Electronic Calculation	3
or		
BIM 032A	Beginning Office Calculation	1
and		
BIM 032B	Intermediate Office Calculation	1
and		
BIM 032C	Advanced Office Calculation	1
BIM 095G	Transcription Techniques	1
BIM 070	Computer Keyboarding for Speed and Accuracy	1.5
BIM 095D	Proofreading and Beginning Document Formatting	1
BIM 095E	Telephone Techniques	1
BUS 015	Computer Spreadsheets for Accounting	2
CSA 045	Microsoft Windows	1
GUID 033	Job Seeking Skills	1
COM ST 001A	Fundamentals of Speech	3
or		
COM ST 007	Intercultural Communication	3
or		
COM ST 003	Interpersonal Communication	3

Minimum Units 30.5

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement**Graphic Arts***Fine Arts Division*

Upon successful completion of the Certificate of Achievement in Graphic Arts, the student will demonstrate skills, knowledge, and training for entry-level employment in the field of graphic design and layout. Specific job titles include but are not limited to the following: Computer Typesetter, Paste-Up Artist, Cartoonist, Graphic Layout and Design, Ad Artist, Computer Artist, Photo Restoration, Photo Manipulation, and Scanner Operator. The student will demonstrate ability to create graphic designs and documents using electronic desktop publishing software, create artwork using digital design software, design World Wide Web pages, and design pre-press publications.

Minimum Units Required: 31**Recommended Sequence:****First Semester**

	Units
BIM 001A Beginning Keyboarding	1
GRART 001A Digital Imaging	2
GRART 002A Layout Design	3
GRART 003A Computer Art	2
ART 006 Color and Design	3
ENG 079 Preparatory English	5
or	
ENG 001A Written Communications	3

Second Semester

GRART 001B Digital Imaging	2
GRART 002B Layout Design	3
GRART 003B Computer Art	2
GRART 006A Publication Design	4
ELECTIVES See Group I Below	3
ELECTIVES See Group II Below	3

Group I (Electives)

GRART 004A Graphic Design for the World Wide Web	2
GRART 004B Graphic Design for the World Wide Web	2
GRART 006B Publication Design	4
CSW 023 HTML for Web Publishing	3
(CSW 023 is equivalent to CS 023)	
CSW 036 Microsoft FrontPage	3
(CSW 036 is equivalent to CS 036)	
CSW 039 Dreamweaver	3
(CSW 039 is equivalent to CS 039)	

Group II (Electives)

ART 004 Exploring Art	3
BUS 023 Advertising	3
PHOTO 001A Introduction to Photography	3

Minimum Units 31

Certificate of Achievement
Heating & Air Conditioning:
Refrigeration

Applied Science & Technology Division

Upon successful completion of the Heating and Air Conditioning Certificate, the student demonstrates the skills, knowledge and training to service and repair heating and air conditioning equipment. The student demonstrates his or her ability to mechanically and electrically troubleshoot problems typically encountered in the industry and to pass the EPA refrigerant recovery exam for their certification.

Minimum Units Required: 46**Recommended Sequence:****First Semester**

		Units
MECH 030A	Refrigeration and Air Conditioning	3
MECH 031A	Air Conditioning Components and Circuits	6
ELEC 030	Fundamentals of Electricity	5

Second Semester

MECH 030B	Intermediate Refrigeration	3
MECH 031B	Air Conditioning Troubleshooting	6
MECH 032A	Air Conditioning Control Circuit Analysis	3

Third Semester

MECH 031C	Air Conditioning Systems and Heat Pumps	6
MECH 032B	Refrigeration Control Circuit Analysis	3
INDUS 020	Industrial Safety and Health	3

Fourth Semester

INDUS 094	Industrial Mathematics	3
MECH 060	Metal Trade Layout and Forming	5

Minimum Units 46

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement**Heavy Equipment Mechanic***Applied Science & Technology Division*

Upon successful completion of the Heavy Equipment Mechanic certificate, the student demonstrates skills, knowledge, and training for entry-level employment for the following positions: technician for heavy equipment dealerships, technician for heavy equipment repair facilities, technician for agricultural dealerships/repair shops, and technician for industrial engine dealers. The student demonstrates skills to receive state and national certification in two areas: Heavy Duty Diesel Engine Emissions Control by the state of California Air Resource Board (ARB); and Air Conditioning Certification by Society of Automotive Engineers (SAE).

Minimum Units Required: 34**Recommended Sequence:****First Semester**

	Units
AGEGR 030C/ Industrial Equipment: Electrical and SM ENG 030C Electronic Systems	5
DIESL 044 Diesel Engine Principles	3
DIESL 045 Diesel Engine Repair	4.5
INDUS 035 Mobile Hydraulics	4

Second Semester

AGEGR 030D/ Industrial Equipment: Power Trains SM ENG 030D	5
SM ENG 066/ Compact Diesel Engines AGEGR 066	2.5
DIESL 046 Diesel Engine Fuel and Tune-Up	3
DIESL 047 Diesel Air Conditioning	2
DIESL 049 Computer Diagnosis and Troubleshooting	2
INDUS 043 Electrohydraulics	3

Minimum Units 34**Certificate of Achievement****Heavy Equipment Technician***Applied Science & Technology Division*

Upon successful completion of the Heavy Equipment Technician certificate, the student demonstrates skills, knowledge, and training for entry-level employment for the following positions: technician for heavy equipment dealerships, technician for heavy equipment repair facilities, technician for agricultural dealerships/repair shops, and technician for industrial engine dealers. The student demonstrates skills to receive state and national certification in two areas: Heavy Duty Diesel Engine Emissions Control by the state of California Air Resource Board (ARB); and Air Conditioning Certification by Society of Automotive Engineers (SAE).

Minimum Units Required: 43**Recommended Sequence:****First Semester**

	Units
AGEGR 030C/ Industrial Equipment: Electrical and SM ENG 030C Electronic Systems	5
DIESL 044 Diesel Engine Principles	3
DIESL 045 Diesel Engine Repair	4.5
INDUS 035 Mobile Hydraulics	4

Second Semester

AGEGR 030D/ Industrial Equipment: Power Trains SM ENG 030D	5
SM ENG 066/ Compact Diesel Engines AGEGR 066	2.5
DIESL 046 Diesel Engine Fuel and Tune-Up	3
DIESL 047 Diesel Air Conditioning	2
DIESL 049 Computer Diagnosis and Troubleshooting	2
INDUS 043 Electrohydraulics	3

Third Semester

AGEGR 033 Equipment Maintenance and Operation	2
MECH 010 Basic Welding for the Trades	4
INDUS 094 Industrial Mathematics	3
(or AA degree mathematics requirement)	

Minimum Units 43

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Completion

Help Desk

Business Education Division

Upon successful completion of requirements for a Help Desk Certificate, the student demonstrates skills, knowledge, and training for an entry-level position at a Call Center or as a beginning customer service representative for a large business. The student demonstrates his or her ability to utilize a variety of helpful tools to assist in solving customers problems and assisting clients in dealing with the many areas of the company either on the telephone or in person and demonstrates his or her ability to input the necessary data to accurately record a summary of their transaction with the customer(s).

Minimum Units Required: 10.5

Required Courses:		Units
BIM 095E	Telephone Techniques	1
BUS 094F	Customer Service Strategies	1
BUS 090	Introduction to Telephone Call Centers	1.5
BIM 001A	Beginning Keyboarding	1
BUS 082A	Business Mathematics	3
COM ST 003	Interpersonal Communication	3
or		
COM ST 007	Intercultural Communication	3

Minimum Units 10.5

Certificate of Completion

Horticulture: Basics

Applied Science & Technology Division

Upon successful completion of the Horticulture Basics Certificate, the student demonstrates skills, knowledge and training for employment in the following industry positions: retail nursery sales and beginning landscape maintenance. The student demonstrates his or her ability to identify plants, provide general plant maintenance, and transplant plants.

Minimum Units Required: 12

Recommended Sequence:		Units
First Semester		
HORT 001	Fundamentals of Horticulture	3
HORT 002	Identification of Fall Plants	3
or		
HORT 003	Identification of Spring Plants	3
Second Semester		
HORT 010	Greenhouse Production	3
HORT 020	Landscape Maintenance	3

Minimum Units 12

Certificate of Completion

Horticulture: Floral Design

Applied Science & Technology Division

Upon successful completion of the Horticulture - Floral Design Certificate, the student demonstrates skills, knowledge, and training for employment in the following industry positions: floral shop sales, floral delivery, wholesale floral business, and beginning floral arranging. The student demonstrates his or her ability to handle cut flowers, identify floral materials, and assist or produce entry level designs.

Minimum Units Required: 13

Recommended Sequence:		Units
First Semester		
AGBUS 013	Agriculture and Natural Resource Mathematics	3
HORT 031A	Floral Arrangement I	1
HORT 031B	Floral Arrangement II	1
HORT 072	House Plants and Interior Landscaping	2
Second Semester		
HORT 006	Horticulture Management	3
HORT 032A	Advanced Floral Arrangement I	1
HORT 032B	Advanced Floral Arrangement II	1
HORT 083	Specialty Floral Design	1

Minimum Units 13

Certificate of Completion

Horticulture:

Landscape Design

Applied Science & Technology Division

Upon successful completion of the Computer Horticulture - Landscape Design Certificate, the student demonstrates skills, knowledge, and training for employment positions in the following: landscape designer for a landscape firm and starting a personal business. The student demonstrates his or her ability to: design basic residential homes, identify plants, beginning computer design and bid a job.

Minimum Units Required: 16

Recommended Sequence:		Units
First Semester		
HORT 001	Fundamentals of Horticulture	3
HORT 004	History of Garden Design	3
Second Semester		
HORT 002	Identification of Fall Plants	3
or		
HORT 003	Identification of Spring Plants	3
HORT 024	Principles of Landscape Design	3
Third Semester		
HORT 025	Computer Landscape Design	3
HORT 071	Xeriscaping	1

Minimum Units 16

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement**Horticulture:****Landscape Management***Applied Science & Technology Division*

Upon successful completion of the Horticulture - Landscape Management Certificate, the student demonstrates skills, knowledge, and training to take the State Landscape Association Certified Technicians test or for employment positions in the following: groundskeeper, landscape installer, landscape maintenance, pruner, and starting a personal business. The student demonstrates his or her ability to: plant plants, mow lawns, fertilize plant material, prune trees and shrubs, basic landscape design, identify plant pests, identify plants and bid a job.

Minimum Units Required: 39

First Semester		Units
HORT 001	Fundamentals of Horticulture	3
HORT 002	Identification of Fall Plants	3
HORT 024	Principles of Landscape Design	3
HORT 070	Pruning of Ornamental Plants	1

Second Semester

HORT 003	Identification of Spring Plants	3
HORT 023	Landscape Irrigation and Drainage	3
HORT 006	Horticulture Management	3
AGBUS 013	Agriculture and Natural Resource Mathematics	3

Third Semester

HORT 005	Introduction to Plant Pests and Diseases	3
HORT 020	Landscape Maintenance	3
HORT 071	Xeriscaping	1

Fourth Semester

HORT 021	Landscape Construction	3
HORT 022	Turf Practices	3
PLANT 014	Soil Science	4

Minimum Units 39**Certificate of Completion****Horticulture:****Landscape Technician***Applied Science & Technology Division*

Upon successful completion of the Horticulture - Landscape Technician Certificate, the student demonstrates entry level skills, for employment positions in the Landscaping field: yard maintenance, irrigation repair, and general landscape services. The program provides a solid foundation for entry level landscaping employment.

Minimum Units Required: 15**Recommended Sequence:**

First Semester		Units
HORT 001	Fundamentals of Horticulture	3
HORT 002	Identification of Fall Plants	3
	or	
HORT 003	Identification of Spring Plants	3
HORT 020	Landscape Maintenance	3

Second Semester

HORT 021	Landscape Construction	3
HORT 023	Landscape Irrigation and Drainage	3

Minimum Units 15**Certificate of Achievement****Horticulture:****Nursery Management***Applied Science & Technology Division*

Upon successful completion of the Horticulture - Nursery Management Certificate, the student demonstrates skills, knowledge, and training to take the State Nursery Association CCN pro test for the following employment positions in the Nursery field: retail sales, growing of nursery stock, growing of floriculture plants, maintenance and upkeep of plant material and starting a personal business. The student demonstrates his or her ability to transplant plants, fertilize plant material, assist a customer in plant selection, develop a crop schedule, and identify plants.

Minimum Units Required: 35

First Semester		Units
HORT 001	Fundamentals of Horticulture	3
HORT 002	Identification of Fall Plants	3
HORT 010	Greenhouse Production	3
AGBUS 013	Agriculture and Natural Resource Mathematics	3

Second Semester

HORT 003	Identification of Spring Plants	3
HORT 012	Plant Propagation	3
HORT 023	Landscape Irrigation and Drainage	3
HORT 071	Xeriscaping	1

Third Semester

HORT 005	Introduction to Plant Pests and Diseases	3
HORT 072	House Plants and Interior Landscaping	2

Fourth Semester

HORT 006	Horticulture Management	3
HORT 070	Pruning of Ornamental Plants	1
PLANT 014	Soil Science	4

Minimum Units 35

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Completion**Horticulture:
Nursery Technician***Applied Science & Technology Division*

Upon successful completion of the Horticulture - Nursery Technician Certificate, the student demonstrates entry level skills for employment positions in the Nursery field: retail sales, growing of nursery stock, growing of floriculture plants, maintenance. The program provides a solid foundation for entry level production employment.

Minimum Units Required: 15**Recommended Sequence:**

First Semester		Units
HORT 001	Fundamentals of Horticulture	3
HORT 002	Identification of Fall Plants	3
or		
HORT 003	Identification of Spring Plants	3
Second Semester		
HORT 010	Greenhouse Production	3
HORT 023	Landscape Irrigation and Drainage	3
Third Semester		
HORT 012	Plant Propagation	3

Minimum Units 15**Certificate of Achievement****Horticulture: Turf Grass***Applied Science & Technology Division*

Upon successful completion of the Horticulture Turf Grass Certificate, the student demonstrates skills, knowledge, and training for employment with public and private employers. The student demonstrates his or her ability to mow lawns, identify plant pest, install and care for lawn, prune trees and shrubs and fertilize lawns.

Minimum Units Required: 45**Recommended Sequence:**

First Semester		Units
HORT 002	Identification of Fall Plants	3
HORT 005	Introduction to Plant Pests and Diseases	3
HORT 021	Landscape Construction	3
PLANT 010	Principles of Plant Science	3
PLANT 010L	Principles of Plant Science Laboratory	1
Second Semester		
HORT 003	Identification of Spring Plants	3
HORT 006	Horticulture Management	3
HORT 023	Landscape Irrigation and Drainage	3
AGBUS 013	Agriculture and Natural Resource Mathematics	3
Third Semester		
HORT 001	Fundamentals of Horticulture	3
HORT 020	Landscape Maintenance	3
HORT 070	Pruning of Ornamental Plants	1
Fourth Semester		
HORT 022	Turf Practices	3
HORT 024	Principles of Landscape Design	3
AGBUS 015	Agribusiness Computer Applications	3
PLANT 014	Soil Science	4

Minimum Units 45**Certificate of Achievement****Human Services Worker***Social Science Division*

Upon successful completion of the Human Services Worker Certificate, the student demonstrates skills, knowledge, and training to counsel with people in a variety of human service settings, while under the supervision of licensed professionals, interviewing skills that maximize the information obtained from clients necessary for determining needs and services, the ability to prepare case plans, an understanding of the basic aims and processes involved in facilitating groups, an understanding of the basic process of individual counseling and problem solving, and an understanding of the basic principles and methods related to working with family systems in human service agencies.

