# Associate in Arts Degree

# **Computer Science Pathway**

Meta-Major: Science, Technology, Engineering, and Mathematics (STEM)

Intended Bachelor's Program: Computer Science (UCF)

#### **Planning Your Degree Pathway**

This document outlines the courses needed to complete your AA degree (which requires 60 eligible credits) based on your degree pathway. These courses include general education requirements as well as courses that may be used to meet our elective requirements and common program prerequisites (CPPs), which are courses required to earn your intended bachelor's degree from a public Florida college or university. Please connect with your Student Success Coach if you need introductory coursework, have previously earned college credit (such as AP, CLEP, military, or transfer), or would like to modify when you take certain courses and/or how many courses you take in a term.

#### **Common Program Prerequisites (CPP)**

- MAC 2311\*+^
- PHY 2048C\*+^
  PHY 2049C\*^
- MAC 2312\*+^COP 2220C\*^
- STA 2023
- Pick one Science Sequence: BSC 1010C<sup>^</sup> and BSC 1011C\*<sup>^</sup>

VALENCIACOLLI

Catalog 2024 - 2025

or CHM 1045C\*^ and CHM 1046C\*^

or BSC 1010C<sup>^</sup> and CHM 1045C

### **Additional Degree Requirements**

- Introductory Coursework: Courses required based on placement tests, including developmental education
- Foreign Language: Required to have 2 years of one high school foreign language or meet college-level foreign language equivalency
- Civic Literacy: Must satisfy with POS 2041, AMH 2010 or AMH 2020 (also satisfies Social Science Core) and Florida Civic Literacy Exam or appropriate scores on AP or CLEP exams
- Grade Point Average (GPA): Need to maintain 2.0 or higher for both Overall GPA and Valencia GPA
- Valencia Residency: Must complete at Valencia at least 25% of the college-level credits required for the AA degree

#### Sample Term-by-Term Plan | Part Time (6-9 credits) See reverse for full General Education course options ←Start Here → Credits **Introductory Coursework** Credits Term 1 SLS 1122 New Student Experience 3 ENC 1101 Freshman Composition I\*+ 3 Term 2 **Credits** Term 3 **Credits** MAT 1033C Intermediate Algebra\*+ 3 MAC 1105 College Algebra\*+ 3 ENC 1102 Freshman Composition II\*+ 3 **Humanities Core** 3 Term 4 **Credits** Term 5 **Credits** MAC 1140 Precalculus Algebra\*+ 3 MAC 1114 College Trigonometry\*+ 3 Civic Literacy Social Science Core Social Science Institutional\*+ 3 3 **Credits Credits** Term 6 Term 7 MAC 2311 Calc w/Analytic Geom I\*+^ MAC 2312 Calc w/Analytic Geom II\*+^ Humanities Institutional\*+ 3 Science Sequence Listed in CPP's Term 8 **Credits** Term 9 **Credits Science Sequence Listed in CPPs** 4 COP 1000C Intro to Programming+ 4 SPC 1608 Fundamentals of Speech or 3 PHY 2048C General Physics w/Calc I\*+^ 4 SPC 1017 Interpersonal Communication **Credits** Term 10 COP 2220C C Programming\*^ 3

# **Electives and Pathway-Specific Information**

The AA degree requires 24 credits of electives. Some electives may have been pre-filled into the term-by-term plan based on your pathway. If you are missing the Foreign Language or Civic Literacy requirements, you may need to use elective space to satisfy these.

- Starting your math sequence higher than MAT 1033C will save time, money, and elective space; prepare and test for proper math level placement. Students that start with MAC1105 or higher level math should consider taking PHY2049C before transferring.
- Additional UCF requirements offered at Valencia: STA 2023, COP 2800C, COP 2805C, MAC 2313, MAP 2302
- Students must take both COP 2800C and COP 2805C to receive substitution for UCF COP 3330 Object Oriented Programming
- Refer to the A.A. Computer Science Advising Guide for a program-specific student checklist and resources

# valenciacollege.edu/computer-science-guide

#### **Financial Aid Notice**

Federal financial aid assists with funding for up to 60 eligible credits of your AA degree (36 credits of general education and 24 credits of electives). If your pathway exceeds 60 credits (e.g. transfer courses, prerequisites, or other course work not included in this plan), you may need to plan for alternative methods of payments, which may include out-of-pocket payments. See a Student Success Coach to discuss your options.

Communication (4 courses)	Social Sciences Core (Pick 1)
SLS 1122 – New Student Experience	POS 2041 – U.S. Government
ENC 1101 – Freshman Composition I*+	AMH 2020 – U.S. History 1877 to Present
ENC 1102 – Freshman Composition II*+	ANT 2000 – Introduction to Anthropology
Pick one:	ECO 2013 – Principles of Economics – Macro
SPC 1608 – Fundamentals of Speech	PSY 2012 – General Psychology
or	SYG 2000 – Introductory Sociology
SPC 1017 – Interpersonal Communication	-POS 2041 or AMH 2020 can satisfy Civic Literacy and Social Sciences Core-
Humanities Core (Pick 1)	Social Sciences Institutional
ARH 1000 – Art Appreciation	ANT 2410 – Cultural Anthropology*+ (Beginning 2023-2024 catalog year)
HUM 1020 – Introduction to Humanities	ASL 2510 – Deaf Culture*+
<u>LIT 1000</u> – Introduction to Literature	EUH 2000 – Ancient and Medieval Western Civilization*+
MUL 1010 – Music Appreciation*+	EUH 2001 – Modern Western Civilization*+
PHI 2010 – Philosophy	INR 2002 – International Politics*+
THE 1000 – Introduction to Theater	POS 2112 – State and Local Government*+
	SYG 2010 - Social Problems*+ (Beginning 2023-2024 catalog year)  WOH 2012 - World History to 1500*+ (Beginning 2023-2024 catalog year)  WOH 2022 - World History Since 1500*+ (Beginning 2023-2024 catalog year)
Humanities Institutional (Pick 1)	Science Core (Pick at least 1)
HUM 2220 – Humanities - Greek and Roman*+	You must complete a minimum of 6 credit hours of total science
HUM 2223 – Medieval Humanities *+	coursework. 3 credit hours must come from "Science Core."
HUM 2232 – Humanities Renaissance and Baroque*+	AST 1002 – Astronomy
HUM 2234 – 18 <sup>th</sup> and 19 <sup>th</sup> Century Humanities *+	BSC 1005 – Biological Science
HUM 2250 – 20 <sup>th</sup> and 21 <sup>st</sup> Century Humanities *+	BSC 1005L – Lab in Applied Biology (1 credit)
<u>HUM_2310</u> – Mythology*+	BSC 1005C – Biological Science Combined w/ Lab (4 credits)
HUM 2403 – Middle Eastern Humanities*+	BSC 1010C – General Biology I (4 credits)
HUM 2410 – Asian Humanities*+	CHM 1020 – Chemistry in Everyday Life
HUM 2454 – African-American Humanities*+	CHM 1045C – General Chemistry with Qualitative Analysis I * (4 credits)
HUM 2461 – Latin American Humanities*+	ESC 1000 – Earth Science
REL 2300 – World Religions*+	EVR 1001 – Introduction to Environmental Science
ARC 1701 – History of Architecture I*+	PHY 1020 - Conceptual Physics*
ARH 2051 – Introduction to Art History II*+	PHY 2048C – General Physics with Calculus I* (4 credits)
MUT 1111 – Music Theory I~	PHY 2053C – College Physics I with Algebra and Trigonometry *(4 credits)
PHI 2600 – Ethics and Critical Thinking*+	
Math Core (Pick 1)	Science Institutional (Pick 1)
MAC 1105 – College Algebra*+	BOT 2010C – Botany (4 credits)
STA 2023 – Statistical Methods*+	BSC 1011C – General Biology II* (4 credits)
MGF 1106 – Liberal Arts Mathematics I*+	BSC 1020 – Human Biology
MGF 1107 – Liberal Arts Mathematics II*+	BSC 1020C – Human Biology Combined (4 credits)
MAC 2311 – Calculus with Analytic Geometry I*+	BSC 1026 – Biology of Human Sexuality
Bask to stand on all Disk 4	BSC 1421C – Introduction to Biotechnology (4 credits)
Math Institutional (Pick 1)	<u>BSC 2093C</u> – Human Anatomy and Physiology I* (4 credits)
You may instead select a second course from "Math Core"	BSC 2094C – Human Anatomy and Physiology II* (4 credits)
MAC 1114 – College Trigonometry*+	<u>CHM 1025C</u> – Introduction to General Chemistry* (4 credits)
MAC 1140 – Precalculus Algebra*+	CHM 1046C – General Chemistry with Qualitative Analysis II* (4 credits)
MAC 2312 – Calculus with Analytic Geometry II*+	GLY 2010C - Physical Geology (4 credits)
MAC 2233 – Calculus for Business and Social Science*+	GLY 2160 – Geology of National Parks
	<u>HUN_1201</u> — The Science of Nutrition*
Key:	MET 1010 – Introduction to Meteorology
* Class has a prerequisite	OCB 1000 – Introduction to Marine Biology
+ Class requires "C" grade or higher	OCE 1001 – Introduction to Oceanography
^ Course may require a specific grade for transfer institution	PHY 2049C – General Physics with Calculus II* (4 credits)
~ Must be paired with MUL 1010 to earn Humanities credit	PHY 2054C – College Physics II with Algebra and Trigonometry* (4 credits)
<b>Bold</b> – Common Program Prerequisite (included in sample plan)	MCB 2010C – Microbiology* (4 credits)
Ready for Transfer? Let's check!	
☐ Meet with a coach to discuss your graduation status	☐ Submit an application to your bachelor's program
☐ Apply to graduate <u>before</u> the start of your final semester	☐ Monitor your Atlas email for updates from the Graduation office