

Major Map: Aerospace Engineering (Aeronautics) -Bachelor of Science in Engineering (B.S.E.) Ira A. Fulton School of Engineering, Tempe Campus Catalog Year: 2008-2009

		Completed AT	TP· Ves No	Completed AGEC: Yes No
	Upper	Transfer	Minimum Grade if	
Hrs.	Division	Course/Grade	Required	Additional Critical Requirement Notes
1				• Complete CHM 114 or 116 or 115 or MAE 100
<u> </u>				with a minimum grade of "C"
			G 1 60	 Complete MAT 265 with a min grade of "C" An SAT, ACT, Accuplacer, or TOEFL score
4	┝──		Grade of C	 All SAT, ACT, Accupiacer, of TOEFL score determines placement into first-year composition
				courses
2 or	_		Grade of C in	 ASU Math Placement Exam score determines placement in Mathematics course
				*CHM 113 is a prerequisite and does not apply
3			Grade of C	towards degree credit
				**If ENG 105 a 3 hr applicable elective must also be taken prior to graduation. See Advisor.
				# Designates Major Course: A minimum cumulative
3			Grade of C	GPA of 2.0 required.
		Ī		
				• Complete CHM 114 or 116 or 115; MAE 100; MAT 266; PHY 121, 122 with a minimum
2 or			Grade of C in	grade of "C"
3			MAE 100	# Designates Major Course: A minimum cumulative
3			Grade of C	GPA of 2.0 required.
3/1			Grade of C	4
3				4
3			Grade of C	
4			Grade of C	• Complete ENG 102 or 108 or 105; MAE 212;
				MAT 275; PHY 131, 132 with a minimum grade of "C"
3			Grade of C	Complete First-Year Composition requirement:
				ENG 101 & 102 or ENG 107 & 108 or ENG 105
3/1			Grade of C	# Designates Major Course: A minimum cumulative
				GPA of 2.0 required.
3			Grade of C	
3				• Complete MAE 213, 240.
4				# Designates Major Course: A minimum cumulative GPA of 2.0 required.
1				GPA 012.0 lequiled.
4				
3			Grade of C	
5				• MAE 360 and 362 must be completed for L
-				credit.
4				# Designates Major Course: A minimum cumulative
4				
4				GPA of 2.0 required
4				
3				
				 GPA of 2.0 required MAE 360 and 362 must be completed for L credit.
3				 GPA of 2.0 required MAE 360 and 362 must be completed for L credit. # Designates Major Course: A minimum cumulative
3 3 3 4				 GPA of 2.0 required MAE 360 and 362 must be completed for L credit.
3 3 3				 GPA of 2.0 required MAE 360 and 362 must be completed for L credit. # Designates Major Course: A minimum cumulative
3 3 3 4 3				 GPA of 2.0 required MAE 360 and 362 must be completed for L credit. # Designates Major Course: A minimum cumulative
3 3 3 4				 GPA of 2.0 required MAE 360 and 362 must be completed for L credit. # Designates Major Course: A minimum cumulative
3 3 3 4 3				GPA of 2.0 required • MAE 360 and 362 must be completed for L credit. # Designates Major Course: A minimum cumulative GPA of 2.0 required # Designates Major Course: A minimum cumulative
3 3 4 3 3				 GPA of 2.0 required MAE 360 and 362 must be completed for L credit. # Designates Major Course: A minimum cumulative GPA of 2.0 required
3 3 3 4 3 3 3 3				GPA of 2.0 required • MAE 360 and 362 must be completed for L credit. # Designates Major Course: A minimum cumulative GPA of 2.0 required # Designates Major Course: A minimum cumulative
3 3 3 4 3 3 3 3 3 3 3				GPA of 2.0 required • MAE 360 and 362 must be completed for L credit. # Designates Major Course: A minimum cumulative GPA of 2.0 required # Designates Major Course: A minimum cumulative
3 3 4 3 3 3 3 3 3 3 3 3				GPA of 2.0 required • MAE 360 and 362 must be completed for L credit. # Designates Major Course: A minimum cumulative GPA of 2.0 required # Designates Major Course: A minimum cumulative
3 3 3 4 3 3 3 3 3 3 3				GPA of 2.0 required • MAE 360 and 362 must be completed for L credit. # Designates Major Course: A minimum cumulative GPA of 2.0 required # Designates Major Course: A minimum cumulative
3 3 4 3 3 3 3 3 3 3 3 3 3				GPA of 2.0 required • MAE 360 and 362 must be completed for L credit. # Designates Major Course: A minimum cumulative GPA of 2.0 required # Designates Major Course: A minimum cumulative GPA of 2.0 required
3 3 4 3 3 3 3 3 3 3 3 3 3 3 3 3 3				 GPA of 2.0 required MAE 360 and 362 must be completed for L credit. # Designates Major Course: A minimum cumulative GPA of 2.0 required # Designates Major Course: A minimum cumulative GPA of 2.0 required If ASU 101 not taken, a 3 hr elective is required
3 3 4 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3				GPA of 2.0 required • MAE 360 and 362 must be completed for L credit. # Designates Major Course: A minimum cumulative GPA of 2.0 required # Designates Major Course: A minimum cumulative GPA of 2.0 required
3 3 3 4 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3				 GPA of 2.0 required MAE 360 and 362 must be completed for L credit. # Designates Major Course: A minimum cumulative GPA of 2.0 required # Designates Major Course: A minimum cumulative GPA of 2.0 required If ASU 101 not taken, a 3 hr elective is required # Designates Major Course: A minimum cumulative grade
3 3 4 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3				 GPA of 2.0 required MAE 360 and 362 must be completed for L credit. # Designates Major Course: A minimum cumulative GPA of 2.0 required # Designates Major Course: A minimum cumulative GPA of 2.0 required If ASU 101 not taken, a 3 hr elective is required # Designates Major Course: A minimum cumulative gradient of the second secon
	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Hrs. Division 1	Upper Division Transfer Course/Grade 1 \square 4 \square 3 \square 4 \square 3 \square 4 \square 3 \square 4 \square 3 \square 3 \square 5 \square	Hrs.DivisionCourse/GradeRequired1 \Box \Box 4 \Box $Grade of C$ 2 or 3 \Box $Grade of C inMAE 1003\BoxGrade of C3\BoxGrade of C$



Major Map: Aerospace Engineering (Aeronautics) -Bachelor of Science in Engineering (B.S.E.) Ira A. Fulton School of Engineering, Tempe Campus Catalog Year: 2008-2009

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 ٠

- General Studies Core Requirements:
 - Literacy and Critical Inquiry (L) 0
 - Mathematical Studies (MA) 0
 - Computer/Statistics/Quantitative applications (CS) 0
 - Humanities, Fine Arts, and Design (HU) 0
 - Social and Behavioral Sciences (SB) 0
 - Natural Science-Quantitative (SQ) 0
 - Natural Science-General (SG) 0
- General Studies Awareness Requirements
 - Cultural Diversity in the US (C) 0
 - 0 Global Awareness (G)
 - Historical Awareness (H) 0
- First-Year Composition ٠



Major Map: Aerospace Engineering (Astronautics) -Bachelor of Science in Engineering (B.S.E.) Ira A. Fulton School of Engineering, Tempe Campus Catalog Year: 2008-2009

			Completed AT	P: Yes No	Completed AGEC: \Box Yes \Box No
Course Subject and Title		Upper	Transfer	Minimum Grade if	
(courses in bold/shading are critical) TERM ONE: 0 15 CREDIT HOURS	Hrs.	Division	Course/Grade	Required	Additional Critical Requirement Notes
ASU 101: The ASU Experience	1				• Complete CHM 114 or 116 or 115 or SES 100
CHM 114: General Chemistry for Engineers(SQ) OR	1				with a minimum grade of "C"
CHM 115: General Chemistry with Qualitative Analysis (SQ) OR		_			• Complete MAT 265 with a min grade of "C"
CHM 116: General Chemistry II* (SQ)	4			Grade of C	 An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition
#SES 100: Introduction to Exploration OR					courses
Social & Behavioral Science (SB) AND Cultural Diversity in the US				Grade of C in SES	ASU Math Placement Exam score determines
(C), Global Awareness (G), or Historical Awareness (H):	3			100	 placement in Mathematics course *CHM 113 is a prerequisite and does not apply
MAT 265: Calculus for Engineers I (MA)	3			Grade of C	towards degree credit
					**If ENG 105 a 3 hr applicable elective must also be
ENG 101 or 102: First-Year Composition OR ENG 105: Advanced First-Year Composition** OR					taken prior to graduation. See Advisor. # Designates Major Course: A minimum cumulative
ENG 105: Advanced First-Year Composition ** OK ENG 107 or 108: English for Foreign Students	3			Grade of C	GPA of 2.0 required.
TERM TWO: 16 30 CREDIT HOURS			1		
#SES 100: Intro to Mechanical and Aerospace Engineering,					• Complete CHM 114 or 116 or 115; MAT 266;
if completed take					PHY 121, 122; SES 100 with a minimum grade
Social & Behavioral Science (SB) AND Cultural Diversity in the US (C), Global Awareness (G), or Historical Awareness (H):	3				of "C" # Designates Major Course: A minimum cumulative
MAT 266: Calculus for Engineers II	3			Grade of C	GPA of 2.0 required."
PHY 121/122: University Physics I/Laboratory I (SQ)	3/1			Grade of C	
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the	5/1		1		1
US (C), Global Awareness (G), or Historical Awareness (H):	3				_
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			1		
	4			Crada of C	• Complete ENG 102 or 108 or 105; MAE 212;
#MAE 212: Engineering Mechanics				Grade of C	MAT 267, 275 with a minimum grade of "C"
MAT 275: Modern Differential Equations	3			Grade of C	Complete First-Year Composition requirement: ENG 101 & 102 or ENG 107 & 108 or ENG 105
MAT 267: Calculus for Engineers III	3			Grade of C	ENG 101 & 102 01 ENG 107 & 108 01 ENG 105
					# Designates Major Course: A minimum cumulative
# SES 210: Engineering Systems and Experimental Design	3				GPA of 2.0 required.
TERM FOUR: 46 60 CREDIT HOURS					
# MAE 213: Solid Mechanics	3				Complete MAE 213.
# MAE 214: Computer-Aided Engineering I	1				# Designates Major Course: A minimum cumulative GPA of 2.0 required.
# MAE 240: Thermofluids I	4				GPA 01 2.0 required.
PHY 131/132: University Physics II Electricity and Magnetism/		_			
Laboratory II (SQ)	3/1			Grade of C	_
MAT 343: Applied Linear Algebra	3	\boxtimes		Grade of C	
TERM FIVE: 61 75 CREDIT HOURS	1 .				# Designates Major Courses A minimum sumulative
# EEE 202: Circuits I	4		-		# Designates Major Course: A minimum cumulative GPA of 2.0 required.
# MAE 384: Numerical Methods for Engineers (CS)	3				
# SES 310: Elec/Mech Engineering Design	3				_
Literacy and Critical Inquiry (L): Social & Behavioral Science (SB) AND Cultural Diversity in the US	3		1		-
(C), Global Awareness (G), or Historical Awareness (H):	3				
TERM SIX: 76 90 CREDIT HOURS	5				
# MAE 318: Sensors and Controls	5	\boxtimes			# Designates Major Course: A minimum cumulative
# MAE 310. Sensors and Controls # MAE 345: Structures in a Space Environment	4				GPA of 2.0 required.
# MAE 345. Studentes in a space Environment # MAE 362: High-Speed Aerodynamics	4				1
# SES 311: Essentials of Astrobiology, Life in the Universe	3				1
TERM SEVEN: 91 105 CREDIT HOURS	5		1		
# EEE 304: Signals & Systems II	4	\boxtimes			# Designates Major Course: A minimum cumulative
# MAE 462: Space Vehicle Dynamics and Control	3				GPA of 2.0 required.
# MAE 462: Space Venicle Dynamics and Control # MAE 465: Rocket Propulsion	3				1
# SES 410: Senior Exploration Project I	3		1		1
UD Humanities, Fine Arts & Design (HU) OR Social & Behavioral	5				-
Science (SB):	3				
TERM EIGHT: 106 120 CREDIT HOURS					
# MAE 400: Engineering Profession (L)	3	\boxtimes			# Designates Major Course: A minimum cumulative
# SES 411: Senior Exploration Project II	3				GPA of 2.0 required.
# Aeronautics Elective:	3				7
	3				7
Elective:					
Elective: Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the US (C), Global Awareness (G), or Historical Awareness (H):	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: ٠
 - Literacy and Critical Inquiry (L) 0
 - Mathematical Studies (MA) 0
 - Computer/Statistics/Quantitative applications (CS) Humanities, Fine Arts, and Design (HU) Social and Behavioral Sciences (SB) 0
 - 0
 - 0
 - Natural Science-Quantitative (SQ) 0
 - 0 Natural Science-General (SG)
 - General Studies Awareness Requirements
 - Cultural Diversity in the US (C) 0
 - Global Awareness (G) 0
 - Historical Awareness (H) 0
- First-Year Composition .



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

			Completed AT	P: Yes D No	Completed AGEC: Yes No
Course Subject and Title		Upper	Transfer	Minimum Grade if	
(courses in bold/shading are critical) TERM ONE: 0 15 CREDIT HOURS	Hrs.	Division	Course/Grade	Required	Additional Critical Requirement Notes
TERM ONE, 0 15 CREDIT HOURS					Complete MAT 265 with a minimum grade of
	1				"C"
ASU 101: The ASU Experience BME 100: Introduction to Bioengineering OR	1				 Complete 2 of: BME 100 with a minimum grade of "C"; BME 111& 112 with a
BME 111/112: Engineering Perspectives on Biological	2 or			Grade of C in BME	minimum grade of "C" OR BIO 188; CHM
Systems/Laboratory or BIO 188: General Biology II (SQ)	4			100; BME 111/112	114 or 116
CHM 114: General Chemistry for Engineers (SQ) OR					 An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year
CHM 116: General Chemistry II *	4				composition courses
					ASU Math Placement Exam score determines placement in Mathematics course
MAT 265: Calculus for Engineers I (MA)	3			Grade of C	* CHM 113 is a prerequisite and does not apply
ENG 101 or 102: First-Year Composition OR					towards degree credit
ENG 105: Advanced First-Year Composition** OR ENG 107 or 108: English for Foreign Students	3			Grade of C	** If ENG 105 a 3 hr applicable elective must also be taken prior to graduation. See Advisor.
TERM TWO: 16 30 CREDIT HOURS	3			Glade of C	and proto gradanon. See ration.
BME 100: Introduction to Bioengineering OR					Complete BME 100 with a minimum grade of
BME 111/112: Engineering Perspectives on Biological	2 or			Grade of C in BME	"C"
Systems/Laboratory or BIO 188: General Biology II (SQ)	4			100; BME 111/112	Complete BME 11& 112 with a minimum grade of "C" or BIO 188
MAT 266: Calculus for Engineers II PUV 121/122: University Physics I/I sharedowy L(SQ)	3			Grade of C	Complete CHM 114 or 116
PHY 121/122: University Physics I/Laboratory I (SQ) ENG 101 or 102: First-Year Composition OR	3/1			+	• Complete MAT 266 with a minimum grade of "C"
ENG 105: Advanced First-Year Composition** OR					Complete PHY 121/122
ENG 107 or 108: English for Foreign Students	3			Grade of C	••••• P •••••
TERM THREE: 31 45 CREDIT HOURS			1		• Complete MAT 207 with a minimum and a
BME 235: Physiology for Engineers	4			Grade of C	 Complete MAT 267 with a minimum grade of "C"; PHY 131, 132
MAT 267: Calculus for Engineers III PHY 131/132: University Physics Electricity and Magnetism II/	3			Grade of C	Complete First Year Composition requirement:
Laboratory II (SQ)	3/1				ENG 101 & 102 or ENG 107 & 108 or ENG 105
CHM 231/235: Elementary Organic Chemistry/Laboratory or CHM					105
233/237: General Organic Chemistry I/Laboratory I	3/1				
CSE 100: Principles of Programming with C++ (CS)	3				
TERM FOUR: 46 60 CREDIT HOURS	3			Grade of C	Complete BME 200, 235 each with a
BME 200: Conservation Principles of Bioengineering EEE 202: Circuits I	4			Glade of C	minimum grade of "C"
MAE 212: Engineering Mechanics	4				
MAT 275: Modern Differential Equations (MA)	3				
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the US	5				•
(C), Global Awareness (G) or Historical Awareness (H)	3				
TERM FIVE: 61 75 CREDIT HOURS		Ī	1		
# BME 318: Biomaterials	4			Grade of C	# Designates Major Course: A minimum cumulative GPA of 2.0 required.
# BME 350: Signals and Systems for Bioengineering	3			Grade of C	or reference.
# CHM 341: Elementary Physical Chemistry	3				4
# MAT 343: Applied Linear Algebra# IEE 380: Probability and Statistics for Engineering Problem Solving	3				4
(CS)	3	\boxtimes			
TERM SIX: 76 90 CREDIT HOURS			·	÷	
# BME 300: Bioengineering Product Design	3	\boxtimes		Grade of C	# Designates Major Course: A minimum cumulative
# BME 331: Bioengineering Transport Phenomena	3			Grade of C	GPA of 2.0 required.
# BME 370: Microcomputer Applications in Bioengineering	3	\boxtimes		Grade of C	
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the US	2				
(C), Global Awareness (G) or Historical Awareness (H) Social & Behavioral Science (SB) AND Cultural Diversity in the US (C),	3				4
Global Awareness (G) or Historical Awareness (H)	3				<u> </u>
TERM SEVEN: 91 105 CREDIT HOURS					
# BME 413: Biomedical Instrumentation(BME 413 & 423 = L)	3		ļ	Grade of C	# Designates Major Course: A minimum cumulative GPA of 2.0 required.
# BME 417: Biomedical Engineering Capstone Design I (L)	4		ļ	Grade of C	Gr A of 2.0 required.
# BME 423: Biomedical Instrumentation Laboratory	1		ļ	Grade of C	4
# BME 434: Applications of Bioengineering OR # BME 416: Biomechanics OR					
# BME 419: Biocontrol Systems	3			Grade of C	
Social & Behavioral Science (SB) AND Cultural Diversity in the US (C),	-				
Global Awareness (G) or Historical Awareness (H)	3		1	1	



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

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	1113.	Division	Course/Grade	Required	Additional Critical Requirement Notes
# BME 490: Biomedical Engineering Capstone Design II	4	\boxtimes		Grade of C	# Designates Major Course: A minimum cumulative
# Technical Elective	3	\boxtimes		Grade of C	GPA of 2.0 required.
# Technical Elective	3	\boxtimes		Grade of C	
UD Humanities, Fine Arts & Design (HU) OR Social & Behavioral					
Science (SB) AND Cultural Diversity in the US (C), Global Awareness (G) or Historical Awareness (H)	3	\boxtimes			

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 ٠

- General Studies Core Requirements:
 - Literacy and Critical Inquiry (L) 0 0
 - Mathematical Studies (MA)
 - Computer/Statistics/Quantitative applications (CS) 0
 - Humanities, Fine Arts, and Design (HU) Social and Behavioral Sciences (SB) 0
 - 0
 - Natural Science-Quantitative (SQ) 0
 - Natural Science-General (SG) 0
- General Studies Awareness Requirements
 - Cultural Diversity in the US (C) 0 0 Global Awareness (G)
 - Historical Awareness (H) 0
- First Year Composition

Additional Notes:

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

			Completed ATH	P: Yes No	Completed AGEC: Yes No
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 ONE: 0 15 CREDIT HOURS	1115.	DIVISIOII	Course/Orade	Required	Additional Critical Requirement Notes
	1				• Complete MAT 265 with a minimum grade of
ASU 101: The ASU Experience	1				- "C" • Complete CHM 113
#CHE 100: Introduction to Chemical Engineering	2				Complete CHM 113 An SAT, ACT, Accuplacer, or TOEFL score
CHM 113: General Chemistry I (SQ)	4				determines placement into first-year
ENG 101 or 102: First-Year Composition OR ENG 105: Advanced First-Year Composition** OR					 composition courses ASU Math Placement Exam score determines
ENG 105. Advanced First-rear Composition WOR ENG 107 or 108: English for Foreign Students	3			Grade of C	placement in Mathematics course
					**If ENG 105 a 3 hr applicable elective must also be
MAT 265: Calculus for Engineers I Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the	3			Grade of C	taken prior to graduation. See Advisor. # Designates Major Course: A minimum cumulative
US (C), Global Awareness (G) or Historical Awareness (H)	3				GPA of 2.0 required.
TERM TWO: 16 30 CREDIT HOURS					
ENG 101 or 102: First-Year Composition OR					Complete CHE 100; CHM 116
ENG 105: Advanced First-Year Composition** OR ENG 107 or 108: English for Foreign Students	3			Grade of C	Complete MAT 266 and ENG 101 or 107 or 105 with a minimum grade of "C"
CHM 116: General Chemistry II (SQ)	4			Glade of C	105 with a minimum grade of C
MAT 266: Calculus for Engineers II	3			Grade of C	-
PHY 121/122: University PhysicsI/ Laboratory I	3/1			Grade of C	
TERM THREE: 31 45 CREDIT HOURS	5,1				·
		_			• Complete CHE 211; PHY 121 & 122
# CHE 211: Introduction to Chemical Processing	3				• Complete ENG 102 or 108 with a minimum
MAT 242: Elementary Linear Algebra	2				grade of "C" • 2.0 ASU Cumulative GPA required
WHT 212. Elementary Ellieur Algeora	2				Complete First-Year Composition requirement:
MAT 275: Modern Differential Equations (MA)	3				ENG 101 & 102 or ENG 107 & 108 or ENG 105
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the US (C), Global Awareness (G) or Historical Awareness (H);	3				# Designates Major Course: A minimum cumulative
	3				GPA of 2.0 required.
200 Level Engineering Elective:	3				-
TERM FOUR: 46 60 CREDIT HOURS		,	,		
#CHE 231: Introduction to Transport I: Fluids	3				Complete CHE 231
MAT 267: Calculus for Engineers III	3			Grade of C	• Complete MAT 267 with a minimum grade of "C"
# MAE 384: Numerical Methods for Engineers (CS)	3				• 2.0 ASU Cumulative GPA required
PHY 131: University Physics II: Electricity and Magnetism	3				# Designates Major Course: A minimum cumulative
Social Behavioral Science (SB) AND Cultural Diversity in the US (C), Global Awareness (G) or Historical Awareness (H):	3				GPA of 2.0 required.
TERM FIVE: 61 75 CREDIT HOURS	5				
# CHE 334: Introduction to Transport Phenomena II: Heat and Mass	3				# Designates Major Course: A minimum cumulative
# CHE 342: Introduction to Applied Chemical Thermodynamics	3				GPA of 2.0 required.
CHM 233: General Organic Chemistry I	3				1
CHM 237: General Organic Chemistry Laboratory I	1				1
Bioscience Elective:	3				
# Chemistry Content Technical Elective:	3				
TERM SIX: 76 90 CREDIT HOURS			1	1	
# CHE 352: Transport Laboratories (L)	3	\boxtimes			# Designates Major Course: A minimum cumulative
# CHE 433: Modern Separations	3	\boxtimes			GPA of 2.0 required.
# CHE 442: Introduction to Chemical Reactor Design	3	\boxtimes			
CHM 234: General Organic Chemistry II	3				1
IEE 220: Business Industrial Engineering	3				
TERM SEVEN: 91 105 CREDIT HOURS					
# CHE 432: Principles of Chemical Engineering Design	3		ļ		# Designates Major Course: A minimum cumulative
# CHE 451: Chemical Engineering Laboratory	3		ļ		GPA of 2.0 required.
# CHE 461: Process Dynamic Control	3				4
# Chemistry Content Technical Elective:	3		L		4
Social & Behavioral Science (SB) AND Cultural Diversity in the US (C), Global Awareness (G) or Historical Awareness (H):	3				
TERM EIGHT: 106 120 CREDIT HOURS	3				
# CHE 462: Process Design (L)	3	\boxtimes			# Designates Major Course: A minimum cumulative
# CHE 402. Flocess Design (E) # CHE Technical Elective:	3		1	1	GPA of 2.0 required.
# CHE Technical Elective:	3				1
UD Humanities, Fine Arts & Design (HU) OR Social & Behavioral	3				1
Science (SB):	3				4
#Natural Science or MSE Technical Elective:	3	\boxtimes			



