ASU ARIZONA STATE UNIVERSITY

Major Map: Computer Science – Bachelor of Science (B.S.)

Ira A. Fulton Schools of Engineering | Catalog Year: 2010-2011

Course Subject and Title *(courses in **bold/shading** are critical)*	Hrs.	Upper Division	Competed Transfer Pathway: ☐ MAPP ☐TAG ☐ATP ☐None Transfer Course/Grade	Minimum Grade if Required	Completed General Education: ☐AGEC ☐IGETC/CSUGE ☐None Additional Critical Requirement Notes
TERM ONE: 0-15 CREDIT HOURS					
ASU 101-FSE: The ASU Experience	1	☐			• ASU 101-FSE should be completed first semester. • An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition courses • ASU Math Placement Exam score determines placement in Mathematics course **If ENG 105 a 3 hr applicable elective must also be taken prior to graduation. See Advisor. # Designates Major Course: A minimum cumulative GPA of 2.0 required in major courses. • .**Maintain minimum ASU cumulative GPA of 2.0**
# CSE 100: Principles of Programming with C++ (CS) OR # CSE 110: Principles of Programming with Java (CS)	3	☐		Grade of C	
#CSE 101: Introduction to Computer Science & Engineering	2	☐		Grade of C	
MAT 265: Calculus for Engineers I (MA)	3	☐		Grade of C	
ENG 101 or 102: First-Year Composition OR ENG 105: Advanced First-Year Composition** OR ENG 107 or 108: English for Foreign Students	3	☐		Grade of C	
Social & Behavioral Science (SB) AND Cultural Diversity in the US (C), Global Awareness (G) or Historical Awareness (H)	3	☐			
TERM TWO: 16-30 CREDIT HOURS					
# CSE 120: Digital Design Fundamentals	3	☐		Grade of C	• **Maintain minimum ASU cumulative GPA of 2.0** # Designates Major Course: A minimum cumulative GPA of 2.0 required in major courses.
# CSE 205:Object-Oriented Programming & Data Structures (CS)	3	☐		Grade of C	
MAT 266: Calculus for Engineers II	3	☐		Grade of C	
BIO 187: General Biology I (SQ) or BIO 188: General Biology II (SQ)	4	☐			
ENG 101 or 102: First-Year Composition OR ENG 105: Advanced First-Year Composition** OR ENG 107 or 108: English for Foreign Students	3	☐		Grade of C	
TERM THREE: 31-45 CREDIT HOURS					
# CSE 230: Computer Organization and Assembly Language Programming	3	☐		Grade of C	• **Complete 9 critical courses by end of term 3** • **Maintain minimum ASU cumulative GPA of 2.0** • Complete First-Year Composition requirement: ENG 101 & 102 or ENG 107 & 108 or ENG 105 • See Advisor for approved Laboratory Science sequence courses # Designates Major Course: A minimum cumulative GPA of 2.0 required in major courses.
MAT 243: Discrete Mathematical Structures	3	☐		Grade of C	
MAT 267: Calculus for Engineers III	3	☐		Grade of C	
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the US (C), Global Awareness (G), or Historical Awareness (H)	3	☐			
Laboratory Science I (SQ)	4	☐			
TERM FOUR: 46-60 CREDIT HOURS					
#CSE 240: Introduction to Programming Languages	3	☐		Grade of C	• See Advisor for approved Laboratory Science sequence courses • General Elective: cannot include CSE, MAT, PHY, BIO, CHM or other Science course # Designates Major Course: A minimum cumulative GPA of 2.0 required in major courses.
# MAT 343: Applied Linear Algebra	3	☒			
Laboratory Science II (SQ)	4	☐			
Social & Behavioral Science (SB) AND Cultural Diversity in the US (C), Global Awareness (G), or Historical Awareness (H)	3	☐			
General Elective	3	☐			
TERM FIVE: 61-75 CREDIT HOURS					
# IEE 380: Probability and Statistics for Engineering Problem Solving	3	☒			# Designates Major Course: A minimum cumulative GPA of 2.0 required in major courses.
# CSE 301: Computing Ethics	1	☒		Grade of C	
# CSE 310: Data Structures and Algorithms	3	☒		Grade of C	
# CSE 360: Introduction to Software Engineering	3	☒		Grade of C	
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the US (C), Global Awareness (G), or Historical Awareness (H)	3	☐			
TERM SIX: 76-90 CREDIT HOURS					
# CSE 340: Principles of Programming Languages	3	☒		Grade of C	• See Advisor for approved list of Technical Electives # Designates Major Course: A minimum cumulative GPA of 2.0 required in major courses.
# CSE 355: Introduction to Theoretical Computer Science	3	☒		Grade of C	
# CSE 4** Computer Science Elective	3	☒		Grade of C	
Computer Science Technical Elective	3	☒		Grade of C	
UD Humanities, Fine Arts & Design (HU) OR Social & Behavioral Science (SB)	3	☒			
TERM SEVEN: 91-105 CREDIT HOURS					
# CSE 430: Operating Systems	3	☒		Grade of C	• See Advisor for approved list of Computer Science Electives • General Elective: cannot include CSE, MAT, PHY, BIO, CHM or other Science course # Designates Major Course: A minimum cumulative GPA of 2.0 required in major courses.
# CSE 485: Computer Science Capstone Project I (L)	3	☒		Grade of C	
# CSE 4** Computer Science Elective	3	☒		Grade of C	
# CSE 4** Computer Science Elective	3	☒		Grade of C	
General Elective	2	☐			

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Course Subject and Title *(courses in **bold/shading** are critical)*	Hrs.	Upper Division	Transfer Course/Grade	Minimum Grade if Required	Additional Critical Requirement Notes
TERM EIGHT: 106-120 CREDIT HOURS					
# CSE 486: Computer Science Capstone Project II (L)	3	☒		Grade of C	• See Advisor for approved list of Technical Electives # Designates Major Course: A minimum cumulative GPA of 2.0 required in major courses.
# CSE 4** Computer Science Elective	3	☒		Grade of C	
# CSE 4** Computer Science Elective	3	☒		Grade of C	
# Computer Science Technical Elective	3	☒		Grade of C	
Humanities, Fine Arts & Design (HU) OR Social & Behavioral Science (SB)	3	☐			

Graduation Requirements Summary:

Total Hours Regular Curriculum (120)	Total UD Hrs (45 min)	Total Hrs at ASU (30 min)	Cumulative GPA (2.00 minimum)	Major GPA (2.00 minimum GPA)	Hrs Resident Credit for Academic Recognition (56 min)	Total Comm. College Hrs. (64 Max)

General University Requirements: Legend

- General Studies Core Requirements:
  - Literacy and Critical Inquiry (L)
  - Mathematical Studies (MA)
  - Computer/Statistics/Quantitative applications (CS)
  - Humanities, Fine Arts, and Design (HU)
  - Social and Behavioral Sciences (SB)
  - Natural Science-Quantitative (SQ)
  - Natural Science-General (SG)
- General Studies Awareness Requirements
  - Cultural Diversity in the US (C)
  - Global Awareness (G)
  - Historical Awareness (H)
- First-Year Composition

Additional Notes: