

**COUNSELING CENTER ADVISING**

- Every course in the major requires a minimum grade of “C”
- Maximum of 12 pass/no pass units accepted
- Minimum of 12 units must be completed at AVC (credit earned by examination will not be included in these 12 units)
- Minimum of 9 units must be completed at AVC for the major

- Refer to catalog or online website for course listings, descriptions, and suggested course sequence if available
- Substitutions, with prior permission, may be made for certain courses that may not be offered in the two-year period
- A maximum of 6 pass/no-pass units for certificates

## AS-Associate Degree (4)

### Business Computer Information Science

Major Required Courses	units
ACCT 201, Financial Accounting	4
BUS 101, Intro. to Business	
or MGT 101, Mgt. Principles	3
BUS 105, Business Mathematics	
or MATH 128, College Algebra for Liberal Arts	
or MATH 140, Precalculus	3-5
CA 103, Intro. to Computers & Dig. Tech.	
or CA 221, Computer Concepts and Applications in Business	
or CIS 101, Intro. to Computer Information Science	3-4
CA 121, Microcomputer Spreadsheets	
or ACCT 121, Microcomputer Accounting	2-3
CA 171, Introduction to Networking	3
CIS 111, Intro. to Programming and Algorithms or CIS 145, Intro. to Visual BASIC.NET Programming	3
CIS 141, Introduction to BASIC Programming	3
Program Electives (see below)	<u>2-6</u>
<b>Units Required for Certificate</b>	<b>30</b>

Program Electives	units
Select any 2-6 units from the following:	
ACCT 121, Microcomputer Accounting	2
BUS 101, Introduction to Business	3
BUS 105, Business Mathematics	3
CA 103, Intro. to Computers & Dig. Tech.	3
CA 121, Microcomputer Spreadsheets	3
CA 199, Occupational Work Experience	1-8
CA 221, Computer Concepts and Applications in Business	4
CIS 111, Introduction to Programming and Algorithms	3
CIS 145, Introduction to Visual BASIC.NET Programming	3
CIS 199, Occupational Work Experience	1-8
MATH 128, College Algebra for Liberal Arts	3
MATH 140, Precalculus	5
MGT 101, Management Principles	3
<i>other requirements for degree</i>	
General Education	21-27
Proficiency (See Proficiency Requirements) *	*
Electives	<u>0-9</u>
<b>Minimum Units Required</b>	<b>60</b>

\*Fulfilling proficiencies will not require any extra units if the competencies are demonstrated by including the required courses in the general education, or major requirements, or by satisfying the reading proficiency through AVC's policy.

# Consult with a counselor/advisor for availability of courses.

### Computer Applications

Major Required Courses	units
CA 103, Intro. to Computers & Dig. Tech.	
or CA 221, Computer Concepts and Applications in Business	3-4
CA 111, Word Processing–Microsoft Word	3
CA 121, Microcomputer Spreadsheets	3
CA 131, Relational Database Management and Design	3
CA 151, Microcomputer Operating Systems	3
CA 171, Introduction to Networking	3
CIS 145, Intro. to Visual BASIC.NET Programming or CA 175, Administering Windows Server	
or CIS 157, Intro. to LINUX	3
CIS 141, Intro. to Basic Programming	3
MATH 102, Intermediate Algebra	4
Program Elective (see below)	<u>3</u>

**Units Required for Certificate 31-32**

Program Electives	units
Complete any 3 units from the following:	
CA 103, Intro. to Computers & Dig. Tech.	3
CA 175, Administering Windows Server	3
CA 199, Occupational Work Experience	1-8
CA 221, Computer Concepts and Applications in Business	4
CIS 145, Introduction to Visual BASIC.NET Programming	3
CIS 157, Introduction to LINUX	3
CIS 199, Occupational Work Experience	1-8
<i>other requirements for degree</i>	
General Education	21-27
Proficiency (See Proficiency Requirements) *	*
Electives	<u>1-8</u>
<b>Minimum Units Required</b>	<b>60</b>