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

Graduation Requirements Summary:

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

Additional Notes:

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

			Completed AT	TP: Yes No	Completed AGEC: Yes No
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 ONE: 0 15 CREDIT HOURS	1115.	DIVISIOII	Course/Grade	лецинец	Auditional Critical Acquirchicilt Notes
ASU 101: The ASU Experience	1				• Complete CHM 114 or 116; MAT 265 with a
CEE 100: Intro to Civil and Environmental Engineering OR			1		minimum grade of "C"
ECN 211/212 (SB): Macroeconomic Principles/ Microeconomic				Grade of C in	 An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition
Principles or ECN 201: Economic Issues & Analysis (SB) CHM 114: General Chemistry for Engineers (SQ) OR	2 or 3			CEE 100	courses
CHM 114: General Chemistry for Engineers (SQ) OK CHM 116: General Chemistry II* (SQ)	4				ASU Math Placement Exam score determines
MAT 265: Calculus for Engineers I	3			Grade of C	Placement in Mathematics course *CHM 113 is a prerequisite and does not apply toward
					degree credit.
ENG 101 or 102: First-Year Composition OR					**If ENG 105 a 3 hr applicable elective must also be
ENG 105: Advanced First-Year Composition** OR	2			0 1 60	taken prior to graduation. See Advisor.
ENG 107 or 108: English for Foreign Students	3			Grade of C	
TERM TWO: 16 30 CREDIT HOURS CEE 100: Intro to Civil and Environmental Engineering OR					• Complete CEE 100; MAT 242, 266; PHY 121 &
ECN 211/212 (SB): Macroeconomic Principles/ Microeconomic				Grade of C in	122 each with a minimum grade of "C"
Principles or ECN 201: Economic Issues & Analysis (SB)	2 or 3			CEE 100	-
MAT 242: Elementary Linear Algebra	2			Grade of C	1
MAT 266: Calculus for Engineers II	3			Grade of C	1
PHY 121/122: University PhysicsI/ Laboratory I (SQ)	3/1			Grade of C	1
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				Since or C	
CEE 210: Engineering Mechanics: Statics	3			Grade of C	• Complete CEE 210; MAT 267, 275, PHY 131 &
MAT 267: Calculus for Engineers III	3			Grade of C	132 each with a minimum grade of "C"
MAT 257: Wodern Differential Equations (MA)	3			Grade of C	 Complete First Year Composition requirement: ENG 101 & 102 or ENG 107 & 108 or ENG 105
PHY 131/132: University Physics II: Electricity and Magnetism/	5				ENG 101 & 102 OF ENG 107 & 108 OF ENG 105
Laboratory II (SQ)	3/1			Grade of C	
TERM FOUR: 46 60 CREDIT HOURS					
CEE 212: Engineering Mechanics: Dynamics	3				Complete CEE 212 Complete CEE 213 with a minimum grade of
CEE 213: Introduction to Deformable Solids	3			Grade of C	Complete CEE 213 with a minimum grade of "C"
EEE 202: Circuits I OR					
MAE 240: Thermofluids I Humanities, Fine Arts & Design (HU) OR Social & Behavioral	4				4
Science (SB) AND Cultural Diversity in the US (C) or Global					
Awareness (G):	3				1
Basic Science Elective:	3				
TERM FIVE: 61 75 CREDIT HOURS					
#CEE 384: Numerical Methods for Engineers (CS)	3	\boxtimes			# Designates Major Course: A minimum cumulative
Select 3 # CEE 200: Engineering Dusings Practice (L) (2 hrs)					GPA of 2.30 required in all CEE 3XX courses, a minimum cumulative GPA of 2.30 required in all CEE
# CEE 300: Engineering Business Practice (L) (3 hrs) # CEE 321: Structural Analysis and Design (4 hrs)					4XX courses.
# CEE 341: Fluid Mechanics for Civil Engineers (4 hrs)					
# CEE 351: Geotechnical Engineering (4 hrs)					
# CEE 353: Civil Engineering Materials (3 hrs) # CEE 361: Introduction to Environmental Engineering (4 hrs)	10 or				
# CEE 361: Introduction to Environmental Engineering (4 hrs) # CEE 372: Transportation Engineering (4 hrs)	10 or 12				
IEE 380: Probability and Statistics for Engineering Problem Solving	3			1	1
TERM SIX: 76 90 CREDIT HOURS			·	·	
Select remaining 4					# Designates Major Course: A minimum cumulative
# CEE 300: Engineering Business Practice(L) (3 hrs)					GPA of 2.30 required in all CEE 3XX courses, a
# CEE 321: Structural Analysis and Design (4 hrs) # CEE 341: Fluid Mechanics for Civil Engineers (4 hrs)					minimum cumulative GPA of 2.30 required in all CEE 4XX courses.
# CEE 341: Find Mechanics for Civil Engineers (4 hrs) # CEE 351: Geotechnical Engineering (4 hrs)					1723 OULOG.
# CEE 353: Civil Engineering Materials (3 hrs)					
# CEE 361: Introduction to Environmental Engineering (4 hrs)	14 or				
# CEE 372: Transportation Engineering (4 hrs)	16	\square	 		
TERM SEVEN: 91 105 CREDIT HOURS #CEE 400 Earth Systems Engineering and Management (HU, H) OR					Technical Elective and Design Elective
*CEE 400 Earth Systems Engineering and Management (HU, H) OK Social & Behavioral Science (SB) AND Cultural Diversity in the US					• Technical Elective and Design Elective requirements: Complete a total of 2 design
(C) or Global Awareness (G)	3				electives and 4 technical electives during Term 7
# Technical Elective	3				and Term 8. See Advisor for guidance in
# Technical Elective	3				selection. # Designates Major Course: A minimum cumulative
# Design Elective or # Technical Elective	3				GPA of 2.30 required in all CEE 3XX courses, a
	-				minimum cumulative GPA of 2.30 required in all CEE
# Design Elective or # Technical Elective	3	\square			4XX courses.



Major Map: Civil Engineering -Bachelor of Science in Engineering (B.S.E.)

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

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					
 # CEE 400: Earth Systems Engineering and Management (HU, H) OR Social & Behavioral Science (SB) AND Cultural Diversity in the US (C) or Global Awareness (G) if CEE 400 completed 	3				 Technical Elective and Design Elective requirements: Complete a total of 2 design electives and 4 technical electives during Term and Term 8. See Advisor for guidance in
# CEE 486: Integrated Civil Engineering Design (L)	4	\boxtimes			selection.
# Technical Elective or # Design Elective	3	\boxtimes			# Designates Major Course: A minimum cumulative GPA of 2.30 required in all CEE 3XX courses, a
# Technical Elective or # Design Elective	3	\boxtimes			minimum cumulative GPA of 2.30 required in all CEE
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the US (C) or Global Awareness (G)	3				4XX courses.

Graduation Requirements Summary:

Total Hours Regular Curriculum (120)	Total Hrs at ASU (30 min)	Hrs Resident Credit for Academic Recognition (56 min)	Major GPA (2.30 Min. CUM GPA in CEE 3XX, 2.30 min CUM GPA in CEE 4XX)	Total UD Hrs (45 min)	Total Comm. College Hrs. (64 Max)

General University Requirements: Legend ٠

- General Studies Core Requirements:
 - Literacy and Critical Inquiry (L) 0
 - Mathematical Studies (MA) 0
 - Computer/Statistics/Quantitative applications (CS) 0
 - Humanities, Fine Arts, and Design (HU) 0
 - Social and Behavioral Sciences (SB) 0
 - Natural Science-Quantitative (SQ) 0
 - Natural Science-General (SG) 0
- General Studies Awareness Requirements
 - Cultural Diversity in the US (C) 0
 - Global Awareness (G) 0
 - Historical Awareness (H) 0

First Year Composition ٠



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

			Completed A	TP: Yes No	Completed AGEC: Yes No	
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 ONE: 0 15 CREDIT HOURS	1115.	Division	Course/Grade	Required	Additional Chilear Acquirement Potes	
ASU 101: The ASU Experience	1				• Complete CHM 114 or 116; MAT 265 with a	
CEE 100: Intro to Civil and Environmental Engineering OR				a 1 4a i	 minimum grade of "C" An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year 	
ECN 211/212 (SB): Macroeconomic Principles/ Microeconomic Principles or ECN 201: Economic Issues & Analysis (SB)	2 or 3			Grade of C in CEE 100		
CHM 114: General Chemistry for Engineers (SQ) OR					 composition courses ASU Math Placement Exam score determines 	
CHM 116: General Chemistry II* (SQ)	4				placement in Mathematics course	
MAT 265: Calculus for Engineers I	3			Grade of C	*CHM 113 is a prerequisite and does not apply	
ENG 101 or 102: First-Year Composition OR ENG 105: Advanced First-Year Composition** OR					toward degree credit. **If ENG 105 a 3 hr applicable elective must also be	
ENG 107 or 108: English for Foreign Students	3			Grade of C	taken prior to graduation. See Advisor.	
TERM TWO: 16 30 CREDIT HOURS		_				
CEE 100: Intro to Civil and Environmental Engineering OR ECN 211/212 (SB): Macroeconomic Principles/ Microeconomic	2 or			Grade of C in	Complete CEE 100; MAT 242, 266; PHY 121 & 122 each with a minimum grade of	
Principles or ECN 201: Economic Issues & Analysis (SB)	3			CEE 100	"C"	
MAT 242: Elementary Linear Algebra	2			Grade of C		
MAT 266: Calculus for Engineers II	3			Grade of C		
PHY 121/122: University Physics I/Laboratory I (SQ)	3/1			Grade of C		
ENG 101 or 102: First-Year Composition OR ENG 105: Advanced First-Year Composition** OR						
ENG 105. Advanced First- Fear Composition * OK ENG 107 or 108: English for Foreign Students	3			Grade of C		
TERM THREE: 31 45 CREDIT HOURS						
CEE 210: Engineering Mechanics: Statics	3			Grade of C	• Complete CEE 210; MAT 267, 275, PHY 131	
MAT 267: Calculus for Engineers III	3			Grade of C	 & 132 each with a minimum grade of "C" Complete First Year Composition requirement: 	
MAT 275: Modern Differential Equations (MA)	3			Grade of C	ENG 101 & 102 or ENG 107 & 108 or ENG	
PHY 131/132: University Physics II: Electricity and Magnetism/ Laboratory II (SQ)	3/1			Grade of C	105	
TERM FOUR: 46 60 CREDIT HOURS		1			C L CERAIA	
CEE 212: Engineering Mechanics: Dynamics	3				 Complete CEE 212 Complete CEE 213 with a minimum grade of 	
CEE 213: Introduction to Deformable Solids	3			Grade of C	"C"	
EEE 202: Circuits I Humanities, Fine Arts & Design (HU) OR Social & Behavioral Science	4				-	
(SB), AND Cultural Diversity in the US (C) or Global Awareness (G):	3					
Basic Science Elective:	3					
TERM FIVE: 61 75 CREDIT HOURS		_				
# CEE 384: Numerical Methods for Engineers (CS)	3				# Designates Major Course: A minimum cumulative GPA of 2.30 required in all CEE 3XX courses, a	
Select 3 # CEE 300: Engineering Business Practice (L) (3 hrs)					minimum cumulative GPA of 2.30 required in all	
# CEE 321: Structural Analysis and Design (4 hrs)					CEE 4XX courses.	
# CEE 341: Fluid Mechanics for Civil Engineers (4 hrs) # CEE 351: Geotechnical Engineering (4 hrs)						
# CEE 353: Civil Engineering Materials (3 hrs)						
# CEE 361: Introduction to Environmental Engineering (4 hrs)	10 or	57				
# CEE 372: Transportation Engineering (4 hrs)	12				4	
IEE 380: Probability and Statistics for Engineering Problem Solving TERM SIX: 76 90 CREDIT HOURS	3		l			
Select remaining 4					# Designates Major Course: A minimum cumulative	
# CEE 300: Engineering Business Practice(L) (3 hrs)					GPA of 2.30 required in all CEE 3XX courses, a	
# CEE 321: Structural Analysis and Design (4 hrs) # CEE 341: Fluid Mechanics for Civil Engineers (4 hrs)					minimum cumulative GPA of 2.30 required in all CEE 4XX courses.	
# CEE 351: Geotechnical Engineering (4 hrs)						
# CEE 353: Civil Engineering Materials (3 hrs) # CEE 361: Introduction to Environmental Engineering (4 hrs)	14 or					
# CEE 301: Introduction to Environmental Engineering (4 his) # CEE 372: Transportation Engineering (4 hrs)	14 01					
TERM SEVEN: 91 105 CREDIT HOURS			÷	•		
Select 4					# Designates Major Course: A minimum cumulative	
# CEE 281: Surveying (3 hrs)					GPA of 2.30 required in all CEE 3XX courses, a	
 # CEE 281: Surveying (3 hrs) # CEE 412: Pavement Analysis and Design (3 hrs) OR # CEE 483: Highway Materials, Construction and Quality (3 hrs) 						
 # CEE 281: Surveying (3 hrs) # CEE 412: Pavement Analysis and Design (3 hrs) OR # CEE 483: Highway Materials, Construction and Quality (3 hrs) # CEE 420: Steel Structures (3 hrs) OR # CEE 421: Concrete 					GPA of 2.30 required in all CEE 3XX courses, a minimum cumulative GPA of 2.30 required in all	
# CEE 281: Surveying (3 hrs) # CEE 412: Pavement Analysis and Design (3 hrs) OR # CEE 483: Highway Materials, Construction and Quality (3 hrs) # CEE 420: Steel Structures (3 hrs) OR # CEE 421: Concrete Structures (3 hrs)					GPA of 2.30 required in all CEE 3XX courses, a minimum cumulative GPA of 2.30 required in all	
 # CEE 281: Surveying (3 hrs) # CEE 412: Pavement Analysis and Design (3 hrs) OR # CEE 483: Highway Materials, Construction and Quality (3 hrs) # CEE 420: Steel Structures (3 hrs) OR # CEE 421: Concrete Structures (3 hrs) # CEE 452: Foundation (3 hrs) # CEE 481: Civil Engineering Project (3 hrs) 		_			GPA of 2.30 required in all CEE 3XX courses, a minimum cumulative GPA of 2.30 required in all	
 # CEE 281: Surveying (3 hrs) # CEE 412: Pavement Analysis and Design (3 hrs) OR # CEE 483: Highway Materials, Construction and Quality (3 hrs) # CEE 420: Steel Structures (3 hrs) OR # CEE 421: Concrete Structures (3 hrs) # CEE 452: Foundation (3 hrs) # CEE 481: Civil Engineering Project (3 hrs) # Approved technical elective (3 hrs) 	12				GPA of 2.30 required in all CEE 3XX courses, a minimum cumulative GPA of 2.30 required in all	
 # CEE 281: Surveying (3 hrs) # CEE 412: Pavement Analysis and Design (3 hrs) OR # CEE 483: Highway Materials, Construction and Quality (3 hrs) # CEE 420: Steel Structures (3 hrs) OR # CEE 421: Concrete Structures (3 hrs) # CEE 452: Foundation (3 hrs) # CEE 481: Civil Engineering Project (3 hrs) 	12	×			GPA of 2.30 required in all CEE 3XX courses, a minimum cumulative GPA of 2.30 required in all	



Major Map: Civil Engineering (Construction Engineering) – Bachelor of Science in Engineering (B.S.E.)

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					
Select remaining 2 # CEE 281: Surveying (3 hrs) # CEE 412: Pavement Analysis and Design (3 hrs) OR # CEE 483: Highway Materials, Construction and Quality (3 hrs) # CEE 420: Steel Structures (3 hrs) OR # CEE 421: Concrete Structures (3 hrs) # CEE 452: Foundation (3 hrs) # CEE 481: Civil Engineering Project (3 hrs) # Approved technical elective (3 hrs)	6	\boxtimes			# Designates Major Course: A minimum cumulative GPA of 2.30 required in all CEE 3XX courses, a minimum cumulative GPA of 2.30 required in all CEE 4XX courses.
#CEE 400: Earth Systems Engineering and Management (HU, H) OR Social & Behavioral Science (SB) AND Cultural Diversity in the US (C) or Global Awareness (G) if CEE 400 completed	3				
# CEE 486: Integrated Civil Engineering Design (L)	4	\boxtimes			
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the US (C) or Global Awareness (G)	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 (2.30 Min. CUM GPA in CEE 3XX, 2.30 min CUM GPA in CEE 4XX)	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)
 - 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)
 - o Global Awareness (G)
 - Historical Awareness (H)
- First Year Composition

Additional Notes:

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

			Completed AT	P: Yes No	Completed AGEC: Yes No
Course Subject and Title		Upper	Transfer	Minimum Grade if	
(courses in bold/shading are critical) TERM ONE: 0 15 CREDIT HOURS	Hrs.	Division	Course/Grade	Required	Additional Critical Requirement Notes
ASU 101: The ASU Experience	1				• Complete CHM 114 or 116; MAT 265 with a
CEE 100: Intro to Civil and Environmental Engineering OR	1				minimum grade of "C"
ECN 211/212 (SB): Macroeconomic Principles/ Microeconomic	2 or			Grade of C in	 An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition
Principles or ECN 201: Economic Issues & Analysis (SB) CHM 114: General Chemistry for Engineers (SQ) OR	3			CEE 100	courses
CHM 116: General Chemistry II* (SQ)	4				ASU Math Placement Exam score determines placement in Mathematics course
MAT 265: Calculus for Engineers I	3			Grade of C	*CHM 113 is a prerequisite and does not apply toward
ENG 101 or 102: First-Year Composition OR					degree credit.
ENG 105: Advanced First-Year Composition** OR ENG 107 or 108: English for Foreign Students	3			Grade of C	**If ENG 105 a 3 hr applicable elective must also be taken prior to graduation. See Advisor.
TERM TWO: 16 30 CREDIT HOURS	5			Shude of C	unen prior to graduation. See Harison
CEE 100: Intro to Civil and Environmental Engineering OR					• Complete CEE 100; MAT 242, 266; PHY 121
ECN 211/212 (SB): Macroeconomic Principles/ Microeconomic Bringiples on ECN 201: Economic Josupa & Anglysis (SB)	2 or			Grade of C in CEE 100	& 122 each with a minimum grade of "C"
Principles or ECN 201: Economic Issues & Analysis (SB) MAT 242: Elementary Linear Algebra	3			Grade of C	-
MAT 262: Elementary Ellicat Algebra MAT 266: Calculus for Engineers II	3			Grade of C	
PHY 121/122: University Physics I/ Laboratory I (SQ)	3/1			Grade of C	-
ENG 101 or 102: First-Year Composition OR	5/1				1
ENG 105: Advanced First-Year Composition** OR	2			Cardo of C	
ENG 107 or 108: English for Foreign Students TERM THREE: 31 45 CREDIT HOURS	3			Grade of C	
CEE 210: Engineering Mechanics: Statics	3			Grade of C	• Complete CEE 210; MAT 267, 275, PHY 131
MAT 267: Calculus for Engineers III	3			Grade of C	& 132 each with a minimum grade of "C"
MAT 275: Modern Differential Equations (MA)	3			Grade of C	 Complete First Year Composition requirement: ENG 101 & 102 or ENG 107 & 108 or ENG 105
PHY 131/132: University Physics II: Electricity and Magnetism/					
Laboratory II	3/1			Grade of C	
TERM FOUR: 46 60 CREDIT HOURS					A Complete CEE 212
CEE 212: Engineering Mechanics: Dynamics	3				Complete CEE 212 Complete CEE 213 with a minimum grade of
CEE 213: Introduction to Deformable Solids	3			Grade of C	- "C"
MAE 240: Thermofluids I Humanities, Fine Arts & Design (HU) OR Social & Behavioral	4				-
Science (SB), AND Cultural Diversity in the US (C) or Global Awareness (G):	3				
Basic Science Elective	3				
TERM FIVE: 61 75 CREDIT HOURS			<u>.</u>	_	
# CEE 384: Numerical Methods for Engineers (CS)	3				# Designates Major Course: A minimum cumulative GPA of 2.30 required in all CEE 3XX courses, a
Select 3 # CEE 300: Engineering Business Practice (L) (3 hrs) # CEE 321: Structural Analysis and Design (4 hrs) # CEE 341: Fluid Mechanics for Civil Engineers (4 hrs) # CEE 351: Geotechnical Engineering (4 hrs) # CEE 353: Civil Engineering Materials (3 hrs) # CEE 361: Introduction to Environmental Engineering (4 hrs) # CFE 362 cr	10 or				minimum cumulative GPA of 2.30 required in all CEE 4XX courses.
# CEE 372: Transportation Engineering (4 hrs)	12				-
IEE 380: Probability and Statistics for Engineering Problem Solving TERM SIX: 76 90 CREDIT HOURS	3				
 Select remaining 4 # CEE 300: Engineering Business Practice(L) (3 hrs) # CEE 321: Structural Analysis and Design (4 hrs) # CEE 341: Fluid Mechanics for Civil Engineeris (4 hrs) # CEE 351: Geotechnical Engineering (4 hrs) # CEE 361: Introduction to Environmental Engineering (4 hrs) # CEE 372: Transportation Engineering (4 hrs) 	14 or 16	X			# Designates Major Course: A minimum cumulative GPA of 2.30 required in all CEE 3XX courses, a minimum cumulative GPA of 2.30 required in all CEE 4XX courses.
TERM SEVEN: 91 105 CREDIT HOURS					
Select 4 Design/Technical Electives # CEE 440: Engineering Hydrology (3 hrs) # CEE 441: Water Resource Hydrology (3 hrs) # CEE 462: Unit Ops in Environmental Engineering (3 hrs) # CEE 466: San System Design (3 hrs) # CEE 467: Environmental Microbiology (3 hrs) # Approved Technical Elective (3 hrs)	12				# Designates Major Course: A minimum cumulative GPA of 2.30 required in all CEE 3XX courses, a minimum cumulative GPA of 2.30 required in all CEE 4XX courses.
# CEE 400: Earth Systems Engineering and Management (HU, H) OR Social & Behavioral Science (SB) AND Cultural Diversity in the US (C) or Global Awareness (G)	3				
			-		



Major Map: Civil Engineering (Environmental Engineering) -Bachelor of Science in Engineering (B.S.E.)

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					
Select remaining 2 Design/Technical Electives					# Designates Major Course: A minimum cumulative
# CEE 440: Engineering Hydrology (3 hrs)					GPA of 2.30 required in all CEE 3XX courses, a
# CEE 441: Water Resource Hydrology (3 hrs)					minimum cumulative GPA of 2.30 required in all CEE
# CEE 462: Unit Ops in Environmental Engineering (3 hrs)					4XX courses.
# CEE 466: San System Design (3 hrs)					
# CEE 467: Environmental Microbiology (3 hrs)					
# Approved Technical Elective (3 hrs)	6	\boxtimes			
# CEE 400: Earth Systems Engineering and Management (HU, H)					
OR					
Social & Behavioral Science (SB) AND Cultural Diversity in the US					
(C) or Global Awareness (G) if CEE 400 completed	3				
# CEE 486: Integrated Civil Engineering Design (L)	4	X			
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the					
US (C) or Global Awareness (G)	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 (2.30 Min. CUM GPA in CEE 3XX, 2.30 min CUM GPA in CEE 4XX))	Total UD Hrs (45 min)	Total Comm. College Hrs. (64 Max)

General University Requirements: Legend

- General Studies Core Requirements:
 - Literacy and Critical Inquiry (L) 0
 - Mathematical Studies (MA) 0
 - Computer/Statistics/Quantitative applications (CS) 0
 - Humanities, Fine Arts, and Design (HU) 0
 - Social and Behavioral Sciences (SB) 0
 - Natural Science-Quantitative (SQ) 0
 - Natural Science-General (SG) 0
- General Studies Awareness Requirements
 - Cultural Diversity in the US (C) 0
 - Global Awareness (G) 0
 - 0 Historical Awareness (H)
- First Year Composition

Additional Notes:

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

			Completed A	TP: Yes No	Completed AGEC: Yes No			
Course Subject and Title	II	Upper	Transfer	Minimum Grade if				
(courses in bold/shading are critical) TERM ONE: 0 15 CREDIT HOURS	Hrs.	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	5				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" # Designates Major Course: A minimum cumulative			
MAT 266: Calculus for Engineers II	3			Grade of C	GPA of 2.0 required.			
BIO 187: General Biology I (SQ) or BIO 188: Canaral Biology II (SQ)	4							
BIO 188: General Biology II (SQ) ENG 101 or 102: First-Year Composition OR	4				4			
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		Ī		1				
# CSE 230: Computer Organization and Assembly Language Programming	3			Grade of C	Complete CSE 230; MAT 243, 267 each with a minimum grade of "C"			
MAT 243: Discrete Mathematical Structures	3			Grade of C	Complete First Year Composition requirement:			
MAT 267: Calculus for Engineers III	3			Grade of C	ENG 101 & 102 or ENG 107 & 108 or ENG			
Humanities, Fine Arts & Design (H) AND Cultural Diversity in the US					 105 See Advisor for approved Laboratory Science 			
(C), Global Awareness (G), or Historical Awareness (H)	3				sequence courses			
Laboratory Science L(SO)	4				# 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			
# MAT 343: Applied Linear Algebra	3			Glade of C	"C"			
Laboratory Science II (SQ)	4				 See Advisor for approved Laboratory Science sequence courses 			
Social & Behavioral Science (SB) AND Cultural Diversity in the US	-				 General Elective: cannot include CSE, MAT, 			
(C), Global Awareness (G), or Historical Awareness (H)	3				PHY, BIO, CHM or other Science course			
General Elective	3				# Designates Major Course: A minimum cumulative GPA of 2.0 required.			
TERM FIVE: 61 75 CREDIT HOURS	5				GIA 612.0 required.			
# 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	1			
# CSE 360: Introduction to Software Engineering	3			Grade of C	1			
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the	5				1			
US (C), Global Awareness (G), or Historical Awareness (H)	3							
TERM SIX: 76 90 CREDIT HOURS					• On Advisentance 11' (CT 1 ')			
# CSE 340: Principles of Programming Languages	3			Grade of C	See Advisor for approved list of Technical 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				
Science (SB)	3							
TERM SEVEN: 91 105 CREDIT HOURS								
# CSE 430: Operating Systems	3	\boxtimes		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	• General Elective: cannot include CSE, MAT, PHY, BIO, CHM or other Science course			
# CSE 4** Computer Science Elective	3			Grade of C	# Designates Major Course: A minimum cumulative			
					GPA of 2.0 required.			



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	Electives # 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: ٠
 - Literacy and Critical Inquiry (L) 0
 - Mathematical Studies (MA) 0
 - Computer/Statistics/Quantitative applications (CS) Humanities, Fine Arts, and Design (HU) 0
 - 0
 - Social and Behavioral Sciences (SB) 0
 - Natural Science-Quantitative (SQ) 0
 - 0 Natural Science-General (SG)
 - General Studies Awareness Requirements
 - Cultural Diversity in the US (C) 0
 - 0 Global Awareness (G) Historical Awareness (H)
 - 0 First Year Composition
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Major Map: Computer Systems Engineering – Bachelor of Science in Engineering (B.S.E.) Ira A. Fulton School of Engineering, Tempe Campus Catalog Year: 2008-2009

			Completed ATH	P: Yes No	Completed AGEC: Yes No
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 ONE: 0 15 CREDIT HOURS	1				• Complete CSE 100 or 110, 101; MAT 265 each
ASU 101: The ASU Experience # 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	An SAT, ACT, Accuplacer, or TOEFL score determines placement into first year composition
# CSE 101: Introduction to Engineering Design	2			Grade of C	determines placement into first-year composition courses
MAT 265: Calculus for Engineers I (MA)	3			Grade of C	ASU Math Placement Exam score determines
ENG 101 or 102: First-Year Composition OR ENG 105: Advanced First-Year Composition** OR					placement in Mathematics course **If ENG 105 a 3 hr applicable elective must also be
ENG 107 or 108: English for Foreign Students	3			Grade of C	taken prior to graduation. See Advisor.
Social & Behavioral Science (SB) AND Cultural Diversity in the US	_				# Designates Major Course: A minimum cumulative
(C), Global Awareness (G) or Historical Awareness (H)	3				GPA of 2.0 required.
TERM TWO: 16 30 CREDIT HOURS	2				• Complete CSE 120, 205; MAT 266 each with a
# CSE 120: Digital Design Fundamentals	3			Grade of C	minimum grade of "C"
# CSE 205: Concepts of Computer Science & Data Structures (CS) MAT 266: Calculus for Engineers II	3			Grade of C Grade of C	# Designates Major Course: A minimum cumulative
BIO 187: General Biology I (SQ) OR	5			Glade of C	GPA of 2.0 required.
BIO 188: General Biology Laboratory II (SQ)	4				
ENG 101 or 102: First-Year Composition OR ENG 105: Advanced First-Year Composition** OR					
ENG 105. Advanced First-Fear Composition * OK 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				a 1 4a	• Complete CSE 230; MAT 243, 267 each with a
Programming	3			Grade of C	 minimum grade of "C" Complete First-Year Composition requirement:
MAT 243: Discrete Mathematical Structures	3			Grade of C	ENG 101 & 102 or ENG 107 & 108 or ENG 105
MAT 267: Calculus for Engineers III	3			Grade of C	# Designates Major Course: A minimum cumulative
PHY 121/122: University Physics I/Laboratory I (SQ)	3/1				GPA of 2.0 required.
TERM FOUR: 46 60 CREDIT HOURS # CSE 220: Programming for Computer Engineering	3			Grade of C	Complete CSE 220 with a minimum grade of
MAT 275: Modern Differential Equations	3			Glade of C	"C"
PHY 131/132: University Physics II Electricity and	5				# Designates Major Course: A minimum cumulative GPA of 2.0 required.
Magnetism/Laboratory II (SQ)	3/1				GPA 01 2.0 required.
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the US (C), Global Awareness (G), or Historical Awareness (H)	3				
Social & Behavioral Science (SB) AND Cultural Diversity in the US	5				-
(C), Global Awareness (G) or Historical Awareness (H)	3				
TERM FIVE: 61 75 CREDIT HOURS		1	T		
# EEE 202: Circuits I	4				# Designates Major Course: A minimum cumulative GPA of 2.0 required.
# IEE 380: Probability and Statistics for Engineering Problem Solving	3				GIA GI 2.0 required.
# 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	\boxtimes		Grade of C	
TERM SIX: 76 90 CREDIT HOURS		57			
# EEE 334: Circuits II # CSE 320: Design and Synthesis of Digital Hardware	4			0 1 60	# Designates Major Course: A minimum cumulative GPA of 2.0 required.
# CSE 320: Design and Synthesis of Digital Hardware # CSE 325: Embedded Micro Systems	3			Grade of C Grade of C	
# MAT 343: Applied Linear Algebra	3			Glade of C	-
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the	5				
US (C), Global Awareness (G) or Historical Awareness (H)	3				
TERM SEVEN: 91 105 CREDIT HOURS					
# CSE 423: Systems Capstone Project I (L)	3			Grade of C	See Advisor for approved list of CSE Technical Electives
# CSE 430: Operating Systems	3			Grade of C	# Designates Major Course: A minimum cumulative
# CSE Technical Elective	3			Grade of C	GPA of 2.0 required.
# CSE Technical Elective UD Humanities, Fine Arts & Design (HU) OR Social & Behavioral	3			Grade of C	4
Science (SB)	3				
TERM EIGHT: 106 120 CREDIT HOURS			<u>.</u>	·	
# CSE 420: Computer Architecture I	3	\boxtimes		Grade of C	See Advisor for approved list of CSE Technical
# CSE 424: Systems Capstone Project II (L)	3		1	Grade of C	Electives
# CSE 434: Computer Networks	3		T	Grade of C	# Designates Major Course: A minimum cumulative GPA of 2.0 required.
# CSE Technical Elective	3		T	Grade of C	1 '
# CSE Technical Elective	3			Grade of C	



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)
 - 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:

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

			Completed A	TP: Yes No	Completed AGEC: Yes No
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 ONE: 0 15 CREDIT HOURS ASU 101: The ASU Experience	1				• Complete CIM 105 with a minimum grade of
CIM 105: Intro to Concrete Industry	1			Grade of C	"C"
MAT 265: Calculus for Engineers I (MA)	3			Grade of C	An SAT, ACT, Accuplacer, or TOEFL score
PHY 111/113: General Physics I/ Laboratory I (SQ)	3/1			Grade of C	determines placement into first-year composition courses
CON 101: Construction and Culture: A Built Environment (HU, G,	5/1			Glade of C	ASU Math Placement Exam score determines
H)	3				placement in Mathematics course
ENG 101 or 102: First-Year Composition OR ENG 105: Advanced First-Year Composition** OR					 **If ENG 105 a 3 hr applicable elective must also be taken prior to graduation. See Advisor.
ENG 105: Advanced First-Year Composition ⁴⁴⁴ OK ENG 107 or 108: English for Foreign Students	3			Grade of C	be taken prior to graduation. See Advisor.
TERM TWO: 16 30 CREDIT HOURS			•		
CIM 106: Concrete Fundamentals	4			Grade of C	• Complete CIM 106 with a minimum grade of
COM 225: Public Speaking (L)	3				"C"; COM 225; ECN 211; STP 226.
ECN 211: Macroeconomic Principles (SB)	3				
STP 226: Elements of Statistics (CS)	3				
ENG 101 or 102: First-Year Composition OR					
ENG 105: Advanced First-Year Composition** OR				0 1 60	
ENG 107 or 108: English for Foreign Students	3			Grade of C	
TERM THREE: 31 45 CREDIT HOURS CIM 205: Concrete Construction Methods	3			Grade of C	• Complete CIM 205; ENG 102 or 105 or 108
CIVI 205: Concrete Construction Methods				Grade of C	with a minimum grade of "C"; CON 221, ECN
CON 221 Applied Statics	3		_		212
CON 243: Heavy Construction Equipment, Methods, Materials	3				Complete First Year Composition requirement: ENG 101 & 102 or ENG 107 & 108 or ENG 105
CON 251: Microcomputer Applications for Construction	3				ENG 101 & 102 01 ENG 107 & 108 01 ENG 105
ECN 212: Microeconomic Principles (SB)	3				
TERM FOUR: 46 60 CREDIT HOURS					1
CIM 206: Application of Concrete in Construction	3			Grade of C	• Complete CIM 206 with a minimum grade of
CON 223: Strength of Materials	3				"С"
CON 241: Surveying	3				
CON 252: Building Construction Methods, Materials, Equipment	3				
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the					
US (C)	3				
TERM SUMMER 2 nd Year: 1 CREDIT HOUR	1	_			
CON 296: Field Internship	1				
TERM FIVE: 61 75 CREDIT HOURS CIM 305: Management of Concrete Products: Ordering and					
Delivering	3			Grade of C	
CON 383: Construction Estimating	4			Grade of C	
CON 389: Construction Cost Accounting and Control (CS)	3			Grade of C	
Humanities, Fine Arts & Design (HU) or Social & Behavioral					
Science (SB)	3		-		4
Natural Science: Quantitative (SQ) or General (SG)	4				
TERM SIX: 76 90 CREDIT HOURS	-	-			
CIM 306: Management of Concrete Products: Production Facilities	3			Grade of C	4
CON 371: Construction Safety	3			Grade of C	4
CON 450: Geotechnical Applications for Construction	4			Grade of C	4
LES 305: Legal, Ethical, Regulatory Issues in Business	3	\boxtimes			
TERM SUMMER 3 rd Year: 1 CREDIT HOUR					
CON 484: Internship	1			Grade of C	
TERM SEVEN: 91 105 CREDIT HOURS	2			Crada of C	
CIM 405: Concrete Problems: Diagnosis, Prevention, Dispute	3		+	Grade of C	4
CIM 4**	2		+	Grade of C	4
CON 453: Construction Project Management I	3			Grade of C	4
CON 495: Construction Planning and Scheduling	4	\boxtimes		Grade of C	
TERM EIGHT: 106 120 CREDIT HOURS	-	-		0 1 22	
CIM 406: Concrete Industry Management	2			Grade of C	4
CIM 420: Senior Concrete Laboratory	3		+	Grade of C	4
CON 424: Structural Design	3			Grade of C	4
CON 455: Construction Project Management II	4	\boxtimes		Grade of C	4
CON 496: Construction Contract Administration (L)	3	\boxtimes		Grade of C	



Major Map: Construction (Concrete Industry Management) - Bachelor of Science (B.S.) Ira A. Fulton School of Engineering, Tempe Campus Catalog Year: 2008-2009

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: ٠
 - Literacy and Critical Inquiry (L) 0
 - Mathematical Studies (MA) 0
 - Computer/Statistics/Quantitative applications (CS) Humanities, Fine Arts, and Design (HU) Social and Behavioral Sciences (SB) 0
 - 0
 - 0
 - Natural Science-Quantitative (SQ) 0
 - Natural Science-General (SG) 0
- General Studies Awareness Requirements .
 - Cultural Diversity in the US (C) 0
 - Global Awareness (G) 0
 - Historical Awareness (H) 0
- First Year Composition



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

			Completed ATF	P: Yes INO	Completed AGEC: Yes No
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 ONE: 0 15 CREDIT HOURS	1115.	DIVISIOII	Course/Grade	Required	Additional Critical Requirement Notes
ASU 101: The ASU Experience	1				• Complete MAT 265; PHY 111, 113 each with a
MAT 265: Calculus for Engineers I (MA)	3			Grade of C	minimum grade of "C"
PHY 111/113: General Physics I/ Laboratory I (SQ)	3/1			Grade of C	An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition
CON 101: Construction and Culture: A Built Environment (HU, G,					courses
H)	3				ASU Math Placement Exam score determines
CON 194: Special Topics: Introduction to Construction ENG 101 or 102: First-Year Composition OR	2				 placement in Mathematics course **If ENG 105 a 3 hr applicable elective must also
ENG 105: Advanced First-Year Composition ** OR					be taken prior to graduation. See Advisor.
ENG 107 or 108: English for Foreign Students	3			Grade of C	
TERM TWO: 16 30 CREDIT HOURS		_			C LL COMME CONAM
COM 225: Public Speaking (L)	3				Complete COM 225, CON 252
CON 252: Building Construction Methods, Materials, Equipment	3				_
ECN 211: Macroeconomic Principles (SB) ENG 101 or 102: First-Year Composition OR	3				_
ENG 101 of 102. First-Year Composition 'OK 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					
CON 221: Applied Statics	3			Grade of C	• Complete CON 221, 243 with a minimum grade of "C"; CON 251; ECN 212; ENG 102
CON 243: Heavy Construction Equipment, Methods, Materials	3			Grade of C	or 108 or 105 with a minimum grade of "C";
CON 251: Microcomputer Applications for Construction	3				STP 226.
	3				Complete First Year Composition requirement: ENG 101 & 102 or ENG 107 & 108 or ENG 105
ECN 212: Microeconomic Principles (SB)					
STP 226: Elements of Statistics (CS)	3				
TERM FOUR: 46 60 CREDIT HOURS					• Complete CON 223 with a minimum grade of
CON 223: Strength of Materials	3			Grade of C	"C"
CON 241: Surveying CON 273: Electrical Construction Fundamental and Project	3				_
Management	3				
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the US (C)	3				
	3				-
Science Quantitative (SQ) or Science General (SG)	4				
TERM SUMMER 2 nd Year: 1 CREDIT HOUR	_	1			
CON 296: Field Internship	1				
TERM FIVE: 61 75 CREDIT HOURS	-				
CON 310: Testing and Materials for Construction	3			Grade of C	_
CON 345: Mechanical Systems	4			Grade of C	_
CON 371: Construction Safety	4			Grade of C	_
CON 383: Construction Estimating Select 1	4			Grade of C	-
CON 472: Development Feasibility Reports (3 hrs)					
CON 483: Advanced Building Estimating (3 hrs) REA 380: Real Estate Fundamentals (3 hrs)				Grade of C in CON	
Upper division Elective	3	\boxtimes		courses	
TERM SIX: 76 90 CREDIT HOURS					
CON 389: Construction Cost Accounting and Control (CS)	3	\boxtimes		Grade of C	
LES 305: Legal, Ethical, Regulatory Issues in Business	3		ļ		
Humanities, Fine Arts & Design (HU) or Social & Behavioral Science (SB)	3				
Upper division Elective	3				-
Select 1 additional course from:	5		1	1	1
CON 472: Development Feasibility Reports (3 hrs)					
CON 483: Advanced Building Estimating (3 hrs) REA 380: Real Estate Fundamentals (3 hrs)				Grade of C in CON	
Upper division Elective: (3 hrs)	3	\boxtimes		courses	
TERM SUMMER 3 rd Year: 1 CREDIT HOUR					
CON 484: Internship	1	\boxtimes		Grade of C	



Major Map: Construction (General Building Construction) - Bachelor of Science (B.S.)

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

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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 SEVEN: 91 105 CREDIT HOURS					
CON 450: Geotechnical Applications for Construction	4	\boxtimes		Grade of C	
CON 453: Construction Project Management I	3	\boxtimes		Grade of C	
CON 495: Construction Planning and Scheduling (L)	4	\boxtimes		Grade of C	
Select 1 additional course from: CON 472: Development Feasibility Reports (3 hrs) CON 483: Advanced Building Estimating (3 hrs) REA 380: Real Estate Fundamentals (3 hrs) Upper division Elective (3 hrs)	3	\boxtimes		Grade of C in CON courses	
TERM EIGHT: 106 120 CREDIT HOURS					
CON 424: Structural Design	3	\boxtimes		Grade of C	
CON 455: Construction Project Management II	4	\boxtimes		Grade of C	
CON 496: Construction Contract Administration (L)	3	\boxtimes		Grade of C	
Select remaining course from: CON 472: Development Feasibility Reports (3 hrs) CON 483: Advanced Building Estimating (3 hrs) REA 380: Real Estate Fundamentals (3 hrs) UD Elective (3 hrs)	3			Grade of C in CON courses	

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)

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General University Requirements: Legend ٠

- General Studies Core Requirements:
 - Literacy and Critical Inquiry (L) 0
 - Mathematical Studies (MA) 0
 - Computer/Statistics/Quantitative applications (CS) 0
 - Humanities, Fine Arts, and Design (HU) 0
 - Social and Behavioral Sciences (SB) 0
 - Natural Science-Quantitative (SQ) 0
 - Natural Science-General (SG) 0
- General Studies Awareness Requirements
 - Cultural Diversity in the US (C) 0
 - 0 Global Awareness (G) Historical Awareness (H) 0
- First Year Composition



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

			Completed A	TP: Yes No	Completed AGEC: Yes No
Course Subject and Title		Upper	Transfer	Minimum Grade if	
(courses in bold/shading are critical) TERM ONE: 0 15 CREDIT HOURS	Hrs.	Division	Course/Grade	Required	Additional Critical Requirement Notes
ASU 101: The ASU Experience	1				• Complete MAT 265; PHY 111, 113 each with a
MAT 265: Calculus for Engineers I (MA)	3			Grade of C	minimum grade of "C"
PHY 111/113: General Physics I/ Laboratory I (SO)	3/1			Grade of C	An SAT, ACT, Accuplacer, or TOEFL score determines placement into first year composition
CON 101: Construction and Culture: A Built Environment (HU, G, H)	3				determines placement into first-year composition courses
CON 194: Special Topics: Introduction to Construction	2				ASU Math Placement Exam score determines
ENG 101 or 102: First-Year Composition OR					placement in Mathematics course
ENG 105: Advanced First-Year Composition** OR	2			Grade of C	 **If ENG 105 a 3 hr applicable elective must also be taken prior to graduation. See Advisor.
ENG 107 or 108: English for Foreign Students TERM TWO: 16 30 CREDIT HOURS	3			Grade of C	et mitting provide grandmitting attended to
COM 225: Public Speaking (L)	3				Complete COM 225, CON 252
CON 223. Fublic Speaking (L) CON 252: Building Construction Methods, Materials, Equipment	3				
ECN 252: Building Construction Methods, Materials, Equipment ECN 211: Macroeconomic Principles (SB)	3				-
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		_			• Complete CON 221, 243 with a minimum
CON 221: Applied Statics	3			Grade of C	• Complete CON 221, 245 with a minimum grade of "C"; CON 251; ECN 212; ENG 102
CON 243: Heavy Construction Equipment, Methods, Materials	3			Grade of C	or 108 or 105 with a minimum grade of "C";
CON 251: Microcomputer Applications for Construction	3				 STP 226. Complete First-Year Composition requirement:
ECN 212: Microeconomic Principles (SB)	3				ENG 101 & 102 or ENG 107 & 108 or ENG 105
• • •					-
STP 226: Elements of Statistics (CS)	3				
TERM FOUR: 46 60 CREDIT HOURS	2			Crede of C	Complete CON 223 with a minimum grade of
CON 223: Strength of Materials	3			Grade of C	"C"
CON 241: Surveying CON 273: Electrical Construction Fundamental and Project	3				-
Management	3				
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the					
US (C)	3				-
Science: Quantitative (SQ) or Science General (SG)	4				
TERM SUMMER 2 nd Year: 1 CREDIT HOUR					
CON 296: Field Internship	1				
TERM FIVE: 61 75 CREDIT HOURS				1	
CON 310: Testing and Materials for Construction	3			Grade of C	4
CON 345: Mechanical Systems	4			Grade of C	-
CON 371: Construction Safety	3			Grade of C	-
CON 383: Construction Estimating Select 1:	4			Grade of C	4
CON 394: Special Topics: Advanced Heavy Equipment Operations (3					
hrs)					
CON 394: Special Topics: Environmental Aspects of Heavy Construction (3 hrs)					
CON 486: Heavy Construction Estimating (3 hrs)					
CON 494: Special Topics: Heavy Construction Earthworks (3 hrs)					
CON 494: Special Topics: Heavy Construction Project Management (3 hrs):	3			Grade of C	
TERM SIX: 76 90 CREDIT HOURS	, , , , , , , , , , , , , , , , , , ,			Stude of C	
CON 389: Construction Cost Accounting and Control (CS)	3	\boxtimes		Grade of C	
LES 305: Legal, Ethical, Regulatory Issues in Business	3			Grade of C	1
Humanities, Fine Arts & Design (HU) OR					1
Social & Behavioral Science (SB)	3			Grade of C	4
Select 2 additional: CON 394: Special Topics: Advanced Heavy Equipment Operations (3 hrs)					
CON 394: Special Topics: Environmental Aspects of Heavy					
Construction (3 hrs)					
CON 486: Heavy Construction Estimating (3 hrs) CON 494: Special Topics: Heavy Construction Earthworks (3 hrs)					
CON 494: Special Topics: Heavy Construction Project Management (3					
hrs):	6	\boxtimes		Grade of C	



Major Map: Construction (Heavy Construction) -**Bachelor of Science (B.S.)**

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

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 SUMMER 3 rd Year: 1 CREDIT HOUR					
CON 484: Internship	1	\boxtimes		Grade of C	
TERM SEVEN: 91 105 CREDIT HOURS					
CON 450: Geotechnical Applications for Construction	4	\square		Grade of C	
CON 453: Construction Project Management I	3	\square		Grade of C	
CON 495: Construction Planning and Scheduling	4	\square		Grade of C	
Select 1 additional: CON 394: Special Topics: Advanced Heavy Equipment Operations (3 hrs) CON 394: Special Topics: Environmental Aspects of Heavy Construction (3 hrs) CON 486: Heavy Construction Estimating (3 hrs) CON 494: Special Topics: Heavy Construction Earthworks (3 hrs) CON 494: Special Topics: Heavy Construction Project Management (3 hrs):	3			Grade of C	
TERM EIGHT: 106 120 CREDIT HOURS	5			Glade of C	
CON 424: Structural Design	3	\boxtimes		Grade of C	
CON 455: Construction Project Management II	4	\boxtimes		Grade of C	
CON 496: Construction Contract Administration (L)	3	\boxtimes		Grade of C	
Select remaining course: CON 394: Special Topics: Advanced Heavy Equipment Operations (3 hrs) CON 394: Special Topics: Environmental Aspects of Heavy Construction (3 hrs) CON 486: Heavy Construction Estimating (3 hrs) CON 494: Special Topics: Heavy Construction Earthworks (3 hrs) CON 494: Special Topics: Heavy Construction Project Management (3					
hrs):	3	\boxtimes		Grade of C	

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 ٠

- General Studies Core Requirements:
 - Literacy and Critical Inquiry (L) 0
 - 0 Mathematical Studies (MA)
 - Computer/Statistics/Quantitative applications (CS) 0
 - Humanities, Fine Arts, and Design (HU) 0
 - Social and Behavioral Sciences (SB) 0
 - Natural Science-Quantitative (SQ) 0
 - Natural Science-General (SG) 0
- General Studies Awareness Requirements o Cultural Diversity in the US (C)
 - - Global Awareness (G) 0
 - Historical Awareness (H) 0
- First-Year Composition •

Additional Notes:

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Major Map: Construction (Residential Construction) – 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 bold/shading are critical)	Hrs.	Upper Division	Transfer Course/Grade	Minimum Grade if Required	Additional Critical Requirement Notes		
TERM ONE: 0 15 CREDIT HOURS	1110.	Division	course on de	Roquindu	Additional Critical Regulation Refer		
ASU 101: The ASU Experience	1				• Complete MAT 265; PHY 111, 113 with a		
MAT 265: Calculus for Engineers I (MA)	3			Grade of C	minimum grade of "C"		
PHY 111/113: General Physics I/Laboratory I (SQ)	3/1			Grade of C	 An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition 		
CON 101: Construction and Culture: A Built Environment (HU, G,					courses		
Н)	3				ASU Math Placement Exam score determines		
CON 194: Special Topics: Introduction to Construction	2				 placement in Mathematics course **If ENG 105 a 3 hr applicable elective must also 		
ENG 101 or 102: First-Year Composition OR ENG 105: Advanced First-Year Composition** OR					 the ENG 105 a 3 hr applicable elective must also be taken prior to graduation. See Advisor. 		
ENG 107 or 108: English for Foreign Students	3			Grade of C	•		
TERM TWO: 16 30 CREDIT HOURS							
COM 225: Public Speaking (L)	3				Complete COM 225, CON 252.		
CON 252: Building Construction Methods, Materials, Equipment	3						
ECN 211: Macroeconomic Principles (SB)	3						
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	3			Glade of C			
TERM TIREE, 51 45 CREDIT HOURS					• Complete CON 221, 243 with a minimum		
CON 221: Applied Statics	3			Grade of C	grade of "C"; CON 251; ECN 212; ENG 102		
CON 243: Heavy Construction Equipment, Methods, Materials	3			Grade of C	or 108 or 105 with a minimum grade of "C"; STP 226		
CON 251: Microcomputer Applications for Construction	3				 Complete First Year Composition requirement: 		
ECN 212: Microeconomic Principles (SB)	3				ENG 101 & 102 or ENG 107 & 108 or ENG 105		
STP 226: Elements of Statistics (CS)	3						
TERM FOUR: 46 60 CREDIT HOURS	5						
CON 223: Strength of Materials	3			Grade of C	• Complete CON 223 with a minimum grade of		
CON 241: Surveying	3				"C".		
CON 273: Electrical Construction Fundamental and Project							
Management	3				-		
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the US (C)	3						
Science Quantitative (SQ) or Science General (SG)	4						
TERM SUMMER 2 nd Year: 1 CREDIT HOUR	4						
CON 296: Field Internship	1						
TERM FIVE: 61 75 CREDIT HOURS	1						
CON 310: Testing and Materials for Construction	3	\boxtimes		Grade of C			
CON 345: Mechanical Systems	4			Grade of C			
CON 371: Construction Safety	3		1	Grade of C	1		
CON 383: Construction Estimating	4			Grade of C	1		
Select 1				Since of C	1		
CON 377: Residential Construction Production Procedures (3 hrs)							
CON 477: Residential Construction Business Practices (3 hrs) MKT 395: Essentials of Advertising and Marketing Communication							
(3 hrs)				Grade of C in			
REA 380: Real Estate Fundamentals (3 hrs)	3	\boxtimes		CON courses			
TERM SIX: 76 90 CREDIT HOURS		_					
CON 389: Construction Cost Accounting and Control (CS)	3			Grade of C	4		
LES 305: Legal, Ethical, Regulatory Issues in Business	3			Grade of C	4		
Select 1 additional course from: CON 377: Residential Construction Production Procedures (3 hrs)							
CON 477: Residential Construction Production Proceedings (5 hrs)	1						
MKT 395: Essentials of Advertising and Marketing Communication				0.1.201			
(3 hrs) REA 380: Real Estate Fundamentals (3 hrs)	3			Grade of C in CON courses			
Humanities, Fine Arts & Design (HU) OR Social & Behavioral	5			CONCOURSES	1		
Science (SB)	3						
Upper division Elective	3	\boxtimes					
TERM SUMMER 3 rd Year: 1 CREDIT HOUR							
CON 484: Internship	1	\boxtimes		Grade of C			



Major Map: Construction (Residential Construction) -Bachelor of Science (B.S.) Ira A. Fulton School of Engineering, Tempe Campus

Catalog Year: 2008-2009

	Division	Course/Grade	if Required Grade of C	Additional Critical Requirement Notes
_			Grade of C	
			Grade of C	
	\boxtimes		Grade of C in CON courses	
	\boxtimes		Grade of C	
	\boxtimes		Grade of C	
	\boxtimes		Grade of C	
	X		Grade of C in	
				Grade of C Grade of C Grade of C

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 ٠

- General Studies Core Requirements:
 - Literacy and Critical Inquiry (L) 0
 - 0 Mathematical Studies (MA)
 - Computer/Statistics/Quantitative applications (CS) 0
 - 0 Humanities, Fine Arts, and Design (HU)
 - Social and Behavioral Sciences (SB) 0
 - Natural Science-Quantitative (SQ) 0
 - Natural Science-General (SG) 0
- General Studies Awareness Requirements
 - Cultural Diversity in the US (C) 0 0
 - Global Awareness (G)
 - Historical Awareness (H) 0
- First Year Composition .



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

			Completed AT	P: 🛛 Yes 🗖 No	Completed AGEC: Yes No
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 ONE: 0 15 CREDIT HOURS	1113.	Division	course/orade	Required	Additional Critical Requirement Notes
ASU 101: The ASU Experience	1				• Complete MAT 265; PHY 111, 113 each with a
MAT 265: Calculus for Engineers I (MA)	3			Grade of C	minimum grade of "C"
PHY 111/113: General Physics I/ Laboratory I (SQ)	3/1			Grade of C	 An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition
CON 101: Construction and Culture: A Built Environment (HU, G, H)	3				courses
CON 194: Special Topics: Introduction to Construction	2				ASU Math Placement Exam score determines
ENG 101 or 102: First-Year Composition OR					placement in Mathematics course **If ENG 105 a 3 hr applicable elective must also be
ENG 105: Advanced First-Year Composition** OR	3			Grade of C	taken prior to graduation. See Advisor.
ENG 107 or 108: English for Foreign Students	3			Glade of C	1 0
TERM TWO: 16 30 CREDIT HOURS	3				Complete COM 225, CON 252
COM 225: Public Speaking (L)	3				• Complete COM 223, CON 232
CON 252: Building Construction Methods, Materials, Equipment	3				-
ECN 211: Macroeconomic Principles (SB) ENG 101 or 102: First-Year Composition OR	3				-
ENG 105: Advanced First-Year Composition** OR					
ENG 107 or 108: English for Foreign Students	3		l	Grade of C	
TERM THREE: 31 45 CREDIT HOURS					
CON 221: Applied Statics	3			Grade of C	 Complete CON 221, 243 with a minimum grade of "C"; CON 251; ECN 212; ENG 102 or 108 or
CON 243: Heavy Construction Equipment, Methods, Materials	3			Grade of C	105 with a minimum grade of "C"; STP 226
CON 251: Microcomputer Applications for Construction	3				Complete First Year Composition requirement: ENG 101 & 102 or ENG 107 & 108 or ENG 105
ECN 212: Microeconomic Principles (SB)	3				
STP 226: Elements of Statistics (CS)	3				
TERM FOUR: 46 60 CREDIT HOURS					
CON 223: Strength of Materials	3			Grade of C	• Complete CON 223 with a minimum grade of
CON 241: Surveying	3				"С"
CON 273: Electrical Construction Fundamental and Project Management	3				
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the	5				1
US (C)	3				-
Science Quantitative (SQ) or Science General (SG)	4				
TERM SUMMER 2 nd Year: 1 CREDIT HOUR	1	1			
CON 296: Field Internship	1				
TERM FIVE: 61 75 CREDIT HOURS	1	1			
CON 310: Testing and Materials for Construction	3			Grade of C	-
CON 345: Mechanical Systems	4	\boxtimes		Grade of C	-
CON 371: Construction Safety	3			Grade of C	4
CON 383: Construction Estimating	4			Grade of C	4
Select 1 CON 468: Mechanical and Electrical Estimating (3 hrs)					
CON 471: Mechanical and Electrical Project (3 hrs)					
CON 494: Special Topics: Cleanroom Construction (3 hrs)				Grade of C in CON	
Upper division elective (3 hrs)	3	\square		Courses	
TERM SIX: 76 90 CREDIT HOURS	-				
CON 389: Construction Cost Accounting and Control (CS)	3			Grade of C	4
LES 305: Legal, Ethical, Regulatory Issues in Business Select 1 additional course from:	3			Grade of C	4
CON 468: Mechanical and Electrical Estimating (3 hrs)					
CON 471: Mechanical and Electrical Project (3 hrs)					
CON 494: Special Topics: Cleanroom Construction (3 hrs) Upper division elective (3 hrs)	3			Grade of C in CON	
Humanities, Fine Arts & Design (HU) OR Social & Behavioral	3	<u>ل</u> ک	1	Courses	1
Science (SB)	3	\boxtimes			
Upper division elective	3	\boxtimes]
TERM SUMMER 3 rd Year: 1 CREDIT HOUR					
CON 484: Internship	1	\boxtimes		Grade of C	



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

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

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 SEVEN: 91 105 CREDIT HOURS					
CON 450: Geotechnical Applications for Construction	4	\boxtimes		Grade of C	
CON 453: Construction Project Management I	3	\boxtimes		Grade of C	
CON 495: Construction Planning and Scheduling	4	\boxtimes		Grade of C	
Select 1 additional course from: CON 468: Mechanical and Electrical Estimating (3 hrs) CON 471: Mechanical and Electrical Project (3 hrs) CON 494: Special Topics: Cleanroom Construction (3 hrs) Upper division elective (3 hrs)	3	\boxtimes		Grade of C in CON Courses	
TERM EIGHT: 106 120 CREDIT HOURS					
CON 424: Structural Design	3	\boxtimes		Grade of C	
CON 455: Construction Project Management II	4	\boxtimes		Grade of C	
CON 496: Construction Contract Administration	3	\boxtimes		Grade of C	
Select remaining course from: CON 468: Mechanical and Electrical Estimating (3 hrs) CON 471: Mechanical and Electrical Project (3 hrs) CON 494: Special Topics: Cleanroom Construction (3 hrs) Upper division elective (3 hrs)	3			Grade of C in CON Courses	

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)
 - 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:

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Updated: 01/15/09



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

			Completed ATI	P: Yes No	Completed AGEC: Yes No
Course Subject and Title	II	Upper	Transfer	Minimum Grade if	
(courses in bold/shading are critical) TERM ONE: 0 15 CREDIT HOURS	Hrs.	Division	Course/Grade	Required	Additional Critical Requirement Notes
ASU 101: The ASU Experience	1				Complete MAT 265 with a minimum grade of
CHM 114: General Chemistry for Engineers (SQ) OR	1				с.
CHM 116: General Chemistry II * (SQ)	4				An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition
# CSE 100: Principles of Programming with C++ (CS) OR	2				courses
# EEE 120: Digital Design Fundamentals # EEE 101: Introduction to Engineering Design OR	3 2 or				ASU Math Placement Exam score determines
BME 111: Engineering Perspectives on Biological Systems	3				Placement in Mathematics course * CHM 113 is a prerequisite and does not apply
MAT 265: Calculus for Engineers I	3			Grade of C	towards degree credit
					**If ENG 105 a 3 hr applicable elective must also be
ENG 101 and 102: First-Year Composition OR					taken prior to graduation. See Advisor. # Designates Major Course: A minimum cumulative
ENG 107 and 108: English for Foreign Students OR ENG 105: Advanced First-Year Composition **	3			Grade of C	GPA of 2.0 required.
TERM TWO: 16 30 CREDIT HOURS			•		
# CSE 100: Principles of Programming with C++ (CS) OR					Complete EEE 101
# EEE 120: Digital Design Fundamentals	3				• Complete MAT 266; PHY 121 & 122 each with a
# EEE 101: Introduction to Engineering Design OR BME 111: Engineering Perspectives on Biological Systems	2 or 3				minimum grade of "C" # Designates Major Course: A minimum cumulative
MAT 266: Calculus for Engineers II	3			Grade of C	GPA of 2.0 required.
PHY 121/122: University Physics I/Laboratory I (SQ)	3/1			Grade of C	1
ENG 101 and 102: First-Year Composition OR					1
ENG 107 and 108: English for Foreign Students OR	2			Crede of C	
ENG 105: Advanced First-Year Composition **	3			Grade of C	
TERM THREE: 31 45 CREDIT HOURS					• Complete EEE 202; MAT 267, 274 or 275 and
# EEE 202: Circuits I	4				PHY 131, 132 with a minimum grade of "C"
	<u> </u>				Complete First Year Composition requirement:
MAT 267: Calculus for Engineers III	3			Grade of C	ENG 101 & 102 or ENG 107 & 108 or ENG 105
MAT 274: Elementary Differential Equations (MA) OR					# Designates Major Course: A minimum cumulative GPA of 2.0 required.
MAT 275: Modern Differential Equations (MA)	3			Grade of C	
PHY 131/132: University Physics II Electricity and Magnetism/	2/1				
Laboratory II (SQ)	3/1			Grade of C	
TERM FOUR: 46 60 CREDIT HOURS	3				Complete EEE 203 and EEE 241
# EEE 203: Signals and Systems I	3				# Designates Major Course: A minimum cumulative
# EEE 241: Fundamentals of Electromagnetics MAT 342: Linear Algebra (MA) OR	5				GPA of 2.0 required.
MAT 343: Applied Linear Algebra	3	\boxtimes		Grade of C	
PHY 241: University Physics III	3			Grade of C	
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the	3				
US (C), Global Awareness (G) or Historical Awareness (H)	3				
TERM FIVE: 61 75 CREDIT HOURS # EEE 334: Circuits II	4				• Area Pathway Courses: (choose 4) EEE 304, 333,
# EEE 354. Circuits ii # EEE 350: Random Signal Analysis	3				335, 341, 352, 360. Area Pathway courses are
# EEE 230: Computer Organization and Assembly Language	5				prerequisites for Technical Electives. See Advisor
Programming	3				for guidance in selection. # Designates Major Course: A minimum cumulative
# Area Pathway Course	4	\boxtimes			GPA of 2.0 required.
TERM SIX: 76 90 CREDIT HOURS					
ECN 211/212 (SB): Macroeconomic Principles/Microeconomic	2				• Area Pathway Courses: (choose 4) EEE 304, 333,
Principles or ECN 201: Economic Issues & Analysis (SB)	3		+	+	335, 341, 352, 360. Area Pathway courses are prerequisites for Technical Electives. See Advisor
# Area Pathway Course	4		<u> </u>	+	for guidance in selection.
# Area Pathway Course	4				# Designates Major Course: A minimum cumulative
# Area Pathway Course	4	\boxtimes			GPA of 2.0 required.
TERM SEVEN: 91 105 CREDIT HOURS	2	57			• See Degree Audit Reporting System (DARS) for
# EEE 488: Senior Design Laboratory I (L) Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the	3				approved list of Technical Electives
US (C), Global Awareness (G) or Historical Awareness (H)	3				# Designates Major Course: A minimum cumulative
Social & Behavioral Science (SB) AND Cultural Diversity in the US	-				GPA of 2.0 required.
(C), Global Awareness (G) or Historical Awareness (H)	3				4
# Technical Elective	3				4
# Technical Elective	3	\boxtimes			
TERM EIGHT: 106 120 CREDIT HOURS					Car Darmar Arabit Dame (C. C. (DADC) C
# EEE 489: Senior Design Laboratory II (L)	3		}	+	See Degree Audit Reporting System (DARS) for approved list of Technical Electives
# Technical Elective	3				# Designates Major Course: A minimum cumulative
# Technical Elective	3				GPA of 2.0 required.
#Technical Elective	3				4
UD Humanities, Fine Arts & Design (HU) OR Social Behavioral & Science (SB)	3				
	, ,		L	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)
 - 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