Minimum Units Required: 26**Recommended Sequence:**

First Semester		Units
PSYCH 001	Introduction to Psychology	3
PSYCH 038	Counseling Skills for Human Service Workers	3
PSYCH 039	Client Interview, Evaluation, and Referral	2
PSYCH 045A/ SOCIO 045A	Beginning Field Practicum	2
PSYCH 046	Individual Counseling in Human Service Programs	3
Second Semester		
PSYCH 040	Case Management and Treatment Planning	3
PSYCH 045B/ SOCIO 045B	Intermediate Field Practicum	2
PSYCH 047	Group Counseling in Human Services Programs	3
PSYCH 048	Family Counseling in Human Service Programs	2

Additional Requirement

ENG 001A	Written Communications	3
or		
ENG 079	Preparatory English	5

Each course must be completed with a grade of "C" or higher.

Minimum Units 26

Certificate of Achievement

Human Services Worker: Family Abuse Specialist

Social Science Division

Upon successful completion of the Human Services Worker Certificate: Family Abuse Specialist, the student demonstrates skills, knowledge, and training to counsel with people from dysfunctional families while under the supervision of licensed professionals, an understanding of child abuse counseling techniques, an understanding of how to assist sexual assault victims, interviewing skills that maximize the information obtained from clients necessary for determining needs and services, the ability to prepare case plans, an understanding of the basic aims and processes involved in facilitating groups, an understanding of the basic process of individual counseling and problem solving, and an understanding of the basic principles and methods related to working with family systems in human service agencies.

Minimum Units Required: 30

Recommended Sequence:

First Semester		Units
PSYCH 001	Introduction to Psychology	3
PSYCH 038	Counseling Skills for Human Service Workers	3
PSYCH 039	Client Interview, Evaluation, and Referral	2
PSYCH 045A/ SOCIO 045A	Beginning Field Practicum	2
PSYCH 046	Individual Counseling in Human Service Programs	3

Second Semester

PSYCH 040	Case Management and Treatment Planning	3
PSYCH 045B/ SOCIO 045B	Intermediate Field Practicum	2
PSYCH 047	Group Counseling in Human Services Programs	3
PSYCH 048	Family Counseling in Human Service Programs	2

Third Semester

PSYCH 055	Introduction to Child Abuse Counseling	2
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Fourth Semester

PSYCH 056	Assisting Sexual Assault Victims	2
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Additional Requirement

ENG 001A	Written Communications	3
	or	
ENG 079	Preparatory English	5

Each course must be completed with a grade of "C" or higher.

Minimum Units 30

Certificate of Achievement

Human Services Worker: Gerontology Specialist

Social Science Division

Upon successful completion of the certificate of Human Services Worker: Gerontology Specialist, the student demonstrates skills, knowledge, and training to counsel with older adults while under the supervision of licensed professionals, an understanding of gerontology counseling an understanding of the psychology of aging, interviewing skills that maximize the information obtained from clients necessary for determining needs and services, the ability to prepare case plans, an understanding of the basic aims and processes involved in facilitating groups, an understanding of the basic process of individual counseling and problem solving, and an understanding of the basic principles and methods related to working with family systems in human service agencies.

Minimum Units Required: 31

Recommended Sequence:

First Semester		Units
PSYCH 001	Introduction to Psychology	3
PSYCH 038	Counseling Skills for Human Service Workers	3
PSYCH 039	Client Interview, Evaluation, and Referral	2
PSYCH 045A/ SOCIO 045A	Beginning Field Practicum	2
PSYCH 046	Individual Counseling in Human Service Programs	3

Second Semester

PSYCH 040	Case Management and Treatment Planning	3
PSYCH 045B/ SOCIO 045B	Intermediate Field Practicum	2
PSYCH 047	Group Counseling in Human Services Programs	3
PSYCH 048	Family Counseling in Human Service Programs	2

Third Semester

PSYCH 024	Psychology of Aging	3
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Fourth Semester

PSYCH 057	Introduction to Gerontology Counseling	2
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Additional Requirement

ENG 001A	Written Communications	3
	or	
ENG 079	Preparatory English	5

Each course must be completed with a grade of "C" or higher.

Minimum Units 31

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement

Industrial Technology

Applied Science & Technology Division

Upon successful completion of the Industrial Technology certificate the student demonstrates skills, knowledge, and management of industrial controls, processes and systems. The scope of training includes the installation, repair, maintenance, and management of industrial plant operations in the manufacturing, food processing and automated facilities.

Minimum Units Required: 30.5**Required Courses:**

	Units
MECH 015 Machine Tool Process	3
MECH 010 Basic Welding for the Trades	4
INDUS 031 Industrial Hydraulics	4
MECH 030A Refrigeration and Air Conditioning	3
E TECH 013 Engineering Drafting Skills	3
ELEC 030 Fundamentals of Electricity	5
or	
ELECT 011 AC and DC Network Analysis	4.5
MATH 080 Elementary Algebra	4
or	
INDUS 094 Industrial Mathematics	3
ELECTIVES See Group I below	6-11

Group I (Electives)

(two courses from the following)

INDUS 020 Industrial Safety and Health	3
MECH 031A Air Conditioning Components and Circuits	6
MECH 032A Air Conditioning Control Circuit Analysis	3
MECH 060 Metal Trade Layout and Forming	5

Minimum Units 30.5

Certificate of Achievement

Industrial Technology: Electrical Apprenticeship Option

Applied Science & Technology Division

Upon successful completion of the Industrial Technology - Electrical Apprenticeship Option, the apprentice demonstrates skills, knowledge, and training to work in electrical maintenance at a hydroelectric plant facility. The apprentice demonstrates proficiency in the installation, repair, maintenance and troubleshooting of electrical circuits, electrical equipment pumps and generators. The program is offered as part of the State Department of Water Resources Joint Apprenticeship Committee and the State Division of Apprenticeship Standards. The apprentice receives a State Journey-level Certificate upon successful completion of the program.

Minimum Units Required: 34**Recommended Sequence:**

	Units
First Semester	
A-IND 072A Introduction to Apprenticeship	2
A-IND 076 Applied Technical Mathematics	2
A-ELE 075A Basic Electricity	2
A-ELE 075B Advanced Electricity	2
A-IND 077A Mechanical Fundamentals	2

Second Semester

A-IND 077B Bearings, Pumps, and Turbines	2
A-IND 077C Motors and Generators	2
A-IND 077D Plant Auxiliary Equipment	2

Third Semester

A-ELE 075C Transformers and Polychlorinated Biphenyl	2
A-ELE 075D Protective Relaying	2

Fourth Semester

A-IND 077G Governor Systems	2
A-IND 077H Computers in Hydro-Electric Plants	2
A-IND 077N Electro-Mechanical Print Reading	2

Fifth Semester

A-IND 077K Fundamentals of Thermodynamics	2
A-IND 077L Project Control and Power Contracts	2

Sixth Semester

A-ELE 075E High Voltage Switching	2
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Seventh Semester

A-IND 077M Air Conditioning	2
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Each course must be completed with a grade of "C" or higher.

Minimum Units 34

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement
Industrial Technology:
Maintenance Apprenticeship
Option

Applied Science & Technology Division

Upon successful completion of the Industrial Technology - Maintenance Apprenticeship, the apprentice demonstrates skills, knowledge, and training to work in building and aqueduct maintenance at a hydroelectric plant facility. The apprentice demonstrates proficiency in the installation, repair and maintenance of plant facility and aqueducts, including the use of heavy equipment, concrete, food control systems, protective coatings, tractor operations, trenching and earthwork. The program is offered as part of the State Department of Water Resources Joint Apprenticeship Committee and the State Division of Apprenticeship Standards. The apprentice receives a State Journey-level Certificate upon successful completion of the program.

Minimum Units Required: 42**Recommended Sequence:****First Semester**

	Units
A-IND 072A Introduction to Apprenticeship	2
A-IND 076 Applied Technical Mathematics	2
A-IND 078A Defensive Driving	1
A-IND 078B Heavy Truck Operation	1
A-IND 078C Diesel and Small Gasoline Engines	2
A-IND 078D Surveying and Flood Control Systems	2

Second Semester

A-IND 078E Soils, Asphalt, and Concrete	2
A-IND 078F Environmental Awareness	1
A-IND 078G Power Lift and Four-Wheel Drive Units	2
A-IND 078P Power Actuated Equipment	1

Third Semester

A-ELE 075A Basic Electricity	2
A-ELE 075B Advanced Electricity	2
A-IND 078H Protective Coatings	2
A-MEC 074A Basic Welding	2

Fourth Semester

A-IND 077H Computers in Hydro-Electric Plants	2
A-IND 077J Water Aqueduct Systems	2

Fifth Semester

A-IND 077L Project Control and Power Contracts	2
A-IND 078K Mobile Cranes and Rigging	2
A-IND 078L Motor Grader Operation	2
A-IND 078M Tractor Operations, Trenching, and Shoring	2

Sixth Semester

A-IND 077E Hydraulics	2
A-IND 078N Pesticides and Herbicides	2
A-MEC 074B Machine Shop	2

Each course must be completed with a grade of "C" or higher.

Minimum Units 42

Certificate of Achievement
Industrial Technology:
Mechanical Apprenticeship
Option

Applied Science & Technology Division

Upon successful completion of the Industrial Technology - Mechanical Apprenticeship Option, the apprentice demonstrates skills, knowledge, and training to work in mechanical maintenance at a hydroelectric plant facility. The apprentice demonstrates proficiency in the installation, repair, maintenance and troubleshooting of mechanical systems including compressors, pumps, hydraulic/pneumatic systems, and plant auxiliary equipment. The program is offered as part of the State Department of Water Resources Joint Apprenticeship Committee and the State Division of Apprenticeship Standards. The apprentice receives a State Journey-level Certificate upon successful completion of the program.

Minimum Units Required: 34**Recommended Sequence:****First Semester**

	Units
A-IND 072A Introduction to Apprenticeship	2
A-IND 076 Applied Technical Mathematics	2
A-ELE 075A Basic Electricity	2
A-IND 077A Mechanical Fundamentals	2

Second Semester

A-IND 077B Bearings, Pumps, and Turbines	2
A-IND 077D Plant Auxiliary Equipment	2

Third Semester

A-ELE 075C Transformers and Polychlorinated Biphenyl	2
A-IND 077E Hydraulics	2
A-IND 077F Pneumatics	2

Fourth Semester

A-IND 077G Governor Systems	2
A-IND 077H Computers in Hydro-Electric Plants	2
A-IND 077N Electro-Mechanical Print Reading	2

Fifth Semester

A-IND 077K Fundamentals of Thermodynamics	2
A-IND 077L Project Control and Power Contracts	2
A-MEC 074A Basic Welding	2

Sixth Semester

A-MEC 074B Machine Shop	2
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Seventh Semester

A-IND 077M Air Conditioning	2
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Each course must be completed with a grade of "C" or higher.

Minimum Units 34

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement
Industrial Technology:
Operations Apprenticeship
Option

Applied Science & Technology Division

Upon successful completion of the Industrial Technology Certificate, the student demonstrates skills, knowledge, and training to work in plant operations at a hydroelectric plant facility. The apprentice demonstrates the proficiency in the operation of a hydroelectric plant controlling pumps, electrical generators, aqueduct system and the total plant operating systems. The program is offered as part of the State Department of Water Resources Joint Apprenticeship Committee and the State Division of Apprenticeship Standards. The apprentice receives a State Journey-level Certificate upon successful completion of the program.

Minimum Units Required: 34**Recommended Sequence:****First Semester**

	Units
A-IND 072A Introduction to Apprenticeship	2
A-IND 076 Applied Technical Mathematics	2
A-ELE 075A Basic Electricity	2
A-ELE 075B Advanced Electricity	2
A-IND 077A Mechanical Fundamentals	2

Second Semester

A-IND 077B Bearings, Pumps, and Turbines	2
A-IND 077C Motors and Generators	2
A-IND 077D Plant Auxiliary Equipment	2

Third Semester

A-ELE 075C Transformers and Polychlorinated Biphenyl	2
A-ELE 075D Protective Relaying	2
A-ELE 075E High Voltage Switching	2

Fourth Semester

A-IND 077G Governor Systems	2
A-IND 077H Computers in Hydro-Electric Plants	2
A-IND 077N Electro-Mechanical Print Reading	2

Fifth Semester

A-IND 077J Water Aqueduct Systems	2
A-IND 077K Fundamentals of Thermodynamics	2
A-IND 077L Project Control and Power Contracts	2

Each course must be completed with a grade of "C" or higher.

Minimum Units 34

Certificate of Achievement
Interior Design

Family, Consumer & Health Sciences Division

Upon successful completion of the Interior Design Certificate, the student will be able to work from blueprints, make detailed floor plans, and draw furniture to scale. Additionally, they will be able to develop presentations for client approval to include a sketch or scaled floor plan showing furniture arrangement, color charts, and samples of upholstery, draperies, and wall coverings along with developing estimates for the installation cost of a design project.

Minimum Units Required: 30**Required Courses:**

	Units
ID 002 Introduction to Interior Design	3
ID 006/ Textiles	3
FASHION 006	
ID 008 History of Interior Design & Furniture	3
FCS 011 Applied Interior Design	3
ID 013 Specifications and Professional Practices	3
ARCH 001 Basic Architectural Drafting	3
ART 001A Art History: Europe from Prehistory to 1400	3
or	
ART 001B Art History: Europe from the Fifteenth to the Twentieth Century	3
ART 016 Descriptive Drawing and Rendering	3
ELECTIVES See Group I Below	6

Group I (Electives)

(minimum of 6 units from the following)

FCS 014 Lighting Design	3
ARCH 002 Architectural Practice: Working Drawings	4.5
BUS 001A Principles of Accounting	5
CONST 078 Building Codes	2

Minimum Units 30

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Completion

International Business

Business Education Division

Upon successful completion of the International Business Certificate program, the student demonstrates the skills, knowledge, and training for entry-level positions as a import/export clerk or to incorporate the global business perspective in to their current assignment. The student's skills will include the ability to analyze global business opportunities as well as interact with others from different cultures. Individuals are able to prepare basic international shipping documents as well as have the sensitivities to understand the issues that are involved in a global business operation.

Minimum Units Required: 12.5**Recommended Sequence:****First Semester**

	Units
BUS 009 Ethical Issues in Business	3
or	
BUS 054 Introduction to International Law	3
BUS 055 International Business	3
GEOG 010 World Regional Geography	3

Second Semester

COM ST 007 Intercultural Communication	3
or	
Any introductory Foreign Language Course	2
ELECTIVES See Group I Below	1.5

Group I (Electives)

(minimum of 1.5 units from the following)

BUS 050I Special Studies: International Business	0.5-4
BUS 056 Transportation: Export and Import	3

Minimum Units 12.5

Certificate of Achievement

Law Enforcement

Applied Science & Technology Division

Upon successful completion of the Law Enforcement Certificate, the student demonstrates skills, knowledge and training for a job in law enforcement. The student demonstrates his or her ability to recognize and understand the concepts and terminology that is needed to understand the California criminal justice system.

Minimum Units Required: 61**Recommended Sequence:****First Semester**

	Units
A J 021 Criminal Justice in Society	3
A J 022 Concepts of Criminal Law	3
ENG 001A Written Communications	3
SOCIO 001A Introduction to Sociology	3
ELECTIVE Elective Course	3

Second Semester

A J 023 Principles and Procedures of The Justice System	3
A J 024 Legal Aspects of Evidence	3
POLSC 001 American Government and Institutions	3
or	
HIST 017A History of the United States	3
or	
HIST 017B History of the United States	3
COM ST 001A Fundamentals of Speech	3
ELECTIVE Elective Course	3

Third Semester

A J 025 Criminal Investigation	3
A J 031 Report Preparation	3
MATH 080 Elementary Algebra	4
CS 011 Fundamentals of Computer Science	3
(C S 011 has been changed to CS 011)	
ELECTIVE Elective Course	3

Fourth Semester

A J 028 Juvenile Law and Procedures	3
or	
A J 054 Introduction to Probation and Parole	3
A J 040 Community Relations	3
ELECTIVE Humanities Requirement	3 - 5

Minimum total of 6 units in the following two courses

Natural Science Requirement	3 - 4
ELECTIVE Elective Course	2 - 3

Minimum Units 61

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Completion
Logistics & Transportation
Supervisor

Business Education Division

Upon successful completion of the Logistics and Transportation Supervisor Certificate program, the student demonstrates the skills, knowledge, and training for positions such as traffic coordinator, dispatcher, freight billing clerk, warehouse control clerk, shipping supervisor, telemarketing and freight salesperson; including training in specialized areas of the transportation and distribution industries including the modes, means, regulations, documentation, and rates of the relevant transportation system, transportation of hazardous materials; physical distribution and warehousing; and details relevant to importing and exporting of goods.

Minimum Units Required: 22.5

Recommended Sequence:

First Semester		Units
BUS 051	Introduction to Transportation	1.5
CS 011	Fundamentals of Computer Science	3
or		
CSA 020	MS Word, Excel, and Access	3
BUS 010A	Bookkeeping	3
or		
BUS 001A	Principles of Accounting	5
ELECTIVES	See Group II Below	3

Second Semester

OPTION	See Group I Below	3
ELECTIVES	See Group II Below	3

Third Semester

OPTION	See Group I Below	3
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Fourth Semester

OPTION	See Group I Below	3
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Group I (Option)

(Required courses - may be taken in any sequence)

BUS 056	Transportation: Export and Import	3
BUS 057	Physical Distribution and Warehousing	3

GROUP II (Electives)

(minimum of 6 units from the following)

BUS 017A	Beginning Business Communications	3
BUS 020	Introduction to Business	3
BUS 021	Marketing	3
BUS 030	Supervision and Human Relations	3
BUS 031	Introduction to Management	3
BUS 032/ INDUS 032	Total Quality Management	3
BUS 082A	Business Mathematics	3
and		
BUS 082B	Business Mathematics	3
BIM 039	Office Management	3

Minimum Units 22.5

Certificate of Achievement
Machine Shop Technology

Applied Science & Technology Division

Upon successful completion of the Machine Shop Technology certificate, the student demonstrates skills, knowledge and training for entry-level positions in a variety of industries including machine shops, metal fabrication shops, tool and die shops, mold shops, industrial maintenance or millwright positions, and apprenticeships in these fields. The student demonstrates the safe and proper operation of lathe, milling machine, grinding machines, drilling and sawing machines, computer numerical control (CNC) machines, and other common machine tools; and his or her ability in layout, applied mathematics, CNC programming, and related skills.

Minimum Units Required: 48

Recommended Sequence:

First Semester		Units
MECH 050A	Introductory Machine Shop	8
or		
MECH 067A	Elementary Machine Shop	4
and		
MECH 067B	Elementary Machine Shop	4
E TECH 013	Engineering Drafting Skills	3
INDUS 045	Industrial Technology	5
or		
ELEC 030	Fundamentals of Electricity	5
Second Semester		
MECH 050B	Beginning Machine Shop	8
or		
MECH 067C	Machine Shop	4
and		
MECH 067D	Machine Shop	4
E TECH 012	Computer-Aided Drafting	3
MECH 060	Metal Trade Layout and Forming	5

Third Semester

MECH 050C	Intermediate Machine Shop	8
MECH 010	Basic Welding for the Trades	4
INDUS 031	Industrial Hydraulics	4
or		
INDUS 035	Mobile Hydraulics	4

Each course must be completed with a grade of "C" or higher.

Minimum Units 48

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement Media Studies with Concentration in Radio

Fine Arts Division

Broadcast professionals work in a variety of fields, including television, radio, new media, public relations, and advertising. San Joaquin Delta Colleges Certificate of Achievement in Media Studies with Concentration in Radio prepares students to enter this exciting field, or continue their education at a four-year institution. Courses in radio offer both technical and theoretical instruction.

Minimum Units Required: 46**Recommended Sequence:****First Semester**

	Units
ENG 001A Written Communications	3
MCOM 001 Introduction to Mass Communication	3
RTV 011 Fundamentals of Audio Production	3
ELECTIVES See Below	3

Second Semester

COM ST 001A Fundamentals of Speech	3
MCOM 002 Writing for the Media	3
RTV 001 Introduction to Broadcasting	2
RTV 012 Techniques of Audio Production	3

Third Semester

BUS 021 Marketing	3
RTV 013 Audio Production Workshop	4
ELECTIVES See Below	6

Fourth Semester

RTV 013 Audio Production Workshop	4
ELECTIVES See Below	6

Program ELECTIVES

DRAMA 038 Acting for the Camera	3
ENG 030 The Film as Literature	3
ENG 044D Creative Writing: Play and Screen Writing	3
ENG 052 From Story to Screen	3
ENG 053/ Freelance Writing	3
JOURN 053	
ENG 072 Technical Writing	3
GRART 001A Digital Imaging	2
GRART 002A Layout Design	3
GRART 003A Computer Art	2
GRART 004A Graphic Design for the World Wide Web	2
GRART 006A Publication Design	4
JOURN 053/ Freelance Writing	3
JOURN 069V Internship: Media	1 - 8
PHOTO 001A Introduction to Photography	3
RTV 021 Fundamentals of Video Production	3
RTV 022 Techniques of Video Production	3
MCOM 012 Newspaper Production	3
RTV 023 Video Production Workshop	4

Minimum Units 46

Certificate of Achievement Media Studies with Concentration in Television

Fine Arts Division

Broadcast professionals work in a variety of fields, including television, radio, new media, public relations, and advertising. San Joaquin Delta Colleges Certificate of Achievement in Media Studies with Concentration in Television prepares students to enter this exciting field, or continue their education at a four-year institution. Courses in television offer both technical and theoretical instruction.

Minimum Units Required: 46**Recommended Sequence:****First Semester**

	Units
ENG 001A Written Communications	3
MCOM 001 Introduction to Mass Communication	3
RTV 021 Fundamentals of Video Production	3
ELECTIVES See Below	3

Second Semester

COM ST 001A Fundamentals of Speech	3
MCOM 002 Writing for the Media	3
RTV 001 Introduction to Broadcasting	2
RTV 022 Techniques of Video Production	3

Third Semester

BUS 021 Marketing	3
RTV 023 Video Production Workshop	4
ELECTIVES See Below	6

Fourth Semester

RTV 023 Video Production Workshop	4
ELECTIVES See Below	6

Program ELECTIVES

DRAMA 038 Acting for the Camera	3
ENG 030 The Film as Literature	3
ENG 044D Creative Writing: Play and Screen Writing	3
ENG 052 From Story to Screen	3
ENG 053/ Freelance Writing	3
JOURN 053	
ENG 072 Technical Writing	3
GRART 001A Digital Imaging	2
GRART 002A Layout Design	3
GRART 003A Computer Art	2
GRART 004A Graphic Design for the World Wide Web	2
GRART 006A Publication Design	4
JOURN 053/ Freelance Writing	3
JOURN 069V Internship: Media	1 - 8
PHOTO 001A Introduction to Photography	3
RTV 011 Fundamentals of Audio Production	3
RTV 012 Techniques of Audio Production	3
RTV 013 Audio Production Workshop	4

Minimum Units 46

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Completion
Medical Office Assistant
Business Education Division

Upon successful completion of the Medical Office Assistant Certificate program, the student demonstrates the skills, knowledge and training for entry-level employment as a medical office bookkeeper, medical records file clerk, appointment clerk, insurance coordinator or billing clerk and medical office receptionist. Individuals are able to demonstrate knowledge of medical technology, bookkeeping and records management as well as the ability to deal effectively with patients in setting appointments and collecting payments.

Minimum Units Required: 17
Recommended Sequence:

First Semester		Units
BIM 001A	Beginning Keyboarding	1
BUS 010A	Bookkeeping	3
H S 036	Medical Terminology and Speech	3
BUS 094F	Customer Service Strategies	1
CSA 020	MS Word, Excel, and Access (CSA 020 is equivalent to CS 020)	3
	or	
CSA 045	Microsoft Windows (CSA 045 is equivalent to CS 045)	1
	and	
CSA 081A	Microsoft Word I	0.5
	and	
CSA 081B	Microsoft Word II	0.5
	and	
CSA 082A	Microsoft Excel I	0.5
	and	
CSA 082B	Microsoft Excel II	0.5
Second Semester		
BIM 081	Records Management and Filing (BIM 042 has changed to BIM 081)	3
BIM 038	Office Technologies	3

Minimum Units 17

Certificate of Achievement
Mental Health Specialist
Social Science Division

Upon successful completion of the Mental Health Specialist certificate, the student will be prepared to work at the San Joaquin County Office of Mental Health as a Mental Health Specialist. The student will take academic courses to prepare him/her for this position. The student will receive training on how to: provide case management for a routine client caseload; provide group and individual counseling for emotional, drug, alcohol or other mental health problems; provide in-service training to speakers, educators and counselors; assist in managing a large mental health program or manage a small program.

Minimum Units Required: 49
Recommended Sequence:

First Semester		Units
PSYCH 001	Introduction to Psychology	3
CSA 020	MS Word, Excel, and Access (CSA 020 is equivalent to CS 020)	3
H S 036	Medical Terminology and Speech	3
COM ST 007	Intercultural Communication	3
SOCIO 001A	Introduction to Sociology	3
ENG 079	Preparatory English	5
	or	
ENG 001A	Written Communications	3
Second Semester		
PSYCH 003	Personal and Social Psychology	3
PSYCH 040	Case Management and Treatment Planning	3
PSYCH 038	Counseling Skills for Human Service Workers	3
PSYCH 045A/ SOCIO 045A	Beginning Field Practicum	2
PSYCH 007	Abnormal Psychology	3
Third Semester		
PSYCH 045B/ SOCIO 045B	Intermediate Field Practicum	2
PSYCH 006	Lifespan Psychology	3
PSYCH 039	Client Interview, Evaluation, and Referral	2
PSYCH 046	Individual Counseling in Human Service Programs	3
PSYCH 047	Group Counseling in Human Services Programs	3
BIOL 011	Human Biology	4

Minimum Units 49

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement**Merchandising***Business Education Division*

Upon successful completion of the Merchandising Certificate program, the student demonstrates skills, knowledge and training for retail salespersons positions. The student demonstrates skills to motivate the customer to make a purchase, assess what a customer wants or needs, match the wants and needs to the available merchandise, complete sales-related documents, handle returns and exchanges, stock shelves and take inventory, and prepare displays.

Minimum Units Required: 21**Recommended Sequence:****First Semester**

	Units
BUS 020 Introduction to Business	3
BUS 021 Marketing	3
ELECTIVES See Group I Below	4 - 6

Second Semester

BUS 022 Professional Selling	3
BUS 023 Advertising	3
ELECTIVES See Group I Below	5 - 6

Group I (Electives)

(3 elective courses from the following list)

BUS 001A Principles of Accounting	5
or	
BUS 010A Bookkeeping	3
BUS 008 Introduction to The American Legal System	3
or	
BUS 018A Business Law	3
or	
BUS 018B Business Law	3
or	
BUS 019 Legal Environment of Business	3
BUS 009 Ethical Issues in Business	3
BUS 024 Retail Management	3
BUS 026 Economics of Business	3
BUS 030 Supervision and Human Relations	3
BUS 031 Introduction to Management	3
FASHION 002 Introduction to the Fashion Industry	3
or	
FASHION 024 Visual Merchandising/Store Design I	3

Minimum Units 21**Certificate of Achievement****Mill Cabinet Technology***Applied Science & Technology Division*

Upon successful completion of the Mill and Cabinet Technology Certificate, the student demonstrates skills, knowledge, and training for entry-level employment in the construction industry as Millworker and Cabinetmaker in planning mills and cabinet shops. The student demonstrates his or her ability in setting up and using a variety of tools and machines used for cutting, shaping, and assembling wooden articles, such as store fixtures, cabinets, and high grade furniture.

Minimum Units Required: 34**Recommended Sequence:****First Semester**

	Units
ARCH 001 Basic Architectural Drafting	3
CONST 074A Introduction to Cabinetmaking	4

Second Semester

CONST 074B Fundamentals of Cabinetmaking	4
INDUS 020 Industrial Safety and Health	3
ELECTIVE See Group I below	3

Third Semester

CONST 074C Cabinetmaking	4
CONST 054 Estimating and Specifications	3
ELECTIVE See Group I below	3

Fourth Semester

CONST 074D Cabinetmaking and Millwork	4
INDUS 094 Industrial Mathematics	3
or	
MATH 080 Elementary Algebra	4

Group I (Electives)

(minimum of 6 units from the following)

E TECH 012 Computer-Aided Drafting	3
CONST 072A Beginning Residential Carpentry	10
CONST 072B Intermediate Residential Carpentry	10
CONST 078 Building Codes	2
CONST 089 Methods and Planning	3
CONST 074E Cabinetmaking and Millwork	4
CONST 074F Cabinetmaking and Millwork	4
CONST 074G Cabinetmaking and Millwork	4
CONST 074H Cabinetmaking and Millwork	4

Minimum Units 34

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement
Mill Cabinet Technology:
Apprenticeship Option
Applied Science & Technology Division

Successful completion of the Mill Cabinet Technology: Apprenticeship Option program qualifies the student for employment in the construction industry as a journey-level Mill worker and Cabinetmaker in planning mills and cabinet shops. The student will have demonstrated proficiency in setting up and using a variety of tools and machines used for cutting, shaping, and assembling wooden articles, such as store fixtures, cabinets, and high grade furniture. The program is presented in conjunction with the local Mill and Cabinet Trade Advisory Joint Apprenticeship Committee and the State Division of Apprenticeship Standards. The student receives a State Certificate upon successful completion of the program.