### Computer Software Developer

Major Required Courses	units
CA 131, Relational Database Management and Design	3
CA 151, Microcomputer Operating Systems	3
CIS 101, Intro. to Computer Info. Science	3
CIS 111, Intro. to Programming and Algorithms	3
CIS 113, Data Structures	3
CIS 121, Computer Mathematics	3
CIS 123, Assembly Language and Computer Architecture	3
CIS 161, Intro. to C Programming	3
MATH 128, College Algebra for Liberal Arts or MATH 150, Calculus and Analytic Geometry or MATH 220, Linear Algebra	3-5
PHIL 110, Intro. to Logic	3
Program Electives (see below)	<u>4-6</u>
<b>Units Required for Major</b>	<b>36</b>

### Program Electives units

Complete any 4 to 6 units from the following:	
CIS 157, Introduction to LINUX	3
CIS 173, Introduction to C++ Programming	3
CIS 174, Introduction to C#.NET Programming	3
CIS 175, Java Programming	3
CIS 199, Occupational Work Experience	1-8
MATH 128, College Algebra for Liberal Studies	3
MATH 140, Precalculus	5
MATH 150, Calculus and Analytical Geometry	5
MATH 220, Linear Algebra	4

#### *other requirements for degree*

General Education	21-27
Proficiency (See Proficiency Requirements) *	*
Electives	<u>0-3</u>
<b>Minimum Units Required</b>	<b>60</b>

### Computer Networking (Core & Multi-Platform)

Required Courses	units
CA 107, Microcomputer Hardware and Software Support	3
CA 151, Microcomputer Operating Systems	3
CA 171, Intro. to Networking	3
CA 175, Administering Windows Server	3
CA 176, Windows Server Networking	3
CA 182, Network Security	3
CIS 157, Intro. To LINUX	3
CIS 159, SUSE Linux Server Administration	3
Program Electives (see below)	<u>6</u>
<b>Units Required for Certificate</b>	<b>30</b>

**Program Electives units**  
Complete 6 units from the following networking program electives.

CA 103, Intro. to Computers & Dig. Tech.	3
CA 131, Relational Database Management and Design	3
CA 132, Oracle SQL Database Management	3
CA 153, Windows Installation and System Support	3
CIS 111, Introduction to Programming and Algorithms	3
CIS 113, Data Structures	3
CIS 123, Assembly Language and Computer Architecture	3
CIS 141, Introduction to Basic Programming	3
CIS 145, Intro. to Visual BASIC.NET Programming	3
CIS 161, Introduction to C Programming	3
CIS 173, Introduction to C++ Programming	3
CIS 175, Java Programming	3

#### *other requirements for degree*

General Education	21-27
Proficiency (See Proficiency Requirements) *	
Electives	<u>3-9</u>
<b>Minimum Units Required</b>	<b>60</b>

## General Education Requirements

At least 3 units from each of the following areas below: A, B, C, D1, D2, E, and F.

### Minimum Total GE Units Required 21

#### Area A Natural Sciences

(min. 3 units)

ANTH 101, 101L  
 ASTR 101, 101L  
 BIOL 100, 101, 101L, 102, 103, 104, 110, 120, 201, 202, 204, 205  
 CHEM 101, 102, 110  
 ELTE 101  
 ERSC 101  
 GEOG 101, 101L, 102, 102L  
 GEOL 101, 101L, 102, 102L  
 PHYS 101, 102, 110, 120, 211  
 PSCI 101

#### Area B Social & Behavioral Sciences

(min. 3 units)

AJ 201, 204, 206  
 ANTH 102, 103, 112, 140  
 BUS 101  
 CFE 102  
 COMM 217  
 DFST 105  
 ECON 100, 101, 102, 110  
 GEOG 105, 106, 110  
 HIST 101, 102, 104, 105, 107, 108, 110, 111, 113, 114, 116, 118, 119  
 POLS 101, 103, 200, 201, 202, 203  
 PSY 101, 201, 212, 230, 232, 233, 234, 235, 236  
 SOC 101, 105, 110, 111, 112, 115, 116, 120

