Computer Science A.S. Degree

FULL TIME

This program roadmap represents one possible pathway to complete the program. **Please see a counselor** to create an education plan that is customized to meet your needs. This roadmap is not a guarantee of course availability or financial aid applicability.

Catalog: 2026-27

GE Pattern: Cal-GETC

Total Units: 63

First Year

Semester 1

14 Units

CAT.	COURSE	UNIT	PREREQUISITES	GE AREA
Req	CISP 300[1] Algorithm Design/Problem Solving	3		
Req	MATH 400 Calculus I	5	through the placement process	2
GE	ENGL C1000 College Composition **or** ENGL C1000H[H] Honors College Composition	3 3		1A
GE	any Area 3A (Arts) course	3		3A

Semester 2

16 Units

CAT.	COURSE	UNIT	PREREQUISITES	GE AREA
Req	CISP 360[1] Introduction to Structured Programming	4	CISP 300 or 370	
Req	MATH 401 Calculus II	5	MATH 400	
GE	any Area 1B (Critical Thinking and Composition) course	3		1B
GE	any Area 5A (Physical Sciences) course	3		5A
GE	any Area 5C (Science Lab) course[2]	1		5C

[1] CISP 480 can be taken in place of CISP 300 and 360

[2] The Area 5C (Science Lab) course must correspond with either the Area 5A (Physical Sciences) or Area 5B (Biological Sciences) course and must be taken concurrently or after the lecture course.

Second Year

Semester 3

17 Units

TRANSFER PATH

Potential Transfer Majors:

- Computer Science B.S.
- Computer Engineering B.S.
- Information Technology B.S.
- Management Information Systems B.S.
- Applied Computer Science B.S.
- Software Engineering B.S.
- Applied Science in Computer Science B.S.
- Mathematics in Computer Science B.S.
- Computer Security B.S.

This map prepares students for the A.S. degree. Additional major requirements and general education courses are needed for transfer. See a counselor to create an educational plan that prepares you to transfer.

Potential Career/Options After Completing a Bachelor's Degree:

Career opportunities include

- Computer Scientist
- Programmer/Developer
- Application Development
- Graphics Software Engineer
- Data Science Developer

CAT.	COURSE	UNIT	PREREQUISITES	GE AREA
Req	CISP 400 Object Oriented Programming with C++	4	CISP 360 or 480	
Req	CISP 310 Computer Architecture and Organization	4	CISP 360 or 480	
GE	any Area 1C (Oral Communication) course	3		1C
GE	any Area 3B (Humanities) course	3		3B
GE	any Area 4 (Social & Behavioral Sciences) course (from 2 academic disciplines)	3		4

Semester 4

16 Units

CAT.	COURSE	UNIT	PREREQUISITES	GE AREA
Req	CISP 430 Data Structures	4	CISP 400 or 401	
Req	CISP 440 Discrete Structures for Computer Science	3	(see below)	
GE	any Area 4 (Social & Behavioral Sciences) course (from 2 academic disciplines)	3		4
GE	any Area 5B (Biological Sciences) course	3		5B
GE	any Area 6 (Ethnic Studies) course	3		6

CISP 440 Prerequisite: CISP 360, and MATH 372 or 375

EXPLANATION OF CATEGORIES		
Req	Required Core	A course that is required for this program
GE	General Education	A course that fulfills a specific general education requirement for a degree, which can be replaced with another course that meets the same requirement

- Security Software Engineer
- Embedded Software Engineer
- Qualitative Product Researcher
- Data Analyst
- Full Stack Software Engineer
- Ads Intelligence
- Engineer -Threat Intelligence Center
- Technical Designer
- Data & Applied Scientist
- Lead Animator
- .NET Developer
- Business Analyst
- Systems Analyst
- Database Administrator

Advising Notes:

- This degree can be completed using either the local AA/AS general education (GE) pattern or the Cal-GETC transfer GE pattern. See a counselor to determine which pattern is best for you based on your academic goals.
- Students working on this major are placed directly into MATH 400. See a counselor to determine if you would benefit from additional preparation or support courses.
- This map is designed for students who are able to take 12 units or more each semester, which is considered a full-time load. It shows one possible way to finish the program as quickly as possible. See a counselor to adjust the coursework to meet your specific needs.
- Students can substitute ESLW 340 for ENGL C1000/C1000H (formerly known as ENGWR 300/480).

- Many universities require students to take their entire math series at the same institution. See a counselor for more information about this requirement.

Other Notes to Students Preparing to Transfer:

- Additional coursework may be required. Work with a counselor and ASSIST.ORG to determine the courses needed for your goals.
- The CSU system requires every student receiving a bachelor's degree to be knowledgeable about the Constitution of the United States, American history, and state and local government. This requirement is generally known as the American Institutions requirement. Students can complete this requirement at ARC before transferring. See a counselor for a list of approved courses.

Honors Courses (H):

Students with a cumulative GPA of 3.2 or better who complete 15 or more units of Honors coursework earn an Honors Transfer Certificate and can take advantage of honors-to-honors transfer agreements with highly selective colleges and universities, both public and private.

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