Minimum Units Required: 38

Recommended Sequence:

First Semester		Units
A-CON 080A	Mill Cabinet: Introduction	4
VO-ED 080V	Work Experience: Apprenticeship	2
Second Semester		
A-CON 080B	Mill Cabinet: Fundamentals	4
VO-ED 080V	Work Experience: Apprenticeship	2
Third Semester		
A-CON 081A	Mill Cabinet: Basic Woodworking	4
VO-ED 080V	Work Experience: Apprenticeship	2
Fourth Semester		
A-CON 081B	Mill Cabinet: Layout and Benchwork	4
Fifth Semester		
A-CON 082A	Mill Cabinet: Materials and Application	4
Sixth Semester		
A-CON 082B	Mill Cabinet: Commercial Cabinetry	4
Seventh Semester		
A-CON 083A	Mill Cabinet: Design, Layout, and Production	4
Eighth Semester		
A-CON 083B	Mill Cabinet: Project Planning	4

Minimum Units 38

Certificate of Achievement
Municipal Clerk
Business Education Division

Upon successful completion of the Municipal Clerk Certificate, the student will be prepared for careers as a City Clerk, support staff in the office of the city clerk, or other similar public administration positions. The duties of a Municipal Clerk requires knowledge of public relations, organizational behavior, management, public administration, legislative procedures, meeting preparation and keeping of official minutes, elections planning and procedures, processing of annexations and vacations, license and permit processing, projects and capital improvements approvals, contracts and deeds processing, and records management. This program provides training in all of these areas.

Minimum Units Required: 38

Recommended Sequence:

First Semester		Units
BUS 001A	Principles of Accounting	5
BUS 017A	Beginning Business Communications	3
BUS 031	Introduction to Management	3
CS 011	Fundamentals of Computer Science (CS 011 is equivalent to C S 011)	3
Second Semester		
BUS 033	Introduction to Public Administration	3
BUS 030	Supervision and Human Relations	3
or		
BUS 036	Human Resources Management	3
ENG 001A	Written Communications	3
ELECTIVE	See Group I below	3
Third Semester		
BUS 037	Human Behavior in Organizations	3
BUS 034	Introduction to Municipal Clerkship	3
BIM 043	Records Management in Public Agencies	3
ENG 001D	Critical Composition	3
Group I (Electives)		
BUS 017B	Advanced Business Communications	3
POLSC 001	American Government and Institutions	3

Minimum Units 38

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Completion**Nurse Assistant***Family, Consumer & Health Sciences Division*

Upon successful completion of this program, the student demonstrates the skills and training to take the certification examination to become a Certified Nurse Assistant. The student demonstrates skills, knowledge, and training to provide direct patient care in acute and long-term care settings with the scope of practice of a Certified Nurse Assistant. Applicants must complete all clinical requirements prior to enrollment.

Minimum Units Required: 5**Required Course:**

H S 070 Nurse Assistant Training

Units

5

Minimum Units 5

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement
Nursing (Registered Nurse)
Family, Consumer & Health Sciences Division

Upon successful completion of the Nursing certificate for Registered Nurse, the student demonstrates the skills, knowledge and training to take the National Council Licensing Examination for Registered Nurses (NCLEXRN) and qualification to provide patient care in a variety of health care settings within the Registered Nurse scope of practice.

Minimum Units Required: 74.5**Recommended Sequence:**

Prerequisites	Courses	Units
BIOL 031	Human Anatomy	4
BIOL 032	Human Physiology	5
BIOL 022 *	Introduction to Medical Microbiology	4
FCS 006	Nutrition	3
ENG 001A	Written Communications	3

First Semester

NURS 001	Fundamentals of Nursing	4.5
NURS 002	Introduction to Medical/Surgical Nursing	4.5
NURS 003/ H S 003	Administration of Medication	3

Second Semester

NURS 004	Beginning Medical/Surgical Nursing	5.5
NURS 005	Mental Health Nursing	4
PSYCH 001	Introduction to Psychology	3
SOCIO 001B	Problems of a Changing Society	3

Third Semester

NURS 006	Nursing The Childrearing Family	4
NURS 007	Intermediate Medical/Surgical Nursing	5.5
COM ST 001A	Fundamentals of Speech	3
POLSC 001	Course from Social Science	
Group A	American Government and Institutions	3

or

HIST	General Education Requirements (See Group I)	3
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Fourth Semester

NURS 008	Nursing of The Childbearing Family	4
NURS 009	Advanced Medical/Surgical Nursing	3.5
NURS 010	Community-Based Nursing	2
HUM	Select one course from Humanities (Group III, Associate Degree General Education Requirements)	3 - 5

Group I (Electives)

Social Science Group A General Education Electives		
HIST 017A	History of the United States	3
HIST 017B	History of the United States	3
HIST 027	Women in History	3
HIST 030A	African-American History to 1877	3
HIST 030B	African-American History Since 1877	3
HIST 031	Mexican-American History	3
HIST 034	Asian Pacific American History	3
POLSC 001	American Government and Institutions	3

Group III (Humanities Electives)

(Select a minimum of 3 units)

Only courses on this listing are accepted for ADN program

ANTHR 004/ HUM 004	Introduction to Linguistics	3
ART 001A	Art History: Europe from Prehistory to 1400	3
ART 001B	Art History: Europe from the Fifteenth to the Twentieth Century	3
ART 002	Art History of the Non-Western World	3
ART 003	Introduction to Art	3
ART 004	Exploring Art	3
CIVIL 003/ HUM 003	Autobiography of Civilization	3
CUL ART 016	Gastronomies of the World	3
DRAMA 010	Theatre Appreciation	3
DRAMA 016A	History of Theatre: Primitive to 1800	3
ENG 030	The Film as Literature	3
ENG 035	Chicano Literature	3
ENG 037	Women in Literature	3
ENG 038	Mythology	3
ENG 039	Introduction to Folklore	3
ENG 040A	Current Literature: The Novel	3
ENG 040B	Current Literature: Short Story and Drama	3
ENG 042A	Survey of American Literature	3
ENG 042B	Survey of American Literature	3
ENG 045	The Reading of Shakespeare	3
ENG 046A	Survey of English Literature	3
ENG 046B	Survey of English Literature	3
ENG 047	The Bible as Literature	3
ENG 052	From Story to Screen	3
ENG 055	Reading Plays: Critical Approaches	3
ENG 057	Children's Literature	3
ENG 057	Children's Literature	3
FASHION 008	History of Fashion	3
FOR LANG 001	Elementary	5
FOR LANG 051	Elementary	2.5
and		
FOR LANG 052	Elementary	2.5
HUM 003/ CIVIL 003	Autobiography of Civilization	3
MUSIC 001	Music Fundamentals	3
MUSIC 002A	Music History from Antiquity to 1750	3
MUSIC 002B	Music History from 1750 to Present	3
MUSIC 004	Exploring Music	3
MUSIC 007	Excursions in Music of Our World	3
MUSIC 008	Exploring Jazz, Ragtime, and Blues	3
HORT 004	History of Garden Design	3
PHILO 006	Introduction to Philosophy	3
PHILO 045	God and the Person	3
SL 001	Elementary American Sign Language	3

Minimum Unit 74.5

*Student may elect to complete BIOL 023 for the prerequisite.

Refer to SECTION III, Academic Programs, Special Admission Programs, for admission requirements.

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Completion

Office Assistant

Business Education Division

Upon successful completion of the Office Assistant Certificate, the student demonstrates skills, knowledge, and training for employment in office settings for positions similar to Clerk, Office Assistant, or Receptionist. The student demonstrates his or her ability to answer telephones effectively, open, sort, and distribute incoming mail and prepare outgoing mail, keyboard and produce mailable documents, prepare basic spreadsheets, perform basic filing tasks, send e-mail messages and faxes, and operate a copier.

Minimum Units Required: 11

Recommended Sequence:

	Units	
BIM 001A	Beginning Keyboarding	1
BIM 032A	Beginning Office Calculation	1
BIM 095A	Office Filing	1
BIM 095D	Proofreading and Beginning Document Formatting	1
BIM 095E	Telephone Techniques	1
BIM 095F	Office Fundamentals	1
BUS 073E	Customer Service Basics for Business and Industry	0.5
BUS 073H	Managing Your Time to Better Serve Your Customers	0.5
CSA 045	Microsoft Windows	1
CSA 081A	Microsoft Word I	0.5
CSA 082A	Microsoft Excel I	0.5
CSA 085A	Basic Microsoft Word	0.5
CSA 086A	Basic MS Excel	0.5
CS 070	Introduction to Internet	1

Minimum Units 11

Certificate of Achievement

Office Management

Business Education Division

Upon successful completion of the Office Management Certificate, the student demonstrates skills, knowledge, and training for employment available in private industry, non-profit organization, and government office for the following positions: Office Manager, Administrative Office Manager, Customer Service Manager, and Administrative Office Professional. The student demonstrates his or her ability to: supervise and train employees; develop and maintain office procedures; organize and coordinate work efficiently and set priorities; research and work on projects; communicate effectively orally and in writing.

Minimum Units Required: 36.5

Recommended Sequence:

		Units
First Semester		
BIM 002	Intermediate Keyboarding	3.5
BIM 081	Records Management and Filing	3
BUS 017A	Beginning Business Communications	3

Second Semester

BIM 007A	MS Word: Beginning Concepts and Applications	3
BUS 001A	Principles of Accounting	5
	or	
BUS 010A	Bookkeeping	3
BUS 017B	Advanced Business Communications	3

Third Semester

BIM 038	Office Technologies	3
BUS 020	Introduction to Business	3
ELECTIVES	See Group I Below	3

Fourth Semester

BIM 039	Office Management	3
CSA 035	Multimedia Presentations	3
ELECTIVES	See Group I Below	3

Group I (Electives)

(minimum of 6 units from the following)

BIM 007B	MS Word: Advanced Concepts and Applications	3
BIM 023P	Beginning Desktop Publishing, Using PageMaker	2
CSA 020	MS Word, Excel, and Access	3
BUS 008	Introduction to The American Legal System	3
BUS 015	Computer Spreadsheets for Accounting	2
BUS 030	Supervision and Human Relations	3
CSA 045	Microsoft Windows	1
	(CS 045 has been changed to CSA 045)	
GUID 033	Job Seeking Skills	1
COM ST 001A	Fundamentals of Speech	3

Minimum Units 36.5

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Completion**Professional Mixology***Family, Consumer & Health Sciences Division*

Upon successful completion of this program, the student will be able to identify, select, purchase, prepare and serve alcoholic beverages in a prudent and professional manner. Students will also have knowledge of the proper procedures for storage and handling inventory, bar operations, merchandising and effective bar control.

Minimum Units Required: 16.5

Required Courses:	Units
CUL ART 003 Sanitation and Safety	2
CUL ART 004 Food and Beverage Cost Technologies	2
CUL ART 029 Beverage Management	1.5
CUL ART 011 Menu Planning	1.5
CUL ART 013 Purchasing and Receiving	1.5
HMG 006 Hospitality Law	3
HMG 001 Service Management	2
HMG 028 Mixology	3

Minimum Units 16.5**Certificate of Achievement****Psychiatric Technician***Family, Consumer & Health Sciences Division*

Upon successful completion of the Psychiatric Technician program, the student demonstrates skills, knowledge, and training for eligibility to take the State of California examination for licensure. As a licensed Psychiatric Technician, the student demonstrates his or her ability to practice in a variety of health care settings providing patient care within the parameters of the Psychiatric Technician scope of practice. NOTE: Please refer to Special Admission Requirement information in the current catalog.

Minimum Units Required: 41**Recommended Sequence:**

Prerequisites:	Units
BIOL 031 Human Anatomy	4
or	
BIOL 033 Anatomy & Physiology	6
H S 036 Medical Terminology and Speech	3
FCS 019/ Human Development	3
H S 019	
PSYCH 001 Introduction to Psychology	3
First Semester	
PT 001/ Foundations of Nursing	8.5
VOC NUR 001	
PT 002/ Introduction to Medical and Surgical Nursing	8.5
VOC NUR 002	
Second Semester	
PT 082 Psychiatric Technician Nursing	8
Third Semester	
PT 083 Advanced Psychiatric Technician Nursing	4.5
PT 084 Developmental Disabilities Nursing	6
PT 085 Advanced Developmental Disabilities Nursing	5.5

NOTE: Please refer to Special Admission Requirement information in the current catalog.

Minimum Units 41**Certificate of Achievement****Public Health Technician***Family, Consumer & Health Sciences Division*

Upon successful completion of this program, the student demonstrates skills, knowledge, and training for the entry-level health care system.

Minimum Units Required: 32**Recommended Sequence:**

First Semester	Units
H ED 001 Health Education	3
H ED 028 Community Health	2
FCS 002 Life Management	3
ENG 001A Written Communications	3
or	
ENG 079 Preparatory English	5
Second Semester	
H S 019/ Human Development	3
FCS 019	
H S 036 Medical Terminology and Speech	3
BIM 007A MS Word: Beginning Concepts and Applications	3
Third Semester	
FCS 006 Nutrition	3
PSYCH 053 Drugs and Society	3
SOCIO 024 Social Welfare	3
SOCIO 001A Introduction to Sociology	3

Minimum Units 32

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement

Radiologic Technology

Family, Consumer & Health Sciences Division

Upon successful completion of the Radiologic Technology program, the student demonstrates skills, knowledge, and training for eligibility to take the certification examinations given by the State of California and the American Registry of Radiologic Technologists. The student demonstrates his or her ability to practice in a variety of health care settings providing radiology services. NOTE: Please refer to catalog for program Special Admission Requirement information.

Minimum Units Required: 80.5**Recommended Sequence:****Prerequisites to the Program:**

1. High school Graduate or G.E.D.
2. At least 18 years of age by July of the year of application.
3. A cumulative grade point average of no less than prerequisite courses of 2.5 or greater.
4. One year of High School or College Algebra, with a grade of "C" or better.
5. A score on the San Joaquin Delta College Academic Assessment of Level III in Composition or completion of English 079 with a grade of "C" or better.
6. Completion of the following prerequisite courses with a grade of "C" or better AND a cumulative prerequisite GPA of 2.5 or greater: BIOL 033 (Anatomy & Physiology)
or
BIOL 031 (Human Anatomy)
and
BIOL 032 (Human Physiology)
HS 036 (Medical Terminology)
Elementary Algebra (as stated above)
7. Hold a current, valid CPR card upon entry into the program.

