

Major Map: Engineering Special Studies (Pre-medical Engineering) – Bachelor of Science in Engineering (B.S.E.) Ira A. Fulton Schools of Engineering | Catalog Year: 2010-2011

			Competed Transfer Pathway:		Completed General Education:	
Course Subject and Title		Upper	Transfer	Minimum Grade if		
(courses in bold/shading are critical)	Hrs.	Division	Course/Grade	Required	Additional Critical Requirement Notes	
ASU 101-FSF: The ASU Experience	1				 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 	
BME 100: Introduction to Bioengineering OR	2 or					
BIO 181: General Biology II (CS)	4			Grade of C		
MAT 265: Calculus for Engineers I	3			Grade of C		
CHM 113: General Chemistry I (SQ)	4			Grade of C		
ENG 101 or 102: First-Year Composition OR ENG 105: Advanced First-Year Composition** OR					 Maintain minimum ASU cumulative GPA of 	
ENG 107 or 108: English for Foreign Students	3			Grade of C	2.0	
TERM TWO: 16-30 CREDIT HOURS						
BME 100: Introduction to Bioengineering OR	2 or	-		a 4 4 a	Maintain minimum ASU cumulative GPA of 2.0	
BIO 181: General Biology II (SQ)	4			Grade of C		
CHM 116: General Chemistry II (SQ)	4			Grade of C		
MAT 266: Calculus for Engineers II	3			Grade of C		
FNG 101 or 102: First-Year Composition OR	3/1			Grade of C		
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						
BME 235: Physiology for Engineers	4			Grade of C	Complete 11 critical courses by end of term 3 Maintain minimum ASU cumulative CPA of	
PHY 131/132: University Physics II Electricity and Magnetism/Laboratory II (SO)	3/1	П		Grade of C	2.0	
CHM 233/237: General Organic Chemistry I/Laboratory I	3/1			Grade of C	Complete First-Year Composition requirement:	
					ENG 101 & 102 or ENG 107 & 108 or ENG	
CSE 100: Principles of Programming with C++ (CS)	3				105	
TERM FOUR: 46-60 CREDIT HOURS	Į					
BME 200: Conservation Principles in Bioengineering	3			Grade of C		
EEE 202: Circuits I	4			Grade of C		
MAE 212: Engineering Mechanics	4			Grade of C		
MAT 275: Modern Differential Equations (MA)	3			Grade of C		
CHM 234/238: General Organic Chemistry II/Laboratory II OR						
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the US (C) Global Awareness (G) or Historical Awareness (H)	4 or 3			Grade of C in CHM 234/238		
TERM FIVE: 61-75 CREDIT HOURS	5			254/250		
# BME 318: Biomaterials	4	\boxtimes			# Designates Major Course: A minimum cumulative GPA of 2.0 required.	
# BME 350: Signals and Systems for Bioengineering	3					
# CHM 341: Elementary Physical Chemistry	3			Grade of C		
# MAT 343: Applied Linear Algebra	3					
Social & Behavioral Science (SB) AND Cultural Diversity in the US						
(C), Global Awareness (G) or Historical Awareness (H)	3					
TERM SIX: 76-90 CREDIT HOURS					# Designation Maior Comment Annihility	
# BME 300: Bioengineering Product Design	3			Grade of C	# Designates Major Course: A minimum cumulative GPA of 2.0 required.	
# BME 331: Bioengineering Transport Phenomena	3					
# BME 370: Microcomputer Applications in Bioengineering	3	\boxtimes				
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the						
US (C), Global Awareness (G) or Historical Awareness (H) if CHM	4 or	_		Grade of C in CHM		
234/238 completed	3			234/238		
# IEE 380: Probability and Statistics for Engineering Problem Solving	3					
TERM SEVEN: 91-105 CREDIT HOURS		_			# Designates Major Course: A minimum cumulative GPA of 2.0 required.	
# BME 413: Biomedical Instrumentation (BME $413 + 423 = L$)	3					
# BME 417: Biomedical Engineering Capstone Design I (L)	4			Grade of C		
# BME 423: Biomedical Instrumentation Laboratory	1	X				
# BME 416: Biomechanics OR						
# BME 419: Biocontrol Systems	3	\boxtimes				
Social & Behavioral Science (SB) AND Cultural Diversity in the US	2					
(C), Giodal Awareness (G) of historical Awareness (H)	3					
# PME 400: Diamodical Engineering Constant Design II	A				# Designates Major Course: A minimum	
# DIVIE 470: BIOMEDICAL Engineering Capstone Design II Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the	4	Ä			cumulative GPA of 2.0 required.	
US (C), Global Awareness (G) or Historical Awareness (H)	3	\boxtimes				
# Technical Elective	1	\boxtimes				
UD Humanities, Fine Arts & Design (HU) OR Social Behavioral						
Science (SB)	3	\bowtie	1	1		



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)
 - 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)
 - o Historical Awareness (H)
 - First-Year Composition

Additional Notes: