ASU ARIZONA STATE UNIVERSITY

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

Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

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					
+ASU 101-FSE: The ASU Experience	1	☐			• **Complete CHM 114 or 116 or 115; MAT 265 each with a minimum grade of "C"**
CHM 114: General Chemistry for Engineers (SQ) OR CHM 115: General Chemistry with Qualitative Analysis (SQ) OR CHM 116: General Chemistry II * (SQ)	4	☐		Grade of C	+ ASU 101-FSE and MAE 100 required for freshmen and should be completed first semester. Non-freshmen see advisor for petitioning replacement electives.
+MAE 100: Introduction to Mechanical and Aerospace Engineering (or Department Approved Elective)	2	☐		Grade of C in MAE 100	• An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition courses
MAT 265: Calculus for Engineers I (MA)	3	☐		Grade of C	• ASU Math Placement Exam score determines placement in Mathematics course
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	*CHM 113 is a prerequisite and does not apply towards degree credit **If ENG 105 a 3 hr applicable elective must also be taken prior to graduation. See Advisor.
TERM TWO: 16 30 CREDIT HOURS					
MAT 266: Calculus for Engineers II	3	☐		Grade of C	• **Complete MAT 266; PHY 121, 122 each with a minimum grade of "C"**
PHY 121/122: University Physics I/ Laboratory I (SQ)	3/1	☐		Grade of C	
BME 111: Engineering Perspectives on Biological Systems	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	
Social & Behavioral Science (SB) AND Cultural Diversity in the US (C), Global Awareness (G), or Historical Awareness (H)	3	☐			
TERM THREE: 31 45 CREDIT HOURS					
MAE 212: Engineering Mechanics	4	☐		Grade of C	• **Complete ENG 102 or 108 or 105; MAE 212; 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: ENG 101 & 102 or ENG 107 & 108 or ENG 105
PHY 131/132: University Physics II Electricity and Magnetism/University Physics Laboratory II(SQ)	3/1	☐		Grade of C	
MAT 267: Calculus for Engineers III	3	☐		Grade of C	
TERM FOUR: 46 60 CREDIT HOURS					
MAE 213: Solid Mechanics	3	☐		Grade of C	• **Complete MAE 213, 240 each with a minimum grade of "C".**
MAE 240: Thermofluids I	4	☐		Grade of C	
MAE 214: Computer-Aided Engineering I	1	☐		Grade of C	
EEE 202: Circuits I	4	☐		Grade of C	
MAT 343: Applied Linear Algebra	3	☒		Grade of C	
TERM FIVE: 61 75 CREDIT HOURS					
MAE 318: Sensors and Controls	5	☒		Grade of C	• MAE 360 and 362 must be completed for L credit.
MAE 322: Structural Mechanics	4	☒		Grade of C	
MAE 360: Aerodynamics (L)	4	☒		Grade of C	
MAE 384: Numerical Methods for Engineers (CS)	3	☒		Grade of C	
TERM SIX: 76 90 CREDIT HOURS					
MAE 313: Aircraft Dynamics and Control	3	☒		Grade of C	• MAE 360 and 362 must be completed for L credit.
MAE 344: Fundamentals of Aerospace Design	3	☒		Grade of C	
MAE 362: High-Speed Aerodynamics (L)	4	☒		Grade of C	
Social & Behavioral Science (SB) AND Cultural Diversity in the US (C), Global Awareness (G), or Historical Awareness (H)	3	☐			
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					
MAE 415: Vibration Analysis	3	☒		Grade of C	
MAE 462: Space Vehicle Dynamics and Control	3	☒		Grade of C	
MAE 463: Propulsion	3	☒		Grade of C	
Upper division Humanities, Fine Arts & Design (HU) OR Social & Behavioral Science (SB)	3	☒			
Technical Elective	3	☒		Grade of C	
TERM EIGHT: 106 120 CREDIT HOURS					
MAE 400: Engineering Profession (L)	3	☒		Grade of C	• See advisor for approved electives.
MAE 468: Aerospace Systems Design (L)	3	☒		Grade of C	
Upper division technical elective	3	☒		Grade of C	
General Elective	3	☐			
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 UD Hrs (45 min)	Total Hrs at ASU (30 min)	Cumulative GPA (2.00 minimum)	Major GPA (2.00 minimum GPA)	Hrs Resident Credit for Academic Recognition (56 min)	Total Comm. College Hrs. (64 Max)

General University Requirements: Legend

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

Additional Notes:

ASU ARIZONA STATE UNIVERSITY

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

Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

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					
+ASU 101-FSE: The ASU Experience	1	☐			• **Complete CHM 114 or 116 or 115; MAT 265 each with a minimum grade of "C"**
CHM 114: General Chemistry for Engineers(SQ) OR CHM 115: General Chemistry with Qualitative Analysis (SQ) OR CHM 116: General Chemistry II* (SQ)	4	☐		Grade of C	+ ASU 101-FSE and SES 100 required for freshmen and should be completed first semester. Non-freshmen see advisor for approved electives.
+SES 100: Introduction to Exploration (3) or MAE 100: Introduction to Mechanical Engineering, (2) OR Elective	3 or 2	☐		Grade of C in SES 100/MAE 100	• An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition courses
MAT 265: Calculus for Engineers I (MA)	3	☐		Grade of C	• ASU Math Placement Exam score determines placement in Mathematics course
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	*CHM 113 is a prerequisite and does not apply towards degree credit **If ENG 105 a 3 hr applicable elective must also be taken prior to graduation. See Advisor.
TERM TWO: 16 30 CREDIT HOURS					
MAT 266: Calculus for Engineers II	3	☐		Grade of C	• **Complete MAT 266; PHY 121, 122;each with a minimum 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 107 or 108: English for Foreign Students**	3	☐		Grade of C	
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 (C), Global Awareness (G), or Historical Awareness (H)	3	☐			
TERM THREE: 31 45 CREDIT HOURS					
MAE 212: Engineering Mechanics	4	☐		Grade of C	• **Complete ENG 102 or 108 or 105; MAE 212; MAT 275; PHY 131/132 each with a minimum grade of "C"**
MAT 267: Calculus for Engineers III	3	☐		Grade of C	• Complete First-Year Composition requirement: ENG 101 & 102 or ENG 107 & 108 or ENG 105
MAT 275: Modern Differential Equations	3	☐		Grade of C	
PHY 131/132: University Physics II Electricity and Magnetism/ Laboratory II (SQ)	3/1	☐		Grade of C	
TERM FOUR: 46 60 CREDIT HOURS					
MAE 213: Solid Mechanics	3	☐		Grade of C	• **Complete MAE 213, 240 each with a minimum grade of "C".**
MAE 214: Computer-Aided Engineering I	1	☐		Grade of C	
MAE 240: Thermofluids I	4	☐		Grade of C	
EEE 202: Circuits I	4	☐		Grade of C	
MAT 343: Applied Linear Algebra	3	☒		Grade of C	
TERM FIVE: 61 75 CREDIT HOURS					
MAE 318: Sensors and Controls	5	☒		Grade of C	
MAE 345: Structures in a Space Environment	4	☒		Grade of C	
MAE 384: Numerical Methods for Engineers (CS)	3	☒		Grade of C	
EEE 203: Signals & Systems I or SES 210: Engineering Systems & Experimental Design	3	☐		Grade of C	
TERM SIX: 76 90 CREDIT HOURS					
MAE 362: High-Speed Aerodynamics (L)	4	☒		Grade of C	
MAE 462: Space Vehicle Dynamics and Control	3	☒		Grade of C	
Literacy and Critical Inquiry (L)	3	☐			
SES 311: Essentials of Astrobiology, Life in the Universe or BIO 187 or 188: General Biology I or II (4) or BIO 201: Human Anatomy and Physiology (4) or BME 111: Engineering Perspectives on Biological Systems (3)	3	☐			
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					
EEE 304: Signals & Systems II	4	☒		Grade of C	
MAE 400: Engineering Profession (L	3	☒		Grade of C	
MAE 465: Rocket Propulsion	3	☒		Grade of C	
Technical Elective	3	☒		Grade of C	
Humanities, Fine Arts & Design (HU)	3	☐			

ASU ARIZONA STATE UNIVERSITY

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

Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

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 480: Space Systems Design	3	☒		Grade of C	
Aeronautics Elective	3	☒		Grade of C	
Technical Elective	3	☒		Grade of C	
UD Humanities, Fine Arts & Design (HU) OR Social & Behavioral Science (SB)	3	☒			
Elective	3	☐			

Graduation Requirements Summary:

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

General University Requirements: Legend

- General Studies Core Requirements:
  - Literacy and Critical Inquiry (L)
  - Mathematical Studies (MA)
  - 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:

ASU ARIZONA STATE UNIVERSITY

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

Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

Course Subject and Title *(courses in **bold/shading** are critical)*	Hrs.	Upper Division	Completed ATP: ☐ Yes ☐ No Transfer Course/Grade	Minimum Grade if Required	Completed AGEC: ☐ Yes ☐ No Additional Critical Requirement Notes
TERM ONE: 0 15 CREDIT HOURS					
ASU 101-FSE: The ASU Experience	1	☐			• **Complete MAT 265 with a minimum grade of "C"** • **Complete 2 of: BME 111& 112 OR BIO 188; CHM 114 or 116, each with a minimum grade of "C"; BME 100** • An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition courses • ASU Math Placement Exam score determines placement in Mathematics course * CHM 113 is a prerequisite and does not apply towards degree credit ** If ENG 105 a 3 hr applicable elective must also be taken prior to graduation. See Advisor.
BME 100: Introduction to Bioengineering OR BME 111/112: Engineering Perspectives on Biological Systems/Laboratory or BIO 188: General Biology II (SQ)	2 or 4	☐		Grade of C in BME 111/112	
CHM 114: General Chemistry for Engineers (SQ) OR CHM 116: General Chemistry II *	4	☐		Grade of C	
MAT 265: Calculus for Engineers I (MA)	3	☐		Grade of C	
ENG 101 or 102: First-Year Composition OR ENG 105: Advanced First-Year Composition** OR ENG 107 or 108: English for Foreign Students	3	☐		Grade of C	
TERM TWO: 16 30 CREDIT HOURS					
BME 100: Introduction to Bioengineering OR BME 111/112: Engineering Perspectives on Biological Systems/Laboratory or BIO 188: General Biology II (SQ)	2 or 4	☐		Grade of C in BME 111/112	• **Complete ASU101-FSE** • **Complete BME 100** • **Complete BME 111& 112 with a minimum grade of "C" or BIO 188** • **Complete CHM 114 or 116 with a minimum grade of "C"** • **Complete MAT 266 with a minimum grade of "C"** • **Complete PHY 121/122**
MAT 266: Calculus for Engineers II	3	☐		Grade of C	
PHY 121/122: University Physics I/Laboratory I (SQ)	3/1	☐			
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					
BME 235: Physiology for Engineers	4	☐		Grade of C	• **Complete MAT 267; PHY 131, 132, each with a minimum 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	
PHY 131/132: University Physics Electricity and Magnetism II/ Laboratory II (SQ)	3/1	☐		Grade of C	
CHM 231/235: Elementary Organic Chemistry/Laboratory or 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					
BME 200: Conservation Principles of Bioengineering	3	☐		Grade of C	• **Complete BME 200, 235 each with a minimum grade of "C"**
EEE 202: Circuits I	4	☐		Grade of C	
MAE 212: Engineering Mechanics	4	☐		Grade of C	
MAT 275: Modern Differential Equations (MA)	3	☐		Grade of C	
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					
# BME 318: Biomaterials	4	☒			# Designates Major Course: A minimum cumulative GPA of 2.0 required.
# BME 350: Signals and Systems for Bioengineering	3	☒			
# CHM 341: Elementary Physical Chemistry	3	☒		Grade of C	
# MAT 343: Applied Linear Algebra	3	☒			
# IEE 380: Probability and Statistics for Engineering Problem Solving (CS)	3	☒			
TERM SIX: 76 90 CREDIT HOURS					
# BME 300: Bioengineering Product Design	3	☒		Grade of C	# Designates Major Course: A minimum cumulative GPA of 2.0 required.
# BME 331: Bioengineering Transport Phenomena	3	☒			
# BME 370: Microcomputer Applications in Bioengineering	4	☒			
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 (C), Global Awareness (G) or Historical Awareness (H)	3	☐			
TERM SEVEN: 91 105 CREDIT HOURS					
# BME 413: Biomedical Instrumentation(BME 413 & 423 = L)	3	☒			# Designates Major Course: A minimum cumulative GPA of 2.0 required.
# BME 417: Biomedical Engineering Capstone Design I (L)	4	☒		Grade of C	
# BME 423: Biomedical Instrumentation Laboratory	1	☒			
# BME 434: Applications of Bioengineering OR # BME 416: Biomechanics OR # BME 419: Biocontrol Systems	3	☒			
Social & Behavioral Science (SB) AND Cultural Diversity in the US (C), Global Awareness (G) or Historical Awareness (H)	3	☐			

ASU ARIZONA STATE UNIVERSITY

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

Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

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					
# BME 490: Biomedical Engineering Capstone Design II	4	☒			# Designates Major Course: A minimum cumulative GPA of 2.0 required.
# Technical Elective	3	☒			
# Technical Elective	2	☒			
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	☒			

Graduation Requirements Summary:

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

General University Requirements: Legend

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

Additional Notes:

ASU ARIZONA STATE UNIVERSITY

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

Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

Course Subject and Title *(courses in **bold/shading** are critical)*	Hrs.	Upper Division	Completed ATP: ☐ Yes ☐ No Transfer Course/Grade	Minimum Grade if Required	Completed AGEC: ☐ Yes ☐ No Additional Critical Requirement Notes
TERM ONE: 0 15 CREDIT HOURS					
ASU 101-FSE: The ASU Experience	1	☐			• **Complete BMI 101 with a minimum grade of "B-"** • ASU 101-FSE should be completed first semester. • An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition courses **If ENG 105 a 3 hr applicable elective must also be taken prior to graduation. See Advisor. @ Designates Lower Division Major Course: A minimum cumulative GPA of 3.0 required in lower division major courses
@BMI 101: Introduction to Bioinformatics	3	☐		Grade of B-	
CHM 113: General Chemistry I (SQ)	4	☐			
ENG 101 or 102: First-Year Composition OR ENG 105: Advanced First-Year Composition** OR ENG 107 or 108: English for Foreign Students	3	☐		Grade of C	
Social & Behavioral Science (SB)	3	☐			
TERM TWO: 16 30 CREDIT HOURS					
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	• **Complete CSE 110, BIO 188 and BMI 102 each with a minimum grade of "B-"** @ Designates Lower Division Major Course: A minimum cumulative GPA of 3.0 required in lower division major courses
@BMI 102: Introduction to Public Health/Imaging Informatics	3	☐		Grade of B-	
BIO 188: General Biology II (SQ)	4	☐		Grade of B-	
CSE 110: Principles of Programming with Java (CS)	3	☐		Grade of B-	
CPI 200: Mathematical Foundations of Informatics (MA)	3	☐			
TERM THREE: 31 45 CREDIT HOURS					
STP 226: Elements of Statistics	3	☐			• **Complete CSE 205, BIO 187, and BMI 201 each with a minimum grade of "B-"** • **Complete First-Year Composition Requirement: ENG 101 & 102 or ENG 107 & 108 or ENG 105.** @ Designates Lower Division Major Course: A minimum cumulative GPA of 3.0 required in lower division major courses
BIO 187: General Biology I (SG)	4	☐		Grade of B-	
@BMI 201: Introduction to Clinical Informatics	3	☐		Grade of B-	
CSE 205: Object Oriented Programming and Data Structures	3	☐		Grade of B-	
HSM 220: Health Care Organizations (H)	3	☐			
TERM FOUR: 46 60 CREDIT HOURS					
BIO 340: General Genetics	4	☒		Grade of B-	• **Complete CSE 240, BIO 340, BMI 211 and BMI 221 each with a minimum grade of "B-"** @ Designates Lower Division Major Course:: A minimum cumulative GPA of 3.0 required in lower division major courses
@BMI 211: Modeling Biomedical Decisions	3	☐		Grade of B-	
@BMI 221: Knowledge Representation for Biomedical Informatics	3	☐		Grade of B-	
CSE 240: Introduction to Programming Languages	3	☐		Grade of B-	
Social & Behavioral Science (SB) AND Cultural Diversity in the US (C) OR Global Awareness (G)	3	☐			
TERM FIVE: 61 75 CREDIT HOURS					
#BMI 301: Clinical Environments	3	☒		Grade of C	# Designates Upper Division Major Course: A minimum cumulative GPA of 2.0 required in upper division major courses
#BMI 311: Modeling Biomedical Knowledge	3	☒		Grade of C	
#BMI 332: Team Dynamics for Healthcare IT Projects	3	☒		Grade of C	
CSE 310: Data Structures and Algorithms	3	☒		Grade of C	
Humanities, Fine Arts & Design (HU)	3	☐			
TERM SIX: 76 90 CREDIT HOURS					
#BMI 330: Topics in Translational Bioinformatics	3	☒		Grade of C	# Designates Upper Division Major Course: A minimum cumulative GPA of 2.0 required in upper division major courses
#BMI 312: Modeling Biomedical Data	3	☒		Grade of C	
CSE 360: Introduction to Software Engineering	3	☒		Grade of C	
CSE 412: Database Management	3	☒		Grade of C	
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the US (C) OR Global Awareness (G)	3	☐			
TERM SEVEN: 91 105 CREDIT HOURS					
#BMI 461: Advanced Topics in Biomedical Informatics I	3	☒		Grade of C	• See Advisor for approved list of BMI Technical Electives # Designates Upper Division Major Course: A minimum cumulative GPA of 2.0 required in upper division major courses
#BMI 482: Capstone I (proposed Literacy)	3	☒		Grade of C	
BMI 484: Internship	3	☒			
#Technical Elective	3	☐		Grade of C	
UD Humanities, Fine Arts & Design (HU) OR Social & Behavioral Science (SB)	3	☒			
TERM EIGHT: 106 120 CREDIT HOURS					
#BMI 462: Advanced Topics in Biomedical Informatics II	3	☒		Grade of C	• See Advisor for approved list of BMI Technical Electives # Designates Upper Division Major Course: A minimum cumulative GPA of 2.0 required in upper division major courses
#BMI 483: Capstone II (proposed Literacy)	3	☒		Grade of C	
#Technical Elective	1	☐		Grade of C	
#Technical Elective	3	☐		Grade of C	
#Technical Elective	3	☐		Grade of C	

ASU ARIZONA STATE UNIVERSITY

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

Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

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:

ASU ARIZONA STATE UNIVERSITY

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

Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

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

ASU ARIZONA STATE UNIVERSITY

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

Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

Graduation Requirements Summary:

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

General University Requirements: Legend

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

Additional Notes:

ASU ARIZONA STATE UNIVERSITY

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

Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

Course Subject and Title *(courses in **bold/shading** are critical)*	Hrs.	Upper Division	Completed ATP: ☐ Yes ☐ No Transfer Course/Grade	Minimum Grade if Required	Completed AGEC: ☐ Yes ☐ No Additional Critical Requirement Notes
TERM ONE: 0 15 CREDIT HOURS					
ASU 101-FSE: The ASU Experience	1	☐			• **Complete CHM 114 or 116; MAT 265 with a minimum grade of "C"** • ASU 101-FSE should be completed first semester. • An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition courses • ASU Math Placement Exam score determines placement in Mathematics course *CHM 113 is a prerequisite and does not apply toward degree credit. **If ENG 105 a 3 hr applicable elective must also be taken prior to graduation. See Advisor.
CEE 100: Intro to Civil and Environmental Engineering OR 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 CHM 116: General Chemistry II* (SQ)	4	☐			
MAT 265: Calculus for Engineers I	3	☐		Grade of C	
ENG 101 or 102: First-Year Composition OR ENG 105: Advanced First-Year Composition** OR ENG 107 or 108: English for Foreign Students	3	☐		Grade of C	
TERM TWO: 16 30 CREDIT HOURS					
CEE 100: Intro to Civil and Environmental Engineering OR ECN 211/212 (SB): Macroeconomic Principles/ Microeconomic Principles or ECN 201: Economic Issues & Analysis (SB)	2 or 3	☐		Grade of C in CEE 100	• **Complete CEE 100; MAT 242, 266; PHY 121 & 122 each with a minimum grade of "C"**
MAT 242: Elementary Linear Algebra	2	☐		Grade of C	
MAT 266: Calculus for Engineers II	3	☐		Grade of C	
PHY 121/122: University PhysicsI/ Laboratory I (SQ)	3/1	☐		Grade of C	
ENG 101 or 102: First-Year Composition OR ENG 105: Advanced First-Year Composition** OR ENG 107 or 108: English for Foreign Students	3	☐		Grade of C	
TERM THREE: 31 45 CREDIT HOURS					
CEE 210: Engineering Mechanics: Statics	3	☐		Grade of C	• **Complete CEE 210; MAT 267, 275, PHY 131 & 132 each with a minimum 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	
MAT 275: Modern Differential Equations (MA)	3	☐		Grade of C	
PHY 131/132: University Physics II: Electricity and Magnetism/ Laboratory II (SQ)	3/1	☐		Grade of C	
TERM FOUR: 46 60 CREDIT HOURS					
CEE 212: Engineering Mechanics: Dynamics	3	☐		Grade of C	• **Complete CEE 212, CEE 213 each with a minimum grade of "C"**
CEE 213: Introduction to Deformable Solids	3	☐		Grade of C	
EEE 202: Circuits I OR MAE 240: Thermofluids I	4	☐			
Humanities, Fine Arts & Design (HU) OR Social & Behavioral Science (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	☒		Grade of C	# 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. NOTE: A maximum of two "D" grades are allowed in all 3XX and 4XX courses combined.
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) # CEE 372: Transportation Engineering (4 hrs)	10-12	☒		Grade of C in each	
IEE 380: Probability and Statistics for Engineering Problem Solving	3	☒			
TERM SIX: 76 90 CREDIT HOURS					
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 Engineers (4 hrs) # CEE 351: Geotechnical Engineering (4 hrs) # CEE 353: Civil Engineering Materials (3 hrs) # CEE 361: Introduction to Environmental Engineering (4 hrs) # CEE 372: Transportation Engineering (4 hrs)	14 - 16	☒		Grade of C in each	# 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. NOTE: A maximum of two "D" grades are allowed in all 3XX and 4XX courses combined.
TERM SEVEN: 91 105 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)	3	☐		Grade of C in CEE 400	• Technical Elective and Design Elective requirements: Complete a total of 2 design electives and 4 technical electives during Term 7 and Term 8. See Advisor for guidance in selection. # 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. NOTE: A maximum of two "D" grades are allowed in all 3XX and 4XX courses combined.
# Technical Elective	3	☒		Grade of C	
# Technical Elective	3	☒		Grade of C	
# Design Elective or # Technical Elective	3	☒		Grade of C	
# Design Elective or # Technical Elective	3	☒		Grade of C	