#### Area C Humanities

(min. 3 units)

ART 100, 101, 102, 103, 104, 106, 110, 113, 120, 132, 135, 136, 137, 140, 145, 150, 163, 170, 210, 213  
 CHIN 101, 102, 201, 202  
 COMM 103, 112, 114, 214  
 DA 101  
 DFST 101, 102, 105, 106, 201, 202  
 ENGL 102, 111, 112, 113, 221, 222, 225, 227, 230, 231, 235, 236, 240, 242, 246, 250, 253, 256, 257, 259, 265, 279  
 FREN 101, 102, 201, 202, 203  
 FTV 101, 103, 107, 108, 201, 203, 241, 251, 261  
 GER 101, 102, 201, 202  
 HIST 115  
 ID 150, 201  
 LATN 101, 102, 201  
 MUS 101, 105, 111, 131, 132, 151, 153, 185, 231, 232, 251A, 251B, 253A, 253B  
 MUSC 102, 103, 107, 108  
 PHIL 105, 106, 108, 109  
 PHOT 107  
 PHTC 101, 150, 201  
 SPAN 101, 110SS, 102, 201, 202, 210SS, 220SS  
 THA 101, 102, 103, 110, 115A, 115B, 116A, 116B, 117A, 117B, 118A, 118B, 121A, 121B, 130, 133, 225, 239

#### Area D Language & Rationality

(min. 3 units from (1) and 3 units from (2))

1. *Academic Composition:* Courses fulfilling the written composition requirement shall be designed to include both expository and argumentative writing.

ENGL 101

## 2. Communication and Analytical

### Thinking

BUS 113  
 CA 103  
 CIS 101, 111, 141, 157, 161  
 COMM 101, 103, 107, 109, 112, 114, 115, 217, 219  
 ENGL 102, 103  
 GEOG 201, 205  
 MATH 102, 110, 115, 116, 120, 124, 128, 135, 140, 148, 150, 160, 220, 230, 250  
 PHIL 101, 106, 110, 201

### Area E - Additional Breadth

(min. 3 units)

From areas A\*\*, B\*\*, C\*\*, D2 \*\*or

CFE 102  
 COMM 103, 107, 219  
 DFST 105  
 HD 100, 101, 102, 103, 105  
 HE 101, 120, 201  
 ID 100, 120  
 KINT 100  
 LIB 107, 110  
 MUSC 108  
 NF 100, 102, 103, 110, 150  
 PSY 212  
 SOC 111, 116  
 Any DA activity course(s) from DA102-205, except DA 107A-C, 108, 109, and 111.  
 Any Kinesiology Fitness (KINF) activity course, Intercollegiate Athletics (IATH) activity course, or up to 4 units for military experience.

\*\* Courses must be taken from a discipline not previously selected.

### Area F Diversity Studies

(min. 3 units)

ANTH 102, 112  
 BUS 212  
 CFE 116  
 COMM 114, 217, 219  
 DFST 105, 106  
 ECON 110  
 ENGL 250, 253, 256, 257, 259  
 FTV 201, 203  
 HE 201  
 HIST 110, 111, 113  
 MUSC 107, 108  
 POLS 202  
 SOC 105, 110, 116  
 THA 239

### Proficiency Requirements

Proficiency requirements exist for the areas of Reading, Writing and Math. Students must demonstrate competency in each of these areas in order to be eligible for the associate degree.

#### A. READING

Eligibility for College Level Reading (AVC assessment) or completion of READ 099 with a minimum grade of "P" (Pass), or completion of an Associate Degree or higher from a regionally accredited institution of higher education.

#### B. WRITING

Completion of ENGL 101 with a minimum grade of "C." NOTE: ENGL 101 may be taken with the Pass/No Pass option; however, students are cautioned that other colleges and universities may not accept ENGL 101 courses taken on a Pass/No Pass basis, especially for satisfaction of general education and major requirements. Students planning to transfer should check college catalogs for applicable policies.