Major Map: Electrical Engineering (Electric Power and Energy Systems) – Bachelor of Science in Engineering (B.S.E.) Ira A. Fulton School of Engineering, Tempe Campus Catalog Year: 2008-2009

			Completed ATI	P: Yes No	Completed AGEC: Yes No
Course Subject and Title	T	Upper	Transfer	Minimum Grade if	
(courses in bold/shading are critical)	Hrs.	Division	Course/Grade	Required	Additional Critical Requirement Notes
TERM ONE: 0 15 CREDIT HOURS		1	r		
ASU 101: The ASU Experience	1				Complete MAT 265 with a minimum grade of "C"
CHM 114: General Chemistry for Engineers OR	4				An SAT, ACT, Accuplacer, or TOEFL score
CHM 116: General Chemistry II * # CSE 100: Principles of Programming with C++ (CS) OR	4				determines placement into first-year composition
# EEE 120: Digital Design Fundamentals	3				courses
# EEE 101: Introduction to Engineering Design OR	2 or				ASU Math Placement Exam score determines
BME 111: Engineering Perspectives on Biological Systems	3				 placement in Mathematics course * CHM 113 is a prerequisite and does not apply
MAT 265: Calculus for Engineers I	3			Grade of C	towards degree credit
					**If ENG 105 a 3 hr applicable elective must also be
ENG 101 or 102: First-Year Composition OR ENG 105: Advanced First-Year Composition** OR					taken prior to graduation. See Advisor.
ENG 105. Advanced First- Fear Composition ** OK ENG 107 or 108: English for Foreign Students	3			Grade of C	# Designates Major course: A minimum cumulative GPA of 2.0 required.
TERM TWO: 16 30 CREDIT HOURS				Shude of C	Giff of 2.0 required.
# CSE 100: Principles of Programming with C++ (CS) OR					Complete EEE 101
# EEE 120: Digital Design Fundamentals	3				• Complete MAT 266; PHY 121 & 122 each with
# EEE 101: Introduction to Engineering Design OR	2 or				a minimum grade of "C"
BME 111: Engineering Perspectives on Biological Systems	3				# Designates Major Course: A minimum cumulative GPA of 2.0 required.
MAT 266: Calculus for Engineers II	3			Grade of C	
PHY 121/122: University Physics I/ Laboratory I (SQ)	3/1		l	Grade of C	4
ENG 101 or 102: First-Year Composition OR ENG 105: Advanced First-Year Composition** OR					
ENG 105: Advanced First-Fear Composition** OK ENG 107 or 108: English for Foreign Students	3			Grade of C	
TERM THREE: 31 45 CREDIT HOURS				Glude of C	
# EEE 202: Circuits I	4				• Complete EEE 202; MAT 267, 274 or 275 and
MAT 267: Calculus for Engineers III	3			Grade of C	PHY 131, 132 with a minimum grade of "C"
MAT 207: Calculus for Engineers III MAT 274: Elementary Differential Equations (MA) OR				Glade of C	Complete First Year Composition requirement:
MAT 274: Elementally Differential Equations (MA) OK MAT 275: Modern Differential Equations (MA)	3			Grade of C	ENG 101 & 102 or ENG 107 & 108 or ENG 105
PHY 131/132: University Physics II Electricity and Magnetism/					# Designates Major Course: A minimum cumulative GPA of 2.0 required.
Laboratory II (SQ)	3/1			Grade of C	GITT 01 2.0 required.
TERM FOUR: 46 60 CREDIT HOURS		1			
# EEE 203: Signals and Systems I	3				Complete EEE 203 and EEE 241 # Designates Major Course: A minimum cumulative
# EEE 241: Fundamentals of Electromagnetics	3				GPA of 2.0 required.
MAT 342: Linear Algebra OR	2			Crude of C	
MAT 343: Applied Linear Algebra	3			Grade of C	-
PHY 241: University Physics III Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the	3			Grade of C	-
US (C), or Historical Awareness (H)	3				
TERM FIVE: 61 75 CREDIT HOURS					
# EEE 230: Computer Organization and Assembly Language	·				
					# Designates Major Course: A minimum cumulative
Programming	3				# Designates Major Course: A minimum cumulative GPA of 2.0 required.
	3 4				
Programming					
Programming # EEE 334: Circuits II	4				
Programming # EEE 334: Circuits II # EEE 350: Random Signal Analysis	4 3				
Programming # EEE 334: Circuits II # EEE 350: Random Signal Analysis # EEE 360: Energy Systems and Power Electronics TERM SIX: 76 90 CREDIT HOURS ECN 211/212 (SB): Macroeconomic Principles/Microeconomic	4 3 4				 GPA of 2.0 required. Area Pathway Courses: (choose 3) EEE 304, 333,
Programming # EEE 334: Circuits II # EEE 350: Random Signal Analysis # EEE 360: Energy Systems and Power Electronics TERM SIX: 76 90 CREDIT HOURS ECN 211/212 (SB): Macroeconomic Principles/Microeconomic Principles or ECN 201: Economic Issues & Analysis (SB)	4 3 4 3				 GPA of 2.0 required. Area Pathway Courses: (choose 3) EEE 304, 333, 335, 341, 352. Area Pathway courses are
Programming # EEE 334: Circuits II # EEE 350: Random Signal Analysis # EEE 360: Energy Systems and Power Electronics TERM SIX: 76 90 CREDIT HOURS ECN 211/212 (SB): Macroeconomic Principles/Microeconomic	4 3 4 3 4				 GPA of 2.0 required. Area Pathway Courses: (choose 3) EEE 304, 333, 335, 341, 352. Area Pathway courses are prerequisites for Technical Electives. See Advisor
Programming # EEE 334: Circuits II # EEE 350: Random Signal Analysis # EEE 360: Energy Systems and Power Electronics TERM SIX: 76 90 CREDIT HOURS ECN 211/212 (SB): Macroeconomic Principles/Microeconomic Principles or ECN 201: Economic Issues & Analysis (SB)	4 3 4 3				 GPA of 2.0 required. Area Pathway Courses: (choose 3) EEE 304, 333, 335, 341, 352. Area Pathway courses are prerequisites for Technical Electives. See Advisor for guidance in selection.
Programming # EEE 334: Circuits II # EEE 350: Random Signal Analysis # EEE 360: Energy Systems and Power Electronics TERM SIX: 76 90 CREDIT HOURS ECN 211/212 (SB): Macroeconomic Principles/Microeconomic Principles or ECN 201: Economic Issues & Analysis (SB) # Area Pathway Course	4 3 4 3 4				 GPA of 2.0 required. Area Pathway Courses: (choose 3) EEE 304, 333, 335, 341, 352. Area Pathway courses are prerequisites for Technical Electives. See Advisor
Programming # EEE 334: Circuits II # EEE 350: Random Signal Analysis # EEE 360: Energy Systems and Power Electronics TERM SIX: 76 90 CREDIT HOURS ECN 211/212 (SB): Macroeconomic Principles/Microeconomic Principles or ECN 201: Economic Issues & Analysis (SB) # Area Pathway Course # Area Pathway Course	4 3 4 3 4 4 4				 GPA of 2.0 required. Area Pathway Courses: (choose 3) EEE 304, 333, 335, 341, 352. Area Pathway courses are prerequisites for Technical Electives. See Advisor for guidance in selection. # Designates Major Course: A minimum cumulative GPA of 2.0 required.
Programming # EEE 334: Circuits II # EEE 350: Random Signal Analysis # EEE 360: Energy Systems and Power Electronics TERM SIX: 76 90 CREDIT HOURS ECN 211/212 (SB): Macroeconomic Principles/Microeconomic Principles or ECN 201: Economic Issues & Analysis (SB) # Area Pathway Course # Area Pathway Course # Area Pathway Course # Area Pathway Course	4 3 4 3 4 4 4				 GPA of 2.0 required. Area Pathway Courses: (choose 3) EEE 304, 333, 335, 341, 352. Area Pathway courses are prerequisites for Technical Electives. See Advisor for guidance in selection. # Designates Major Course: A minimum cumulative GPA of 2.0 required. # Designates Major Course: A minimum cumulative
Programming # EEE 334: Circuits II # EEE 350: Random Signal Analysis # EEE 360: Energy Systems and Power Electronics TERM SIX: 76 90 CREDIT HOURS ECN 211/212 (SB): Macroeconomic Principles/Microeconomic Principles or ECN 201: Economic Issues & Analysis (SB) # Area Pathway Course # Area Pathway Course # Area Pathway Course # Area Pathway Course # EEE 488: Senior Design Laboratory I (L) Select 2	4 3 4 3 4 4 4 4				 GPA of 2.0 required. Area Pathway Courses: (choose 3) EEE 304, 333, 335, 341, 352. Area Pathway courses are prerequisites for Technical Electives. See Advisor for guidance in selection. # Designates Major Course: A minimum cumulative GPA of 2.0 required.
Programming # EEE 334: Circuits II # EEE 350: Random Signal Analysis # EEE 360: Energy Systems and Power Electronics TERM SIX: 76 90 CREDIT HOURS ECN 211/212 (SB): Macroeconomic Principles/Microeconomic Principles or ECN 201: Economic Issues & Analysis (SB) # Area Pathway Course # Area Pathway Course # Area Pathway Course TERM SEVEN: 91 105 CREDIT HOURS # EEE 488: Senior Design Laboratory I (L) Select 2 # EEE 460: Nuclear Concepts for the 21 st Century (3 hrs)	4 3 4 3 4 4 4 4				 GPA of 2.0 required. Area Pathway Courses: (choose 3) EEE 304, 333, 335, 341, 352. Area Pathway courses are prerequisites for Technical Electives. See Advisor for guidance in selection. # Designates Major Course: A minimum cumulative GPA of 2.0 required. # Designates Major Course: A minimum cumulative
Programming # EEE 334: Circuits II # EEE 350: Random Signal Analysis # EEE 360: Energy Systems and Power Electronics TERM SIX: 76 90 CREDIT HOURS ECN 211/212 (SB): Macroeconomic Principles/Microeconomic Principles or ECN 201: Economic Issues & Analysis (SB) # Area Pathway Course # Area Pathway Course # Area Pathway Course TERM SEVEN: 91 105 CREDIT HOURS # EEE 488: Senior Design Laboratory I (L) Select 2 # EEE 460: Nuclear Concepts for the 21 st Century (3 hrs) # EEE 463: Electrical Power Plant (3 hrs)	4 3 4 3 4 4 4 4				 GPA of 2.0 required. Area Pathway Courses: (choose 3) EEE 304, 333, 335, 341, 352. Area Pathway courses are prerequisites for Technical Electives. See Advisor for guidance in selection. # Designates Major Course: A minimum cumulative GPA of 2.0 required. # Designates Major Course: A minimum cumulative
Programming # EEE 334: Circuits II # EEE 350: Random Signal Analysis # EEE 360: Energy Systems and Power Electronics TERM SIX: 76 90 CREDIT HOURS ECN 211/212 (SB): Macroeconomic Principles/Microeconomic Principles or ECN 201: Economic Issues & Analysis (SB) # Area Pathway Course # Area Pathway Course # Area Pathway Course TERM SEVEN: 91 105 CREDIT HOURS # EEE 488: Senior Design Laboratory I (L) Select 2 # EEE 463: Electrical Power Plant (3 hrs) # EEE 463: Electrical Power Plant (3 hrs) # EEE 470: Electric Power Devices (3 hrs)	4 3 4 3 4 4 4 4				 GPA of 2.0 required. Area Pathway Courses: (choose 3) EEE 304, 333, 335, 341, 352. Area Pathway courses are prerequisites for Technical Electives. See Advisor for guidance in selection. # Designates Major Course: A minimum cumulative GPA of 2.0 required. # Designates Major Course: A minimum cumulative
Programming # EEE 334: Circuits II # EEE 350: Random Signal Analysis # EEE 360: Energy Systems and Power Electronics TERM SIX: 76 90 CREDIT HOURS ECN 211/212 (SB): Macroeconomic Principles/Microeconomic Principles or ECN 201: Economic Issues & Analysis (SB) # Area Pathway Course # Area Pathway Course # Area Pathway Course # Area Pathway Course # EEE 488: Senior Design Laboratory I (L) Select 2 # EEE 460: Nuclear Concepts for the 21 st Century (3 hrs) # EEE 471: Power System Analysis (3 hrs) # EEE 471: Power System Analysis (3 hrs) # EEE 473: Electrical Machinery (3 hrs)	4 3 4 3 4 4 4 4				 GPA of 2.0 required. Area Pathway Courses: (choose 3) EEE 304, 333, 335, 341, 352. Area Pathway courses are prerequisites for Technical Electives. See Advisor for guidance in selection. # Designates Major Course: A minimum cumulative GPA of 2.0 required. # Designates Major Course: A minimum cumulative
Programming # EEE 334: Circuits II # EEE 350: Random Signal Analysis # EEE 360: Energy Systems and Power Electronics TERM SIX: 76 90 CREDIT HOURS ECN 211/212 (SB): Macroeconomic Principles/Microeconomic Principles or ECN 201: Economic Issues & Analysis (SB) # Area Pathway Course # Area Pathway Course # Area Pathway Course TERM SEVEN: 91 105 CREDIT HOURS # EEE 488: Senior Design Laboratory I (L) Select 2 # EEE 460: Nuclear Concepts for the 21 st Century (3 hrs) # EEE 470: Electrical Power Plant (3 hrs) # EEE 471: Power System Analysis (3 hrs) # EEE 473: Electrical Machinery (3 hrs) # EEE 473: Electrical Machinery (3 hrs) # EEE 473: Electrical Machinery (3 hrs) # EEE 498: Pro-Seminar (Power Elec.) (3 hrs)	4 3 4 3 4 4 4 3				 GPA of 2.0 required. Area Pathway Courses: (choose 3) EEE 304, 333, 335, 341, 352. Area Pathway courses are prerequisites for Technical Electives. See Advisor for guidance in selection. # Designates Major Course: A minimum cumulative GPA of 2.0 required. # Designates Major Course: A minimum cumulative
Programming # EEE 334: Circuits II # EEE 350: Random Signal Analysis # EEE 360: Energy Systems and Power Electronics TERM SIX: 76 90 CREDIT HOURS ECN 211/212 (SB): Macroeconomic Principles/Microeconomic Principles or ECN 201: Economic Issues & Analysis (SB) # Area Pathway Course # Area Pathway Course # Area Pathway Course TERM SEVEN: 91 105 CREDIT HOURS # EEE 488: Senior Design Laboratory I (L) Select 2 # EEE 460: Nuclear Concepts for the 21 st Century (3 hrs) # EEE 470: Electrical Power Plant (3 hrs) # EEE 471: Power System Analysis (3 hrs) # EEE 473: Electrical Machinery (3 hrs) # EEE 474: Power System Analysis (3 hrs) # EEE 475: Electrical Machinery (3 hrs) # EEE 478: Pro-Seminar (Power Elec.) (3 hrs) # EEE 498: Pro-Seminar (Solar Energy) (3 hrs)	$ \begin{array}{c} 4 \\ 3 \\ 4 \\ 4 \\ 4 \\ 4 \\ 4 \\ 6 \\ 6 \end{array} $				 GPA of 2.0 required. Area Pathway Courses: (choose 3) EEE 304, 333, 335, 341, 352. Area Pathway courses are prerequisites for Technical Electives. See Advisor for guidance in selection. # Designates Major Course: A minimum cumulative GPA of 2.0 required. # Designates Major Course: A minimum cumulative
Programming # EEE 334: Circuits II # EEE 350: Random Signal Analysis # EEE 360: Energy Systems and Power Electronics TERM SIX: 76 90 CREDIT HOURS ECN 211/212 (SB): Macroeconomic Principles/Microeconomic Principles or ECN 201: Economic Issues & Analysis (SB) # Area Pathway Course # Area Pathway Course # Area Pathway Course TERM SEVEN: 91 105 CREDIT HOURS # EEE 488: Senior Design Laboratory I (L) Select 2 # EEE 460: Nuclear Concepts for the 21 st Century (3 hrs) # EEE 463: Electrical Power Plant (3 hrs) # EEE 470: Electrical Power Plant (3 hrs) # EEE 471: Power System Analysis (3 hrs) # EEE 478: Pro-Seminar (Power Elec.) (3 hrs) # EEE 498: Pro-Seminar (Solar Energy) (3 hrs) # EEE 498: Pro-Seminar (Solar Energy) (3 hrs) GCU 364: Energy in the Global Arena (SB, G)	4 3 4 3 4 4 4 3				 GPA of 2.0 required. Area Pathway Courses: (choose 3) EEE 304, 333, 335, 341, 352. Area Pathway courses are prerequisites for Technical Electives. See Advisor for guidance in selection. # Designates Major Course: A minimum cumulative GPA of 2.0 required. # Designates Major Course: A minimum cumulative
Programming # EEE 334: Circuits II # EEE 350: Random Signal Analysis # EEE 360: Energy Systems and Power Electronics TERM SIX: 76 90 CREDIT HOURS ECN 211/212 (SB): Macroeconomic Principles/Microeconomic Principles or ECN 201: Economic Issues & Analysis (SB) # Area Pathway Course # Area Pathway Course # Area Pathway Course TERM SEVEN: 91 105 CREDIT HOURS # EEE 488: Senior Design Laboratory I (L) Select 2 # EEE 460: Nuclear Concepts for the 21 st Century (3 hrs) # EEE 470: Electrical Power Plant (3 hrs) # EEE 471: Power System Analysis (3 hrs) # EEE 473: Electrical Machinery (3 hrs) # EEE 474: Power System Analysis (3 hrs) # EEE 475: Electrical Machinery (3 hrs) # EEE 478: Pro-Seminar (Power Elec.) (3 hrs) # EEE 498: Pro-Seminar (Solar Energy) (3 hrs)	$ \begin{array}{c} 4 \\ 3 \\ 4 \\ 4 \\ 4 \\ 4 \\ 4 \\ 6 \\ 6 \end{array} $				 GPA of 2.0 required. Area Pathway Courses: (choose 3) EEE 304, 333, 335, 341, 352. Area Pathway courses are prerequisites for Technical Electives. See Advisor for guidance in selection. # Designates Major Course: A minimum cumulative GPA of 2.0 required. # Designates Major Course: A minimum cumulative



Major Map: Electrical Engineering (Electric Power and Energy Systems) – Bachelor of Science in Engineering (B.S.E.) 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					
# EEE 489: Senior Design Laboratory II (L)	3	\boxtimes			See Degree Audit Reporting System (DARS) for
Select 1 not previously selected:					approved list of Technical Electives
# EEE 460: Nuclear Concepts for the 21 st Century (3 hrs)					# Designates Major Course: A minimum cumulative
# EEE 463: Electrical Power Plant (3 hrs)					GPA of 2.0 required.
# EEE 470: Electric Power Devices (3 hrs)					
# EEE 471: Power System Analysis (3 hrs)					
# EEE 473: Electrical Machinery (3 hrs)					
# EEE 498: Pro-Seminar (Power Elec.) (3 hrs)		_			
# EEE 498: Pro-Seminar (Solar Energy) (3 hrs)	3	\square			
# Technical Elective	3				
# Technical Elective	3				
Humanities, Fine Arts & Design (HU) OR Social & Behavioral					
Science (SB)	3				

Designates Major Course: A minimum cumulative GPA of 2.0 required.

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)
 - 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)
- Historical Awa
 First Year Composition

Additional Notes:

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Major Map: Engineering Special Studies (Pre-medical Engineering) – Bachelor of Science in Engineering (B.S.E.) Ira A. Fulton School of Engineering, Tempe Campus Catalog Year: 2008-2009

			Completed ATP	P: Yes I No	Completed AGEC: Yes No
Course Subject and Title	Hrs.	Upper Division	Transfer Course/Grade	Minimum Grade if	Additional Critical Dominament Natas
(courses in bold/shading are critical) TERM ONE: 0 15 CREDIT HOURS	ПIS.	DIVISIOII	Course/Grade	Required	Additional Critical Requirement Notes
	1				Complete BME 100 with a minimum grade of
ASU 101: The ASU Experience BME 100: Introduction to Bioengineering OR	2 or			Grade of C in BME	"C" or BIO 188
BIO 188: General Biology II (CS)	4			100	Complete MAT 265 with a minimum grade of
MAT 265: Calculus for Engineers I	3			Grade of C	 "C" An SAT, ACT, Accuplacer, or TOEFL score
CHM 113: General Chemistry I (SQ)	4				determines placement into first-year composition
					courses
ENG 101 or 102: First-Year Composition OR					 ASU Math Placement Exam score determines placement in Mathematics course
ENG 105: Advanced First-Year Composition ** OR					** If ENG 105 a 3 hr applicable elective must also be
ENG 107 or 108: English for Foreign Students	3			Grade of C	taken prior to graduation. See Advisor.
TERM TWO: 16 30 CREDIT HOURS		1			
BME 100: Introduction to Bioengineering OR	2 or			Grade of C in BME 100	• Complete BIO 188; BME 100 with a minimum
BIO 188: General Biology II (SQ) CHM 116: General Chemistry II (SQ)	4			100	grade of "C"; CHM 116; MAT 266 with a minimum grade of "C"; PHY 121 & 122
MAT 266: Calculus for Engineers II	3			Grade of C	
	3/1			Glade of C	-
PHY 121/122: University Physics I/ Laboratory I (SQ) ENG 101 or 102: First-Year Composition OR	5/1				-
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 PHY 131 & 132 Complete First Year Composition requirement:
PHY 131/132: University Physics II Electricity and Magnetism/Laboratory II (SQ)	3/1				Complete First Year Composition requirement: ENG 101 & 102 or ENG 107 & 108 or ENG 105
CHM 233/237: General Organic Chemistry I/Laboratory I	3/1				
CSE 100: Principles of Programming with C++ (CS)	3				
TERM FOUR: 46 60 CREDIT HOURS	5				
BME 200: Conservation Principles in Bioengineering	3			Grade of C	• Complete BME 200, 235 each with a minimum
EEE 202: Circuits I	4			Glade of C	grade of "C"
MAE 212: Engineering Mechanics	4				
	3				-
MAT 275: Modern Differential Equations (MA) CHM 234/238: General Organic Chemistry II/Laboratory II OR	3				-
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the	4 or				
US (C), Global Awareness (G) or Historical Awareness (H)	3				
TERM FIVE: 61 75 CREDIT HOURS		1			
# BME 318: Biomaterials	4			Grade of C	# Designates Major Course: A minimum cumulative GPA of 2.0 required.
# BME 350: Signals and Systems for Bioengineering	3	\boxtimes		Grade of C	of A of 2.0 required.
# CHM 341: Elementary Physical Chemistry	3	\boxtimes			-
# MAT 343: Applied Linear Algebra	3	\square			-
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	5				
# BME 300: Bioengineering Product Design	3	\boxtimes		Grade of C	# Designates Major Course: A minimum cumulative
# BME 300: Bioengineering Transport Phenomena	3			Grade of C	GPA of 2.0 required.
# BME 370: Microcomputer Applications in Bioengineering	3			Grade of C	
CHM 234/238: General Organic Chemistry II/Laboratory II OR			1		1
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the					
US (C), Global Awareness (G) or Historical Awareness (H) if CHM 234/238 completed	4 or 3				
	3				4
# IEE 380: Probability and Statistics for Engineering Problem Solving TERM SEVEN: 91 105 CREDIT HOURS	3		l	l 	
# BME 413: Biomedical Instrumentation (BME 413 + 423 = L)	3			Grada of C	# Designates Major Course: A minimum cumulative
	4			Grade of C Grade of C	GPA of 2.0 required.
# BME 417: Biomedical Engineering Capstone Design I (L) # BME 423: Biomedical Instrumentation Laboratory	4				4
# BME 423: Biomedical Instrumentation Laboratory # BME 434: Applications of Bioengineering OR	1			Grade of C	1
# BME 416: Biomechanics OR					
# BME 419: Biocontrol Systems	3			Grade of C	4
Social & Behavioral Science (SB) AND Cultural Diversity in the US	3				
(C), Global Awareness (G) or Historical Awareness (H)	3				
TERM EIGHT: 106 120 CREDIT HOURS	4			Cardo of C	# Designates Major Course: A minimum cumulative
# BME 490: Biomedical Engineering Capstone Design II Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the	4		+	Grade of C	GPA of 2.0 required.
US (C), Global Awareness (G) or Historical Awareness (H)	3				-
# Technical Elective	1		1	Grade of C	1
UD Humanities, Fine Arts & Design (HU) OR Social Behavioral					1
Science (SB)	3	\boxtimes			



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)
 - 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:

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

			Completed ATP	P: Yes INO	Completed AGEC: Yes No
Course Subject and Title (courses in bold/shading are critical)	Hrs.	Upper Division		Minimum Grade if Required	Additional Critical Requirement Notes
TERM ONE: 0 15 CREDIT HOURS	1113.	D11131011	course Orade	roquitor	- Additional Official Requirement Protes
ASU 101: The ASU Experience	1				Complete at least one of: BME 111; CSE 110
IEE 100: Intro to Engineering Design OR					(or 100) with a minimum grade of "C"; IEE 100 with a minimum grade of "C"; MAT 265
CSE 110: Principles of Programming with Java (or CSE 100: Principles of Programming with C++) (CS)	2 or 3			Grade of C	with a minimum grade of "C", WAT 205
BME 111: Engineering Perspectives on Biological Systems	3				 An SAT, ACT, Accuplacer, or TOEFL score
MAT 265: Calculus for Engineers I	3			Grade of C	determines placement into first-year composition courses
ENG 101 or 102: First-Year Composition OR				Glade of e	 ASU Math Placement Exam score determines
ENG 105: Advanced First-Year Composition** OR	2				placement in Mathematics course
ENG 107 or 108: English for Foreign Students Social & Behavioral Science (SB) AND Cultural Diversity in the US	3		+	Grade of C	** If ENG 105 a 3 hr applicable elective must also be taken prior to graduation. See Advisor.
(C), Global Awareness (G) or Historical Awareness (H)	3				
TERM TWO: 16 30 CREDIT HOURS		_			
IEE 100: Intro to Engineering Design OR CSE 110: Drinciples of Dreamanning with Java (or CSE 100:	2				• Complete
CSE 110: Principles of Programming with Java (or CSE 100: Principles of Programming with C++) (CS)	2 or 3			Grade of C	 CSE 110 (or 100) with a minimum grade of "C", OR PHY 121 & 122 with a
MAT 266: Calculus for Engineers II	3		1	Grade of C	minimum grade of "C"
PHY 121/122: University Physics I/ Laboratory I (SQ)	3/1				- ENG 101 or 107 or 105 with minimum grade of "C"
ENG 101 or 102: First-Year Composition OR					- IEE 100 with a minimum grade of "C"
ENG 105: Advanced First-Year Composition** OR ENG 107 or 108: English for Foreign Students	3			Grade of C	- MAT 265 with a minimum grade of "C"
TERM THREE: 31 45 CREDIT HOURS	5			Grade of C	
ECN 211: Macroeconomic Principles (SB)	3				Complete CSE 110 (or 100) with a minimum
CSE 205: Concepts of Computer Design and Data (CS)	3				grade of "C", PHY 121 & 122 with a
IEE 210: Introduction to Industrial Engineering	2			Grade of C	 minimum grade of "C" Complete ECN 211; BME 111; MAT 266
MAT 267: Calculus for Engineers III	3				with a minimum grade of "C";
Ť					Complete First Year Composition requirement: DNC 101 % 102 or DNC 107 % 108 or DNC
PHY 131/132: University Physics II Electricity and Magnetism/					ENG 101 & 102 or ENG 107 & 108 or ENG 105
Laboratory II (SQ)	3/1				
TERM FOUR: 46 60 CREDIT HOURS		r	,		
IEE 220: Business/Industrial Engineering	3			Grade of C	Complete IEE 220 with a minimum grade of "C"
CHM 114: General Chemistry for Engineers OR CHM 116: General Chemistry II *	4				*CHM 113 is a prerequisite and does not apply
MAT 242: Elementary Linear Algebra	2				towards degree credit
MAT 275: Modern Differential Equations (MA)	3				
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the					
US (C), Global Awareness (G) or Historical Awareness (H)	3				
TERM FIVE: 61 75 CREDIT HOURS					
IEE 300: Economic Analysis for Engineers	3			Grade of C	
IEE 305: Information Systems Engineering	3			Grade of C	
IEE 380: Probability and Statistics for Engineering Problem Solving Choose 2:	3		┼───┼	Grade of C	4
EEE 202: Circuits I (4 hrs)					
MAE 212: Engineering Mechanics (4 hrs)	7 or				
MSE 250: Structure and Properties of Materials (3 hrs)	8				
TERM SIX: 76 90 CREDIT HOURS IEE 385: Engineering Statistics - Probability	3	\boxtimes		Grade of C	
IEE 365: Engineering Statistics - Probability IEE 376: Operational Research Deterministic Technology	3		+ +	Grade of C	1
IEE 3/8: Operational Research Deterministic Technology IEE 368: Facilities Analysis and Design (L) OR	5		+ +	Grade of C	1
IEE 369: Work Analysis and Design (L)	3			Grade of C	1
Choose remaining 1: EEE 202: Circuits I (4 hrs)					
MAE 212: Engineering Mechanics (4 hrs)	3 or				
MSE 250: Structure and Properties of Materials (3 hrs)	4				4
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the US (C), Global Awareness (G) or Historical Awareness (H)	3				
TERM SEVEN: 91 105 CREDIT HOURS	5				
IEE 470: Stochastic Operations Research	3	\boxtimes		Grade of C	
IEE 470: Stochastic Operations Research	3		+ +	Grade of C	
IEE 475: Simulating Stochastic Systems	3		<u>† </u>	Grade of C	1
Career Focused Elective	3		† †	51440 01 0	1
UD Humanities, Fine Arts & Design (HU) OR Social & Behavioral			1 1		1
Science (SB)	3				



Major Map: Industrial Engineering – Bachelor of Science in Engineering (B.S.E.) Ira A. Fulton School of Engineering, Tempe Campus

Catalog Year: 2008-2009

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					
IEE 461: Production Control	3	\boxtimes		Grade of C	
IEE 490: Project in Design/Development (L)	3	\boxtimes		Grade of C	
IEE Technical Elective	3	\boxtimes		Grade of C	
Career Focused Elective	3	\boxtimes			
Career Focused Elective	3	\boxtimes			

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)
 - 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:

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

			Completed ATP	P: □Yes □ No	Completed AGEC: Yes No	
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 ONE: 0 15 CREDIT HOURS	1113.	DIVISIOII	Course/Grade	Required	Additional Critical Requirement Poles	
ASU 101: The ASU Experience	1				Complete MAT 265 with a minimum grade of	
CHM 114: General Chemistry for Engineers (SQ) OR	1				"C"; CHM 113 or 114; MSE 100.	
CHM 113/116 : General Chemistry I/General Chemistry II (SQ)	4				 Minimum CUM ASU 2.0 GPA required An SAT ACT Accuplacer or TOEFL score 	
MAT 265: Calculus for Engineers I	3			Grade of C	An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition	
# MSE 100: Introduction of Materials Engineering	2				courses	
ENG 101 or 102: First-Year Composition OR					ASU Math Placement Exam score determines	
ENG 105: Advanced First-Year Composition** OR ENG 107 or 108: English for Foreign Students	3			Grada of C	placement in Mathematics course **If ENG 105 a 3 hr applicable elective must also be	
ENG 107 or 108: English for Foreign Students	3			Grade of C	taken prior to graduation. See Advisor.	
Social & Behavioral Science (SB) AND Cultural Diversity in the US					# Designates Major Course: A minimum cumulative	
(C), Global Awareness (G) or Historical Awareness (H)	3				GPA of 2.0 required.	
TERM TWO: 16 30 CREDIT HOURS		1				
MAT 266: Calculus for Engineers II	3			Grade of C	• MSE 250 must be completed by the end of the 4 th semester	
# MSE 250: Structure and Properties of Materials	3			Grade of C	CHM 116 must be completed for those who	
PHY 121/122: University Physics I/Laboratory I (SQ)	3/1				took CHM 113	
ENG 101 or 102: First-Year Composition OR					Complete MAT 266 with a minimum grade of	
ENG 105: Advanced First-Year Composition** OR ENG 107 or 108: English for Foreign Students	3			Grade of C	"C"; and PHY 121 & 122 • Minimum CUM ASU 2.0 GPA required	
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the	5				# Designates Major Course: A minimum cumulative	
US (C), Global Awareness (G) or Historical Awareness (H)	3				GPA of 2.0 required.	
TERM THREE: 31 45 CREDIT HOURS						
					Complete MAT 267 with a minimum grade of	
MAT 267: Calculus for Engineers III	3			Grade of C	"C"; and PHY 131 & 132	
PHY 131/132: University Physics II Electricity and Magnetism/Laboratory II (SQ)	3/1				Complete First Year Composition requirement: ENG 101 & 102 OR ENG 107 & 108 or ENG 105 Minimum CUM ASU 2.0 GPA required # Designates Major Course: A minimum cumulative	
BME 111: Engineering Perspectives on Biological Systems	3					
#MSE 215: Materials Synthesis	3				GPA of 2.0 required.	
TERM FOUR: 46 60 CREDIT HOURS						
MAT 275: Modern Differential Equations (MA)	3				Minimum CUM ASU 2.0 GPA required	
MAT 343: Applied Linear Algebra	3				• MSE 250 must be completed with a minimum	
# MSE 211: Introduction to Mechanics of Materials	3				grade of "C". # Designates Major Course: A minimum cumulative	
IEE 220: Business/Industrial Engineering	3				GPA of 2.0 required.	
Social & Behavioral Science (SB) AND Cultural Diversity in the US	-					
(C), Global Awareness (G) or Historical Awareness (H)	3					
TERM FIVE: 61 75 CREDIT HOURS		1	T	r		
Math or Science Elective	3				# Designates Major Course: A minimum cumulative GPA of 2.0 required.	
# MSE 315: Mathematical and Computer Methods in Materials (CS)	3				GFA 01 2.0 Tequireu.	
# MSE 330: Thermodynamics of Materials	3					
# MSE 355: Materials Structure and Microstructure	3	\square				
# MSE 356: Materials Structure and Microstructure Laboratory	1	\boxtimes				
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the	2					
US (C), Global Awareness (G) or Historical Awareness (H)	3					
TERM SIX: 76 90 CREDIT HOURS					# Designates Major Course: A minimum cumulative	
# MSE 335: Materials Kinetics and Processing	3				GPA of 2.0 required.	
# MSE 358: Introduction to Electronic, Magnetic, & Optical Properties	3					
# MSE 420: Physical Metallurgy	3		-		4	
# MSE 421: Physical Metallurgy Laboratory	1				4	
# MSE 450: Introduction to Materials Characterization	3				4	
# MSE 451: Introduction to Materials Characterization Laboratory	1	\boxtimes				
TERM SEVEN: 91 105 CREDIT HOURS		1				
# MSE 440: Mechanical Properties of Solids	3				# Designates Major Course: A minimum cumulative GPA of 2.0 required.	
# MSE 470: Polymers and Composites	3					
# MSE 471: Introduction to Ceramics	3				_	
# MSE 482: Materials Engineering Design (L)	3		ļ			
# Advanced Science Elective	3	\boxtimes				
TERM EIGHT: 106 120 CREDIT HOURS						
# MSE 490: Capstone Design Project (L)	3	\boxtimes			# Designates Major Course: A minimum cumulative	
# MSE Technical Elective	3				GPA of 2.0 required.	
# MSE Technical Elective	3				1	
# Advanced Science Elective	3		1		1	
UD Humanities, Fine Arts & Design (HU) OR Social & Behavioral	5		1		1	
Science (SB)	3	\boxtimes				



Graduation Requirements Summary:

Total Hours	Total Hrs at ASU	Hrs Resident Credit for Academic	Major GPA	Total UD Hrs	Total Comm. College
(120 minimum)	(30 minimum)	Recognition (56 minimum)	(2.00 Min.)	(45 minimum)	Hrs. (64 maximum)

General University Requirements: Legend

- General Studies Core Requirements:
 - Literacy and Critical Inquiry (L) 0
 - Mathematical Studies (MA) 0
 - Computer/Statistics/Quantitative applications (CS) Humanities, Fine Arts, and Design (HU) 0
 - 0
 - Social and Behavioral Sciences (SB) 0
 - Natural Science-Quantitative (SQ) 0
 - Natural Science-General (SG) 0
- General Studies Awareness Requirements
 - Cultural Diversity in the US (C) 0
 - Global Awareness (G) 0
 - Historical Awareness (H) 0
 - First Year Composition

Additional Notes:

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

			Completed ATH	P: Yes INO	Completed AGEC: Yes No	
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 ONE: 0 15 CREDIT HOURS	1115.	Division	course/Grade	Required	ridunonar ericar requirement rotes	
ASU 101: The ASU Experience	1				• Complete CHM 114 or 116 or 115 or MAE 100	
CHM 114: General Chemistry for Engineers (SQ) OR					with a minimum grade of "C"	
CHM 115: General Chemistry with Qualitative Analysis (SQ) OR					 Complete MAT 265 with a min grade of "C" An SAT, ACT, Accuplacer, or TOEFL score 	
CHM 116: General Chemistry II* (SQ)	4			Grade of C	An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition	
# MAE 100: Intro to Mechanical and Aerospace Engineering OR Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the	2 or			Grade of C in	courses	
US (C), Global Awareness (G), or Historical Awareness (H)	3			MAE 100	ASU Math Placement Exam score determines	
MAT 265: Calculus for Engineers I (MA)	3			Grade of C	Placement in Mathematics course *CHM 113 is a prerequisite and does not apply	
ENG 101 or 102: First-Year Composition OR	5			chude of c	towards degree credit	
ENG 105: Advanced First-Year Composition** OR				a 1 1a	**If ENG 105 a 3 hr applicable elective must also be	
ENG 107 or 108: English for Foreign Students	3			Grade of C	taken prior to graduation. See Advisor.	
Social & Behavioral Science (SB) AND Cultural Diversity in the US (C), Global Awareness (G), or Historical Awareness (H)	3				# Designates Major Course: A minimum cumulative GPA of 2.0 required.	
TERM TWO: 16 30 CREDIT HOURS	5				orrora.o reganoa.	
# MAE 100: Introduction to Mechanical and Aerospace					• Complete CHM 114 or 116 or 115; MAE 100;	
Engineering or, if completed take					MAT 266; PHY 121, 122 with a minimum	
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the US (C), Global Awareness (G), or Historical Awareness (H)	2 or			Grade of C in MAE 100	grade of "C # Designates Major Course: A minimum cumulative	
	3				GPA of 2.0 required.	
MAT 266: Calculus for Engineers II	3			Grade of C		
PHY 121/122: University Physics I/ Laboratory I (SQ) ENG 101 or 102: First-Year Composition OR	3/1			Grade of C	4	
ENG 101 or 102: First-Year Composition OK 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						
					• Complete ENG 102 or 108 or 105; MAE 212;	
# MAE 212: Engineering Mechanics	4			Grade of C	MAT 275; PHY 131, 132 with a minimum grade of "C"	
MAT 275: Modern Differential Equations	3			Grade of C	Complete First Year Composition requirement:	
PHY 131/132: University Physics II Electricity and Magnetism/		_			ENG 101 & 102 or ENG 107 & 108 or ENG 105	
Laboratory II	3/1			Grade of C	# Designates Major Course: A minimum cumulative GPA of 2.0 required.	
# MAE 214: Computer-Aided Engineering I	1					
with the 21 th Comparent rinded Engineering r	-				-	
MAT 267: Calculus for Engineers III	3			Grade of C		
TERM FOUR: 46 60 CREDIT HOURS		Ī		1		
# MAE 213: Solid Mechanics	3				Complete MAE 213, 240 # Designates Major Course: A minimum cumulative	
# MAE 240: Thermofluids I	4				GPA of 2.0 required.	
CHM 231: Elementary Organic Chemistry OR CHM 240: Intro to Physical Chemistry	3			Grade of C		
MAT 343: Applied Linear Algebra	3			Grade of C	-	
	3			Glade of C	-	
# MSE 250: Structure and Properties of Materials	3					
TERM FIVE: 61 75 CREDIT HOURS BME 111: Engineering Perspectives on Biological Systems (or dept					# Designates Major Course: A minimum cumulative	
approved BIO) OR					GPA of 2.0 required	
# MAE 340: Thermofluids II	3				-	
# EEE 202: Circuits I	4					
# MAE 322: Structural Mechanics	4	\square				
# MAE 323: Computer-Aided Engineering II	2	\boxtimes				
# MAE 384: Numerical Methods for Engineers (CS)	3	\boxtimes				
TERM SIX: 76 90 CREDIT HOURS						
BME 111: Engineering Perspectives on Biological Systems (or dept					# Designates Major Course: A minimum cumulative	
approved BIO) or, if completed take # MAE 340: Thermofluids II	3				GPA of 2.0 required	
# MAE 340. Thermonulus II # MAE 318: Sensors and Controls	5				1	
# MAE 310. Sensors and Controls # MAE 342: Principles of Mechanical Design	3				1	
# MAE 342: Principles of Mechanical Design # Technical Elective OR	3		1		-	
Social & Behavioral Science (SB) AND Cultural Diversity in the US						
(C), Global Awareness (G), or Historical Awareness (H)	3		<u> </u>			
TERM SEVEN: 91 105 CREDIT HOURS						
# MAE 488: Mechanical Engineering Design I	3				# Designates Major Course: A minimum cumulative GPA of 2.0 required	
Social & Behavioral Science (SB) AND Cultural Diversity in the US						
(C), Global Awareness (G), or Historical Awareness (H); or if completed take						
# Technical Elective	3					
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the	-	_				
US (C), Global Awareness (G), or Historical Awareness (H)				1		
	3				_	
# Technical Elective	3 3 3					



Major Map: Mechanical Engineering – Bachelor of Science in Engineering (B.S.E.)

