

# Computer Science (Software Engineering) Flow Chart 2022 – 2023 Catalog Year

				Required Courses				
Prerequisite Courses (if needed)				1 <sup>st</sup> Semester	2 <sup>nd</sup> Semester	3 <sup>rd</sup> Semester	4 <sup>th</sup> Semester	5 <sup>th</sup> Semester
<b>MATHEMATICS:</b> MAT 051, 052, 053, 055, 056, 057 (1 credit each) Diagnostic Math Modules	MAT 121/122 (3-4) Intermediate Algebra	MAT151/152 (3-4) College Algebra and	MAT 182 (3) Trigonometry <b>OR</b> MAT 187 (5) Pre-Calculus	MAT 220/221 (4-5) Calculus I	MAT 230/231 (4-5) Calculus II	MAT 240/241 (4-5) Calculus III	MAT 227 (3) Discrete Mathematical Structures	
<b>PHYSICS:</b>		PHY 111 (4) General Physics I	PHY 112 (4) General Physics II <b>OR</b> 1 year high school physics*	For Natural Science, please select with a Chemistry, Physics, Biology or Geology sequence. Make sure you select from the same subject area or discipline. <a href="#">See second page.</a>				
<b>BIOLOGY OR CHEMISTRY:</b>			CHM 130 (3) & CHM 130LL (1) Fundamental Chemistry <b>OR</b> 1 year high school chemistry* <b>AND</b> eligibility for CRE 101 or grade of "C" or better in RDG 100.					
<b>ENGINEERING:</b>				ECE 102 (2) Engineering Analysis Tools & Design <b>CSC 110 or 110AA or 110AB (3-4)</b> Introduction to Computer Science	ECE 103 (2) Engineering Problem Solving & Design <b>CSC 205 or 205AA or 205AB (3-4)</b> Object Oriented Programming and Data Structures	CSC/EEE 120 (4) Digital Design Fundamentals  CSC 240 (3) Introduction to Programming Languages	CSC/EEE 230 (4) Computer Organization and Assembly Language	
<b>ENGLISH:</b>			WAC 101 (3) Writing Across the Curriculum	ENG 101 (3) First Year Composition I	ENG 102 (3) First Year Composition II			
<b>GENERAL EDUCATION:</b>				SB with H or G (3) See Academic Advisor for more information.	HU with L and C (3) See Academic Advisor for more information. DAH 255, ENH 255, or MHL 204 recommended.	Recommended Humanities course: ECE 150 (3) Exploring Engineering and its impact on Society.	HU with H or G (3) <b>AND</b> SB chosen from COM 100 or COM 110 or COM 230 (3) Oral Communication	

A 3.0 transfer GPA as calculated by ASU for admissions is required. All courses must be completed with a grade of "C" or better. \*\*Be sure to check MAPP (ASU Pathway Agreement) for requirements. Link to **BSE Pathway**: [Pathway Agreement \(asu.edu\)](https://www.asu.edu/pathway-agreement)

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## 2022 – 2023 Catalog Year

Natural Science [SQ, SG]



CHANDLER-GILBERT  
COMMUNITY COLLEGE  
A MARICOPA COMMUNITY COLLEGE



STEM

CHM 151: General Chemistry I and  
CHM 151LL: General Chemistry I Laboratory or  
CHM 150: General Chemistry I and  
CHM 151LL: General Chemistry I Laboratory or  
CHM 150AA: General Chemistry I or  
CHM 151AA: General Chemistry I OR

4-5 hrs



Select a Chemistry, Physics, Biology, or  
Geology sequence. For both Natural  
Science requirements, select from the  
same subject area or discipline.

PHY 115: University Physics I or  
PHY 121: UNIVERSITY PHYSICS I: MECHANICS OR

BIO 181: General Biology (Majors) I or  
BIO 181XT: General Biology (Majors) I OR

GLG 101IN: Introduction to Geology I - Physical or  
GLG 101: Introduction to Geology I - Physical Lecture  
and  
GLG 103: Introduction to Geology I - Physical Lab

CHM 152: General Chemistry II and  
CHM 152LL: General Chemistry II Laboratory or  
CHM 152AA: General Chemistry II OR

4-5 hrs



Select a Chemistry, Physics, Biology, or  
Geology sequence. For both Natural  
Science requirements, select from the  
same subject area or discipline.

PHY 116: University Physics II or  
PHY 131: University Physics II: Electricity and  
Magnetism OR

BIO 182: General Biology (Majors) II or  
BIO 182XT: General Biology (Majors) II OR

GLG 102IN: Introduction to Geology II - Historical or  
GLG 102: Introduction to Geology II - Historical Lecture  
and  
GLG 104: Introduction to Geology II - Historical Lab

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CHANDLER-GILBERT  
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STEM

## Additional Lower Division Requirements

BIO 181: General Biology (Majors) I or  
BIO 181XT: General Biology (Majors) I OR

0-5 hrs

Additional Lab Science requirement:  
select a course not already used in the  
Natural Science [SQ, SG] sections  
above. May be completed after  
transferring.

CHM 150: General Chemistry I and  
CHM 151LL: General Chemistry I Laboratory or  
CHM 151: General Chemistry I and  
CHM 151LL: General Chemistry I or  
CHM 150AA: General Chemistry I or  
CHM 151AA: General Chemistry I OR

Refer to CIDSE for Lab Science course  
requirements:

<http://cidse.engineering.asu.edu/forstudent/undergraduate/majors/computer-science-bs/degreerequirementsbscs/>

GLG 101IN: Introduction to Geology I or  
GLG 101: Introduction to Geology I - Physical Lecture  
and  
GLG 103: Introduction to Geology I - Physical Lab OR

PHY 115: University Physics I or  
PHY 121: University Physics I: Mechanics OR

GLG 102IN: Introduction to Geology II - Historical  
Lecture or  
GLG 102: Introduction to Geology II - Historical Lecture  
and  
GLG 104: Introduction to Geology II - Historical Lab OR

GLG 110IN: Geological Disasters and the Environment  
or  
GLG 110: Geological Disasters and the Environment and  
GLG 111: Geological Disasters and the Environment