#### C. MATHEMATICS

Completion of MATH 102 or higher or CIS 121 with a satisfactory grade or placement by AVC assessment into a math course higher than MATH 102.

## Electives

The remaining number of units (up to a minimum of 60) are considered electives. Any course that has already been counted toward (1) the general education requirements, or (2) the major, cannot be used as an elective. Any course with a designation of "AVC" at the end of a course description can be used as an elective.

## Grade Point Average Requirement

An overall grade point average of 2.0 ("C" average) is required.

**Double Counting:** While a course might satisfy more than one general education requirement, it may not be counted more than once for these purposes. A course may be used to satisfy both a general education requirement and a major or area of emphasis requirement.

## Residence Requirement

Of the required 60 units, "at least 12 semester units must be completed in residence at the college granting the degree." Title 5, Section 54000 et seq. Title 5 of the California Code of Regulations is available at <http://ccr.oal.ca.gov> and in the Antelope Valley College Library.

## Requirements for Two or More Associate Degrees

To be eligible for multiple associate degrees, a student must have completed all of the graduation requirements for each degree.

## Transfer

Students planning to continue studies at a four-year college or university after AVC should visit the Transfer Resource Center and consult with a counselor as soon as possible to develop a plan of studies. Additional information on official transfer articulation agreements from AVC to many CSU/UC campuses can be found at the following Web site: [www.assist.org](http://www.assist.org)

Transferability of courses to the CSU or UC systems is indicated at the end of a course description by the notation "(UC, CSU)." For the transferability of courses to all other universities, please consult with a counselor or the Transfer Resource Center.

The "Catalog Rights Policy" sets forth the criteria used for determining the degree requirements under which students may graduate. Please refer to the AVC Catalog for a detailed description or consult with a counselor.

For an educational plan, please consult with a counselor. To obtain counseling services please call: (661) 722-6338

### Prerequisite Completion

If a course is listed as a prerequisite for another course, that prerequisite course must be completed with a satisfactory grade in order to enroll in the next course. According to Title 5, Section 55200(d), a satisfactory grade is a grade of "A," "B," "C" or "P". Students who enroll in classes for which they do not meet the prerequisites will be involuntarily dropped. Students will be notified of this involuntary drop.

Antelope Valley College's website: [www.avc.edu](http://www.avc.edu)

To contact the Career Technical Education Division, please call: 661-722-6300 ext. 6370

ACCT 121 \*MICROCOMPUTER ACCOUNTING  
**Prerequisite:** Completion of ACCT 201 or ACCT 111 within the past five years. *Advisory:* Basic keyboarding skills, and Eligibility for READ 099. (CSU, AVC)

ACCT 201 \*FINANCIAL ACCOUNTING  
*Advisory:* Completion of ENGL 101, and Eligibility for MATH 115, MATH 116 or MATH 124. (CSU, UC, AVC)

BUS 101 \*INTRODUCTION TO BUSINESS  
*Advisory:* Eligibility for College Level Reading and ENGL 100A. (CSU, UC, AVC)

BUS 105 \*BUSINESS MATHEMATICS  
*Advisory:* Eligibility for READ 099 and MATH 070. (AVC)

CA 103 \* INTRODUCTION TO COMPUTERS & DIGITAL TECHNOLOGY. *Advisory:* Eligibility for ENGL 100A, READ 099 and MATH 070. (CSU, UC, AVC)

CA 107 \*MICROCOMPUTER HARDWARE AND SOFTWARE SUPPORT. *Advisory:* Completion of CA 103, CA 221 or CIS 101, and Eligibility for ENGL 100A, READ 099, and MATH 070. (AVC)

CA 111 \*WORD PROCESSING--MICROSOFT WORD. *Advisory:* Completion of CA 103 or CA 221 and OT 101, and the Ability to type 30 wpm, and Eligibility for ENGL 100A and READ 099. (CSU, AVC)

CA 121 \*MICROCOMPUTER SPREADSHEETS  
*Advisory:* Completion of CA 103 or CA 221, and Eligibility for READ 099 and MATH 070. (CSU, AVC)

CA 131 \*RELATIONAL DATABASE MANAGEMENT AND DESIGN  
*Advisory:* Completion of CA 103 or CA 221, and Eligibility for READ 099 and MATH 070. (CSU, AVC)

CA 132 \*ORACLE SQL DATABASE MANAGEMENT. *Advisory:* Completion of CA 103, CA 121, CA 131, or CIS 101, and Eligibility for ENGL 100A, READ 099, and MATH 102. (CSU, AVC)

CA 151 \*MICROCOMPUTER OPERATING SYSTEMS. *Advisory:* Completion of CA 103 or CA 221, and Eligibility for ENGL 100A and READ 099. (CSU, AVC)

CA 153 \*WINDOWS INSTALLATION AND SYSTEM SUPPORT. *Advisory:* Completion of CA 103 or CIS 101, Eligibility for ENGL 100A, READ 099 and MATH 102. (CSU, AVC)

CA 171 \*INTRODUCTION TO NETWORKING  
*Advisory:* Completion of CA 103 or CA 221, and Eligibility for ENGL 099, READ 099 and MATH 070. (CSU, AVC)

CA 175 \*ADMINISTERING WINDOWS SERVER  
*Advisory:* Completion of CA 103 or CA 221 or CIS 101, and Eligibility for ENGL 100A and READ 099. (CSU, AVC)

CA 176 \*WINDOWS SERVER NETWORKING  
**Prerequisite:** Completion of CA 175.  
*Advisory:* Eligibility for ENGL 100A, READ 099 and MATH 102. (CSU, AVC)

CA 182 \*NETWORK SECURITY  
*Advisory:* Completion of CA 171 or CA 175, and Eligibility for ENGL 100A, READ 099 and MATH 102. (CSU, AVC)

CA 199 \*OCCUPATIONAL WORK EXPERIENCE  
**Prerequisite:** To participate in work experience, students must have a job or internship which is either paid or voluntary and have the approval of the supervisor and instructor supervising work experience in the specific subject area. PRIOR TO ENROLLING, students must attend a scheduled orientation or meet individually with the supervising instructor for an individual orientation. (CSU, AVC)

CA 221 \*COMPUTER CONCEPTS AND APPLICATIONS IN BUSINESS  
*Advisory:* Completion of ACCT 201, and Eligibility for College Level Reading, ENGL 101 and MATH 070. (CSU, UC, AVC)

CIS 101 \*INTRODUCTION TO COMPUTER INFORMATION SCIENCE. *Advisory:* Eligibility for ENGL 100A, READ 099 and MATH 102. (CSU, UC, AVC)

CIS 111 \*INTRODUCTION TO PROGRAMMING AND ALGORITHMS. *Advisory:* Completion of CA 103 or CA 221 or CIS 101, and Eligibility for ENGL 100A, READ 099 and MATH 102. (CSU, UC, AVC)

CIS 113 \*DATA STRUCTURES  
**Prerequisite:** Completion of CIS 111 or CIS 161.  
*Advisory:* Completion of CIS 121 and MATH 128 or MATH 140, and Eligibility for ENGL 100A, READ 099. (CSU, UC, AVC)

CIS 121 \*COMPUTER MATHEMATICS  
*Advisory:* Completion of CIS 111, CIS 113, and MATH 128 or MATH 140, and Eligibility for College Level Reading and ENGL 100A. (CSU, UC, AVC)

CIS 123 \*ASSEMBLY LANGUAGE AND COMPUTER ARCHITECTURE  
*Advisory:* Completion of CIS 111, and Eligibility for ENGL 100A, READ 099 and MATH 102. (CSU, UC, AVC)

CIS 141 \*INTRODUCTION TO BASIC PROGRAMMING. *Advisory:* Completion of CA 103 or CIS 101, and Eligibility for ENGL 100A, READ 099 and MATH 102. (CSU, UC, AVC)

