







2015 - 2016 Major Map



Software Engineering, BS





School/College: [Ira A. Fulton Schools of Engineering](#)
TSSERBS

Some accelerated combinations are not available to ASU Online students. Interested students should contact their academic advisor for more information.




Term 1 - A 0 - 7 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 ASU 101: The ASU Experience	1		<ul style="list-style-type: none"> An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition courses ASU Mathematics Placement Test score determines placement in Mathematics course ASU 101 or College specific equivalent First Year Seminar required of all freshman students If ENG105 is taken, a 3-credit hour applicable elective must also be taken prior to graduation. Contact your Software Engineering advisor.
 CST 100: Object-Oriented Software Development I	3	C	
ENG 101 or ENG 102: First-Year Composition OR ENG 105: Advanced First-Year Composition OR ENG 107 or ENG 108: First-Year Composition	3	C	
Term hours subtotal:	7		




Term 1 - B 7 - 13 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 CST 200: Core Data Structures with Object Oriented Programming	3	C	
 MAT 265: Calculus for Engineers I (MA)	3	C	
Term hours subtotal:	6		




Term 2 - A 13 - 19 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 MAT 266: Calculus for Engineers II (MA)	3	C	
ENG 101 or ENG 102: First-Year Composition OR ENG 105: Advanced First-Year Composition OR ENG 107 or ENG 108: First-Year Composition	3	C	
Term hours subtotal:	6		

Term 2 - B 19 - 25 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 MAT 267: Calculus for Engineers III (MA) OR MAT 275: Modern Differential Equations (MA)	3		
 SER 232: Computer Systems Fundamentals I (CS)	3	C	
 Complete ENG 101 OR ENG 105 OR ENG 107 course(s).			



Term hours subtotal: 6

Term 3 - A 25 - 31 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 MAT 243: Discrete Mathematical Structures	3	C	
 SER 215: Software Enterprise I: Personal Process	3	C	
Term hours subtotal:		6	

Term 3 - B 31 - 37 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 SER 221: Programming Languages and Their Execution Environment	3	C	
 SER 234: Operating Systems and Networks	3		
Complete Mathematics (MA) requirement.			
Term hours subtotal:		6	


Term 4 - A 37 - 43 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 SER 216: Software Enterprise II: Testing & Quality	3	C	
 SER 222: Design and Analysis of Data Structures and Algorithms	3	C	
Term hours subtotal:		6	

Term 4 - B 43 - 49 Credit Hours	Hours	Minimum Grade	Notes
EGR 280: Engineering Statistics (CS)	3		
Social-Behavioral Sciences (SB)	3		
Term hours subtotal:		6	

Term 5 - A 49 - 55 Credit Hours Necessary course signified by 	Hours	Minimum Grade	Notes
 EGR 104: Critical Inquiry in Engineering (L)	3	C	
MAT 343: Applied Linear Algebra	3		
Term hours subtotal:		6	

Term 5 - B 55 - 62 Credit Hours	Hours	Minimum Grade	Notes
HST 318: History of Engineering ((L or SB) & G)	3		
PHY 121: University Physics I: Mechanics (SQ)	3	C	

Term hours subtotal: 7

Term 6 - A 62 - 69 Credit Hours Necessary course signified by 	Hours	Minimum Grade	Notes
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 CST 250: Microcomputer Architecture and Programming 3

Natural Science - Quantitative (SQ) OR
Natural Science - General (SG) 4


Term hours subtotal: 7

Term 6 - B 69 - 75 Credit Hours	Hours	Minimum Grade	Notes
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Secondary Focus Area 3

Humanities, Arts and Design (HU) AND Cultural Diversity in the U.S. (C) 3

Term hours subtotal: 6


Term 7 - A 75 - 81 Credit Hours Necessary course signified by 	Hours	Minimum Grade	Notes
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 SER 321: Principles of Distributed Software Systems 3

Natural Science - Quantitative (SQ) OR
Natural Science - General (SG) OR
MAT Elective 3

Term hours subtotal: 6


- Any course with MA, SQ, or SG general studies designation OR any course with a math or science prefix/subject fulfills the math or science elective

Term 7 - B 81 - 87 Credit Hours Necessary course signified by 	Hours	Minimum Grade	Notes
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 CST 315: Software Enterprise I: Tools and Process 3

Humanities, Arts and Design (HU) AND Historical Awareness (H) 3


Term hours subtotal: 6

Term 8 - A 87 - 93 Credit Hours Necessary course signified by 	Hours	Minimum Grade	Notes
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 CST 316: Software Enterprise II: Construction and Transition 3

Upper Division Humanities, Arts and Design (HU) OR
Upper Division Social-Behavioral Sciences (SB) 3

Term hours subtotal: 6

Term 8 - B 93 - 99 Credit Hours Necessary course signified by 	Hours	Minimum Grade	Notes
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★ SER 322: Principles of Database Management 3 C

Upper Division Secondary Focus Area 3

Term hours subtotal: 6

Term 9 - A 99 - 105 Credit Hours Necessary course signified by ★

Hours

Minimum Grade

Notes

★ SER 421: Web-Based Applications and Mobile Systems 3 C

Upper Division Secondary Focus Area 3

Term hours subtotal: 6

Term 9 - B 105 - 111 Credit Hours Necessary course signified by ★

Hours

Minimum Grade

Notes

★ CST 415: Software Enterprise III: Inception and Elaboration (L) 3

★ SER 401: Computing Capstone Project I 3

Term hours subtotal: 6

Term 10 - A 111 - 117 Credit Hours Necessary course signified by ★

Hours

Minimum Grade

Notes

★ CST 416: Software Enterprise IV: Project and Process Management 3

★ SER 402: Computing Capstone Project II 3

Term hours subtotal: 6

Term 10 - B 117 - 120 Credit Hours

Hours

Minimum Grade

Notes

SER 422: Web Application Programming or
SER 423: Mobile Systems 3 C

Term hours subtotal: 3

- Secondary Focus Area: A secondary focus area is a group of courses comprising of 9 or more credit hours which form a coherent theme. For example, all courses may share a common subject prefix. Students may work with an academic success specialist to identify their secondary focus area from Graphic Information Technology (GIT), Technological Entrepreneurship and Management (TEM) or Psychology (PSY).

Hide Course List(s)/Track Group(s)

Secondary Focus Area

GIT

Total Hours: 120

Upper Division Hours: 45 minimum

Major GPA: 2.00 minimum

Cumulative GPA: 2.00 minimum

Total hrs at ASU: 30 minimum

Hrs Resident Credit for

Academic Recognition: 56 minimum

Total Community College Hrs: 64 maximum

General University Requirements Legend

General Studies Core Requirements:

- Literacy and Critical Inquiry (L)
- Mathematical Studies (MA)
- Computer/Statistics/Quantitative Applications (CS)
- Humanities, Arts and Design (HU)
- Social-Behavioral Sciences (SB)
- Natural Science - Quantitative (SQ)
- Natural Science - General (SG)

General Studies Awareness Requirements:

- Cultural Diversity in the U.S. (C)
- Global Awareness (G)
- Historical Awareness (H)

First-Year Composition

General Studies designations listed next to courses on the major map were valid for the 2015 - 2016 academic year. Please refer to the course catalog for current General Studies designations at time of class registration. General Studies credit is applied according to the designation the course carries at the time the class is taken.