

Critical Requirements: Students who follow the 2008-2009 catalog year and are entering ASU as either a first-time freshman or transfer from any Arizona public university or Arizona community college must complete critical requirements.

# Major Map: Computer Science – Bachelor of Science (B.S.) Ira A. Fulton School of Engineering, Tempe Campus Catalog Year: 2008-2009

			Completed ATP:  Yes  No		Completed AGEC: Yes No		
Course Subject and Title (courses in <b>bold/shading</b> are critical)	Hrs.	Upper Division	Transfer Course/Grade	Minimum Grade if Required	Additional Critical Requirement Notes		
TERM ONE: 0-15 CREDIT HOURS	1115.	Division	Course/Grade	Required	Additional Critical Requirement Notes		
ASU 101: The ASU Experience	1				Complete CSE 100 or 110; MAT 265 each		
# CSE 100: Principles of Programming with C++ (CS) OR	1				with a minimum grade of "C"		
# CSE 110: Principles of Programming with Java (CS)	3			Grade of C	General Elective: cannot include CSE, MAT,     PHY, BIO, CHM or other Science course		
MAT 265: Calculus for Engineers I (MA)	3			Grade of C	An SAT, ACT, Accuplacer, or TOEFL score		
ENG 101 or 102: First-Year Composition OR					determines placement into first-year		
ENG 105: Advanced First-Year Composition** OR ENG 107 or 108: English for Foreign Students	3			Grade of C	composition courses     ASU Math Placement Exam score determines		
Social & Behavioral Science (SB) AND Cultural Diversity in the US	3			Grade of C	placement in Mathematics course		
(C), Global Awareness (G) or Historical Awareness (H)	3				**If ENG 105 a 3 hr applicable elective must also be		
					taken prior to graduation. See Advisor.  # Designates Major Course: A minimum cumulative		
General Elective	3				GPA of 2.0 required.		
TERM TWO: 16-30 CREDIT HOURS					•		
# CSE 120: Digital Design Fundamentals	3			Grade of C	Complete CSE 120, 205; MAT 266 each with		
# CSE 205: Concepts of Computer Science & Data Structures (CS)	3			Grade of C	a minimum grade of "C"		
MAT 266: Calculus for Engineers II	3			Grade of C	# Designates Major Course: A minimum cumulative GPA of 2.0 required.		
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		]		~	• Complete CSE 230; MAT 243, 267 each with		
Programming	3			Grade of C	<ul> <li>a minimum grade of "C"</li> <li>Complete First Year Composition requirement:</li> </ul>		
MAT 243: Discrete Mathematical Structures	3			Grade of C	ENG 101 & 102 or ENG 107 & 108 or ENG		
MAT 267: Calculus for Engineers III Humanities, Fine Arts & Design (H) AND Cultural Diversity in the US	3			Grade of C	105		
(C), Global Awareness (G), or Historical Awareness (H)	3				See Advisor for approved Laboratory Science sequence courses		
					# Designates Major Course: A minimum cumulative		
Laboratory Science I (SQ)	4				GPA of 2.0 required.		
TERM FOUR: 46-60 CREDIT HOURS							
#CSE 240: Introduction to Programming Languages	3			Grade of C	Complete CSE 240 with a minimum grade of "C"		
# MAT 343: Applied Linear Algebra	3	$\boxtimes$			See Advisor for approved Laboratory Science		
Laboratory Science II (SQ)	4				sequence courses		
Social & Behavioral Science (SB) AND Cultural Diversity in the US (C), Global Awareness (G), or Historical Awareness (H)	3				General Elective: cannot include CSE, MAT,  PLIV. PLO. CLIM on other Science severes.		
(C), Giodai Awareness (G), or Historical Awareness (H)	3				PHY, BIO, CHM or other Science course # Designates Major Course: A minimum cumulative		
General Elective	3				GPA of 2.0 required.		
TERM FIVE: 61-75 CREDIT HOURS							
# IEE 380: Probability and Statistics for Engineering Problem Solving	3				# Designates Major Course: A minimum cumulative		
# CSE 301: Computing Ethics	1			Grade of C	GPA of 2.0 required.		
# 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	2	M		Crade of C	See Advisor for approved list of Technical		
# CSE 340: Principles of Programming Languages	3		+	Grade of C	Electives		
# CSE 355: Introduction to Theoretical Computer Science	3			Grade of C	# Designates Major Course: A minimum cumulative		
# CSE 4** Computer Science Elective	3			Grade of C	GPA of 2.0 required.		
Computer Science Technical Elective UD Humanities, Fine Arts & Design (HU) OR Social & Behavioral	3		+	Grade of C	1		
Science (SB)	3	$\boxtimes$					
TERM SEVEN: 91-105 CREDIT HOURS							
# CSE 430: Operating Systems	3			Grade of C	See Advisor for approved list of Computer		
# CSE 485: Computer Science Capstone Project I (L)	3			Grade of C	Science Electives General Elective: cannot include CSE, MAT,		
# CSE 4** Computer Science Elective	3			Grade of C	PHY, BIO, CHM or other Science course # Designates Major Course: A minimum cumulativ GPA of 2.0 required.		
# CSE 4** Computer Science Elective	3			Grade of C			
General Elective	1			·			

Page 1 of 2 Updated: 10/13/08



Critical Requirements: Students who follow the 2008-2009 catalog year and are entering ASU as either a first-time freshman or transfer from any Arizona public university or Arizona community college must complete critical requirements.

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

Ira A. Fulton School of Engineering, Tempe Campus Catalog Year: 2008-2009

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

#### **Graduation Requirements Summary:**

Total Hours Regular Curriculum (120)	Total Hrs at ASU (30 min)	Hrs Resident Credit for Academic Recognition (56 min)	Major GPA (2.000 Min. CUM GPA )	Total UD Hrs (45 min)	Total Comm. College Hrs. (64 Max)

### **General University Requirements: Legend**

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

#### **Additional Notes:**

Page 2 of 2 Updated: 10/13/08