CIS 145 \*INTRODUCTION TO VISUAL BASIC.NET PROGRAMMING  
*Advisory:* Completion of CIS 141 and either CIS 111 or CIS 173, and Eligibility for ENGL 100A, READ 099 and MATH 102. (CSU, AVC)

CIS 157 \*INTRODUCTION TO LINUX  
*Advisory:* Completion of CA 103, CA 221 or CIS 101, and Eligibility for ENGL 100A, READ 099 and MATH 102. (CSU, AVC)

CIS 159 \*SUSE LINUX SERVER ADMINISTRATION. **Prerequisite:** Completion of CA 151, CA 171, or CIS 157. *Advisory:* Eligibility for ENGL 100A and READ 099. (CSU, AVC)

CIS 161 \*INTRODUCTION TO C PROGRAMMING  
*Advisory:* Completion of CIS 101, and Eligibility for ENGL 100A, READ 099 and MATH 128. (CSU, UC, AVC)

CIS 173 \*INTRODUCTION TO C++ PROGRAMMING. **Prerequisite:** Completion of CIS 161. *Advisory:* Eligibility for ENGL 100A, READ 099 and MATH 128. (CSU, UC, AVC)

CIS 175 \*JAVA PROGRAMMING  
**Prerequisite:** Completion of CIS 111.  
*Advisory:* Eligibility for ENGL 100A, READ 099 and MATH 128. (CSU, UC, AVC)

CIS 199 \*OCCUPATIONAL WORK EXPERIENCE  
**Prerequisite:** To participate in work experience, students must have a job or internship which is either paid or voluntary and have the approval of the supervisor and instructor supervising work experience in the specific subject area. PRIOR TO ENROLLING, students must attend a scheduled orientation or meet individually with the supervising instructor for an individual orientation. (CSU, AVC)

MGT 101 \*MANAGEMENT PRINCIPLES  
*Advisory:* Eligibility for ENGL 100A, READ 099 and MATH 065. (CSU, AVC)

MATH 102 \*INTERMEDIATE ALGEBRA  
**Prerequisite:** Eligibility for MATH 102 (AVC assessment) or Completion of MATH 070.  
*Advisory:* Eligibility for READ 099. (AVC)

MATH 140 \*PRECALCULUS  
**Prerequisite:** Eligibility for MATH 140 (AVC Assessment) or Completion of MATH 105 and MATH 135. *Advisory:* Eligibility for College Level Reading. (CSU, UC, AVC)

MATH 150 CALCULUS AND ANALYTIC GEOMETRY. **Prerequisite:** Eligibility of Math 150 (AVC Assessment test) or Completion of MATH 140. *Advisory:* Eligibility for College Level Reading. (CSU, UC, AVC)

MATH 160 CALCULUS AND ANALYTIC GEOMETRY. **Prerequisite:** Completion of MATH 150. *Advisory:* Eligibility for College Level Reading. (CSU, UC, AVC)

MATH 220 LINEAR ALGEBRA  
**Prerequisite:** Completion of MATH 160.  
*Advisory:* Eligibility for College Level Reading. (CSU, UC, AVC)

PHIL 110 INTRODUCTION TO LOGIC  
*Advisory:* Eligibility for College Level Reading, ENGL 100A and MATH 070. (CSU, UC, AVC)

*Advisory:*

A condition of enrollment that a student is advised, but not required, to meet before or in conjunction with enrollment in a course or educational program.

**Prerequisite:**

A condition of enrollment that a student is required to meet in order to demonstrate current readiness for enrollment in a course or educational program. Prerequisites are enforced and a student will be blocked from enrolling or involuntarily dropped after enrolling if the student does not meet the stated prerequisite. A student must complete a course prerequisite with a satisfactory grade of A, B, C or P (pass).

Corequisite:

A condition of enrollment consisting of a course that a student is required to simultaneously take in order to enroll in another course. Corequisites are enforced and a student will be blocked from enrolling if the student does not meet the stated requisite.