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					
# MAE 400: Engineering Profession (L)	3	\boxtimes			# Designates Major Course: A minimum cumulative
# MAE 489: Mechanical Engineering Design II	3	\boxtimes			GPA of 2.0 required
# MAE 491: Experimental Mechanical Engineering (L)	3	\boxtimes			
# Technical Elective	3	\boxtimes			
UD Humanities, Fine Arts & Design (HU) OR Social & Behavioral					
Science (SB)	3	\boxtimes			

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)
 - 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:

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Major Map: Mechanical Engineering (Computational and Mathematical Mechanics) – Bachelor of Science in Engineering (B.S.E.) Ira A. Fulton School of Engineering, Tempe Campus Catalog Year: 2008-2009

			Completed AT	P: Yes I No	Completed AGEC: Yes No	
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 ONE: 0 15 CREDIT HOURS						
ASU 101: The ASU Experience	1				Complete CHM 114 or 116 or 115 or MAE 100 midt a minimum and a f "C"	
CHM 114: General Chemistry for Engineers (SQ) OR					 with a minimum grade of "C" Complete MAT 265 with a min grade of "C" 	
CHM 115: General Chemistry with Qualitative Analysis (SQ) OR CHM 116: General Chemistry II* (SQ)	4			Grade of C	 An SAT, ACT, Accuplacer, or TOEFL score determined placement into first user composition 	
# MAE 100: Introduction to Mechanical and Aerospace					determines placement into first-year composition courses	
Engineering OR	2 or			Grade of C in	ASU Math Placement Exam score determines	
PHI 103: Principles of Sound Reasoning (HU)	3			MAE 100	Placement in Mathematics course *CHM 113 is a prerequisite and does not apply	
MAT 265: Calculus for Engineers I (MA)	3			Grade of C	towards degree credit	
ENG 101 or 102: First-Year Composition OR ENG 105: Advanced First-Year Composition** OR					**If ENG 105 a 3 hr applicable elective must also be taken prior to graduation. See Advisor.	
ENG 107 or 108: English for Foreign Students	3			Grade of C	# Designates Major Course: A minimum cumulative GPA of 2.0 required.	
Social & Behavioral Science (SB) AND Cultural Diversity in the US (C), Global Awareness (G), or Historical Awareness (H)	3				GPA 01 2.0 required.	
TERM TWO: 16 30 CREDIT HOURS	5					
# MAE 100: Intro to Mechanical and Aerospace Engineering, or if					• Complete CHM 114 or 116 or 115; MAE 100;	
completed take PHI 103: Principles of Sound Reasoning (HU)	2 or 3			Grade of C in MAE 100	MAT 266; PHY 121, 122 with a minimum grade of "C"	
MAT 266: Calculus for Engineers II	3			Grade of C	# Designates Major Course: A minimum cumulative	
PHY 121/122: University Physics I/ Laboratory I (SQ)	3/1			Grade of C	GPA of 2.0 required.	
ENG 101 or 102: First-Year Composition OR ENG 105: Advanced 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						
# MAE 212: Engineering Mechanics	4			Grade of C	• Complete ENG 102 or 108 or 105; MAT 275; PHY 131, 132; MAE 212 with a minimum	
MAT 275: Modern Differential Equations	3			Grade of C	grade of "C"	
PHY 131/132: University Physics II Electricity and Magnetism/					Complete First Year Composition requirement: ENG 101 & 102 or ENG 107 & 108 or ENG 105	
Laboratory II (SQ)	3/1			Grade of C	# Designates Major Course: A minimum cumulative	
# MAE 214: Computer-Aided Engineering I	1				GPA of 2.0 required.	
MAT 267: Calculus for Engineers III	3			Grade of C		
TERM FOUR: 46 60 CREDIT HOURS			1 1			
# MAE 213: Solid Mechanics	3				Complete MAE 213, 240. # Designates Major Course: A minimum cumulative	
# MAE 240: Thermofluids I # CSE 100: Principles of Programming with C++ (CS) OR	4		1		GPA of 2.0 required.	
# CSE 110: Principles of Programming with Java (CS)	3				-	
MAT 343: Applied Linear Algebra	3			Grade of C	_	
# MSE 250: Structure and Properties of Materials TERM FIVE: 61 75 CREDIT HOURS	3					
BME 111: Engineering Perspectives on Biological Systems (or dept					# Designates Major Course: A minimum cumulative	
approved BIO) OR # MAE 340: Thermofluids II	3				GPA of 2.0 required	
# EEE 202: Circuits I	4				4	
# MAE 322: Structural Mechanics # MAE 323: Computer-Aided Engineering II	4				4	
# MAE 323. Computer-Added Engineering IT # MAE 384: Numerical Methods for Engineers (CS)	3				1	
TERM SIX: 76 90 CREDIT HOURS	-					
BME 111: Engineering Perspectives on Biological Systems (or dept	2				# Designates Major Course: A minimum cumulative	
approved BIO), or if completed take # MAE 340: Thermofluids II # MAE 318: Sensors and Controls	3				GPA of 2.0 required	
# MAE 342: Principles of Mechanical Design	3				1	
# Technical Elective OR					1	
Social & Behavioral Science (SB) AND Cultural Diversity in the US (C), Global Awareness (G), or Historical Awareness (H)	3					
TERM SEVEN: 91 105 CREDIT HOURS	_		·			
# MAE 400: Engineering Profession (L) OR	2				# Designates Major Course: A minimum cumulative GPA of 2.0 required	
# Technical Elective # MAE 488: Mechanical Engineering Design I	3					
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the						
US (C), Global Awareness, (G), or Historical Awareness (H) Social & Behavioral Science (SB) AND Cultural Diversity in the US	3					
(C), Global Awareness (G), or Historical Awareness (H): OR						
if completed take # Technical Elective	3				4	
Technical Elective	3					



Major Map: Mechanical Engineering (Computational and Mathematical Mechanics) -Bachelor of Science in Engineering (B.S.E.) Ira A. Fulton School of Engineering, Tempe Campus Catalog Year: 2008-2009

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					
# MAE 400: Engineering Profession, or if completed take # Technical Elective	3	\boxtimes			# Designates Major Course: A minimum cumulative GPA of 2.0 required
# MAE 489: Mechanical Engineering Design II	3	\boxtimes			
# MAE 491: Experimental Mechanical Engineering (L)	3	\boxtimes			
# Technical Elective	3				
UD Humanities, Fine Arts & Design (HU) OR Social & Behavioral Science (SB)	3	\boxtimes			

Graduation Requirements Summary:

Total Hours (120 minimum)	Total Hrs at ASU (30 minimum)	Hrs Resident Credit for Academic Recognition (56 minimum)	Major GPA (2.00 Min.)	Total UD Hrs (45 minimum)	Total Comm. College Hrs. (64 maximum)

General University Requirements: Legend ٠

- General Studies Core Requirements:
 - 0 Literacy and Critical Inquiry (L)
 - Mathematical Studies (MA) 0
 - Computer/Statistics/Quantitative applications (CS) 0
 - Humanities, Fine Arts, and Design (HU) Social and Behavioral Sciences (SB) 0
 - 0
 - Natural Science-Quantitative (SQ) 0
 - Natural Science-General (SG) 0
- General Studies Awareness Requirements Cultural Diversity in the US (C)
 - 0 Global Awareness (G)
 - 0 Historical Awareness (H) 0
- First Year Composition

Additional Notes:



Major Map: Mechanical Engineering (Energy and Environment) – Bachelor of Science in Engineering (B.S.E.) Ira A. Fulton School of Engineering, Tempe Campus Catalog Year: 2008-2009

Concerner and Malance and The concerner with Concerner and Malance Concerner Andintered Malance Concerner and Malance Concerner and				Completed AT	P: Yes No	Completed AGEC: Yes No
ILMN ON-LO IS CHAPTIONS - - Complete CIM Har of Low 15.5 or MAT: 100 CIM UN: The Assist Dependent - - Complete CIM Har of Low 15.5 or MAT: 100 CIM UN: The Assist Dependent - - Complete CIM Har of Low 15.5 or MAT: 100 CIM UN: The Assist Dependent - - Complete CIM Har of C				Transfer	Minimum Grade if	
ANU D1: Da ANE Lapaceace 1 - - - Complete Control on the Control		Hrs.	Division	Course/Grade	Required	Additional Critical Requirement Notes
CHM 116 General Chemistry of Qualitative Austrysis (SQ) OR CHM 116 General Chemistry N Qualitative Austrysis (SQ) OR CHM 116 General Chemistry N Qualitative Austrysis (SQ) OR Hamanian, Fine Att & Design (H) AND Calmad Deversity inte CG (Gibbl Averages) (G) of Halor Averages Hamanian, Fine Att & Design (H) AND Calmad Deversity inte CG (Gibbl Averages) (G) of Halor Averages Hamanian, Fine Att & Design (H) AND Calmad Deversity inte CG (Gibbl Averages) (G) of Halor Averages Hamanian, Fine Att & Design (H) AND Calmad Deversity inte CG (Gibbl Averages) (G) of Halor Averages (H) HAV 265 Calculus for Engineers (G) HAV 265 Calculus for Engineers (G) HAV 265 Calculus for Engineers (G) of Halor Averages (H) CG (Gibbl Averages) (G) of Halor Averages (H) CG (Gibbl Averages) (G) of Halor Averages (H) CG (Gibbl Averages) (G) of Halor Alexanges (H) HAV 265 Calculus for Engineers (1				• Complete CHM 114 or 116 or 115 or MAE 100
CBM 115 General (Chemistry 14%) - <		1				with a minimum grade of "C"
# MAL 109: Introduction to Mechanical and Acrospace Engineering 100 2 Context of the Mark Strength of the Mark Strengt of the Mark Strength of the Mark Strength of the Mark Strength o	CHM 115: General Chemistry with Qualitative Analysis (SQ) OR		_			
Laguerring OR Course Course Add Hold USICE, Gold Avaretes, GU, et Hoteled Avaretes H 3 Could of C Add Mold Scencer Edua noor determines VI 265 Chald Avaretes, GU, et Hoteled Avaretes H 3 Could of C Add Mold Scencer Edua noor determines VI 265 Chald Avaretes, GU, et Hoteled Avaretes H 3 Could of C Ward Add Scencer Edua noor determines VI 265 Chald Avaretes, GU, et Hoteled Avaretes H 3 Could of C Ward Add Scencer Edua noor determines VI 265 Chald Avaretes, GU, et Hoteled Avaretes, H 3 Could of C Ward Add Scencer Edua noor determines Scelar, Helvisonia Scener, SD, MAD Chalma Diversity in the US Could of C Ward Add Scencer C Ward Add Scencer C Hamania, Fine Arts, Desga (III) AND Chalma Diversity in the US Could of C MAI 100 WAT 266 Chald Avaretes (I) MAI 200 VI 2172 Chald Avaretes, GU, et Hoteled Avaretes (I) 3 Conde of C MAI 200 MAI		4			Grade of C	
US (C), Global Avareness, (G) er Historical Avareness (H) = And A set (H) = A						
Chart 2000 Catabatise for Explosive 1 Completion (N) Completion (N) Control (N) No (N) No (N) No (N) EXG 100 C Control (N) Control (N) EXG 100 C Control (N) Control (N) EXG 100 C Control (N) Control (N) Scall & Elevioral Science (N) AND Calural Diversity in the US Control (N) Control (N) Control (N) No (Control (N)) Control (N) Control (N) Control (N) No (Control (N)) Control (N) Control (N) Control (N) No (Control (N)) Control (N) Control (N) Control (N) No (Control (N)) Control (N) Control (N) Control (N) No (Control (N)) Control (N) Control (N) Control (N) No (Control (N)) Control (N) Control (N) Control (N) No (Control (N)) Control (N) Control (N) Control (N) No (Control (N)) Control (N) Control (N) Control (N) Control (N) Control (N) Control (N) <td></td> <td></td> <td>_</td> <td></td> <td></td> <td></td>			_			
MAX Decrement Construction 3		-				F
EXG 19: Advanced Firsk-Year Composition** 0.0		3			Grade of C	towards degree credit
AM. 200 rules Lingsha for Green Structural Diversity in the US 3						**If ENG 105 a 3 hr applicable elective must also be
Social & Gentrofond Science (Sig) Artibuting United US 3 C (Abel Avaeness (C) or Historical Numeress (3			Grade of C	# Designates Major Course: A minimum cumulative
ITRN 11W0:16.50 (REDIT 1001KS PARE 109:11000 Stechnic and Acrospace Engineering, or if complete fails Manalius, Fine Arts & Design (III) AND Cultural Diversity in the 3 a Branchist, Fine Arts & Design (III) AND Cultural Diversity in the 3 a Branchist, Fine Arts & Design (III) AND Cultural Diversity in the 3 a Branchist, Fine Arts & Design (III) AND Cultural Diversity in the 3 a Branchist, MAE 100 C Grade of C Fine Arts & Design (III) AND Cultural Diversity in the 3 a Branchist, MAE 100 C Grade of C Fine Arts & Design (III) AND Cultural Diversity in the 3 a Branchist, MAE 100 C Grade of C Fine Arts & Design (III) AND Cultural Diversity in the 3 a Branchist, MAE 100 C Grade of C Fine Arts & Design (III) AND Cultural Diversity in the 2 or gamed. Grade of C Fine Arts & Design (III) AND Cultural Diversity of the Arts and Arts Arts and Arts and Arts and Arts and Arts Arts and Arts and Arts A		3				
# MAE 100: Lutre to Mechanical and Aerrospace Engineering, or if complete CMI 114 or 115 or 115; MAE 100, grade of "C" Complete CMI 114 or 115; MAE 100, grade of "C" Biological Sciences (Log or Historical Awarenees (Log Or Histori		5		Į.		
Humanics, Fine Arts & Design (HU) AND Calural Diversity in the USC), Global Averages, (f), of Historial Averages (f) 3 MAT 266 of C MAT 266 Calculas for Engineers II 3 Grade of C Weak and the provide of the provide						• Complete CHM 114 or 116 or 115; MAE 100;
US (C), Clobal Avareness, (G), or Historical Awareness (I) AT 266: Cacketor for Engineers II FINY 1212: University Physical/ Laboratory L(SO) FINY 1217:	•					
MAT 266: Calculas for Engineers II 3						
PIY 121/12: University Physics/L Jaboratory L(SQ) 3/1 Grade of C PIX 101 or 102: First-Yar Composition OR Grade of C EXG 109 or 102: First-Yar Composition OR Grade of C PIX 121/12: University Physics II Lectricity and Magnetian 3 Grade of C PIX 121/12: University Physics II Lectricity and Magnetian 3 Grade of C PIX 121/12: University Physics II Lectricity and Magnetian 3/1 Grade of C PIX 121/12: University Physics II Lectricity and Magnetian 3/1 Grade of C PIX 121/12: University Physics II Lectricity and Magnetian 3/1 Grade of C PIX 121/12: University Physics II Lectricity and Magnetian 3/1 Grade of C PIX 121/12: University Physics II Lectricity and Magnetian 3/1 Grade of C PIX 121/12: University Physics II Lectricity 2/2 3 Grade of C PIX 121/12: University Physics II Lectricity 2/2 3 Grade of C PIX 121/12: University Physics II Lectricity 2/2 3 Grade of C PIX 121/12: University Physics II Lectricity 2/2 3 Grade of C PIX 121/12: University Physics II Lectricity 2/2 3 Grade of C PIX 121/12: University Physics II Lectricity 2/2 3 Grade of C<				1		
ENC 10 or 102: First-Care Composition * OR	8			1		1 1
ENG. 107 or 108: English for Foreign Students 3 Grade of C #IMAE 212: Engineering Mechanics 4 Grade of C #MAE 213: Engineering Mechanics 4 Grade of C #MAE 213: Engineering Mechanics 4 Grade of C #MAE 214: Computer -Aided Engineering 31 Grade of C #MAE 217: Calculas for Engineering 31 Grade of C #MAE 217: Calculas for Engineering 1 Grade of C #MAE 216: Computer -Aided Engineering I 1 Grade of C #MAE 216: Computer -Aided Engineering I 3 Grade of C #MAE 216: Computer -Aided Engineering I 3 Grade of C #MAE 216: Computer -Aided Engineering I 3 Grade of C #MAE 216: Computer -Aided Engineering I 3 Grade of C #MAE 216: Computer -Aided Engineering I 3 Grade of C #MAE 216: Computer -Aided Engineering I 3 Grade of C #MAE 216: Computer -Aided Engineering I 3 Grade of C #MAE 217: Calculas for Engineering I 3 Grade of C #MAE 218: Solid Mechanics 3 Grade of C #MAE 22: Computer -Aided Engineering II 3 <t< td=""><td></td><td>5/1</td><td></td><td></td><td></td><td>1</td></t<>		5/1				1
TERM TURKE 31 45 CREDIT TOURS Grade of C Grade of C PIV 131, 132: University Physics II Electricity and Magnetism/ Grade of C Grade of C Grade of C Complete ENG 102 or 108 or 108 or 105 : MAT 275; MAT 275: Moder Differential Lequitons (MA) Grade of C Complete First Year Composition requirement: ENG 102 or 108 or 108 or 105 : MAT 275; Grade of C Complete First Year Composition requirement: ENG 102 or 108 or						
#MAE 212: Engineering Mechanics 4		3			Grade of C	
All 225: Modern Differential Equations (MA) 3 Conde of C PHV 131/32: University Physics II Electricity and Magnetism/ Education (YO 74: 108 or EER) Grade of C • Complete First Year Composition requirement: ESG 100 74: 108 or EER) # MAZ 257: Modern Differential Equations (MA) 3 Grade of C • Complete First Year Composition requirement: ESG 100 74: 108 or EER) # MAZ 267: Calculus for Engineering 1 1 Grade of C • Designates Major Course: A minimum cumulative GPA of 2.0 required. # MAZ 267: Calculus for Engineering 1 1 Grade of C • Complete MAE 213: 240. # MAZ 261: Calculus for Engineering 1 3 Grade of C • Complete MAE 213: 240. # MAE 241: Hermofluids 1 4 • • Complete MAE 213: 240. # MAZ 343: cappled Linear Algebra 3 Grade of C # MA 243: Thermofluids 11 3 Grade of C # MAE 343: Cappled Linear Algebra 3 Ø # MAE 342: Thermofluids 11 3 Ø # MAE 343: Cappled Linear Algebra 3 Ø # MAE 342: Directrial Mechanics 4 Ø # MAE 342: Directrial Mechanics 3 Ø # MAE 342: Directrial Mechanics 10 3 Ø		4			Cards of C	• Complete FNG 102 or 108 or 105 · MAT 275:
PIIV 13/132: University Physics II Electricity and Magnetism/ 3/1 Grade of C Complete First Year Composition requirement: ENG 101 & 102 or ENG 107 & 108 or ENG 107 # MAE 214: Computer-Aided Engineering I 1 Grade of C Complete First Year Composition requirement: ENG 101 & 102 or ENG 107 & 108 or ENG 107 # MAE 214: Computer-Aided Engineering I 1 Grade of C Complete MAE 101 or ENG 107 # MAE 213: Solid Mechanics 3 Grade of C Grade of C # MAE 224: Thermofluids I 4 # MAE 240: Thermofluids I 4 # MAE 240: Thermofluids I 4 # MAE 240: Thermofluids I 3 Grade of C #/ Designates Major Course: A minimum cumulative GPA of 2.0 required. # MAE 240: Thermofluids II 4 # MAE 240: Thermofluids II 3 # MAE 240: Thermofluids II 3 # MAE 232: Structural Mechanics 4 # MAE 232: Structural Mechanics 4 # MAE 232: Structural Mechanics II 4 # MAE 232: Computer-Aided Engineering II 2 # MAE 232: Structural Mechanical Mechanics 4 # MAE 340: T						
Laboratory (SQ) 3/1 Grade of C For dipide insist ear Composition requirement. # MAE 214: Computer-Aided Engering I 1 Grade of C FOR 10 & 10 & 20 are PROF 10X 108 or 10X		3			Grade of C	8
# MAE 214: Computer-Aided Engineering 1 1		3/1			Grade of C	
TERM FOUR: 46 60 CREDIT HOURS • Complete MAE 213: Solid Mechanics • Complete MAE 213: Solid Mechanics # MAE 20: Thermofluids I 4 - # Designates Major Course: A minimum cumulative GPA of 2.0 required. CHM 231: Elementary Organic Chemistry 3 - Grade of C MAT 343: Applied Linear Algebra 3 - Grade of C # MSE 250: Structure and Properties of Materials 3 - Free Mark 200: Thermofluids I # MSE 250: Structure and Properties of Materials 3 - # Designates Major Course: A minimum cumulative GPA of 2.0 required. FIEM FIVEs of 75 CREDIT HOURS # - - # Designates Major Course: A minimum cumulative GPA of 2.0 required. # MAE 340: Thermofluids II 3 - - - - # MAE 321: Structural Mechanics 4 - - - - # MAE 334: Numerical Methods for Engineering II 2 - - - - - BIO 319 Environmental Science (G) or BIO 320: Fundamentals of Ecology; OK i completed take - - - - - - - - - - - - - - - -	# MAE 214: Computer-Aided Engineering I	1				
# MAE 213: Solid Mechanics 3	MAT 267: Calculus for Engineers III	3			Grade of C	GPA of 2.0 required.
# MAE 240: Thermofluids 1 4	TERM FOUR: 46 60 CREDIT HOURS		,			
# MA 240: International Internatinterine International InternationalI	# MAE 213: Solid Mechanics	3				
CHM 231: Elementary Organic Chemistry 3 Grade of C MAT 343: Applied Linear Algebra 3 Grade of C MAT 343: Applied Linear Algebra 3 Grade of C # MSE 250: Structure and Properties of Materials 3 Grade of C BIO 319 Environmental Science (G) or BIO 320: Fundamentals of Ecology: OR # Designates Major Course: A minimum cumulative GPA of 2.0 required. # MAE 340: Thermofluids II 3 G GPA of 2.0 required. # MAE 323: Computer-Aided Engineering II 2 G GPA of 2.0 required. # MAE 332: Computer-Aided Engineering II 2 G GPA of 2.0 required. # MAE 340: Thermofluids II 3 G GPA of 2.0 required. # MAE 340: Thermofluids II 3 G GPA of 2.0 required. # MAE 340: Thermofluids II 3 G GPA of 2.0 required. # MAE 340: Thermofluids II 3 G GPA of 2.0 required. # MAE 340: Thermofluids II 3 G GPA of 2.0 required. # MAE 340: Thermofluids II 3 G GPA of 2.0 required. # MAE 340: Thermofluids II 3 G GPA of 2.0 required. # MAE 340: Thermofluids II	# MAE 240: Thermofluids I	4				
# MSE 250: Structure and Properties of Materials 3	CHM 231: Elementary Organic Chemistry	3			Grade of C	
TERM FIVE: 61 75 CREDIT HOURS # Designates Major Course: A minimum cumulative GPA of 2.0 required. BIO 319 Environmental Science (G) or BIO 320: Fundamentals of Ecology; OR if Computer-Aided Engineering II 3 Image: Construction of the c					Grade of C	-
BIO 319 Environmental Science (G) or BIO 320: Fundamentals of Ecology; OR # # # # GPA of 2.0 required. GPA of 2		3				
Ecology: OR 3 G GPA of 2.0 required. # MAE 340: Thermofluids II 3 G GPA of 2.0 required. # MAE 322: Structural Mechanics 4 G G # MAE 323: Computer-Aided Engineering II 2 G G # MAE 323: Computer-Aided Engineering II 2 G G # MAE 323: Computer-Aided Engineering II 2 G G # MAE 323: Computer-Aided Engineering II 2 G G # MAE 323: Computer-Aided Engineering II 2 G G # MAE 323: Computer Aided Engineering II 3 G G # MAE 340: Thermofluids II 3 G G GPA of 2.0 required. # MAE 318: Sensors and Controls 5 S G GPA of 2.0 required. # MAE 342: Principles of Mechanical Design 3 S G GPA of 2.0 required. # MAE 340: Cuter Multis II 3 S G GPA of 2.0 required. GPA of 2.0 required. # MAE 340: Cherofluids II 3 S G G GPA of 2.0 required. GPA of 2.0 required. # MAE 340: Cherofluids II 3 <td></td> <td>1</td> <td>1</td> <td></td> <td></td> <td># Designates Major Courses A minimum sumulative</td>		1	1			# Designates Major Courses A minimum sumulative
# MAE 340: Thermofluids II 3						
# MAE 322: Structural Mechanics 4 ⊠		3				·
# MAE 323: Computer-Aided Engineering II 2 X Image: Computer Aided Engineering II 2 X # MAE 384: Numerical Methods for Engineers (CS) 3 X Image: Computer Aided Engineers (CS) 3 X BIO 319 Environmental Science (G) or BIO 320: Fundamentals of Ecology; (G) if completed take # # BiO 319 Environmental Science (G) or BIO 320: Fundamentals of Ecology; (G) if completed take # # BiO 319 Environmental Science (G) or BIO 320: Fundamentals of Ecology; (G) if completed take # # BiO 319 Environmental Science (G) or BIO 320: Fundamentals of Ecology; (G) if completed take # # BiO 319 Environmental Science (G) or BIO 320: Fundamentals of Ecology; (G) if completed take # # Designates Major Course: A minimum cumulative GPA of 2.0 required. # # MAE 340: Thermofluids II 3 X Image: Course (G) or PUP 190: Sustainable Cities (HU, G) or SB, G); OR Image: Course (G) or PUP 190: Sustainable Cities (HU, G) or SB, G); OR Image: Course (G) or PUP 190: Course: A minimum cumulative GPA of 2.0 required. # # MAE 491: Experimental Mechanical Engineering (L) OR Image: Course (G) or PUP 190: Sustainable Cities (HU, G or SB, G); OR if completed take Image: Course (G) or PUP 190: Sustainable Cities (HU, G) or Image: Course (G) or PUP 190: Sustainable Cities (HU, G) or Image: Course (G) A finter Course (G) A finter Course (G) A finter Course (G) A finter Co	# EEE 202: Circuits I					4
# MAE 384: Numerical Methods for Engineers (CS) 3 X TERM SIX: 76 90 CREDIT HOURS # Designates Major Course: A minimum cumulative GPA of 2.0 required. # MAE 340: Thermofluids II 3 X # MAE 340: Thermofluids II 3 X # MAE 342: Principles of Mechanical Design 3 X GCU 364: Energy in the Global Arena (SB, G) or PUP 190: Sustainable Cites (HU, G or SB, G); OR # Designates Major Course: A minimum cumulative GPA of 2.0 required. # MAE 382: Thermodynamics 3 X Busing a standard course in the Global Arena (SB, G) or PUP 190: Sustainable Cites (HU, G or SB, G); OR # Designates Major Course: A minimum cumulative GPA of 2.0 required. # MAE 491: Experimental Mechanical Engineering (L) OR 3 X # Designates Major Course: A minimum cumulative GPA of 2.0 required. # MAE 491: Experimental Mechanical Engineering (L) OR 3 X # Designates Major Course: A minimum cumulative GPA of 2.0 required. # Technical Elective 3 X GPA of 2.0 required. # Designates Major Course: A minimum cumulative GPA of 2.0 required. # Technical Elective 3 X GPA of 2.0 required. GPA of 2.0 required. # Technical Elective 3 X GPA of 2.0 required. GPA of 2.0 required. <	# MAE 322: Structural Mechanics	1				4
TERM SIX: 76 90 CREDIT HOURS BIO 319 Environmental Science (G) or BIO 320: Fundamentals of Ecology; OR if completed take # Designates Major Course: A minimum cumulative GPA of 2.0 required. # MAE 340: Thermofluids II 3 X # MAE 342: Principles of Mechanical Design 3 X GCU 364: Energy in the Global Arena (SB, G) or PUP 190: Sustainable Cities (HU, G or SB,G); OR 3 X # MAE 32: Thermodynamics 3 X # Designates Major Course: A minimum cumulative GPA of 2.0 required. # MAE 382: Thermodynamics 3 X Image: Course of the course	# MAE 323: Computer-Aided Engineering II	~				4
BIO 319 Environmental Science (G) or BIO 320: Fundamentals of # # # # # # Designates Major Course: A minimum cumulative GPA of 2.0 required. # GPA of 2.0 required. # # Designates Major Course: A minimum cumulative GPA of 2.0 required. # # Designates Major Course: A minimum cumulative GPA of 2.0 required. # Designates Major Course: A minimum cumulative GPA of 2.0 required. # Designates Major Course: A minimum cumulative GPA of 2.0 required. # Designates Major Course: A minimum cumulative GPA of 2.0 required. # Designates Major Course: A minimum cumulative GPA of 2.0 required. # Designates Major Course: A minimum cumulative GPA of 2.0 required. # Designates Major Course: A minimum cumulative GPA of 2.0 required. # Designates Major Course: A minimum cumulative GPA of 2.0 required. # Designates Major Course: A minimum cumulative GPA of 2.0 required. # Designates Major Course: A minimum cumulative GPA of 2.0 required. # Designates Major Course: A minimum cumulative GPA of 2.0 required. # Designates Major Course: A minimum cumulative GPA of 2.0 required. # Designates Major Course: A minimum cumulative GPA of 2.0 required. # Designates Major Course: A minimum cumulative GPA of 2.0 required. # Designates Major Course: A minimum cumulative GPA of 2.0 required. # Designates Major Course: A minimum cumulative GPA of 2.0 required		3				
Ecology; OR if completed take GPA of 2.0 required. # MAE 340: Thermofluids II 3 Image: Control of the second						# Designates Major Courses A minimum 1
# MAE 340: Thermofluids II 3 ⊠						
# MAE 342: Principles of Mechanical Design 3<		3				
GCU 364: Energy in the Global Arena (SB, G) or PUP 190: 3	# MAE 318: Sensors and Controls	5				
Sustainable Cities (HU, G or SB,G); OR 3		3				
#Technical Elective 3 3 1 Image: Constraint of the constraint of						
TERM SEVEN: 91 105 CREDIT HOURS # # MAE 382: Thermodynamics 3 Image: Constraint of the second s		3				
# MAE 382: Thermodynamics 3 X # Designates Major Course: A minimum cumulative GPA of 2.0 required. # MAE 400: Engineering Profession (L) OR 3 X GPA of 2.0 required. # Technical Elective 3 X GPA of 2.0 required. # Technical Elective 3 X GPA of 2.0 required. GCU 364: Energy in the Global Arena (SB,G) or PUP 190: Sustainable Cities (HU, G or SB,G); OR if completed take 3 X GPH 314: Global Change (HU,G) or 3 X GPA of 2.0 required.				·	·	
# MAE 400: Engineering Profession (L) OR 3 Image: Constraint of the second sec		3				
# MAE 491: Experimental Mechanical Engineering (L) OR 3 Image: Constraint of the second seco						GPA of 2.0 required.
# Technical Elective 3 ☑ GCU 364: Energy in the Global Arena (SB,G) or PUP 190: Sustainable Cities (HU, G or SB,G); OR if completed take 3 ☑ # Technical Elective 3 ☑		3				4
GCU 364: Energy in the Global Arena (SB,G) or PUP 190: Sustainable Image: Cities (HU, G or SB,G); OR if completed take # Technical Elective 3 GPH 314: Global Change (HU,G) or Image: Cities (HU,G) or (HU		3				
# Technical Elective 3 Image: Second	GCU 364: Energy in the Global Arena (SB,G) or PUP 190: Sustainable	-		1	1	1
GPH 314: Global Change (HU,G) or		2				
		3				4
		3				