Summer		Units
RAD 010	Introduction to Radiography	3.5
RAD 010A	Beginning Clinical Laboratory	3

Fall		
RAD 010B	Intermediate Clinical Laboratory	6
RAD 011	Radiographic Positioning and Terminology	6
RAD 012	Radiographic Anatomy	2
RAD 013	Principles of Radiographic Technique	4
RAD 014	Darkroom Chemistry and Processing	1

Spring		
RAD 020	Advanced Radiographic Positioning and Terminology	4
RAD 020A	Advanced Clinical Laboratory	8
RAD 021	Advanced Radiographic Anatomy	2
RAD 022	Fundamentals of X-Ray and Radium Physics	4
RAD 023	Positioning and Technical Laboratory	0.5

Summer		
RAD 030	Intermediate Positioning and Technical Laboratory	0.5
RAD 030A	Senior Clinical Laboratory	5

Fall		Units
RAD 030B	Advanced Senior Clinical Laboratory	10
RAD 031	Advanced Positioning and Technical Laboratory	1
RAD 032	Sectional Anatomy	2

Spring

RAD 040	Senior Review, Adv. Radiation Protection, & Fluoroscopic Systems	6
RAD 040A	Radiographic Laboratory	9
RAD 041	Radiographic Pathology and Film Critique	3

Group I (Electives)

(The following electives are recommended, but they are not required.)

PHSCI 001	Matter and Energy	3
PHYS 002A	General Physics	4
PHYS 002B	General Physics	4
CHEM 003A	Introduction to Chemistry	4
POLSC 001	American Government and Institutions	3
or		
HIST 017A	History of the United States	3
or		
HIST 017B	History of the United States	3
PSYCH 001	Introduction to Psychology	3
BUS 030	Supervision and Human Relations	3
ENG 001A	Written Communications	3
H ED 031	Emergency Response	3
H ED 001	Health Education	3
PHYS 010	Introduction to Physics	4
BIOL 032	Human Physiology	5

Students are encouraged to pursue an A.A. Degree, which may be granted concurrently with the Radiology Technology Certificate, provided all General Education requirements have been met.

Those students planning to apply to the program should consider taking general education classes while continuing entry into the program. Please consult a counselor for degree requirements.

NOTE:

Please refer to SECTION III, Academic Programs, Special Admission Programs, for admission requirements.

Minimum Units 80.5

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS**Certificate of Achievement****Real Estate***Business Education Division*

Upon successful completion of the Real Estate Certificate, the student demonstrates skills, knowledge, and training for entry-level positions such as real estate sales associates, property management, real estate appraisal, or assistants in real estate offices. The student demonstrates his or her ability to: perform the essential services necessary for the buyers and sellers of real property thereby providing for the orderly transfer of property such as helping buyers finding property that meets their needs and financial resources; obtain property listings; make preliminary estimates, anticipate prospective buyers' questions; prepare a purchase agreement; work with title or escrow companies, lenders, home inspectors, and pest control operators to facilitate the completion of the transaction; meet requirements for state licensure as a salesperson or broker. The student who specializes in property management demonstrates skills, knowledge, and training to oversee the day-to-day management of income-producing commercial and residential properties and manage the common property of condominium associations. The student who specializes in real estate appraisal demonstrates the skills, knowledge, and training to compute estimates of value of real property which are required when property is bought, sold, assessed, taxed, condemned, insured, or mortgaged.

NOTE: Please refer to the California Department of Real Estate web site for licensing information. (<http://www.dre.ca.gov/>)

Minimum Units Required: 27**Recommended Sequence:****First Semester**

		Units
BUS 040	Real Estate Principles	3
BUS 045	Real Estate Economics	3
	or	
BUS 026	Economics of Business	3
BUS 046	Property Management	3
ELECTIVE	See Group I	3 - 5

Second Semester

BUS 041	Real Estate Practice	3
BUS 042	Real Estate Finance	3
BUS 043	Legal Aspects of Real Estate	3
BUS 044	Real Estate Appraisal	3
ELECTIVE	See Group I	3 - 4

Group I (Electives)

(6 units required from the list of electives)

BUS 001A	Principles of Accounting	5
	or	
BUS 003	Financial Accounting	5
	or	
BUS 010A	Bookkeeping	3
CSA 020	MS Word, Excel, and Access	3
BUS 008	Introduction to The American Legal System	3
	or	
BUS 018A	Business Law	3
	or	
BUS 018B	Business Law	3
	or	
BUS 019	Legal Environment of Business	3
BUS 022	Professional Selling	3
BUS 023	Advertising	3
BUS 080	Microcomputer Essentials for Real Estate Practice	1
BUS 082A	Business Mathematics	3
	and	
BUS 082B	Business Mathematics	3
	or	
BIM 031	Electronic Calculation	3
	and	
BIM 032A	Beginning Office Calculation	1
	and	
BIM 032B	Intermediate Office Calculation	1
	and	
BIM 032C	Advanced Office Calculation	1
CONST 054	Estimating and Specifications	3

Minimum Units 27

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement Recreation Assistant

Physical Ed, Recreation & Athletics Division

Upon successful completion of the Recreation Assistant certificate, the student demonstrates skills, knowledge, and training for entry level positions as recreation leaders, recreation assistants, recreation coordinators, and senior recreation leaders. The student demonstrates his or her ability to supervise aquatic activities, officiate games, to plan both adult and youth recreational activities or to transfer to a bachelors degree program in recreation.

Minimum Units Required: 27

Recommended Sequence:

First Semester		Units
P E 046	Recreational Leadership	3
H ED 028	Community Health	2
ELECTIVE	Physical Education Activity Course	2

Second Semester

H ED 030	Community First Aid and Safety	2
P E 043	Introduction to Athletic Training	3
ELECTIVE	Physical Education Activity Course	2

Third Semester

P E 001A	Beginning Swimming	1-1.5
P E 049	Psychology of Sports	3
ELECTIVE	Physical Education Activity Course	2

Fourth Semester

H ED 001	Health Education	3
P E 002	Lifeguard Training	2
ELECTIVE	Physical Education Activity Course	2

Minimum Units 27

Certificate of Achievement Refrigeration

Applied Science & Technology Division

Upon successful completion of the Refrigeration certificate, the student demonstrates skills, knowledge, and training for employment in the refrigeration industry. The student demonstrates his or her ability to work in maintenance departments, cold storage facilities, school districts, and for private contractors. The student demonstrates sufficient experience to recover, evacuate and charge simple refrigeration systems and pass an EPA test to work in the refrigeration industry.

Minimum Units Required: 34

Recommended Sequence:

First Semester		Units
MECH 030A	Refrigeration and Air Conditioning	3
MECH 031A	Air Conditioning Components and Circuits	6
ELEC 030	Fundamentals of Electricity	5

Second Semester

MECH 030B	Intermediate Refrigeration	3
MECH 031B	Air Conditioning Troubleshooting	6
MECH 032A	Air Conditioning Control Circuit Analysis	3

Third Semester

MECH 032B	Refrigeration Control Circuit Analysis	3
MECH 060	Metal Trade Layout and Forming	5

Each course must be completed with a grade of "C" or higher.

Minimum Units 34

Certificate of Achievement Retail Management

Business Education Division

Upon successful completion of the Retail Management Certificate program, the student demonstrates skills, knowledge, and training for positions such as, first-line supervisors and managers in retail businesses. The student demonstrates his or her knowledge in the fundamentals of how to plan and direct the work of the organization, set policy, establish channels of communication, and evaluate the work that is done (in stores that specialize in selling a specific line of merchandise). The student demonstrates his or her ability to foster positive relationships, increase job satisfaction and ensure that customer or client needs are met; define company goals; apply relevant federal and state laws and union contracts; recognize and evaluate industry trends; plan advertising campaigns and sales promotions; hire and train personnel; control inventories; draft budgets; and recommend, establish, or implement store procedures and policies.

Minimum Units Required: 30

Recommended Sequence:

First Semester		Units
BUS 001A	Principles of Accounting	5
	or	
BUS 010A	Bookkeeping	3
BUS 024	Retail Management	3
BUS 030	Supervision and Human Relations	3
CSA 020	MS Word, Excel, and Access	3

Second Semester

BUS 017A	Beginning Business Communications	3
BUS 031	Introduction to Management	3
BUS 082A	Business Mathematics	3
COM ST 006/ BUS 006	Business and Professional Communication	3

Third Semester

BUS 021	Marketing	3
BUS 036	Human Resources Management	3

Minimum Units 30

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement**Risk Management & Insurance***Business Education Division*

Upon successful completion of the Risk Management and Insurance certificate, the student demonstrates skills, knowledge, and training for entry-level positions such as insurance adjusters, examiners and investigators. The student demonstrates his or her ability to gather factual information, evaluate the facts, and write up and/or negotiate settlements regarding the financial loss from injury, illness, death, property damage, or liability for harm or loss to other people.

Minimum Units Required: 36**Recommended Sequence:****First Semester**

		Units
BUS 001A	Principles of Accounting	5
BUS 020	Introduction to Business	3
BUS 074	Introduction to Risk Management and Insurance	3
CSA 020	MS Word, Excel, and Access (CSA 020 is equivalent to CS 020)	3

Second Semester

BUS 027	Financial Planning and Investments	3
BUS 067	Introduction to Personal Finance	3
BUS 017A	Beginning Business Communications	3
	or	
ENG 079	Preparatory English	5
	or	
ENG 001A	Written Communications	3
BUS 082B	Business Mathematics	3
ELECTIVES	See Group I below	3

Third Semester

BUS 069V	Internship: Business and Accounting	1
ELECTIVES	See Group I below	6

Group I (Electives)

BUS 009	Ethical Issues in Business	3
BUS 008	Introduction to The American Legal System	3
	or	
BUS 018A	Business Law	3
	or	
BUS 019	Legal Environment of Business	3
BUS 011	Income Tax Procedures	3
BUS 021	Marketing	3
	or	
BUS 022	Professional Selling	3
BIM 095E	Telephone Techniques	1
BUS 094F	Customer Service Strategies	1
COM ST 001A	Fundamentals of Speech	3
	or	
COM ST 007	Intercultural Communication	3
MATH 010	Introduction to Contemporary Mathematics	3
	or	
MATH 012	Introduction to Probability and Statistics	4

Each course must be completed with a grade of "C" or higher.

Minimum Units 36

Certificate of Completion**Small Business***Business Education Division*

Upon successful completion of the Small Business certificate program the student demonstrates the skills, knowledge, and training for positions as a small business owner or assistant in a small business enterprise; and the skills necessary to start up and maintain a small business. Individuals also demonstrate the ability to prepare a business plan, analyze the funding required to start a business, develop a marketing plan, set up an elementary bookkeeping system, and articulate some of the legal issues facing small businesses today.

Minimum Units Required: 9**Recommended Sequence:**

First Semester	(Minimum of 9 units from the following)	Units
BUS 095A	Introduction to Bookkeeping and Accounting	1
	or	
BUS 010A	Bookkeeping	3
BUS 060	Small Business Management	3
	or	
BUS 094A	Small Business Start Up	1
	and	
BUS 094B	Essential Topics for Small Business	1
	and	
BUS 094C	The New Entrepreneur	1
BUS 094D	The Law and the Small Business	1
BUS 094E	Marketing and Advertising Strategies for Small Business	1
BUS 094F	Customer Service Strategies	1
BUS 073B	Recruiting and Selecting Employees	1
BUS 073D	Personnel Relations in the Workplace	1

Minimum Units 9

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement

Substance Abuse Counselor

Social Science Division

Upon successful completion of the Substance Abuse Counselor Certificate, the student demonstrates skills, knowledge, and training to counsel with people in recovery, while under the supervision of licensed professionals, an understanding of substance abuse counseling techniques, the impact of drugs on society, interviewing skills that maximize the information obtained from clients necessary for determining needs and services, the ability to prepare case plans, an understanding of the basic aims and processes involved in facilitating groups, an understanding of the basic process of individual counseling and problem solving, and an understanding of the basic principles and methods related to working with family systems in human service agencies.

Minimum Units Required: 32

Recommended Sequence:

First Semester		Units
PSYCH 001	Introduction to Psychology	3
PSYCH 008A	Community Advocacy: Drug and Alcohol Prevention Strategies	1.5
PSYCH 045A/ SOCIO 045A	Beginning Field Practicum	2
PSYCH 046	Individual Counseling in Human Service Programs	3
PSYCH 052	Introduction to Substance Abuse Counseling	3
GUID 030	Career Self-Assessment	1
ENG 001A	Written Communications	3
	or	
ENG 079	Preparatory English	5

Second Semester

PSYCH 008B	Community Advocacy: Drug and Alcohol Education Programs	1.5
PSYCH 040	Case Management and Treatment Planning	3
PSYCH 045B/ SOCIO 045B	Intermediate Field Practicum	2
PSYCH 047	Group Counseling in Human Services Programs	3
PSYCH 053	Drugs and Society	3
BIM 001A	Beginning Keyboarding	1
H ED 028	Community Health	2

Additional Requirements:

Internship: A minimum of 255 supervised intern hours in a substance abuse facility. May be accrued from paid work experience, volunteer work or through enrollment in the SJDC Work Experience Program.

Minimum Units 32

Certificate of Achievement

Supervision & Management

Business Education Division

Upon successful completion of the Supervision and Management Certificate, the student demonstrates skills, knowledge, and training for positions such as, first-line supervisors and managers. The student demonstrates his or her ability to: plan and direct the work of the organization; set policy; establish channels of communication; and evaluate the work that is done. The student demonstrates his or her ability to foster positive relationships; increase job satisfaction; and ensure that customer or client needs are met; define company goals; apply relevant federal and state laws and union contracts; recognize and evaluate industry trends.

Minimum Units Required: 21

Recommended Sequence:

First Semester		Units
BUS 020	Introduction to Business	3
BUS 030	Supervision and Human Relations	3
ELECTIVES	4 - 6	

Second Semester

BUS 008	Introduction to The American Legal System	3
	or	
BUS 018A	Business Law	3
	or	
BUS 019	Legal Environment of Business	3
BUS 031	Introduction to Management	3
ELECTIVES SEE GROUP 1 BELOW		5 - 6

Group I (Electives) (minimum of 3 electives from the following)

BUS 001A	Principles of Accounting	5
	or	
BUS 010A	Bookkeeping	3
BUS 017A	Beginning Business Communications	3
BUS 018B	Business Law	3
	or	
BUS 009	Ethical Issues in Business	3
BUS 026	Economics of Business	3
BUS 032/ INDUS 032	Total Quality Management	3
BUS 036	Human Resources Management	3
BIM 039	Office Management	3
BUS 073A	Leadership for Supervisors and Managers	1
	and	
BUS 073B	Recruiting and Selecting Employees	1
	and	
BUS 073C	Decision Making for Supervisors	1
	and	
BUS 073D	Personnel Relations in the Workplace	1
BUS 060	Small Business Management	3
	OR	
	(minimum of any 3 units from the Business 94 Series:)	
BUS 094A	Small Business Start Up	1
BUS 094B	Essential Topics for Small Business	1
BUS 094C	The New Entrepreneur	1
BUS 094D	The Law and the Small Business	1
BUS 094E	Marketing and Advertising Strategies for Small Business	1
BUS 094F	Customer Service Strategies	1
CSA 018	Microcomputers and Small Business Applications: Apple-Mac	3
	or	
CSA 020	MS Word, Excel, and Access (CSA 020 is equivalent to CS 020)	3

Minimum Units 21

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement

Tax Preparation

Business Education Division

Upon successful completion of the Tax Preparation Certificate, students will demonstrate skills, knowledge, and training for entry level positions to assist tax preparers and interviewers. The student completing this program will have demonstrated his or her ability to accurately fill in detailed data sheets to help in the preparation of tax returns by gathering information from client interviews, collecting copies of previous tax returns, wage statements, interest and dividend summaries, and other tax records.

