

Computer Science AS-T (IGETC GE Track)

+If you have completed coursework at another college and/or are starting in a semester other than a Fall term, please follow up with the Counseling Department to determine if this sequence is appropriate for your academic and career goals.

Program Description:

The Computer Science program is designed to address problems in organizing, representing, manipulating, and presenting information in an automatic processing environment. Computerized information systems are being developed and used in almost every field where information must be processed. The goal of the Computer Science program is to provide understanding of the functions of the modern computer and operational skills in programming. The following list is a sample of the many career options available to the computer science major. While a few require an associate degree, most require baccalaureate degrees and some require a graduate degree: programmer, computer hardware specialist, data base specialist, computer operator, systems analyst, programmer analyst, software engineer, and instructor. [The Student Transfer Achievement Reform Act \(SB 1440\)](#).

Program SLO:

Students will be able to evaluate and analyze fundamental software solutions and their applications.

Important Transfer Information: The sequence listed below satisfies the AST requirements and DOES NOT meet all your transfer admissions requirements. Be aware additional MATH and CMPSCI Courses are required for transfer. It is important to connect with a counselor to develop an individual student education plan through the Counseling Department @ <https://www.canyons.edu/counseling> or (661) 362-3288/(661) 362-3811.

Major courses are sequenced and BOLDDED based on recommendations by the [Computer Science Department](#).

First Semester (3-16 units) FA = Fall; WI = Winter; SP = Spring; SU = Summer

Course	Title	Units	Major and GE Courses
CMPSCI 111	Introduction to Algorithms Programming/Java (FA, SP, SU)	3	Major
CMPSCI 111L	Introduction to Algorithms Programming/Java Lab (FA, SP, SU)	1	Co-requisite for CMPSCI 111
*Math 211	Calculus I (FA, SP, SU)	5	Major and Area 2
ENGLISH 101/101H	English Composition (FA, WI, SP, SU)	4	Area 1A
Arts Course	Choose one course from the IGETC GE Area 3A (FA, WI, SP, SU)	3	Area 3A
Term Total:		16	

Check the [Honors](#) website for most recent course offerings. Must be enrolled in the [Honors](#) program to take courses, see below
*Speak with a counselor regarding your math placement results. If you did not place into Math 211 – Calculus I, you will need to satisfy the appropriate pre-requisite courses. Refer to the [Math Placement Chart](#) for sequencing.

Intersession I (17-19 units minimum)

Course	Title	Units	Major and GE Courses
CMPSCI 122	Computer Architecture and Assembly Language (FA, WI, SP, SU)	3	Major
Term Total:		3	

Second Semester (20-36 units)

Course	Title	Units	Major and GE Courses
CMPSCI 182	Data Structures and Program Design (FA, SP, SU)	3	Major
CMPSCI 182L	Data Structures and Program Design Lab (FA, SP, SU)	3	Co-requisite for CMPSCI 182
Math 212	Calculus II (FA, SP, SU)	5	Major
**Critical Thinking	Choose one course from the IGETC GE 1B category (FA, WI, SP, SU)	3	Area 1B
Biological Science	Choose once course from IGETC GE Area 5B	3-4	Area 5B
		Term Total:	17-18

****Some UC's will require a second semester of English Composition.**

Interession II (37-39 units minimum)

Course	Title	Units	Major and GE Courses
CMPSCI 122	Computer Architecture and Assembly Language (FA, WI, SP, SU)	3	Major
* CMPSCI 235	C Programming (FA, WI, SP, SU)	3	Elective – <i>Highly Recommended for UC Transfer</i>
		Term Total:	3-6

NOTE: To be competitive for UC Transfer, both COMPSCI 235 & 236 are required.

Third Semester (40-55 units)

Course	Title	Units	Major and GE Courses
PHYSIC 220	Physics for Scientists and Engineers: Mechanics of Solids and Fluids (FA, SP, SU)	4	Major and IGETC 5A and 5B
CMPSCI I 256	Discrete Structures (FA, SP, SU)	3	Major
COMS 105/105H	Fundamentals of Public Speaking (FA, WI, SP, SU)	3	Area 1C
American Institutions – Choose Option I or II	Complete first course in chosen option – (note: must take both classes within one option) (FA, WI, SP, SU) – <i>see table below</i>	3	American Institutions and Area 3B
Social Science	Choose one course from IGETC GE Area 4 (FA, WI, SP, SU)	3	Area 4
		Term Total:	16

Interession III (56 units minimum)

Course	Title	Units	Major and GE Courses
* CMPSCI 236	C ++ Programming (FA, WI, SP, SU)	3	Elective – <i>Highly Recommended for UC Transfer</i>
		Term Total:	0-3

NOTE: To be competitive for UC Transfer, both COMPSCI 235 & 236 are required.

Fourth Semester (56-68 units)

Course	Title	Units	Major and GE Courses
PHYSIC 221	Physics for Scientists and Engineers: Electricity & Magnetism (FA, SP, SU)	4	Major and IGETC 5A and 5B
American Institutions	Complete second course in chosen option – (note: must take both classes within one option) (FA, WI, SP, SU) – <i>see table below</i>	3	American Institutions and Area 4
Social Science	Choose one course from IGETC GE Area 4 (FA, WI, SP, SU)	3	Area 4
Arts OR Humanities	Choose one course from either IGETC GE Area 3A or 3B (FA, WI, SP, SU)	3	Area 3A or 3B

Foreign Language – <i>if not met in High School</i>	Choose any course from IGETC Language Other Than English if planning to transfer to a UC School (FA, WI, SP, SU)	5	Language other than English Area 6
Term Total:		13-18	

++ Foreign Language is required as part of the IGETC transfer general education breadth. This is a UC requirement. Proficiency equivalent to two years of a high school foreign language with a “C” or better will meet the IGETC Language other than English requirement. High School Transcripts must be on file in Admissions. Please see the Counseling Office for additional information.

Total Units: 68+

American Institutions Requirement – Select one of the options below and complete a total of 6 units

Option I	One course from the following: Economics 170/170H, History 111/111H, History 112/112H, History 120/120H, or History 130 AND Political Science 150/150H (FA, WI, SP, SU)
Option II	History 111/111H AND History 112/112H (FA, WI, SP, SU)

Counseling Resources:

Computer Science Department: <https://www.canyons.edu/academics/computerscience/index.php>

Counseling Department: <https://www.canyons.edu/studentservices/counseling/>

UC/IGETC GE Breadth: <https://www.canyons.edu/studentservices/counseling/transfer/index.php>

University of California: www.universityofcalifornia.edu

CSU/UC Articulation Agreements: www.assist.org

A Degree with a Guarantee: <https://adegreewithaguarantee.com/en-us/>

UC Transfer Pathways: <https://admission.universityofcalifornia.edu/admission-requirements/transfer-requirements/transfer-pathways/>

MESA Program: <https://www.canyons.edu/academics/mesa/index.php>

COC Honors Program: <https://www.canyons.edu/academics/honors/index.php>

Campus Alliances: <https://www.canyons.edu/administration/ie2/equity/alliances.php>

Petition for Associate Degree: Check the [student calendar](#) for term-specific submission deadlines. Summer graduation associate degree petitions are due by April 1st for your name to appear in the spring commencement pamphlet. The petition form must be reviewed with a counselor and may be found here:

https://www.canyons.edu/resources/documents/studentservices/admissions/Petition_for_Associate_Degree_and_Certificate_of_Achievement.pdf

Career Resources:

California Career Zone: <https://www.cacareerzone.org/>

O*Net Online: <https://www.onetonline.org/>

Bureau of Labor and Statistics: www.bls.gov