Major Map: Mechanical Engineering (Energy and Environment) -Bachelor of Science in Engineering (B.S.E.) Ira A. Fulton School of Engineering, Tempe Campus Catalog Year: 2008-2009

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					
# MAE 400: Engineering Profession (L) if completed take # Technical Elective	3	\boxtimes			# Designates Major Course: A minimum cumulative GPA of 2.0 required.
# MAE 446: Energy Systems Design	3	\boxtimes			
# MAE 491: Experimental Mechanical Engineering (L) if completed take #Technical Elective	3	\boxtimes			
# Technical Elective	3	\boxtimes			
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 ٠

- General Studies Core Requirements:
 - Literacy and Critical Inquiry (L) 0
 - Mathematical Studies (MA) 0
 - Computer/Statistics/Quantitative applications (CS) 0
 - Humanities, Fine Arts, and Design (HU) 0
 - Social and Behavioral Sciences (SB) 0
 - Natural Science-Quantitative (SQ) 0
 - Natural Science-General (SG) 0
- General Studies Awareness Requirements
 - Cultural Diversity in the US (C) 0
 - Global Awareness (G) 0 Historical Awareness (H) 0
 - First Year Composition

Additional Notes:



Major Map : Journalism & Mass Communication – Bachelor of Arts (B.A.)

Walter Cronkite School of Journalism, Tempe Campus Catalog Year: 2008-2009

			Completed AT	P: Yes I No	Completed AGEC: Yes No
Course Subject and Title (courses in bold/shading are critical)	Hrs.	Upper Division	Transfer Course/Grade	Minimum Grade if Required	Additional Critical Tracking Notes
TERM ONE: 0 15 CREDIT HOURS	1113.	17131011	Course Ofduc	mquintu	Augustoniai Cratoar Fidoking 10065
ASU 101: The ASU Experience	1			Grade of C	ASU 101 is for ASU freshman students only. Not
ENG 101 and 102: First-Year Composition OR				Grade of C	required of transfer students
ENG 107 and 108: English for Foreign Students OR	3				 An SAT, ACT, Accuplacer, or TOEFL score
ENG 105: Advanced First-Year Composition					determines placement into first-year composition
MAT 142: College Mathematics (MA) or higher	3				 ASU Math Placement Exam score determines
Second Language JMC 194: Grammar for Journalists	4			Grade of C	placement in Mathematics course
JMC 194: Grammar for Journalists JMC 110: Principles and History of Journalism (SB)	1			Grade of Y Grade of C	 Minimum 2.50 ASU cumulative GPA
(includes English Grammar Exam)	3			Glade of C	
TERM TWO: 16 30 CREDIT HOURS					
ENG 101 and 102: First-Year Composition OR				Grade of C	 Minimum 2.50 ASU cumulative GPA
ENG 107 and 108: English for Foreign Students OR	3				
ENG 105: Advanced First-Year Composition		_			
Statistics (CS)	3				
Second Language	4			Grade of C	
JMC 201: News Reporting and Writing (L) HST 109: United States to 1865 (HU/SB, H) OR				Glade of C	
HST 1109. United States since 1865 (SB, H)	3				
TERM THREE: 31 45 CREDIT HOURS	·			·	
JMC 301: Intermediate Reporting & Writing (Print/PR/Digital) OR	3	\boxtimes		Grade of C	Minimum 2.50 ASU cumulative GPA
JMS 315: Intermediate Reporting & Writing (Broadcast/Digital)					
HST Elective	3				
Natural Science – Quantitative (SQ)	4				
Second Language	3				
SOC 101: Intro to Sociology (SB) TERM FOUR: 46 60 CREDIT HOURS	3				
JMC 313: Introduction to Editing (Print/PR/Digital) OR		\boxtimes		Grade of C	Minimum 2.50 ASU cumulative GPA
JMC 345: Videography (Broadcast/Digital)	3			Glade of C	· Winimum 2.50 ASO cumulative OFA
JMC 366: Journalism Ethics and Diversity	3	\boxtimes		Grade of C	
Natural Science (SQ or SG)	4				
Second Language	3				
English Literature (HU)	3				
TERM FIVE: 61 75 CREDIT HOURS	-				
JMC 425: Online Media	3			Grade of C	Minimum 2.50 ASU cumulative GPA
Track class *** JMC 484: Internship	3			Grade of C Grade of C	
PHI 101: Introduction to Philosophy (HU) OR	3			Glade of C	
PHI 103: Principles of Sound Reasoning (L or HU) OR					
PHI 105: Intro to Ethics (HU) OR	2				
PHI 305: Ethical Theory (HU) OR	3				
PHI 306: Applied Ethics (HU) OR					
PHI 309: Social and Political Philosophy (HU)	3				
PGS 101: Intro to Psychology (SB) Area of Specialization	3			Grade of C	
TERM SIX: 76 90 CREDIT HOURS	3			Glade of C	
JMC 402: Mass Communication Law (L)	3	\boxtimes		Grade of C	 Minimum 2.50 ASU cumulative GPA
POS 110: Government and Politics (SB) OR	3				
POS 310: American Government (SB)					
ECN 211: Macroeconomic Principles (SB) OR	3				
ECN 212: Microeconomic Principles (SB)					
Track class ***	3			Grade of C	
Area of Specialization	3		L	Grade of C	
TERM SEVEN: 91 105 CREDIT HOURS					
Track class ***	3			Grade of C	Minimum 2.50 ASU cumulative GPA
Area of Specialization	3			Grade of C	
Awareness Area – Global (G) or Free Elective	3				
JMC/MCO Elective	3			Grade of C	
	5				
TERM EIGHT: 106 120 CREDIT HOURS				Crada of C	Minimum 2.50 ASIL and CDA
Track class *** or Upper Division Major elective	3			Grade of C	Minimum 2.50 ASU cumulative GPA
	3			Grade of C Grade of C	Minimum 2.50 ASU cumulative GPA
Track class *** or Upper Division Major elective		1		-	Minimum 2.50 ASU cumulative GPA

***Track Classes: Broadcast JMC 330 AND JMC 475 (3-9 hours) OR JMC 437 and Broadcast Elective OR JMC 494: CNS Broadcast (3-9 hours)

Print Journalism JMC 420 or 440 or 470 AND Cronkite News Service (3-9 hrs) OR 2 Paired journalism/online electives (Chosen in cooperation with adviser) **Public Relations** JMC 310 AND JMC 415 AND JMC 417

Digital Journalism

JMC 494: Digital Media II AND JMC 494: Digital Media Entrepreneurship AND JMC 494: Multimedia Reporting OR Knight Center Independent Study OR New Media Innovation Lab



Graduation Requirements Summary:

Total Hours	Total Hrs at ASU	Hrs Resident Credit for Academic	Major GPA	Total UD Hrs	Total Comm. College
(120 minimum)	(30 minimum)	Recognition (56 minimum)	(2.50 Min.)	(45 minimum)	Hrs. (64 maximum)

General University Requirements: Legend ٠

- General Studies Core Requirements:
 - Literacy and Critical Inquiry (L) 0
 - Mathematical Studies (MA) 0
 - Computer/Statistics/Quantitative applications (CS) 0
 - Humanities, Fine Arts, and Design (HU) Social and Behavioral Sciences (SB) 0
 - 0
 - Natural Science-Quantitative (SQ) 0
 - Natural Science-General (SG) 0
- General Studies Awareness Requirements
 - Cultural Diversity in the US (C) 0
 - Global Awareness (G) 0
 - Historical Awareness (H) 0
- First-Year Composition

Additional Notes:

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Students other than first time freshmen may take the English Grammar Exam one time to attempt to test out of JMC 194 Grammar for Journalists Majors must maintain at least a 2.5 ASU cumulative GPA and a 2.5 JMC cumulative GPA to take JMC courses beyond JMC 201 Students must complete at least 12 hours of upper division coursework outside the major

Students must complete a minimum of 56 hours of ASU coursework to qualify for ASU honors at graduation



ARIZONA STATE UNIVERSITY

I. First Year Composition (3-6 hours) ¹	Total Hours	UD Hours	Res Hours	Grade
ENG 101:First Year Comp 1 (3) and				
ENG 102:First Year Comp 2 (3) or, if eligible				
ENG 105: Advance First Year Comp (3)				

II. University General Studies (29-38 hours)

Humanities/Fine Arts & Social/Behavioral Sciences (15 hours) Required: 15 hours combined; 6 hours in one area, 9 hrs in the other AND one course must be upper division.

Literacy and Critical Inquiry (6 hours)						
Satisfied by major						
Sa	atisfied	by maj	or			
(6 hou	rs)					
all 3 are	eas)					
all 3 are s, other o s.	'	that fulf	ill			
s, other o	'	that fulf	ill			
s, other o	'	that fulf				
s, other o	'	that fulf				
s, other o	'	that fulf				
	Sa		Satisfied by maj			

					ASU Resident Hours for Academic Recognition
120	45	30	64	2.00	56

For more information about the BIS please go to: http://sls.asu.edu/bis/

 This check sheet is for reference only; please consult your ASU DARS report for official information about your requirements.

 $^{\rm 1}\,{\rm Grades}$ of "C" or better are required for all courses within these categories.

² There is no specific elective or minor requirement for the BIS degree. Students needing more than 15 hours of electives to meet the 120 hour requirement are encouraged to pursue a minor in addition to their BIS concentration. Students are encouraged to use these electives to fulfill prerequisite course requirements or gain knowledge and skills in preparation for required upper-division required courses.

Bachelor of Interdisciplinary Studies

Catalog: 2004-2005, 2005-2006, 2006-2007, 2007-2008

III. BIS Core (12 hours) ¹	Total Hours	UD Hours	Res Hours	Grade
BIS 301: Foundations of Interdis. Studies (L)	3	3	3	
BIS 302: Interdisciplinary Inquiry	3	3	3	
BIS 401: Applied Interdisciplinary Studies	3	3	3	
BIS 402: Senior Seminar (L)	3	3	3	

IV. Concentration I (18-30 hours)¹

V. Concentration II (18-30 hours)¹

VI. Electives (6-40 or more hours) ²



I. First Year Composition (3-6 hours) ¹	ASU Hours	Trans Hours	Grade	Upp Div
ENG 101:First Year Comp 1 (3) and				
ENG 102: First Year Comp 2 (3) or, if eligible				
ENG 105: Advance First Year Comp (3)				
Sub Total (I): 3-6				

Sub Lotal (I): 3-6

II. University General Studies (35-37 hours)

Humanities/Fine Arts & Social/Behavioral Sciences hours combined; 6 hours in one area, 9 hrs in the other AND division.						
HU:						
HU:						
SB:						
SB:						
HU or SB:						
Natural Sciences (8 hours)						
SQ:						
SG:						
Literacy and Critical Inquiry (6 hours)						
L: BIS 301: Foundations of Interdis. Studies	Sa	atisfied	by maj	or		
L: BIS 402: Senior Seminar	Sa	atisfied	by maj	or		
Mathematics & Statistics/Computer Applications	(6 hou	rs)				
MA:						
CS:						
Awareness Areas (2 courses minimum and must fulfill all 3 areas) Double counting is permissible between Awareness Areas, other courses that fulfill graduation requirements, and within the Awareness Areas.						
Global Awareness (G):						
Historical Awareness (H):						
Cultural Diversity (C):						

Sub Total (II): 35-37

Total Hours Required	Upper Division Hours Required	Resident Hours Required	Minimum GPA required	Hours Required for ASU Academic Recognition
120	45	30	2.0	56
Max Transfer Hours Allowed	Max. 2-yr Transfer Hours allowed with AGEC completion	AGEC Completed?	AA Completed?	
90	75	Y or N	Y or N	

- For more information about the BIS degree in Organizational Studies, please go to: <u>http://uc.asu.edu/sis</u>
- Course pre-requisites are available online at: <u>http://www.asu.edu/catalogs</u>
- This check sheet is for reference only; please consult your DARS report for official information about your requirements.

Bachelor of Interdisciplinary Studies (BIS) Organizational Studies Concentration 2008-2009

2000-2003	1	1	1	1
III. BIS Core (15 hours) ¹	ASU Hours	Trans Hours	Grade	Upp Div
BIS 300 (BIS 394): Introduction to Org. Studies	3			Х
BIS 301: Foundations of Interdis. Studies (L)	3			Х
BIS 302: Interdisciplinary Inquiry	3			Х
BIS 401: Applied Interdisciplinary Studies	3			Х
BIS 402: Senior Seminar (L)	3			Х

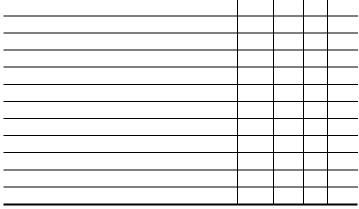
Sub Total (III): 15

IV. Organizational Studies Concentration (30 hours)¹

Organizational & Management Theory (3 hours)			
TMC 346: Management Dynamics	3		Х
Social Processes & Human Interaction (3 hours)			
FAS 330: Pers. Growth in Human Relationships	3		Х
Information Management & Organizational Technology (3 hours)			
COM 394: Communication in the Electronic Age	3		Х
Diversity (3 hours)			
BIS 394: Topics in Diversity	3		Х
Organizational Contexts (9 hours)			
POS 360: World Politics	3		Х
SOC 321: Sociology of Work	3		Х
REL 320: American Religious Traditions (or)			
REL 321: Religion in America	3		Х
Ethics (3 hours)			
PHI 306: Applied Ethics	3		Х
Quantitative Methods (3 hours)			
PAF 401: Statistics	3		Х
Organizational Tools/Skills (3 hours)			
ENG 301: Writing for the Professions (or)			
TWC 301: General Principles of Multimedia	3		Х
Sub Total IV/: 30			

Sub Total IV: 30

V. Electives (38-40 hours)²



Sub Total (V): 38-40

¹ Grades of "C" or better are required for all courses within these categories.
² There is no specific elective or minor requirement for the BIS degree. Students needing more than 15 hours of electives to meet the 120 hour requirement are encouraged to pursue a minor in addition to their BIS concentration; however, minors are not required.