CIS: Computer Programming A.S. Degree - C++ concentration

PART 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: local AA/AS

Total Units: 60

First Year

Semester 1

8 Units

CAT.	COURSE	UNIT	PREREQUISITES	GE AREA
Req	CISC 310 Introduction to Computer Information Science	3		
Req	CISP 300[1] Algorithm Design/Problem Solving	3		L2
GE	any Area L7B (Life Development Skills) course	2		L7B

Semester 2

6 Units

CAT.	COURSE	UNIT	PREREQUISITES	GE AREA
GE	ENGL C1000 College Composition **or** ENGL C1000H[H] Honors College Composition	3 3		L1A
Elec	any elective course	3		

Second Year

Semester 3

7 Units

CAT.	COURSE	UNIT	PREREQUISITES	GE AREA
Req	CISP 360[1] Introduction to Structured Programming	4	CISP 300 or 370	
Elec	any elective course	3		

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

Semester 4

7 Units

CAT.	COURSE	UNIT	PREREQUISITES	GE AREA
Req	CISP 350 Database Programming	3		
GE	any Area L3 (Arts & Humanities) course	3		L3

CAREER PATH

Career Options:

Upon completion of this degree, students have the minimum qualifications for an entry-level programmer/developer.

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.
- This map is designed for students who are able to take 2-3 classes (or 6-9 units) each semester. 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).
- **Elective Courses:** any elective courses numbered 100-499, or having a 4-digit number starting with C.

CAT.	COURSE	UNIT	PREREQUISITES	GE AREA
GE	any Area L7A (Physical Education) course	1		L7A

Third Year

Semester 5

7 Units

CAT.	COURSE	UNIT	PREREQUISITES	GE AREA
Req	CISP 400 Object Oriented Programming with C++	4	CISP 360 or 480	
GE	any Area L1B (Oral Communication & Critical Thinking) course	3		L1B

Semester 6

9 Units

CAT.	COURSE	UNIT	PREREQUISITES	GE AREA
GE	any Area L5 (Natural Sciences) course	3		L5
Elec	any elective course	3		
Elec	any elective course	3		

Fourth Year

Semester 7

7 Units

CAT.	COURSE	UNIT	PREREQUISITES	GE AREA
Req	CISP 430 Data Structures	4	CISP 400 or 401	
GE	any Area L4 (Social & Behavioral Sciences) course	3		L4

Semester 8

9 Units

CAT.	COURSE	UNIT	PREREQUISITES	GE AREA
GE	any Area L6 (Ethnic Studies) course	3		L6
Elec	any elective course	3		
Elec	any elective course	3		

H honors courses

EXPLANATION OF CATEGORIES		
Req	Required Core	A course that is required for this program

EXPLANATION OF CATEGORIES		
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
Elec	Degree Elective	A degree-applicable course that is part of a degree roadmap to ensure that there is a total of at least 60 units, which is a requirement for an associate degree

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