Minimum Units Required: 30

Recommended Sequence:

First Semester

BUS 001A	Principles of Accounting	5
ELECTIVES	See Group I Below	6

Second Semester

BUS 001B	Principles of Accounting	5
BUS 003	Financial Accounting	5
BUS 011	Income Tax Procedures	3
BUS 081	California Income Tax Preparation	1

Third Semester

BUS 004	Managerial Accounting	5
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Group I (Electives)

(minimum of 6 units from the following)

BUS 020	Introduction to Business	3
BUS 018A	Business Law	3
or		
BUS 019	Legal Environment of Business	3
BUS 026	Economics of Business	3
CS 011	Fundamentals of Computer Science	3
BUS 015	Computer Spreadsheets for Accounting	2
BIM 031	Electronic Calculation	3
or		
BIM 032A	Beginning Office Calculation	1
and		
BIM 032B	Intermediate Office Calculation	1
and		
BIM 032C	Advanced Office Calculation	1
BUS 082A	Business Mathematics	3
and		
BUS 082B	Business Mathematics	3

Minimum Units 30

Certificate of Completion

Traffic Shipping & Receiving Technician

Business Education Division

Upon successful completion of the Traffic Shipping & Receiving Technician Certificate, the student demonstrates skills, knowledge, and training for entry-level positions preparing and sending (shipping) and taking in (receiving) merchandise sent between companies. The student demonstrates skills to ensure that the right merchandise is being sent and is in acceptable condition, prepare bills of lading and related paperwork for commercial and other shipments, figure freight or postal rates and record costs and weights of each shipment. The student demonstrates his or her ability to write and keep records and reports on warehouse activities, wrap and address the goods to be shipped, inspect trucks and vans to make sure they're clean, and route incoming items coming in to a plant, warehouse, or department.

Minimum Units Required: 14.5

Recommended Sequence:

First Semester

BIM 032A	Beginning Office Calculation	1
BUS 051	Introduction to Transportation	1.5
CS 011	Fundamentals of Computer Science	3
or		
CSA 020	MS Word, Excel, and Access	3
BUS 010A	Bookkeeping	3
or		
BUS 001A	Principles of Accounting	5

Second Semester

ELECTIVE	See Group I Below	3
ELECTIVE	See Group II Below	3

Group I (Elective)

(minimum of 3 units from the following)

BUS 056	Transportation: Export and Import	3
BUS 057	Physical Distribution and Warehousing	3
BUS 098V	Work Experience: Business and Accounting	1 - 4

Group II (Elective)

(minimum of 3 units from the following)

BUS 082A	Business Mathematics	3
and		
BUS 082B	Business Mathematics	3
BIM 038	Office Technologies	3
BIM 039	Office Management	3
BIM 081	Records Management and Filing	3
ENG 079	Preparatory English	5
COM ST 007	Intercultural Communication	3

Minimum Units 14.5

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Certificate of Achievement

Vocational Nursing

Family, Consumer & Health Sciences Division

Upon successful completion of the Vocational Nursing Program, the student demonstrates skills, knowledge, and training for eligibility to take the State of California examination for licensure, NCLEX-PN. As a Licensed Vocational Nurse, the student demonstrates the skills to practice in a variety of health care settings providing patient care within the parameters of the Licensed Vocational Nurse scope of practice. (Note: Please refer to Special Admission Requirement information in the current catalog.)

Minimum Units Required: 42

First Semester	Units
VOC NUR 001/ Foundations of Nursing PT 001	8.5
VOC NUR 002/ Introduction to Medical and Surgical Nursing PT 002	8.5

Second Semester

VOC NUR 003 Obstetrical Nursing	3.5
VOC NUR 004 Pediatric Nursing	3.5

Third Semester

VOC NUR 005 Intermediate Medical/Surgical Nursing	9
VOC NUR 006 Advanced Medical/Surgical Nursing	9

Admission Requirements

BIOL 031 Human Anatomy	4
or	
BIOL 033 Anatomy & Physiology	6
H S 036 Medical Terminology and Speech	3
FCS 019/ Human Development H S 019	3
PSYCH 001 Introduction to Psychology	3

Minimum Units 42

Certificate of Achievement

Welding Technology

Applied Science & Technology Division

Upon successful completion of the Welding certificate, the student demonstrates skills, knowledge, and training for employment in entry-level positions including industrial occupations in metal shops, all maintenance positions, sheet metal and metal fabrication shops, and many apprenticeship programs.

Minimum Units Required: 47

Required Courses:	Units
MECH 088A Introductory Trade Welding	8
MECH 088B Beginning Trade Welding	8
MECH 088C Intermediate Trade Welding	8
E TECH 013 Engineering Drafting Skills	3
INDUS 035 Mobile Hydraulics	4
MECH 015 Machine Tool Process	3
MECH 060 Metal Trade Layout and Forming	5
ELEC 030 Fundamentals of Electricity	5
or	
INDUS 045 Industrial Technology	5
INDUS 094 Industrial Mathematics	3
or	
MATH 080 Elementary Algebra	4

Minimum Units 47

Certificate of Achievement

Word Processing/Desktop Publishing

Business Education Division

Upon successful completion of the Word Processing/Desktop Publishing Certificate program, the student demonstrates skills and knowledge for entry level careers in information technology specifically in the areas of word processing. Word processing involves the organization, production and distribution of information utilizing automated equipment for recording, text editing/retrieval and printing capabilities. A word processor at a large firm may be full-time, while at a small firm, such as a legal office, medical firms, etc., the duties would be part-time and would be part of a full-time job such as secretary, receptionist or office assistant.

Minimum Units Required: 29.5

Recommended Sequence:

First Semester	Units
BIM 002 Intermediate Keyboarding	3.5
BIM 007A MS Word: Beginning Concepts and Applications	3
BUS 017A Beginning Business Communications	3
CSA 018 Microcomputers and Small Business Applications: Apple-Mac	3
BIM 023P Beginning Desktop Publishing, Using PageMaker	2
ELECTIVES See Group I Below	2

Second Semester

BUS 017B Advanced Business Communications	3
BIM 007B MS Word: Advanced Concepts and Applications	3
CSA 035 Multimedia Presentations	3
ELECTIVES See Group I Below	4

Group I (Electives)

(minimum of 6 units from the following)

CSA 020 MS Word, Excel, and Access	3
BUS 008 Introduction to The American Legal System	3
BUS 015 Computer Spreadsheets for Accounting	2
BUS 030 Supervision and Human Relations	3
CSA 045 Microsoft Windows	1
(C S 045 has been changed to CSA 045)	
GUID 033 Job Seeking Skills	1
COM ST 001A Fundamentals of Speech	3
ENG 072 Technical Writing	3

Minimum Units 29.5

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Course Equivalence

Report 5-17-06

AGEGR 065	SM ENG 065	C S 026A	CSP 026A	CDEV 032B	FCS 032B	COMM 002	COMM DIS002
AGEGR 066	SM ENG 066	C S 026B	CSP 026B		H EC 036B		SP ED 002
ANAT 001	BIOL 031	C S 027	ENGR 027	CDEV 033	FCS 033	COMM 003	COMM DIS003
ANAT 002	BIOL 033	C S 028A	CSP 028A		H EC 024	COMM 005	COMM DIS005
ANTHR 004	HUM 004	C S 029A	CSP 029A	CDEV 034	FCS 034	COMM 007	COMM DIS007
ARCH 001	CONST 046	C S 031A	CSP 031A		H EC 023	COMM 009	COMM DIS009
ARCH 003	ARCH 021	C S 031B	CSP 031B	CDEV 036	FCS 036	COMM DIS001	COMM 001
	CONST 055	C S 033	CS 033		H EC 026	COMM DIS002	COMM 002
ARCH 009	ARCH 022	C S 034	CSW 034	CDEV 037	FCS 037		SP ED 002
	CONST 045	C S 035	BUS 035		H EC 037	COMM DIS003	COMM 003
ARCH 012	ARCH 058A		CSA 035	CDEV 038	FCS 038	COMM DIS005	COMM 005
	E TECH 012	C S 035	BUS 035		H EC 037F	COMM DIS007	COMM 007
	ENGR 058A		CSA 035	CDEV 039	FCS 039	COMM DIS009	COMM 009
ARCH 021	ARCH 003	C S 036	CSW 036	CDEV 061A	FCS 061A	COMM ST 001A	COM ST 001A
	CONST 055	C S 037	CSW 037		H EC 079A		SPCH 001A
ARCH 022	ARCH 009	C S 038	CSW 038	CDEV 061B	FCS 061B	COMM ST 001B	COM ST 001B
	CONST 045	C S 039	CSW 039		H EC 079B		SPCH 001B
ARCH 058A	ARCH 012	C S 042	CS 042	CDEV 062	FCS 062	COMM ST 002	COM ST 002
	E TECH 012	C S 043A	CSP 043A		H EC 077F	COMM ST 003	COM ST 003
	ENGR 058A	C S 043B	CSP 043B	CDEV 063	FCS 063		SPCH 003
ARCH 058B	E TECH 023	C S 045	CSA 045		H EC 077A	COMM ST 004	COM ST 004
	ENGR 058B	C S 046	CS 046	CDEV 064	FCS 064		SPCH 004
ARCH 058C	E TECH 025	C S 054	CS 054	CDEV 070	FCS 070	COMM ST 005	COM ST 005
	ENGR 058C	C S 056	CS 056		H EC 084		SPCH 005
ARCH 058D	E TECH 022	C S 058A	C S 015M	CDEV 071	FCS 071	COMM ST 006	COM ST 006
	ENGR 058D		C S 072A		H EC 074	COMM ST 007	COM ST 007
ARCH 058E	E TECH 024		CSN 058A	CDEV 072	FCS 072		SPCH 007
	ENGR 058E	C S 058B	C S 015N		H EC 077B	COMM ST 008	COM ST 008
BIM 085A	SP ED 085A		C S 072B	CDEV 073	FCS 073		SPCH 008
BIM 085B	SP ED 085B		CSN 058B		H EC 077C	COMM ST 009	COM ST 009
BIOL 002	ZOOL 001	C S 058C	CSN 058C	CDEV 074	FCS 074		SPCH 009
BIOL 003	BOT 001	C S 058D	CSN 058D		H EC 077E	COMM ST 010	COM ST 010
BIOL 008	BIOL 010	C S 070	CS 070	CDEV 076	FCS 076	COMM ST 011	COM ST 011
BIOL 010	BIOL 008	C S 072A	C S 015M		H EC 015A	COMM ST 015	COM ST 015
BIOL 022	MICRO 002		C S 058A	CDEV 083	FCS 083		SPCH 015
BIOL 023	MICRO 003		CSN 058A	CIVIL 003	HUM 003	COMM ST 015A	COM ST 015A
BIOL 030	PSYCH 030	C S 072B	C S 015N	COM ST 001A	COMM ST 001A	COMM ST 015C	COM ST 015C
BIOL 031	ANAT 001		C S 058B		SPCH 001A	COMM ST 050H	COM ST 050H
BIOL 032	PHYSI 001		CSN 058B	COM ST 001B	COMM ST 001B		SPCH 050H
BIOL 033	ANAT 002	C S 077	CS 077		SPCH 001B	COMM ST 052	COM ST 052
BOT 001	BIOL 003	C S 095B	CSA 081A	COM ST 002	COMM ST 002	CONST 045	ARCH 009
BROAD 001	RTV 001	C S 095C	CSA 082A	COM ST 003	COMM ST 003		ARCH 022
BROAD 009	RTV 021	C S 095D	CSA 084A		SPCH 003	CONST 046	ARCH 001
BUS 006	SPCH 006	CDEV 021	FCS 021	COM ST 004	COMM ST 004	CONST 051A	CONST 071A
BUS 014	C S 014		H EC 021		SPCH 004	CONST 051B	CONST 071B
BUS 032	INDUS 032		PSYCH 021	COM ST 005	COMM ST 005	CONST 051C	CONST 071C
	INDUS 039	CDEV 025	FCS 025		SPCH 005	CONST 051D	CONST 071D
BUS 035	C S 035		H EC 031	COM ST 006	COMM ST 006	CONST 055	ARCH 003
C S 011	CS 011	CDEV 026	FCS 026	COM ST 007	COMM ST 007		ARCH 021
C S 012	CS 012		H EC 028		SPCH 007	CONST 071A	CONST 051A
C S 014	BUS 014		SOCIO 040	COM ST 008	COMM ST 008	CONST 071B	CONST 051B
C S 014B	CS 014B	CDEV 028	FCS 028		SPCH 008	CONST 071C	CONST 051C
C S 015M	C S 058A		H EC 027	COM ST 009	COMM ST 009	CONST 071D	CONST 051D
	C S 072A	CDEV 029	FCS 029		SPCH 009	CS 011	C S 011
	CSN 058A		H EC 038A	COM ST 010	COMM ST 010	CS 012	C S 012
C S 015N	C S 058B	CDEV 030	FCS 030	COM ST 011	COMM ST 011	CS 014B	C S 014B
	C S 072B		H EC 038B	COM ST 015	COMM ST 015	CS 033	C S 033
	CSN 058B	CDEV 031A	FCS 031A		SPCH 015	CS 042	C S 042
C S 017	CSP 017		H EC 034A	COM ST 015A	COMM ST 015A	CS 046	C S 046
C S 020	CSA 020	CDEV 031B	FCS 031B	COM ST 015C	COMM ST 015C	CS 054	C S 054
C S 021	CSW 021		H EC 034B	COM ST 050H	COMM ST 050H	CS 056	C S 056
	ENGR 021	CDEV 032A	FCS 032A		SPCH 050H	CS 070	C S 070
C S 023	CSW 023		H EC 036A	COM ST 052	COMM ST 052	CS 077	C S 077
C S 025	CSP 025			COMM 001	COMM DIS001	CSA 020	C S 020

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Course Equivalence (continued)

CSA 035	C S 035	E TECH 045	ENGR 063	FASHION 051	FCS 051	FCS 042	FASHION 006
CSA 045	C S 045	E TECH 046	ENGR 057		H EC 049		H EC 005
CSA 081A	C S 095B	E TECH 070	ENGR 061A	FASHION 056	FCS 052		ID 006
CSA 082A	C S 095C	E TECH 080	ENGR 061B		H EC 048	FCS 043	FASHION 008
CSA 084A	C S 095D	ENG 053	JOURN 053		ID 056		H EC 035B
CSN 058A	C S 015M	ENGR 001B	ENGR 020	FCS 002	H EC 004	FCS 044	FASHION 010
	C S 058A	ENGR 002	ENGR 022	FCS 003	H EC 014		H EC 035A
	C S 072A	ENGR 003	E TECH 003	FCS 005	H EC 033	FCS 045	FASHION 022
CSN 058B	C S 015N		E TECH 013	FCS 006	H EC 002		H EC 045A
	C S 058B	ENGR 004	ENGR 045	FCS 007	H EC 003	FCS 046	FASHION 024
	C S 072B	ENGR 005	E TECH 011	FCS 008	H EC 009		H EC 045B
CSN 058C	C S 058C	ENGR 006	ENGR 038	FCS 010	H EC 007	FCS 047A	FASHION 030
CSN 058D	C S 058D	ENGR 008	ENGR 035		ID 002		H EC 006A
CSP 017	C S 017	ENGR 020	ENGR 001B	FCS 011	H EC 008	FCS 047B	H EC 006B
CSP 025	C S 025	ENGR 021	C S 021	FCS 012	H EC 017	FCS 048A	H EC 042
CSP 026A	C S 026A		CSW 021		ID 008	FCS 048B	H EC 043
CSP 026B	C S 026B	ENGR 022	ENGR 002	FCS 013	H EC 020B	FCS 049A	H EC 044A
CSP 028A	C S 028A	ENGR 027	C S 027		ID 013	FCS 049B	H EC 044B
CSP 029A	C S 029A	ENGR 035	ENGR 008	FCS 014	H EC 020A	FCS 050H	H EC 050H
CSP 031A	C S 031A	ENGR 038	ENGR 006	FCS 015	H EC 015	FCS 051	FASHION 051
CSP 031B	C S 031B	ENGR 045	ENGR 004	FCS 019	H EC 019		H EC 049
CSP 043A	C S 043A	ENGR 046	E TECH 037		H S 019	FCS 052	FASHION 056
CSP 043B	C S 043B		ENGR 056	FCS 021	CDEV 021		H EC 048
CSW 021	C S 021	ENGR 052	E TECH 034		H EC 021		ID 056
	ENGR 021	ENGR 053	E TECH 043		PSYCH 021	FCS 059	H EC 059D
CSW 023	C S 023	ENGR 054A	E TECH 031	FCS 022	H EC 022	FCS 060A	H EC 076A
CSW 034	C S 034	ENGR 054B	E TECH 041		PSYCH 022	FCS 060B	H EC 076B
CSW 036	C S 036	ENGR 056	E TECH 037	FCS 023	H EC 036	FCS 061A	CDEV 061A
CSW 037	C S 037		ENGR 046		PSYCH 036		H EC 079A
CSW 038	C S 038	ENGR 057	E TECH 046		SOCIO 036	FCS 061B	CDEV 061B
CSW 039	C S 039	ENGR 058A	ARCH 012	FCS 025	CDEV 025		H EC 079B
DANCE 008B	PE 016A		ARCH 058A		H EC 031	FCS 062	CDEV 062
DANCE 008C	PE 016B		E TECH 012	FCS 026	CDEV 026		H EC 077F
DANCE 008D	PE 016C	ENGR 058B	ARCH 058B		H EC 028	FCS 063	CDEV 063
DRAMA 018A	PE 021A		E TECH 023		SOCIO 040		H EC 077A
DRAMA 018B	PE 021B	ENGR 058C	ARCH 058C	FCS 028	CDEV 028	FCS 064	CDEV 064
DRAMA 018C	PE 021C		E TECH 025		H EC 027	FCS 070	CDEV 070
E TECH 003	E TECH 013	ENGR 058D	ARCH 058D	FCS 029	CDEV 029		H EC 084
	ENGR 003		E TECH 022		H EC 038A	FCS 071	CDEV 071
E TECH 011	ENGR 005	ENGR 058E	ARCH 058E	FCS 030	CDEV 030		H EC 074
E TECH 012	ARCH 012		E TECH 024		H EC 038B	FCS 072	CDEV 072
	ARCH 058A	ENGR 060	E TECH 020	FCS 031A	CDEV 031A		H EC 077B
	ENGR 058A	ENGR 061A	E TECH 070		H EC 034A	FCS 073	CDEV 073
E TECH 013	E TECH 003	ENGR 061B	E TECH 080	FCS 031B	CDEV 031B		H EC 077C
	ENGR 003	ENGR 063	E TECH 045		H EC 034B	FCS 074	CDEV 074
E TECH 020	ENGR 060	ENGR 064	E TECH 035	FCS 032A	CDEV 032A		H EC 077E
E TECH 022	ARCH 058D	ENGR 065	E TECH 026		H EC 036A	FCS 075A	H EC 075A
	ENGR 058D		E TECH 032	FCS 032B	CDEV 032B	FCS 075B	H EC 075B
E TECH 023	ARCH 058B	ENGR 066	E TECH 042		H EC 036B	FCS 076	CDEV 076
	ENGR 058B	FASHION 002	FCS 040	FCS 033	CDEV 033		H EC 015A
E TECH 024	ARCH 058E		H EC 040		H EC 024	FCS 077	H EC 077I
	ENGR 058E	FASHION 004	FCS 041	FCS 034	CDEV 034	FCS 078	H EC 078
E TECH 025	ARCH 058C		H EC 041		H EC 023	FCS 080	H EC 080
	ENGR 058C	FASHION 006	FCS 042	FCS 035	H EC 039	FCS 081	H EC 080A
E TECH 026	E TECH 032		H EC 005	FCS 036	CDEV 036	FCS 082	H EC 083A
	ENGR 065		ID 006		H EC 026	FCS 083	CDEV 083
E TECH 031	ENGR 054A	FASHION 008	FCS 043	FCS 037	CDEV 037	FCS 090	H EC 071A
E TECH 032	E TECH 026		H EC 035B		H EC 037	FCS 091	H S 091
	ENGR 065	FASHION 010	FCS 044	FCS 038	CDEV 038	FCS 098	H EC 098
E TECH 034	ENGR 052		H EC 035A		H EC 037F	FCS 099A	H EC 099A
E TECH 035	ENGR 064	FASHION 022	FCS 045	FCS 039	CDEV 039	FCS 099B	H EC 099B
E TECH 037	ENGR 046		H EC 045A	FCS 040	FASHION 002	FCS 099C	H EC 099C
	ENGR 056	FASHION 024	FCS 046		H EC 040	FCS 099D	H EC 099D
E TECH 041	ENGR 054B		H EC 045B	FCS 041	FASHION 004	FCS 099E	H EC 099E
E TECH 042	ENGR 066	FASHION 030	FCS 047A		H EC 041	FIRE 001	FIRE 070
E TECH 043	ENGR 053		H EC 006A				

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Course Equivalence (continued)

FIRE 003	FIRE 074		SOCIO 036	H EC 099E	FCS 099E	NURS 002	NURS 031
FIRE 005	FIRE 071	H EC 036A	CDEV 032A	H S 003	NURS 003	NURS 003	H S 003
FIRE 006	FIRE 072		FCS 032A		NURS 032		NURS 032
FIRE 024	FIRE 073	H EC 036B	CDEV 032B	H S 019	FCS 019	NURS 030	NURS 001
FIRE 028	FIRE 075		FCS 032B		H EC 019	NURS 031	NURS 002
FIRE 070	FIRE 001	H EC 037	CDEV 037	H S 091	FCS 091	NURS 032	H S 003
FIRE 071	FIRE 005		FCS 037	HORT 001	O H 012		NURS 003
FIRE 072	FIRE 006	H EC 037F	CDEV 038	HORT 002	O H 021A	O H 012	HORT 001
FIRE 073	FIRE 024		FCS 038	HORT 003	O H 021B	O H 013	HORT 004
FIRE 074	FIRE 003	H EC 038A	CDEV 029	HORT 004	O H 013	O H 014	HORT 005
FIRE 075	FIRE 028		FCS 029	HORT 005	O H 014	O H 015	HORT 015
GUID 004	GUID 020	H EC 038B	CDEV 030	HORT 006	O H 032	O H 021A	HORT 002
GUID 020	GUID 004		FCS 030	HORT 010	O H 030	O H 021B	HORT 003
H EC 002	FCS 006	H EC 039	FCS 035	HORT 012	O H 034	O H 023	HORT 023
H EC 003	FCS 007	H EC 040	FASHION 002	HORT 015	O H 015	O H 030	HORT 010
H EC 004	FCS 002		FCS 040	HORT 020	O H 035	O H 031	HORT 031
H EC 005	FASHION 006	H EC 041	FASHION 004	HORT 021	O H 037	O H 032	HORT 006
	FCS 042		FCS 041	HORT 022	O H 046	O H 033	HORT 032
	ID 006	H EC 042	FCS 048A	HORT 023	O H 023	O H 034	HORT 012
H EC 006A	FASHION 030	H EC 043	FCS 048B	HORT 024	O H 040	O H 035	HORT 020
	FCS 047A	H EC 044A	FCS 049A	HORT 031	O H 031	O H 037	HORT 021
H EC 006B	FCS 047B	H EC 044B	FCS 049B	HORT 032	O H 033	O H 040	HORT 024
H EC 007	FCS 010	H EC 045A	FASHION 022	HORT 069V	O H 069V	O H 046	HORT 022
	ID 002		FCS 045	HORT 070	O H 060	O H 060	HORT 070
H EC 008	FCS 011	H EC 045B	FASHION 024	HORT 071	O H 094	O H 069V	HORT 069V
H EC 009	FCS 008		FCS 046	HORT 081	O H 081	O H 081	HORT 081
H EC 014	FCS 003	H EC 048	FASHION 056	HORT 082	O H 083	O H 083	HORT 082
H EC 015	FCS 015		FCS 052	HORT 083	O H 084	O H 084	HORT 083
H EC 015A	CDEV 076		ID 056	HUM 003	CIVIL 003	O H 094	HORT 071
	FCS 076	H EC 049	FASHION 051	HUM 004	ANTHR 004	P E 016A	DANCE 008B
H EC 017	FCS 012		FCS 051	HUM 014A	RELGN 014A	P E 016B	DANCE 008C
	ID 008	H EC 050H	FCS 050H	HUM 014B	RELGN 014B	P E 016C	DANCE 008D
H EC 019	FCS 019	H EC 059D	FCS 059	HUM 015R	POLSC 015R	P E 021A	DRAMA 018A
	H S 019	H EC 071A	FCS 090	ID 002	FCS 010	P E 021B	DRAMA 018B
H EC 020A	FCS 014	H EC 074	CDEV 071		H EC 007	P E 021C	DRAMA 018C
H EC 020B	FCS 013		FCS 071	ID 006	FASHION 006	P T 080	VOC NUR 001
	ID 013	H EC 075A	FCS 075A		FCS 042	P T 081	VOC NUR 002
H EC 021	CDEV 021	H EC 075B	FCS 075B		H EC 005	PHYSI 001	BIOL 032
	FCS 021	H EC 076A	FCS 060A	ID 008	FCS 012	POLSC 015R	HUM 015R
	PSYCH 021	H EC 076B	FCS 060B		H EC 017	PSYCH 012	MATH 012
H EC 022	FCS 022	H EC 077A	CDEV 063	ID 013	FCS 013	PSYCH 021	CDEV 021
	PSYCH 022		FCS 063		H EC 020B		FCS 021
H EC 023	CDEV 034	H EC 077B	CDEV 072	ID 056	FASHION 056		H EC 021
	FCS 034		FCS 072		FCS 052	PSYCH 022	FCS 022
H EC 024	CDEV 033	H EC 077C	CDEV 073		H EC 048		H EC 022
	FCS 033		FCS 073	INDUS 032	BUS 032	PSYCH 030	BIOL 030
H EC 026	CDEV 036	H EC 077E	CDEV 074		INDUS 039	PSYCH 036	FCS 023
	FCS 036		FCS 074	INDUS 039	BUS 032		H EC 036
H EC 027	CDEV 028	H EC 077F	CDEV 062		INDUS 032		SOCIO 036
	FCS 028		FCS 062	JOURN 001	MCOM 001	PSYCH 045A	SOCIO 045A
H EC 028	CDEV 026	H EC 077I	FCS 077	JOURN 002	MCOM 011	PSYCH 045B	SOCIO 045B
	FCS 026	H EC 078	FCS 078	JOURN 006	MCOM 006	RELGN 014A	HUM 014A
	SOCIO 040	H EC 079A	CDEV 061A	JOURN 008	MCOM 004	RELGN 014B	HUM 014B
H EC 031	CDEV 025		FCS 061A	JOURN 009	MCOM 007	RTV 001	BROAD 001
	FCS 025	H EC 079B	CDEV 061B	JOURN 050H	MCOM 050H	RTV 021	BROAD 009
H EC 033	FCS 005		FCS 061B	JOURN 053	ENG 053	SL 001	SL 022
H EC 034A	CDEV 031A	H EC 080	FCS 080	MATH 012	PSYCH 012		SP ED 022
	FCS 031A	H EC 080A	FCS 081	MCOM 001	JOURN 001	SL 002	SL 023
H EC 034B	CDEV 031B	H EC 083A	FCS 082	MCOM 004	JOURN 008		SP ED 023
	FCS 031B	H EC 084	CDEV 070	MCOM 006	JOURN 006	SL 003	SL 024
H EC 035A	FASHION 010		FCS 070	MCOM 007	JOURN 009		SP ED 024
	FCS 044	H EC 098	FCS 098	MCOM 011	JOURN 002	SL 022	SL 001
H EC 035B	FASHION 008	H EC 099A	FCS 099A	MCOM 050H	JOURN 050H		SP ED 022
	FCS 043	H EC 099B	FCS 099B	MICRO 002	BIOL 022	SL 023	SL 002
H EC 036	FCS 023	H EC 099C	FCS 099C	MICRO 003	BIOL 023		SP ED 023
	PSYCH 036	H EC 099D	FCS 099D	NURS 001	NURS 030	SL 024	SL 003

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

Course Equivalence (continued)

	SP ED 024
SL 071	SL 078A
SL 072	SL 078B
SL 073	SL 078C
SL 078A	SL 071
SL 078B	SL 072
SL 078C	SL 073
SM ENG 065	AGEGR 065
SM ENG 066	AGEGR 066
SOCIO 036	FCS 023
	H EC 036
	PSYCH 036
SOCIO 040	CDEV 026
	FCS 026
	H EC 028
SOCIO 045A	PSYCH 045A
SOCIO 045B	PSYCH 045B
SP ED 002	COMM 002
	COMM DIS002
SP ED 022	SL 001
	SL 022
SP ED 023	SL 002
	SL 023
SP ED 024	SL 003
	SL 024
SP ED 085A	BIM 085A
SP ED 085B	BIM 085B
SPCH 001A	COM ST 001A
	COMM ST 001A
SPCH 001B	COM ST 001B
	COMM ST 001B
SPCH 003	COM ST 003
	COMM ST 003
SPCH 004	COM ST 004
	COMM ST 004
SPCH 005	COM ST 005
	COMM ST 005
SPCH 006	BUS 006
SPCH 007	COM ST 007
	COMM ST 007
SPCH 008	COM ST 008
	COMM ST 008
SPCH 009	COM ST 009
	COMM ST 009
SPCH 015	COM ST 015
	COMM ST 015
SPCH 050H	COM ST 050H
	COMM ST 050H
VOC NUR 001	P T 080
VOC NUR 002	P T 081
ZOOL 001	BIOL 002

Cross Listed Courses

The following courses are cross-listed as shown as existing in more than one discipline of the college. The following cross-listed courses contain identical curriculum/course requirements:

AGEGR 030C	SM ENG 030C
AGEGR 030D	SM ENG 030D
AGEGR 066	SM ENG 066
ANTHR 004	HUM 004
ARCH 012	E TECH 012
BIOL 030	PSYCH 030
BUS 006	COM ST 006
BUS 035	CSA 035
BUS 077	CS 077
CIVIL 003	HUM 003
FCS 019	HS 019
HUM 014A	RELGN 014A
HUM 014B	RELGN 014B
HS 003	NURS 003
PT 001	VOC NUR 001
PT 002	VOC NUR 002
PSYCH 045A	SOCIO 045A
PSYCH 045B	SOCIO 045

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

College Credit for High School Courses

Students who have completed articulated courses in high school may receive college credit at San Joaquin Delta College. The College is committed to comprehensive articulation of instructional programs with both secondary and postsecondary educational institutions, usually referred to as “2 + 2 + 2” articulation. The “2 + 2” articulation links the high school program, adult school and ROP with San Joaquin Delta Community College programs. These articulated programs lead to an Associate Degree. The “2 + 2 + 2” articulation adds a four-year college or university program leading to a Baccalaureate Degree where appropriate.

The articulation process is a system designed to help students to advance from one course, program, or educational level to the next without unnecessary repetition of essentially similar courses for which credit has been received.

If you have taken any of the courses on the List of Articulated Courses, you may wish to exercise your right to obtain college credit by completing **ALL** of the following criteria:

1. Successfully complete the courses according to the articulation agreement between the high school and Delta College.
2. File an Application for Admission to San Joaquin Delta College (Online Application Access)
3. Take the Assessment/Placement test (ACE)
4. Successfully complete the New Student Orientation course (Guidance 11)
5. Request credit **within two years of course completion** or **no later than two years after high school graduation**.
6. File an Application for College Credit AND submit Official/Sealed Transcripts from High School/Secondary School to the Admissions and Records Office, Holt 101.

If you have any questions, please contact the Admissions Office at (209) 954-5728, or the College Articulation Officer at (209) 954-5248.

High School	High School Course	SJDC Class	Effective thru May 31,
Amador	Auto Services ROP	AUTO 62 Brakes, Suspensions, and Powertrain Systems	2008
Amador	Auto Services ROP	AUTO 63 Fuel and Electrical Systems	2008
Amador	Auto Services ROP	AUTO 64 Basic Engines	2008
Bear Creek	Accounting I	BUS 10A Bookkeeping Renewal	Pending
Bear Creek	Auto Services 5655.70	AUTO 62 Brakes, Suspensions, and Powertrain Systems	2008
Bear Creek	Auto Services 5655.70	AUTO 63 Fuel and Electrical Systems	2008
Bear Creek	Auto Services 5655.70	AUTO 64 Basic Engines	2008
Bear Creek	Calculus AP	MATH 1 Calculus	2008
Bear Creek	Cisco 1 st and 2 nd Semesters	ELECT 77A, 77B, 77C, and 77D (1 st half of Cisco)	2007
Bear Creek	Computer Literacy Intro	BIM 1A Beginning Keyboarding	2007
Bear Creek	Fashion and Design	FASHION 030 Basic Industry Sewing Renewal	Pending
Bear Creek	Intro to Machine Drafting 5707.00	E TECH 13 Engineering Drafting Skills	2006
Bret Harte	Hospital Community Health Services ROP	HS 36 Medical Terminology and Speech Renewal	Pending
Bret Harte	Hospital Community Health Services ROP	HS 39 Survey of Health Careers Renewal	Pending
Calaveras	Auto Mechanics 1, 2	AUTO 64 Basic Engines	2008
Calaveras	Automotive Level II	AUTO 63 Fuel and Electrical Systems	2008
Calaveras	Automotive Service Occupations ROP	AUTO 62 Brakes, Suspensions, and Powertrain Systems	2008
Calaveras	Hospital Community Health Services ROP	HS 36 Medical Terminology and Speech	2007
Calaveras	Hospital Community Health Services ROP	HS 39 Survey of Health Careers	2007
Calaveras	Microsoft Office 2000	CS 20 MS Word, Excel, and Access	2008
Calaveras	Police Science, ROP	AJ 22 Legal Aspects of Evidence	2008
Calaveras	Police Science, ROP	AJ 25 Criminal Investigation	2008
Calaveras	Police Science, ROP	AJ 26 Patrol Procedures	2008
Deer Valley	Auto Tech Beg & Auto Tech Adv	AUTO 62 Brakes, Suspensions, and Powertrain Systems	2006
Deer Valley	Auto Tech Beg & Auto Tech Adv	AUTO 63 Fuel and Electrical Systems	2006

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

College Credit for High School Courses (Continued)

Deer Valley	Auto Tech Beg & Auto Tech Adv	AUTO 64 Basic Engines	2006
East Union	Accounting I	BUS 10A Bookkeeping	2008
East Union	Computer Applications I	CS 18 Microcomputers and Small Business: Apple Mac Renewal	Pending
East Union	Computer Keyboarding	BIM 1A Beginning Keyboarding	2008
East Union	Computer Keyboarding	BIM 1B Intermediate Keyboarding	2008
Escalon	Accounting ROP	BUS 10A Bookkeeping Renewal	Pending
Escalon	Auto 1	AUTO 62 Brakes, Suspensions, and Powertrain Systems	2008
Escalon	Automotive Technology II	AUTO 64 Basic Engines	2008
Escalon	Automotive Technology III	AUTO 63 Fuel and Electrical Systems	2008
Escalon	Office Procedure	BIM 38 Office Technologies	2008
Franklin	IB Biology 3, 4, 5, 6	BIOL 1 Core Biology	2008
Galt	Health Occupations II/Medical Terminology	HS 36 Medical Terminology and Speech	2007
Lincoln	Accounting I	BUS 10A Bookkeeping	2008
Lincoln	Anatomy & Physiology	BIOL 33 Anatomy & Physiology	2008
Lincoln	AP Statistics	Math 12 Introduction to Probability and Statistics	2006
Lincoln	Biology	BIOL 10 Survey of Biology	2006
Lincoln	Calculus	MATH 1 Calculus	2006
Lincoln	Drafting 2	E TECH 11 Engineering Drafting	2007
Lindbergh Ed. Ctr.	Fashion Merchandising	FCS 40 Introduction to Fashion Merchandising	2008
Lindbergh Ed. Ctr.	ROP Automotive Technology	AUTO 62 Brakes, Suspensions, and Powertrain Systems	2007
Lindbergh Ed. Ctr.	ROP Automotive Technology	AUTO 63 Fuel and Electrical Systems	2007
Lindbergh Ed. Ctr.	ROP Automotive Technology	AUTO 64 Basic Engines	2007
Lindbergh Ed. Ctr.	ROP Banking and Finance	BUS 78 Introduction to Teller Training	2007
Lindbergh Ed. Ctr.	ROP Career Office Training	BIM 32A Beginning Office Calculation	2007
Lindbergh Ed. Ctr.	ROP Careers with Children	FCS 32A Early ECE Practicum	2008
Lindbergh Ed. Ctr.	ROP Health Careers	HS 39 Survey of Health Careers	2008
Linden	Anatomy/Physiology AB	Biol 11 Human Biology	2006
Linden	Computer Applications	CS 18 Microcomputers and Small Business: Apple Mac	2008
Linden	Small Engines-Maintenance and Repair	AGEGR 30A Introduction to Industrial and Commercial Engines	2006
Lodi Career Ctr.	Banking and Money Management	BIM 32A Beginning Office Calculation	2007
Lodi Career Ctr.	Banking and Money Management	BIM 32B Intermediate Office Calculation	2007
Lodi Career Ctr.	Banking and Money Management	BUS 78 Introduction to Teller Training	2007
Lodi Career Ctr.	Fire Science	FIRE 74 Fire Behavior and Combustion	2007
Lodi Career Ctr.	Microsoft Office 2000	CS 20 MS Word, Excel, and Access	2008
Lodi Career Ctr.	PageMaker 5 - Macintosh	BIM 23P or BIM 23M Beginning Desktop Publishing, Using Pagemaker	2008
Lodi Career Ctr.	WordPerfect for Windows	BIM 82 WordPerfect for Windows	2007
Lodi	Accounting I	BUS 10A Bookkeeping	2008
Lodi	Agriculture Biology CP	AH SC 10 Principles of Animal Science	2007
Lodi	Calculus AP	MATH 1 Calculus	2007
Lodi	Computer Aided Drafting and Design ROP 5705.70	E TECH 12 Computer-Aided Drafting	2008
Lodi	Computer Lit	BIM 1A Beginning Keyboarding	2006
Lodi	Computer Lit	BIM 1B Intermediate Keyboarding	2006

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

College Credit for High School Courses (Continued)

Lodi	Drafting Intro or Adv. Drafting	E TECH 13 Engineering Drafting Skills	2008
Lodi	Fashions and Design	FASH 030 Basic Industry Renewal	Pending
Lodi	Interior Design	ID 002 Introduction to Interior Design	2008
Lodi	Intro Auto Mechanics & Advanced Auto Mechanics	AUTO 62 Brakes, Suspensions, and Powertrain Systems	2008
Lodi	Intro Auto Mechanics & Advanced Auto Mechanics	AUTO 63 Fuel and Electrical Systems	2008
Lodi	Intro Auto Mechanics & Advanced Auto Mechanics	AUTO 64 Basic Engines	2008
Manteca	Accounting I	BUS 10A Bookkeeping	2008
Manteca	AP Calculus	MATH 1 Calculus	2006
Manteca	Computer Applications I	CS 18 Microcomputers and Small Business: Apple Mac	2008
Manteca	Drafting I	E TECH 13 Engineering Drafting Skills	2008
Manteca	Pre-Calculus	MATH 36 Pre-Calculus	2007
Modesto	Automotive Technician ROP	AUTO 63 Fuel and Electrical Systems	2007
Modesto	Automotive Technology 1-2	AUTO 64 Basic Engines	2007
Modesto	Automotive Technology 3-4	AUTO 62 Brakes, Suspensions, and Powertrain Systems	2007
Sierra	Accounting I	BUS 10A Bookkeeping	2007
Sierra	Calculus AB	MATH 1 Calculus	2007
Sierra	Calculus BC	MATH 2 Calculus	2007
Sierra	Computer Applications	CS 18 Microcomputers and Small Business: Apple Mac	2007
Sierra	Fashion and Design	FASH 030 Basic Industry Sewing	2008
Sierra	Foods	FCS 8 Food Preparation	2008
Sierra	Pre-Calculus	MATH 36 Math 36 Pre-Calculus	2008
St. Mary's	Calculus AP	MATH 1 Calculus	2006
St. Mary's	Calculus AP	MATH 2 Calculus	2006
St. Mary's	Pre-Calculus	MATH 36 Pre-Calculus	2006
St. Mary's	Pre-Calculus Honors	MATH 36 Pre-Calculus	2006
St. Mary's	Statistics	MATH 12 Introduction to Probability and Statistics	2006
Stagg	Auto Mechanics 1, 2	AUTO 62 Brakes, Suspensions, and Powertrain Systems	2008
Stagg	Auto Mechanics 1, 2	AUTO 63 Fuel and Electrical Systems	2008
Stagg	Auto Mechanics 1, 2	AUTO 64 Basic Engines	2008
Stagg	Clothing and Textiles 3 and 4	FASH 030 Basic Industry Sewing	2008
Stagg	Foods and Nutrition 1 & 2	FCS 8 Food Preparation	2008
Tokay	Advanced Fashion	FCS 47A Clothing Construction	2008
Tokay	Auto I and Auto II	Auto 62 Brakes, Suspensions, and Powertrain Systems	2008
Tokay	Auto I and Auto II	AUTO 63 Fuel and Electrical Systems	2008
Tokay	Auto I and Auto II	AUTO 64 Basic Engines	2008
Tokay	Cisco 1 st and 2 nd Semesters	ELECT 77A, 77B, 77C, and 77D (1 st half of Cisco)	2007
Tokay	Computer Applications 4652.00	CS 18 Microcomputers and Small Business: Apple Mac	2007
Tokay	Computer Assisted Drafting	E Tech 12 Computer-Aided Drafting	2007
Tokay	Consumer Food & Nutrition	FCS 8 Food Preparation	2008
Tokay	Drafting Introduction	E Tech 13 Engineering Drafting Skills	2008

SECTION V — DEGREE AND CERTIFICATE OFFERINGS AND REQUIREMENTS

College Credit for High School Courses (Continued)

Tokay	Interior Design	ID 002 Introduction to Interior Design	2008
Tokay	Computer Literacy 4610.00	BIM 1B Exploring Word Processing	2007
Tokay	Pre-Calculus	MATH 36 Pre-Calculus	2006
Tracy	Accounting I	BUS 10A Bookkeeping	2008
Tracy	F.E.A.S.T. ROP	CUL ART 1 Introduction to Hospitality Industry	2008
Tracy	IB H Adv Bio 2	BIOL 1 Core Biology	2008
Tracy	Vocational Welding	MECH 10 Basic Welding for the Trades	2007
Weber Institute	Advanced Cisco Networking Academy 1 st sem	ELECT 77A, 77B, 77C, and 77D (1 st half of Cisco)	2008
Weber Institute	Advanced Cisco Networking Academy 2 nd sem	ELECT 77E, 77F, 77G, and 77H (2 nd half of Cisco)	2008
Weber Institute	ROP I #8800	AUTO 62 Brakes, Suspensions, and Powertrain Systems Renewal	Pending
Weber Institute	ROP I #8800	AUTO 63 Fuel and Electrical Systems Renewal	Pending
Weber Institute	ROP II #8801	AUTO 64 Basic Engines Renewal	Pending
Weber Institute	Cisco Networking Academy 1 st semester	ELECT 77A and 77B (Cisco)	2008
Weber Institute	Cisco Networking Academy 2 nd semester	ELECT 77C and 77D (Cisco)	2008
Weber Institute	Cisco Networking Academy 3 rd semester	ELECT 77E and 77F (Cisco)	2008
Weber Institute	Cisco Networking Academy 4 th semester	ELECT 77G and 77H (Cisco)	2008
West	Algebra II Honors	MATH 30 College Algebra Renewal	Pending
West	Computer Applications I	CS 20 MS Word, Excel, and Access	2006
West	Computer Literacy/Keyboarding	BIM 1A Beginning Keyboarding	2008
West	Pre-Calculus Honors	MATH 36 Pre-Calculus Renewal	Pending