Program:	**Computer Information Systems (CIS) - Associate in Arts (AA) Degree**
Meta-major:	**Science, Technology, Engineering, & Math (STEM)**

	Fall Year 1	Winter Year 1	Spring Year 1	Summer Year 1	Fall Year 2	Winter Year 2	Spring Year 2
	***CS 101 (formerly CO SCI 103) INTRODUCTION TO COMPUTER SCIENCE *Also fulfills Area B2 requirement* 3 units	To reduce units in primary terms, it is suggested to take a GE course (3 units)	***CS 103 (formerly CO SCI 104) MATHEMATICS FOR PROGRAMMERS 3 units	To reduce units in primary terms, it is suggested to take a GE course (3 units)	ELECTIVE CS 116 (formerly CO SCI 139) PROGRAMMING IN C++ *Prerequisite: CS 101 or CS 111 or CO SCI 103 or CO SCI 108* **or** CS 113 (formerly CO SCI 141) PROGRAMMING IN JAVA *(Prerequisite: CS 101 or CS 111 or CO SCI 103 or CO SCI 108)* 3 units	To reduce units in primary terms, it is suggested to take a GE course (3 units)	***CS 130 (formerly CO SCI 117) INTRODUCTION TO COMPUTER ARCHITECTURE AND ORGANIZATION *Prerequisite: CS 113 or CS 116 or CO SCI 139 or CO SCI 141* 3 units
	***CIS 111 (formerly CO SCI 134) SUPPORTING WINDOWS DESKTOPS 3 units		***CS 102 (formerly CO SCI 107) PROGRAMMING LOGIC AND DESIGN (INTRODUCTION TO PROGRAMMING) 3 units		***CIS 219 (formerly CO SCI 186) INTRODUCTION TO ORACLE: SQL AND PL/SQL 3 units		CS 136 (formerly CO SCI 136) INTRODUCTION TO DATA STRUCTURES *Prerequisite: CO SCI 139 or CO SCI 141 (eliminate CO SCI 138)* 3 units
	Area D2: Communication and Analytical Thinking ***Suggested:*** MATH 125 INTERMEDIATE ALGEBRA *Prerequisite: MATH 115* **or** Any equivalent or higher level MATH course 3 - 6 units		CIS 148 (formerly CO SCI 158) INTRODUCTION TO WEB DEVELOPMENT HTML & CSS *Prerequisite: CS 101 or CIS 101 or CSIT 101 or CSIT 103* 3 units		CS 119 (formerly CO SCI 124) PROGRAMMING IN PYTHON *(Prerequisite: CS 101 or CS 111 or CO SCI 103 or CO SCI 108)* 3 units		CS 216 (formerly CO SCI 140) OBJECT ORIENTED PROGRAMMING IN C++ *(Prerequisite: CS 116 or CO SCI 139)* **or** CS 213 (formerly CO SCI 142) ADVANCED PROGRAMMING IN JAVA *(Prerequisites: CS 101 and CS 113 or CO SCI 103 and CO SCI 141)* 3 units
	*Area E1: Health Choose any 3 units		Area D1: English Composition ENGLISH 101 COLLEGE READING AND COMPOSITION I *Prerequisite: ENGLISH 028 or ESL 008 or Placement by multiple measures; Advisory: ENGLISH 108* 3 units		*Area A: Natural Sciences ***Suggested:*** Any CHEM or PHYSICS course 3 - 5 units		*Choose additional course See listing of Full CSU GE or IGETC for suggestions 1 - 3 units
	*Area E2: Physical Education Activity (non-classroom) Choose any *Only if not satisfied in Area E1 by taking HEALTH 002* 1 unit		*Area B1: American Institutions Choose any 3 units		*Area C: Humanities Choose any 3 - 5 units		*Choose additional course(s) if needed to reach 60 units See listing of Full CSU GE or IGETC for suggestions 1 - 6 units
Semester Units:	**12 to 16**		**15**		**15 to 19**		**As needed to reach at least 60 total units**

Major Units:	**33 (3 units also fulfill GE requirements)**
General Education (GE) Units (21 unit minimum):	**21 to 29**
Additional Units:	**1 to 9**
Total Units (60 unit minimum):	**60**

*For the complete list of LACC General Education requirements, see the LACC Catalog, p.72. Area D1: English Composition (English 101) and Area D2: Communication and Analytical Thinking should be taken within the first year. All other GE courses can be taken in any semester. If appropriate, English and Math can be taken in the same semester.

Students who feel they need additional support in order to be successful in English and math should see a counselor for information about support courses, tutoring services, and boot camps.

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SUGGESTED ADDITIONAL COURSES FOR FULL CSU GE OR IGETC
(a) PHILOS 005 CRITICAL THINKING AND COMPOSITION *(Prerequisite: ENGLISH 101)* **to meet IGETC Area 1B** **(b) MATH 260 PRECALCULUS** *(Prerequisite: MATH 240 or 258 or placement by multiple measures)* **or MATH 261 CALCULUS I** *(Prerequisite: MATH 260 or placement by multiple measures)* **to meet IGETC Area 2** **(c) Additional SOC SCI, HUMAN, and sciences courses to meet the 7-course pattern for UCs**