ASU ARIZONA STATE UNIVERSITY

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

Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

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	☐		Grade of C in CEE 400	• Technical Elective and Design Elective requirements: Complete a total of 2 design electives and 4 technical electives during Term 7 and Term 8. See Advisor for guidance in selection. # 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. NOTE: A maximum of two "D" grades are allowed in all 3XX and 4XX courses combined.
# CEE 486: Integrated Civil Engineering Design (L)	4	☒		Grade of C	
# Technical Elective or # Design Elective	3	☒		Grade of C	
# Technical Elective or # Design Elective	3	☒		Grade of C	
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 UD Hrs (45 min)	Total Hrs at ASU (30 min)	Cumulative GPA (2.00 minimum)	Major GPA (2.30 Min. CUM GPA in CEE 3XX, 2.30 min CUM GPA in CEE 4XX))	Hrs Resident Credit for Academic Recognition (56 min)	Total Comm. College Hrs. (64 Max)

General University Requirements: Legend

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

Additional Notes:

ASU ARIZONA STATE UNIVERSITY

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

Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

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					
ASU 101-FSE: The ASU Experience	1	☐			• **Complete CHM 114 or 116; MAT 265 with a minimum grade of "C"**
CEE 100: Intro to Civil and Environmental Engineering OR ECN 211/212 (SB): Macroeconomic Principles/ Microeconomic Principles or ECN 201: Economic Issues & Analysis (SB)	2 or 3	☐		Grade of C in CEE 100	• ASU 101-FSE should be completed first semester.
CHM 114: General Chemistry for Engineers (SQ) OR CHM 116: General Chemistry II* (SQ)	4	☐			• An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition courses
MAT 265: Calculus for Engineers I	3	☐		Grade of C	• ASU Math Placement Exam score determines placement in Mathematics course
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	*CHM 113 is a prerequisite and does not apply toward degree credit. **If ENG 105 a 3 hr applicable elective must also be 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 Principles or ECN 201: Economic Issues & Analysis (SB)	2 or 3	☐		Grade of C in CEE 100	• **Complete CEE 100; MAT 242, 266; PHY 121 & 122 each with a minimum grade of "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 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 & 132 each with a minimum grade of "C"**
MAT 267: Calculus for Engineers III	3	☐		Grade of C	• Complete First-Year Composition requirement: ENG 101 & 102 or ENG 107 & 108 or ENG 105
MAT 275: Modern Differential Equations (MA)	3	☐		Grade of C	
PHY 131/132: University Physics II: Electricity and Magnetism/ Laboratory II (SQ)	3/1	☐		Grade of C	
TERM FOUR: 46 60 CREDIT HOURS					
CEE 212: Engineering Mechanics: Dynamics	3	☐		Grade of C	• **Complete CEE 212, CEE 213 each with a minimum grade of "C"**
CEE 213: Introduction to Deformable Solids	3	☐		Grade of C	
EEE 202: Circuits I	4	☐			
Humanities, Fine Arts & Design (HU) OR Social & Behavioral Science (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	☒		Grade of C	# 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. NOTE: A maximum of two "D" grades are allowed in all 3XX and 4XX courses combined.
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) # CEE 372: Transportation Engineering (4 hrs)	10-12	☒		Grade of C in each	
IEE 380: Probability and Statistics for Engineering Problem Solving	3	☒			
TERM SIX: 76 90 CREDIT HOURS					
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 Engineers (4 hrs) # CEE 351: Geotechnical Engineering (4 hrs) # CEE 353: Civil Engineering Materials (3 hrs) # CEE 361: Introduction to Environmental Engineering (4 hrs) # CEE 372: Transportation Engineering (4 hrs)	14-16	☒		Grade of C in each	# 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. NOTE: A maximum of two "D" grades are allowed in all 3XX and 4XX courses combined.
TERM SEVEN: 91 105 CREDIT HOURS					
Select 4 # 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	☒		Grade of C in each	# 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. NOTE: A maximum of two "D" grades are allowed in all 3XX and 4XX courses combined.
#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	☒		Grade of C in CEE 400	

ASU ARIZONA STATE UNIVERSITY

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

Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

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					
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	☒		Grade of C in each	# 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. NOTE: A maximum of two "D" grades are allowed in all 3XX and 4XX courses combined.
#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	☐		Grade of C in CEE 400	
# CEE 486: Integrated Civil Engineering Design (L)	4	☒		Grade of C	
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 UD Hrs (45 min)	Total Hrs at ASU (30 min)	Cumulative GPA (2.00 minimum)	Major GPA (2.30 Min. CUM GPA in CEE 3XX, 2.30 min CUM GPA in CEE 4XX))	Hrs Resident Credit for Academic Recognition (56 min)	Total Comm. College Hrs. (64 Max)

General University Requirements: Legend

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

Additional Notes:

ASU ARIZONA STATE UNIVERSITY

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

Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

			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					
ASU 101-FSE: The ASU Experience	1	☐			• **Complete CHM 114 or 116; MAT 265 with a minimum grade of "C"** • ASU 101-FSE should be completed first semester. • An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition courses • ASU Math Placement Exam score determines placement in Mathematics course *CHM 113 is a prerequisite and does not apply toward degree credit. **If ENG 105 a 3 hr applicable elective must also be taken prior to graduation. See Advisor.
CEE 100: Intro to Civil and Environmental Engineering OR 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 CHM 116: General Chemistry II* (SQ)	4	☐			
MAT 265: Calculus for Engineers I	3	☐		Grade of C	
ENG 101 or 102: First-Year Composition OR ENG 105: Advanced First-Year Composition** OR ENG 107 or 108: English for Foreign Students	3	☐		Grade of C	
TERM TWO: 16 30 CREDIT HOURS					
CEE 100: Intro to Civil and Environmental Engineering OR ECN 211/212 (SB): Macroeconomic Principles/ Microeconomic Principles or ECN 201: Economic Issues & Analysis (SB)	2 or 3	☐		Grade of C in CEE 100	• **Complete CEE 100; MAT 242, 266; PHY 121 & 122 each with a minimum grade of "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 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 & 132 each with a minimum 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	
MAT 275: Modern Differential Equations (MA)	3	☐		Grade of C	
PHY 131/132: University Physics II: Electricity and Magnetism/ Laboratory II	3/1	☐		Grade of C	
TERM FOUR: 46 60 CREDIT HOURS					
CEE 212: Engineering Mechanics: Dynamics	3	☐		Grade of C	• **Complete CEE 212, CEE 213 with a minimum grade of "C"**
CEE 213: Introduction to Deformable Solids	3	☐		Grade of C	
MAE 240: Thermofluids I	4	☐			
Humanities, Fine Arts & Design (HU) OR Social & Behavioral Science (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	☒		Grade of C	# 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. NOTE: A maximum of two "D" grades are allowed in all 3XX and 4XX courses combined.
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) # CEE 372: Transportation Engineering (4 hrs)	10 - 12	☒		Grade of C in each	
IEE 380: Probability and Statistics for Engineering Problem Solving	3	☒			
TERM SIX: 76 90 CREDIT HOURS					
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 Engineers (4 hrs) # CEE 351: Geotechnical Engineering (4 hrs) # CEE 353: Civil Engineering Materials (3 hrs) # CEE 361: Introduction to Environmental Engineering (4 hrs) # CEE 372: Transportation Engineering (4 hrs)	14 - 16	☒		Grade of C in each	# 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. NOTE: A maximum of two "D" grades are allowed in all 3XX and 4XX courses combined.
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	☒		Grade of C in each	# 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. NOTE: A maximum of two "D" grades are allowed in all 3XX and 4XX courses combined.
# 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	☒		Grade of C in CEE 400	

ASU ARIZONA STATE UNIVERSITY

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

Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

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					
Select remaining 2 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)	6	☒		Grade of C in each	# 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. NOTE: A maximum of two "D" grades are allowed in all 3XX and 4XX courses combined.
# 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	☐		Grade of C in CEE 400	
# CEE 486: Integrated Civil Engineering Design (L)	4	☒		Grade of C	
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 UD Hrs (45 min)	Total Hrs at ASU (30 min)	Cumulative GPA (2.00 minimum)	Major GPA (2.30 Min. CUM GPA in CEE 3XX, 2.30 min CUM GPA in CEE 4XX))	Hrs Resident Credit for Academic Recognition (56 min)	Total Comm. College Hrs. (64 Max)

General University Requirements: Legend

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

Additional Notes:

ASU ARIZONA STATE UNIVERSITY

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

Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

Course Subject and Title *(courses in **bold/shading** are critical)*	Hrs.	Upper Division	Completed ATP: ☐ Yes ☐ No Transfer Course/Grade	Minimum Grade if Required	Completed AGEC: ☐ Yes ☐ No Additional Critical Requirement Notes
TERM ONE: 0 15 CREDIT HOURS					
ASU 101-FSE: The ASU Experience	1	☐			• **Complete CSE 100 or 110; MAT 265 each with a minimum grade of "C"** • ASU 101-FSE should be completed first semester. • An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition courses • ASU Math Placement Exam score determines placement in Mathematics course **If ENG 105 a 3 hr applicable elective must also be taken prior to graduation. See Advisor. # Designates Major Course: A minimum cumulative GPA of 2.0 required.
# CSE 100: Principles of Programming with C++ (CS) OR # CSE 110: Principles of Programming with Java (CS)	3	☐		Grade of C	
#CSE 101: Introduction to Computer Science & Engineering	2	☐		Grade of C	
MAT 265: Calculus for Engineers I (MA)	3	☐		Grade of C	
ENG 101 or 102: First-Year Composition OR ENG 105: Advanced First-Year Composition** OR ENG 107 or 108: English for Foreign Students	3	☐		Grade of C	
Social & Behavioral Science (SB) AND Cultural Diversity in the US (C), Global Awareness (G) or Historical Awareness (H)	3	☐			
TERM TWO: 16 30 CREDIT HOURS					
# CSE 120: Digital Design Fundamentals	3	☐		Grade of C	• **Complete CSE 120, 205; MAT 266 each with a minimum grade of "C"** # Designates Major Course: A minimum cumulative GPA of 2.0 required.
# CSE 205:Object-Oriented Programming & Data Structures (CS)	3	☐		Grade of C	
MAT 266: Calculus for Engineers II	3	☐		Grade of C	
BIO 187: General Biology I (SQ) or BIO 188: General Biology II (SQ)	4	☐			
ENG 101 or 102: First-Year Composition OR ENG 105: Advanced First-Year Composition** OR ENG 107 or 108: English for Foreign Students	3	☐		Grade of C	
TERM THREE: 31 45 CREDIT HOURS					
# CSE 230: Computer Organization and Assembly Language Programming	3	☐		Grade of C	• **Complete CSE 230; MAT 243, 267 each with a minimum grade of "C"** • Complete First-Year Composition requirement: ENG 101 & 102 or ENG 107 & 108 or ENG 105 • See Advisor for approved Laboratory Science sequence courses # Designates Major Course: A minimum cumulative GPA of 2.0 required.
MAT 243: Discrete Mathematical Structures	3	☐		Grade of C	
MAT 267: Calculus for Engineers III	3	☐		Grade of C	
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the US (C), Global Awareness (G), or Historical Awareness (H)	3	☐			
Laboratory Science I (SQ)	4	☐			
TERM FOUR: 46 60 CREDIT HOURS					
#CSE 240: Introduction to Programming Languages	3	☐		Grade of C	• **Complete CSE 240 with a minimum grade of "C"** • See Advisor for approved Laboratory Science sequence courses • General Elective: cannot include CSE, MAT, PHY, BIO, CHM or other Science course # Designates Major Course: A minimum cumulative GPA of 2.0 required.
# MAT 343: Applied Linear Algebra	3	☒			
Laboratory Science II (SQ)	4	☐			
Social & Behavioral Science (SB) AND Cultural Diversity in the US (C), Global Awareness (G), or Historical Awareness (H)	3	☐			
General Elective	3	☐			
TERM FIVE: 61 75 CREDIT HOURS					
# IEE 380: Probability and Statistics for Engineering Problem Solving	3	☒			# Designates Major Course: A minimum cumulative GPA of 2.0 required.
# CSE 301: Computing Ethics	1	☒		Grade of C	
# CSE 310: Data Structures and Algorithms	3	☒		Grade of C	
# CSE 360: Introduction to Software Engineering	3	☒		Grade of C	
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the US (C), Global Awareness (G), or Historical Awareness (H)	3	☐			
TERM SIX: 76 90 CREDIT HOURS					
# CSE 340: Principles of Programming Languages	3	☒		Grade of C	• See Advisor for approved list of Technical Electives # Designates Major Course: A minimum cumulative GPA of 2.0 required.
# CSE 355: Introduction to Theoretical Computer Science	3	☒		Grade of C	
# CSE 4** Computer Science Elective	3	☒		Grade of C	
Computer Science Technical Elective	3	☒		Grade of C	
UD Humanities, Fine Arts & Design (HU) OR Social & Behavioral Science (SB)	3	☒			
TERM SEVEN: 91 105 CREDIT HOURS					
# CSE 430: Operating Systems	3	☒		Grade of C	• See Advisor for approved list of Computer Science Electives • General Elective: cannot include CSE, MAT, PHY, BIO, CHM or other Science course # Designates Major Course: A minimum cumulative GPA of 2.0 required.
# CSE 485: Computer Science Capstone Project I (L)	3	☒		Grade of C	
# CSE 4** Computer Science Elective	3	☒		Grade of C	
# CSE 4** Computer Science Elective	3	☒		Grade of C	
General Elective	2	☐			

Updated: 3/24/09

ASU ARIZONA STATE UNIVERSITY

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

Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

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

Graduation Requirements Summary:

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

General University Requirements: Legend

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

Additional Notes:

ASU ARIZONA STATE UNIVERSITY

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

Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

Course Subject and Title *(courses in **bold/shading** are critical)*	Hrs.	Upper Division	Completed ATP: ☐ Yes ☐ No Transfer Course/Grade	Minimum Grade if Required	Completed AGEC: ☐ Yes ☐ No Additional Critical Requirement Notes
TERM ONE: 0 15 CREDIT HOURS					
ASU 101-FSE: The ASU Experience	1	☐			• **Complete CSE 100 or 110, 101; MAT 265 each with a minimum grade of "C"**
# CSE 100: Principles of Programming with C++ (CS) OR # CSE 110: Principles of Programming with Java (CS)	3	☐		Grade of C	• ASU 101-FSE should be completed first semester.
# CSE 101: Introduction to Computer Science & Engineering	2	☐		Grade of C	• An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition courses
MAT 265: Calculus for Engineers I (MA)	3	☐		Grade of C	• ASU Math Placement Exam score determines placement in Mathematics course
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	**If ENG 105 a 3 hr applicable elective must also be 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					
# CSE 120: Digital Design Fundamentals	3	☐		Grade of C	• **Complete CSE 120, 205; MAT 266 each with a minimum grade of "C"**
# CSE 205:Object-Oriented Programming & Data Structures (CS)	3	☐		Grade of C	# Designates Major Course: A minimum cumulative GPA of 2.0 required.
MAT 266: Calculus for Engineers II	3	☐		Grade of C	
BIO 187: General Biology I (SQ) OR BIO 188: General Biology Laboratory II (SQ)	4	☐			
ENG 101 or 102: First-Year Composition OR ENG 105: Advanced First-Year Composition** OR ENG 107 or 108: English for Foreign Students	3	☐		Grade of C	
TERM THREE: 31 45 CREDIT HOURS					
# CSE 230: Computer Organization and Assembly Language Programming	3	☐		Grade of C	• **Complete 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: 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 GPA of 2.0 required.
PHY 121/122: University Physics I/Laboratory I (SQ)	3/1	☐			
TERM FOUR: 46 60 CREDIT HOURS					
# CSE 220: Programming for Computer Engineering	3	☐		Grade of C	• **Complete CSE 220 with a minimum grade of "C"**
MAT 275: Modern Differential Equations	3	☐			# Designates Major Course: A minimum cumulative GPA of 2.0 required.
PHY 131/132: University Physics II Electricity and Magnetism/Laboratory II (SQ)	3/1	☐			
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 (C), Global Awareness (G) or Historical Awareness (H)	3	☐			
TERM FIVE: 61 75 CREDIT HOURS					
# 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	☒			
# CSE 301: Computing Ethics	1	☒		Grade of C	
# CSE 310: Data Structures and Algorithms	3	☒		Grade of C	
# CSE 360: Introduction to Software Engineering	3	☒		Grade of C	
TERM SIX: 76 90 CREDIT HOURS					
# EEE 334: Circuits II	4	☒			# Designates Major Course: A minimum cumulative GPA of 2.0 required.
# CSE 320: Design and Synthesis of Digital Hardware	3	☒		Grade of C	
# CSE 325: Embedded Micro Systems	3	☒		Grade of C	
# MAT 343: Applied Linear Algebra	3	☒			
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					
# 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 GPA of 2.0 required.
# CSE Technical Elective	3	☒		Grade of C	
# CSE Technical Elective	3	☒		Grade of C	
UD Humanities, Fine Arts & Design (HU) OR Social & Behavioral Science (SB)	3	☒			
TERM EIGHT: 106 120 CREDIT HOURS					
# CSE 420: Computer Architecture I	3	☒		Grade of C	• See Advisor for approved list of CSE Technical Electives
# CSE 424: Systems Capstone Project II (L)	3	☒		Grade of C	# Designates Major Course: A minimum cumulative GPA of 2.0 required.
# CSE 434: Computer Networks	3	☒		Grade of C	
# CSE Technical Elective	3	☒		Grade of C	
# CSE Technical Elective	3	☒		Grade of C	

ASU ARIZONA STATE UNIVERSITY

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

Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

Graduation Requirements Summary:

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

General University Requirements: Legend

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

Additional Notes:

ASU ARIZONA STATE UNIVERSITY

Major Map: Construction (Concrete Industry Management) – Bachelor of Science (B.S.)

Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

Course Subject and Title *(courses in **bold/shading** are critical)*	Hrs.	Upper Division	Transfer Course/Grade	Minimum Grade if Required	Additional Critical Requirement Notes
			Completed ATP: ☐ *Yes* ☐ *No*		*Completed AGEC:* ☐ *Yes* ☐ *No*
TERM ONE: 0 15 CREDIT HOURS					
# ASU 101-FSE: The ASU Experience	1	☐			• **Complete CIM 105 with a minimum grade of "C"** • ASU 101-FSE should be completed first semester. • An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition courses • ASU Math Placement Exam score determines placement in Mathematics course • **If ENG 105 a 3 hr applicable elective must also be taken prior to graduation. See Advisor. # Designates Major Course: A minimum cumulative gpa of 2.0 required.
# CIM 105: Intro to Concrete Industry	2	☐		Grade of C	
MAT 265: Calculus for Engineers I (MA)	3	☐		Grade of C	
PHY 111/113: General Physics I/ Laboratory I (SQ)	3/1	☐		Grade of C	
# CON 101: Construction and Culture: A Built Environment (HU, G, 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 TWO: 16 30 CREDIT HOURS					
# CIM 106: Concrete Fundamentals	4	☐		Grade of C	• **Complete CIM 106 with a minimum grade of "C"; STP 226** # Designates Major Course: A minimum cumulative gpa of 2.0 required.
# CON 243: Heavy Construction Equipment, Methods, Materials	3	☐			
# CON 244: Working Drawing Analysis	1	☐			
# CON 252: Building Construction Methods, Materials, Equipment	3	☐			
STP 226: Elements of Statistics (CS)	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					
# CIM 205: Concrete Construction Methods	3	☐		Grade of C	• **Complete CIM 205; ENG 102 or 105 or 108 with a minimum grade of "C"; COM 225; CON 221, ECN 211** • Complete First-Year Composition requirement: ENG 101 & 102 or ENG 107 & 108 or ENG 105 # Designates Major Course: A minimum cumulative gpa of 2.0 required.
# CON 221 Applied Statics	3	☐			
# CON 251: Microcomputer Applications for Construction	3	☐			
COM 225: Public Speaking (L)	3	☐			
ECN 211: Macroeconomic Principles (SB)	3	☐			
TERM FOUR: 46 60 CREDIT HOURS					
# CIM 206: Application of Concrete in Construction	3	☐		Grade of C	• **Complete CIM 206 with a minimum grade of "C"; CON 271; ECN 212** # Designates Major Course: A minimum cumulative gpa of 2.0 required.
# CON 223: Strength of Materials	3	☐			
# CON 271: Construction Safety	3	☐			
ECN 212: Microeconomic Principles (SB)	3	☐			
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the US (C)	3	☐			
TERM SUMMER 2nd Year: 1 CREDIT HOUR					
# CON 296: Field Internship	1	☐			
TERM FIVE: 61 75 CREDIT HOURS					
# CIM 305: Management of Concrete Products: Ordering and Delivering	3	☒		Grade of C	# Designates Major Course: A minimum cumulative gpa of 2.0 required. Note: maximum of two "D" grades are allowed in all 3XX and 4XX courses combined.
# CON 383: Construction Estimating	4	☒		Grade of C	
# CON 241: Surveying	3	☐			
Upper division Humanities, Fine Arts & Design (HU) or Social & Behavioral Science (SB)	3	☒			
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	# Designates Major Course: A minimum cumulative gpa of 2.0 required. Note: maximum of two "D" grades are allowed in all 3XX and 4XX courses combined.
# CON 389: Construction Cost Accounting and Control (CS)	3	☒		Grade of C	
# CON 450: Geotechnical Applications for Construction	3	☒		Grade of C	
LES 305: Legal, Ethical, Regulatory Issues in Business	3	☒			
TERM SUMMER 3rd Year: 1 CREDIT HOUR					
# CON 484: Internship	1	☒		Grade of C	
TERM SEVEN: 91 105 CREDIT HOURS					
# CIM 405: Concrete Problems: Diagnosis, Prevention, Dispute	3	☒		Grade of C	# Designates Major Course: A minimum cumulative gpa of 2.0 required. Note: maximum of two "D" grades are allowed in all 3XX and 4XX courses combined.
Upper division CIM Elective	3	☒		Grade of C	
# CON 453: Construction Project Management I	4	☒		Grade of C	
# CON 495: Construction Planning and Scheduling	3	☒		Grade of C	
TERM EIGHT: 106 120 CREDIT HOURS					
# CIM 406: Concrete Industry Management	4	☒		Grade of C	# Designates Major Course: A minimum cumulative gpa of 2.0 required. Note: maximum of two "D" grades are allowed in all 3XX and 4XX courses combined.
# CON 424: Structural Design	3	☒		Grade of C	
# CON 455: Construction Project Management II	3	☒		Grade of C	
# CON 496: Construction Contract Administration (L)	3	☒		Grade of C	

Updated: 4/16/09

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:

ASU ARIZONA STATE UNIVERSITY

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

Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

			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					
# ASU 101-FSE: The ASU Experience	1	☐			• **Complete MAT 265; PHY 111, 113 each with a minimum grade of "C"** • ASU 101-FSE should be completed first semester. • An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition courses • ASU Math Placement Exam score determines placement in Mathematics course • **If ENG 105 a 3 hr applicable elective must also be taken prior to graduation. See Advisor. # Designates Major Course: A minimum cumulative gpa of 2.0 required.
MAT 265: Calculus for Engineers I (MA)	3	☐		Grade of C	
PHY 111/113: General Physics I/ Laboratory I (SQ)	3/1	☐		Grade of C	
# CON 101: Construction & Culture: A Built Environment (HU, G, H)	3	☐			
# CON 100: Introduction to Construction	2	☐			
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 TWO: 16 30 CREDIT HOURS					
# CON 243: Heavy Construction Equipment, Methods, Materials	3	☐		Grade of C	• **Complete CON 243 with a minimum grade of "C"** • **Complete CON 244, 252 # Designates Major Course: A minimum cumulative gpa of 2.0 required.**
# CON 244 : Working Drawing Analysis	1	☐			
# 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					
# CON 221: Applied Statics	3	☐		Grade of C	• **Complete CON 221, ENG 102 or 108 or 105 each with a minimum grade of "C"** • **Complete COM 225; CON 251; ECN 212; STP 226.** • Complete First-Year Composition requirement: ENG 101 & 102 or ENG 107 & 108 or ENG 105 # Designates Major Course: A minimum cumulative gpa of 2.0 required.
# CON 251: Microcomputer Applications for Construction	3	☐			
COM 225: Public Speaking (L)	3	☐			
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 "C"; CON 100, CON 271 # Designates Major Course: A minimum cumulative gpa of 2.0 required.**
# CON 271: Construction Safety	3	☐			
# CON 241: Surveying	3	☐			
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the US (C)	3	☐			
Science Quantitative (SQ) or Science General (SG)	4	☐			
TERM SUMMER 2nd Year: 1 CREDIT HOUR					
# CON 296: Field Internship	1	☐			
TERM FIVE: 61 75 CREDIT HOURS					
# CON 310: Testing and Materials for Construction	4	☒		Grade of C	# Designates Major Course: A minimum cumulative gpa of 2.0 required. Note: maximum of two "D" grades are allowed in all 3XX and 4XX courses combined.
# CON 345: Mechanical Systems	4	☒		Grade of C	
# CON 273: Electrical Construction Fundamental and Project Management	3	☐			
# CON 383: Construction Estimating	4	☒		Grade of C	
Select 1 # 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	☒		Grade of C in CON courses	
TERM SIX: 76 90 CREDIT HOURS					
# CON 389: Construction Cost Accounting and Control (CS)	3	☒		Grade of C	# Designates Major Course: A minimum cumulative gpa of 2.0 required. Note: maximum of two "D" grades are allowed in all 3XX and 4XX courses combined.
LES 305: Legal, Ethical, Regulatory Issues in Business	3	☒			
Upper division Humanities, Fine Arts & Design (HU) or Social & Behavioral Science (SB)	3	☒			
Upper division Elective	3	☒			
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	☒		Grade of C in CON courses	
TERM SUMMER 3rd Year: 1 CREDIT HOUR					
# CON 484: Internship	1	☒		Grade of C	

Updated: 4/16/09

ASU ARIZONA STATE UNIVERSITY

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

Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

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	3	☒		Grade of C	# Designates Major Course: A minimum cumulative gpa of 2.0 required. Note: maximum of two "D" grades are allowed in all 3XX and 4XX courses combined.
# CON 453: Construction Project Management I	4	☒		Grade of C	
# CON 495: Construction Planning and Scheduling (L)	3	☒		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	☒		Grade of C in CON courses	
TERM EIGHT: 106 120 CREDIT HOURS					
# CON 424: Structural Design	3	☒		Grade of C	# Designates Major Course: A minimum cumulative gpa of 2.0 required. Note: maximum of two "D" grades are allowed in all 3XX and 4XX courses combined.
# CON 455: Construction Project Management II	3	☒		Grade of C	
# CON 496: Construction Contract Administration (L)	3	☒		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)

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:

ASU ARIZONA STATE UNIVERSITY

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

Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

Course Subject and Title *(courses in **bold/shading** are critical)*	Hrs.	Upper Division	Transfer Course/Grade	Minimum Grade if Required	Completed ATP: ☐ Yes ☐ No / Completed AGEC: ☐ Yes ☐ No Additional Critical Requirement Notes
TERM ONE: 0 15 CREDIT HOURS					
# ASU 101-FSE: The ASU Experience	1	☐			• **Complete MAT 265; PHY 111, 113 each with a minimum grade of "C"** • ASU 101-FSE should be completed first semester. • An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition courses • ASU Math Placement Exam score determines placement in Mathematics course • **If ENG 105 a 3 hr applicable elective must also be taken prior to graduation. See Advisor. # Designates Major Course: A minimum cumulative gpa of 2.0 required.
MAT 265: Calculus for Engineers I (MA)	3	☐		Grade of C	
PHY 111/113: General Physics I/ Laboratory I (SQ)	3/1	☐		Grade of C	
# CON 101: Construction and Culture: A Built Environment (HU, G, H)	3	☐			
# CON 100: Introduction to Construction	2	☐			
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 TWO: 16 30 CREDIT HOURS					
# CON 243: Heavy Construction Equipment, Methods, Materials	3	☐		Grade of C	• **Complete CON 243 with a minimum grade of "C"** • **Complete CON 244, 252 # Designates Major Course: A minimum cumulative gpa of 2.0 required.**
# CON 244: Working Drawing Analysis	1	☐			
# 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					
# CON 221: Applied Statics	3	☐		Grade of C	• **Complete CON 221, ENG 102 or 108 or 105 each with a minimum grade of "C"** • **Complete COM 225; CON 251; ECN 212; STP 226.** • Complete First-Year Composition requirement: ENG 101 & 102 or ENG 107 & 108 or ENG 105 # Designates Major Course: A minimum cumulative gpa of 2.0 required.
# CON 251: Microcomputer Applications for Construction	3	☐			
COM 225: Public Speaking (L)	3	☐			
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 "C"; CON 100, CON 271 # Designates Major Course: A minimum cumulative gpa of 2.0 required.**
# CON 271: Construction Safety	3	☐			
# CON 241: Surveying	3	☐			
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the US (C)	3	☐			
Science: Quantitative (SQ) or Science General (SG)	4	☐			
TERM SUMMER 2nd Year: 1 CREDIT HOUR					
# CON 296: Field Internship	1	☐			
TERM FIVE: 61 75 CREDIT HOURS					
# CON 310: Testing and Materials for Construction	4	☒		Grade of C	# Designates Major Course: A minimum cumulative gpa of 2.0 required. Note: maximum of two "D" grades are allowed in all 3XX and 4XX courses combined.
# CON 345: Mechanical Systems	4	☒		Grade of C	
# CON 273: Electrical Construction Fundamental and Project Management	3	☐			
# CON 383: Construction Estimating	4	☒		Grade of C	
Select 1: # 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					
# CON 389: Construction Cost Accounting and Control (CS)	3	☒		Grade of C	# Designates Major Course: A minimum cumulative gpa of 2.0 required. Note: maximum of two "D" grades are allowed in all 3XX and 4XX courses combined.
LES 305: Legal, Ethical, Regulatory Issues in Business	3	☒			
Upper division Humanities, Fine Arts & Design (HU) OR Social & Behavioral Science (SB)	3	☒		Grade of C	
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):	3	☒		Grade of C	

ASU ARIZONA STATE UNIVERSITY

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

Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

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 3rd Year: 1 CREDIT HOUR					
# CON 484: Internship	1	☒		Grade of C	
TERM SEVEN: 91 105 CREDIT HOURS					
# CON 450: Geotechnical Applications for Construction	3	☒		Grade of C	# Designates Major Course: A minimum cumulative gpa of 2.0 required. Note: maximum of two "D" grades are allowed in all 3XX and 4XX courses combined.
# CON 453: Construction Project Management I	4	☒		Grade of C	
# CON 495: Construction Planning and Scheduling	3	☒		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					
# CON 424: Structural Design	3	☒		Grade of C	# Designates Major Course: A minimum cumulative gpa of 2.0 required. Note: maximum of two "D" grades are allowed in all 3XX and 4XX courses combined.
# CON 455: Construction Project Management II	3	☒		Grade of C	
# CON 496: Construction Contract Administration (L)	3	☒		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	☒		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:

ASU ARIZONA STATE UNIVERSITY

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

Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

Course Subject and Title *(courses in **bold/shading** are critical)*	Hrs.	Upper Division	*Completed ATP:* ☐ *Yes* ☐ *No* Transfer Course/Grade	Minimum Grade if Required	*Completed AGEC:* ☐ *Yes* ☐ *No* Additional Critical Requirement Notes
TERM ONE: 0 15 CREDIT HOURS					
# ASU 101-FSE: The ASU Experience	1	☐			• **Complete MAT 265; PHY 111, 113 with a minimum grade of "C"** • ASU 101-FSE should be completed first semester. • An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition courses • ASU Math Placement Exam score determines placement in Mathematics course • **If ENG 105 a 3 hr applicable elective must also be taken prior to graduation. See Advisor. # Designates Major Course: A minimum cumulative gpa of 2.0 required.
MAT 265: Calculus for Engineers I (MA)	3	☐		Grade of C	
PHY 111/113: General Physics I/Laboratory I (SQ)	3/1	☐		Grade of C	
# CON 101: Construction & Culture: A Built Environment (HU, G, H)	3	☐			
# CON 100: Introduction to Construction	2	☐			
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 TWO: 16 30 CREDIT HOURS					
# CON 243: Heavy Construction Equipment, Methods, Materials	3	☐		Grade of C	• **Complete CON 243 with a minimum grade of "C"** • **Complete CON 244, 252 # Designates Major Course: A minimum cumulative gpa of 2.0 required.**
# CON 244: Working drawing Analysis	1	☐			
# 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					
# CON 221: Applied Statics	3	☐		Grade of C	• **Complete CON 221, ENG 102 or 108 or 105 each with a minimum grade of "C"** • **Complete COM 225; CON 251; ECN 212; STP 226.** • Complete First-Year Composition requirement: ENG 101 & 102 or ENG 107 & 108 or ENG 105 # Designates Major Course: A minimum cumulative gpa of 2.0 required.
# CON 251: Microcomputer Applications for Construction	3	☐			
COM 225: Public Speaking (L)	3	☐			
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 "C"; CON 100; CON 271 # Designates Major Course: A minimum cumulative gpa of 2.0 required.**
# CON 271: Construction Safety	3	☐			
# CON 241: Surveying	3	☐			
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the US (C)	3	☐			
Science Quantitative (SQ) or Science General (SG)	4	☐			
TERM SUMMER 2nd Year: 1 CREDIT HOUR					
# CON 296: Field Internship	1	☐			
TERM FIVE: 61 75 CREDIT HOURS					
# CON 310: Testing and Materials for Construction	4	☒		Grade of C	# Designates Major Course: A minimum cumulative gpa of 2.0 required. Note: maximum of two "D" grades are allowed in all 3XX and 4XX courses combined.
# CON 345: Mechanical Systems	4	☒		Grade of C	
# CON 273: Electrical Construction Fundamental and Project Management	3	☐			
# CON 383: Construction Estimating	4	☒		Grade of C	
Select 1 # CON 377: Residential Construction Production Procedures (3 hrs) # CON 477: Residential Construction Business Practices (3 hrs) REA 380: Real Estate Fundamentals (3 hrs) Upper division elective (3 hrs)	3	☒		Grade of C in CON courses	
TERM SIX: 76 90 CREDIT HOURS					
# CON 389: Construction Cost Accounting and Control (CS)	3	☒		Grade of C	# Designates Major Course: A minimum cumulative gpa of 2.0 required. Note: maximum of two "D" grades are allowed in all 3XX and 4XX courses combined.
LES 305: Legal, Ethical, Regulatory Issues in Business	3	☒			
Select 1 additional course from: # CON 377: Residential Construction Production Procedures (3 hrs) # CON 477: Residential Construction Business Practices (3 hrs) REA 380: Real Estate Fundamentals (3 hrs) Upper division elective (3 hrs)	3	☒		Grade of C in CON courses	
Upper division Humanities, Fine Arts & Design (HU) OR Social & Behavioral Science (SB)	3	☒			
Upper division Elective	3	☒			
TERM SUMMER 3rd Year: 1 CREDIT HOUR					
# CON 484: Internship	1	☒		Grade of C	

ASU ARIZONA STATE UNIVERSITY

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

Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

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	3	☒		Grade of C	# Designates Major Course: A minimum cumulative gpa of 2.0 required. Note: maximum of two "D" grades are allowed in all 3XX and 4XX courses combined.
# CON 453: Construction Project Management I	4	☒		Grade of C	
# CON 495: Construction Planning and Scheduling	3	☒		Grade of C	
Select 1 additional course from: # CON 377: Residential Construction Production Procedures (3 hrs) # CON 477: Residential Construction Business Practices (3 hrs) REA 380: Real Estate Fundamentals (3 hrs) Upper division elective (3 hrs)	3	☒		Grade of C in CON courses	
TERM EIGHT: 106 120 CREDIT HOURS					
# CON 424: Structural Design	3	☒		Grade of C	# Designates Major Course: A minimum cumulative gpa of 2.0 required. Note: maximum of two "D" grades are allowed in all 3XX and 4XX courses combined.
# CON 455: Construction Project Management II	3	☒		Grade of C	
# CON 496: Construction Contract Administration (L)	3	☒		Grade of C	
Select remaining course from: # CON 377: Residential Construction Production Procedures (3 hrs) # CON 477: Residential Construction Business Practices (3 hrs) REA 380: Real Estate Fundamentals (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)
  - Historical Awareness (H)
- First-Year Composition

Additional Notes:

ASU ARIZONA STATE UNIVERSITY

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

Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

Course Subject and Title *(courses in **bold/shading** are critical)*	Hrs.	Upper Division	Transfer Course/Grade	Minimum Grade if Required	Completed ATP: ☐ Yes ☐ No / Completed AGEC: ☐ Yes ☐ No — Additional Critical Requirement Notes
TERM ONE: 0 15 CREDIT HOURS					
# ASU 101-FSE: The ASU Experience	1	☐			• **Complete MAT 265; PHY 111, 113 each with a minimum grade of "C"** • ASU 101-FSE should be completed first semester. • An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition courses • ASU Math Placement Exam score determines placement in Mathematics course **If ENG 105 a 3 hr applicable elective must also be taken prior to graduation. See Advisor. # Designates Major Course: A minimum cumulative gpa of 2.0 required.
MAT 265: Calculus for Engineers I (MA)	3	☐		Grade of C	
PHY 111/113: General Physics I/ Laboratory I (SQ)	3/1	☐		Grade of C	
# CON 101: Construction and Culture: A Built Environment (HU, G, H)	3	☐			
# CON 100: Introduction to Construction	2	☐			
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 TWO: 16 30 CREDIT HOURS					
# CON 243: Heavy Construction Equipment, Methods, Materials	3	☐		Grade of C	• **Complete CON 243 with a aminimum grade of "C"** • **Complete CON 244, 252** # Designates Major Course: A minimum cumulative gpa of 2.0 required.
# CON 244: Working Drawing Analysis	1	☐			
# 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					
# CON 221: Applied Statics	3	☐		Grade of C	• **Complete CON 221, ENG 102 or 108 or 105 each with a minimum grade of "C"** • **Complete COM 225; CON 251; ECN 212; STP 226.** • Complete First-Year Composition requirement: ENG 101 & 102 or ENG 107 & 108 or ENG 105 # Designates Major Course: A minimum cumulative gpa of 2.0 required.
# CON 251: Microcomputer Applications for Construction	3	☐			
COM 225: Public Speaking (L)	3	☐			
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 "C"; CON 100, CON 271.** # Designates Major Course: A minimum cumulative gpa of 2.0 required.
# CON 271: Construction Safety	3	☐			
# CON 241: Surveying	3	☐			
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the US (C)	3	☐			
Science Quantitative (SQ) or Science General (SG)	4	☐			
TERM SUMMER 2nd Year: 1 CREDIT HOUR					
# CON 296: Field Internship	1	☐			
TERM FIVE: 61 75 CREDIT HOURS					
# CON 310: Testing and Materials for Construction	4	☒		Grade of C	# Designates Major Course: A minimum cumulative gpa of 2.0 required. Note: maximum of two "D" grades are allowed in all 3XX and 4XX courses combined.
# CON 345: Mechanical Systems	4	☒		Grade of C	
# CON 273: Electrical Construction Fundamental and Project Management	3	☐			
# CON 383: Construction Estimating	4	☒		Grade of C	
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) Upper division elective (3 hrs)	3	☒		Grade of C in CON Courses	
TERM SIX: 76 90 CREDIT HOURS					
# CON 389: Construction Cost Accounting and Control (CS)	3	☒		Grade of C	# Designates Major Course: A minimum cumulative gpa of 2.0 required. Note: maximum of two "D" grades are allowed in all 3XX and 4XX courses combined.
LES 305: Legal, Ethical, Regulatory Issues in Business	3	☐			
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	☒		Grade of C in CON Courses	
Upper division Humanities, Fine Arts & Design (HU) OR Social & Behavioral Science (SB)	3	☒			
Upper division elective	3	☒			
TERM SUMMER 3rd Year: 1 CREDIT HOUR					
# CON 484: Internship	1	☒		Grade of C	

ASU ARIZONA STATE UNIVERSITY

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

Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

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	3	☒		Grade of C	# Designates Major Course: A minimum cumulative gpa of 2.0 required. Note: maximum of two "D" grades are allowed in all 3XX and 4XX courses combined.
# CON 453: Construction Project Management I	4	☒		Grade of C	
# CON 495: Construction Planning and Scheduling	3	☒		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	☒		Grade of C in CON Courses	
TERM EIGHT: 106 120 CREDIT HOURS					
# CON 424: Structural Design	3	☒		Grade of C	# Designates Major Course: A minimum cumulative gpa of 2.0 required. Note: maximum of two "D" grades are allowed in all 3XX and 4XX courses combined.
# CON 455: Construction Project Management II	3	☒		Grade of C	
# CON 496: Construction Contract Administration	3	☒		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)
  - Historical Awareness (H)
- First-Year Composition

Additional Notes:

ASU ARIZONA STATE UNIVERSITY

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

Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

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

ASU ARIZONA STATE UNIVERSITY

Major Map: Electrical Engineering – Bachelor of Science in Engineering (B.S.E.)
Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

Graduation Requirements Summary:

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

General University Requirements: Legend

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

Additional Notes:

ASU ARIZONA STATE UNIVERSITY

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: 2009-2010

Course Subject and Title *(courses in bold/shading are critical)*	Hrs.	Upper Division	Completed ATP: ☐ Yes ☐ No Transfer Course/Grade	Minimum Grade if Required	Completed AGEC: ☐ Yes ☐ No Additional Critical Requirement Notes
TERM ONE: 0 15 CREDIT HOURS					
ASU 101-FSE: The ASU Experience	1	☐			• **Complete MAT 265 with a minimum grade of "C"**
CHM 114: General Chemistry for Engineers OR CHM 116: General Chemistry II *	4	☐			• ASU 101-FSE should be completed first semester.
# CSE 100: Principles of Programming with C++ (CS) OR # EEE 120: Digital Design Fundamentals	3	☐			• An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition courses
# EEE 101: Introduction to Engineering Design OR BME 111: Engineering Perspectives on Biological Systems	2 or 3	☐			• 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 towards degree credit
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	**If ENG 105 a 3 hr applicable elective must also be taken prior to graduation. See Advisor. # Designates Major course: A minimum cumulative GPA of 2.0 required.
TERM TWO: 16 30 CREDIT HOURS					
# CSE 100: Principles of Programming with C++ (CS) OR # EEE 120: Digital Design Fundamentals	3	☐			• **Complete EEE 101**
# EEE 101: Introduction to Engineering Design OR BME 111: Engineering Perspectives on Biological Systems	2 or 3				• **Complete MAT 266; PHY 121 & 122 each with a minimum grade of "C"** # 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	☐		Grade of C	
ENG 101 or 102: First-Year Composition OR ENG 105: Advanced First-Year Composition** OR ENG 107 or 108: English for Foreign Students	3	☐		Grade of C	
TERM THREE: 31 45 CREDIT HOURS					
# EEE 202: Circuits I	4	☐			• **Complete EEE 202; MAT 267, 274 or 275 and PHY 131, 132 with a minimum grade of "C"**
MAT 267: Calculus for Engineers III	3	☐		Grade of C	• Complete First Year Composition requirement: ENG 101 & 102 or ENG 107 & 108 or ENG 105 # Designates Major Course: A minimum cumulative GPA of 2.0 required.
MAT 274: Elementary Differential Equations (MA) OR MAT 275: Modern Differential Equations (MA)	3	☐		Grade of C	
PHY 131/132: University Physics II Electricity and Magnetism/ Laboratory II (SQ)	3/1	☐		Grade of C	
TERM FOUR: 46 60 CREDIT HOURS					
# EEE 203: Signals and Systems I	3	☐			• **Complete EEE 203 and EEE 241** # Designates Major Course: A minimum cumulative GPA of 2.0 required.
# EEE 241: Fundamentals of Electromagnetics	3	☐			
MAT 342: Linear Algebra OR MAT 343: Applied Linear Algebra	3	☒		Grade of C	
PHY 241: University Physics III	3	☐		Grade of C	
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the US (C), or Historical Awareness (H)	3	☐			
TERM FIVE: 61 75 CREDIT HOURS					
# EEE 230: Computer Organization and Assembly Language Programming	3	☐			# Designates Major Course: A minimum cumulative GPA of 2.0 required.
# EEE 334: Circuits II	4	☒			
# EEE 350: Random Signal Analysis	3	☒			
# EEE 360: Energy Systems and Power Electronics	4	☒			
TERM SIX: 76 90 CREDIT HOURS					
ECN 211/212 (SB): Macroeconomic Principles/Microeconomic Principles or ECN 201: Economic Issues & Analysis (SB)	3	☐			• 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.
# Area Pathway Course	4	☒			
# Area Pathway Course	4	☒			# Designates Major Course: A minimum cumulative GPA of 2.0 required.
# Area Pathway Course	4	☒			
TERM SEVEN: 91 105 CREDIT HOURS					
# EEE 488: Senior Design Laboratory I (L)	3	☒			# Designates Major Course: A minimum cumulative GPA of 2.0 required.
Select 2 # EEE 460: Nuclear Concepts for the 21st Century (3 hrs) # EEE 463: Electrical Power Plant (3 hrs) # 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)	6	☒			
GCU 364: Energy in the Global Arena (SB, G)	3	☒			
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the US (C), or Historical Awareness (H)	3	☐			

ASU ARIZONA STATE UNIVERSITY

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: 2009-2010

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					
# EEE 489: Senior Design Laboratory II (L)	3	☒			• See Degree Audit Reporting System (DARS) for approved list of Technical Electives # Designates Major Course: A minimum cumulative GPA of 2.0 required.
Select 1 not previously selected: # EEE 460: Nuclear Concepts for the 21st Century (3 hrs) # EEE 463: Electrical Power Plant (3 hrs) # 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	☒			
# Technical Elective	3	☒			
# Technical Elective	3	☒			
Humanities, Fine Arts & Design (HU) OR Social & Behavioral Science (SB)	3	☐			

Graduation Requirements Summary:

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

General University Requirements: Legend

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

Additional Notes:

ASU ARIZONA STATE UNIVERSITY

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: 2009-2010

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					
ASU 101-FSE: The ASU Experience	1	☐			• **Complete BME 100 with a minimum grade of "C" or BIO 188** • **Complete MAT 265 with a minimum grade of "C"** • An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition courses • ASU Math Placement Exam score determines placement in Mathematics course ** If ENG 105 a 3 hr applicable elective must also be taken prior to graduation. See Advisor.
BME 100: Introduction to Bioengineering OR BIO 188: General Biology II (CS)	2 or 4	☐		Grade of C in BME 100	
MAT 265: Calculus for Engineers I	3	☐		Grade of C	
CHM 113: General Chemistry I (SQ)	4	☐			
ENG 101 or 102: First-Year Composition OR ENG 105: Advanced First-Year Composition** OR ENG 107 or 108: English for Foreign Students	3	☐		Grade of C	
TERM TWO: 16 30 CREDIT HOURS					
BME 100: Introduction to Bioengineering OR BIO 188: General Biology II (SQ)	2 or 4	☐		Grade of C in BME 100	• **Complete BIO 188; BME 100 with a minimum grade of "C"; CHM 116; MAT 266 with a minimum grade of "C"; PHY 121 & 122** • **Complete ASU101-FSE**
CHM 116: General Chemistry II (SQ)	4	☐			
MAT 266: Calculus for Engineers II	3	☐		Grade of C	
PHY 121/122: University Physics I/ Laboratory I (SQ)	3/1	☐			
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					
BME 235: Physiology for Engineers	4	☐		Grade of C	• **Complete PHY 131 & 132** • 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 (SQ)	3/1	☐			
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					
BME 200: Conservation Principles in Bioengineering	3	☐		Grade of C	• **Complete BME 200, 235 each with a minimum grade of "C"**
EEE 202: Circuits I	4	☐			
MAE 212: Engineering Mechanics	4	☐			
MAT 275: Modern Differential Equations (MA)	3	☐			
CHM 234/238: General Organic Chemistry II/Laboratory II OR Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the US (C), Global Awareness (G) or Historical Awareness (H)	4 or 3	☐			
TERM FIVE: 61 75 CREDIT HOURS					
# 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	
# CHM 341: Elementary Physical Chemistry	3	☒			
# MAT 343: Applied Linear Algebra	3	☒			
Social & Behavioral Science (SB) AND Cultural Diversity in the US (C), Global Awareness (G) or Historical Awareness (H)	3	☐			
TERM SIX: 76 90 CREDIT HOURS					
# BME 300: Bioengineering Product Design	3	☒		Grade of C	# Designates Major Course: A minimum cumulative GPA of 2.0 required.
# BME 331: Bioengineering Transport Phenomena	3	☒		Grade of C	
# BME 370: Microcomputer Applications in Bioengineering	3	☒		Grade of C	
CHM 234/238: General Organic Chemistry II/Laboratory II OR Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the US (C), Global Awareness (G) or Historical Awareness (H) if CHM 234/238 completed	4 or 3	☐			
# IEE 380: Probability and Statistics for Engineering Problem Solving	3	☐			
TERM SEVEN: 91 105 CREDIT HOURS					
# BME 413: Biomedical Instrumentation (BME 413 + 423 = L)	3	☒		Grade of C	# Designates Major Course: A minimum cumulative GPA of 2.0 required.
# BME 417: Biomedical Engineering Capstone Design I (L)	4	☒		Grade of C	
# BME 423: Biomedical Instrumentation Laboratory	1	☒		Grade of C	
# 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	☐			
TERM EIGHT: 106 120 CREDIT HOURS					
# BME 490: Biomedical Engineering Capstone Design II	4	☒		Grade of C	# Designates Major Course: A minimum cumulative GPA of 2.0 required.
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the US (C), Global Awareness (G) or Historical Awareness (H)	3	☒			
# Technical Elective	1	☒		Grade of C	
UD Humanities, Fine Arts & Design (HU) OR Social Behavioral Science (SB)	3	☒			

ASU ARIZONA STATE UNIVERSITY

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: 2009-2010

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:

ASU ARIZONA STATE UNIVERSITY

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

Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

Course Subject and Title *(courses in bold/shading are critical)*	Hrs.	Upper Division	Transfer Course/Grade	Minimum Grade if Required	Completed ATP: ☐ Yes ☐ No — Completed AGEC: ☐ Yes ☐ No Additional Critical Requirement Notes
TERM ONE: 0 15 CREDIT HOURS					
ASU 101-FSE: The ASU Experience	1	☐			• **Complete at least one of: BME 111; CSE 110 (or 100) with a minimum grade of "C"; IEE 100 with a minimum grade of "C"; MAT 265 with a minimum grade of "C"**
IEE 100: Intro to Engineering Design OR CSE 110: Principles of Programming with Java (or CSE 100: Principles of Programming with C++) (CS)	2 or 3	☐		Grade of C	• ASU 101-FSE should be completed first semester.
BME 111: Engineering Perspectives on Biological Systems	3	☐			• An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition courses
MAT 265: Calculus for Engineers I	3	☐		Grade of C	• ASU Math Placement Exam score determines placement in Mathematics course
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	** If ENG 105 a 3 hr applicable elective must also be 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	☐			
TERM TWO: 16 30 CREDIT HOURS					
IEE 100: Intro to Engineering Design OR CSE 110: Principles of Programming with Java (or CSE 100: Principles of Programming with C++) (CS)	2 or 3	☐		Grade of C	• **Complete** - **CSE 110 (or 100) with a minimum grade of "C", OR PHY 121 & 122 with a minimum grade of "C"** - **ENG 101 or 107 or 105 with minimum grade of "C"** - **IEE 100 with a minimum grade of "C"** - **MAT 265 with a minimum 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 107 or 108: English for Foreign Students**	3	☐		Grade of C	
TERM THREE: 31 45 CREDIT HOURS					
ECN 211: Macroeconomic Principles (SB)	3	☐			• **Complete CSE 110 (or 100) with a minimum grade of "C", PHY 121 & 122 with a minimum grade of "C"**
CSE 205: Concepts of Computer Design and Data (CS)	3	☐			• **Complete ECN 211; BME 111; MAT 266 with a minimum grade of "C"**
IEE 210: Introduction to Industrial Engineering	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	☐			
PHY 131/132: University Physics II Electricity and Magnetism/ Laboratory II (SQ)	3/1	☐			
TERM FOUR: 46 60 CREDIT HOURS					
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 towards degree credit
MAT 242: Elementary Linear Algebra	2	☐			
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	3	☒		Grade of C	
IEE 382: Probability & Statistics Lab	1	☒		Grade of C	
Choose 2: EEE 202: Circuits I (4 hrs) MAE 212: Engineering Mechanics (4 hrs) MSE 250: Structure and Properties of Materials (3 hrs)	7 or 8	☐			
TERM SIX: 76 90 CREDIT HOURS					
IEE 376: Operational Research Deterministic Technology	3	☒		Grade of C	
IEE 369: Work Analysis and Design (L)	3	☒		Grade of C	
Choose remaining 1: EEE 202: Circuits I (4 hrs) MAE 212: Engineering Mechanics (4 hrs) MSE 250: Structure and Properties of Materials (3 hrs)	3 or 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					
IEE 470: Stochastic Operations Research	3	☒		Grade of C	
IEE 474: Quality Control	3	☒		Grade of C	
IEE 475: Simulating Stochastic Systems	4	☒		Grade of C	
Career Focused Elective	3	☒			
UD Humanities, Fine Arts & Design (HU) OR Social & Behavioral Science (SB)	3	☒			
TERM EIGHT: 106 120 CREDIT HOURS					
IEE 461: Production Control	3	☒		Grade of C	
IEE 490: Project in Design/Development (L)	3	☒		Grade of C	
IEE Technical Elective	3	☒		Grade of C	
Career Focused Elective	3	☒			
Career Focused Elective	3	☒			

Graduation Requirements Summary:

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

General University Requirements: Legend

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

Additional Notes:

ASU ARIZONA STATE UNIVERSITY

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

Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

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

ASU ARIZONA STATE UNIVERSITY

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

Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

Graduation Requirements Summary:

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

General University Requirements: Legend

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

Additional Notes:

ASU ARIZONA STATE UNIVERSITY

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

Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

			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					
+ASU 101-FSE: The ASU Experience	1	☐			• **Complete CHM 114 or 116 or 115; MAT 265 each with a minimum grade of "C"**
CHM 114: General Chemistry for Engineers (SQ) OR CHM 115: General Chemistry with Qualitative Analysis (SQ) OR CHM 116: General Chemistry II* (SQ)	4	☐		Grade of C	+ ASU 101-FSE and MAE 100 required for freshmen and should be completed first semester. Non-freshmen see advisor for petitioning replacement electives.
+MAE 100: Intro to Mechanical and Aerospace Engineering (or Department Approved Elective)	2	☐		Grade of C in MAE 100	• An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition courses
MAT 265: Calculus for Engineers I (MA)	3	☐		Grade of C	• ASU Math Placement Exam score determines placement in Mathematics course
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	*CHM 113 is a prerequisite and does not apply towards degree credit
Social & Behavioral Science (SB) AND Cultural Diversity in the US (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.
TERM TWO: 16 30 CREDIT HOURS					
MAT 266: Calculus for Engineers II	3	☐		Grade of C	• **Complete MAT 266; PHY 121, 122 each with a minimum 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 107 or 108: English for Foreign Students**	3	☐		Grade of C	
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the US (C), Global Awareness (G), or Historical Awareness (H)	3	☐			
TERM THREE: 31 45 CREDIT HOURS					
MAE 212: Engineering Mechanics	4	☐		Grade of C	• **Complete ENG 102 or 108 or 105; MAE 212; MAT 275; PHY 131, 132 each 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
PHY 131/132: University Physics II Electricity and Magnetism/ Laboratory II	3/1	☐		Grade of C	
MAE 214: Computer-Aided Engineering I	1	☐		Grade of C	
MAT 267: Calculus for Engineers III	3	☐		Grade of C	
TERM FOUR: 46 60 CREDIT HOURS					
MAE 213: Solid Mechanics	3	☐		Grade of C	• **Complete MAE 213, 240 each with a minimum grade of "C".**
MAE 240: Thermofluids I	4	☐		Grade of C	
EEE 202: Circuits I	4	☐		Grade of C	
MAT 343: Applied Linear Algebra	3	☒		Grade of C	
MSE 250: Structure and Properties of Materials	3	☐		Grade of C	
TERM FIVE: 61 75 CREDIT HOURS					
BME 111: Engineering Perspectives on Biological Systems (or dept approved BIO)	3	☐			
MAE 322: Structural Mechanics	4	☒		Grade of C	
MAE 340 Thermofluids II	3	☒		Grade of C	
MAE 384: Numerical Methods for Engineers (CS)	3	☒		Grade of C	
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the US (C), Global Awareness (G), or Historical Awareness (H)	3	☒			
TERM SIX: 76 90 CREDIT HOURS					
MAE 323: Computer-Aided Engineering II	2	☒		Grade of C	
MAE 318: Sensors and Controls	5	☒		Grade of C	
MAE 342: Principles of Mechanical Design	3	☒		Grade of C	
Technical Elective	3	☒		Grade of C	
TERM SEVEN: 91 105 CREDIT HOURS					
MAE 488: Mechanical Engineering Design I	3	☒		Grade of C	
MAE 491: Experimental Mechanical Engineering (L)	3	☒		Grade of C	
Technical Elective	3	☒		Grade of C	
Social & Behavioral Science (SB) AND Cultural Diversity in the US (C), Global Awareness (G), or Historical Awareness (H)	3	☐			
UD Humanities, Fine Arts & Design (HU) OR Social & Behavioral Science (SB)	3	☒			
TERM EIGHT: 106 120 CREDIT HOURS					
MAE 400: Engineering Profession (L)	3	☒		Grade of C	See advisor for approved General Electives.
MAE 489: Mechanical Engineering Design II	3	☒		Grade of C	
Technical Elective	3	☒		Grade of C	
Technical Elective	3	☒		Grade of C	
General Elective	3	☐			

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

Ira A. Fulton School of Engineering, Tempe Campus
Catalog Year: 2009-2010

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:

ASU ARIZONA STATE UNIVERSITY

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: 2009-2010

			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					
+ASU 101-FSE: The ASU Experience	1	☐			• **Complete CHM 114 or 116 or 115; MAT 265 each with a minimum grade of "C"**
CHM 114: General Chemistry for Engineers (SQ) OR CHM 115: General Chemistry with Qualitative Analysis (SQ) OR CHM 116: General Chemistry II* (SQ)	4	☐		Grade of C	+ ASU 101-FSE and MAE 100 required for freshmen and should be completed first semester. Non-freshmen see advisor for petitioning replacement electives.
+MAE 100: Introduction to Mechanical and Aerospace Engineering (or Department Approved Elective)	2	☐		Grade of C in MAE 100	• An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition courses
MAT 265: Calculus for Engineers I (MA)	3	☐		Grade of C	• ASU Math Placement Exam score determines placement in Mathematics course
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	*CHM 113 is a prerequisite and does not apply towards degree credit **If ENG 105 a 3 hr applicable elective must also be taken prior to graduation. See Advisor.
TERM TWO: 16 30 CREDIT HOURS					
CSE 100: Principles of Programming with C++(CS) OR CSE 110: Principles of Programming with Java (CS)	3	☐		Grade of C	• **Complete MAT 266; PHY 121, 122 with a minimum 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 107 or 108: English for Foreign Students**	3	☐		Grade of C	
Social & Behavioral Science (SB) AND Cultural Diversity in the US (C), Global Awareness (G), or Historical Awareness (H)	3	☐			
TERM 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 each 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
PHY 131/132: University Physics II Electricity and Magnetism/ Laboratory II (SQ)	3/1	☐		Grade of C	
MAE 214: Computer-Aided Engineering I	1	☐		Grade of C	
MAT 267: Calculus for Engineers III	3	☐		Grade of C	
TERM FOUR: 46 60 CREDIT HOURS					
MAE 213: Solid Mechanics	3	☐		Grade of C	• **Complete MAE 213, 240 each with a minimum grade of "C"**
MAE 240: Thermofluids I	4	☐		Grade of C	
PHI 103: Principles of Sound Reasoning (HU)	3	☐			
MAT 343: Applied Linear Algebra	3	☒		Grade of C	
MSE 250: Structure and Properties of Materials	3	☐		Grade of C	
TERM FIVE: 61 75 CREDIT HOURS					
MAE 340: Thermofluids II	3	☒		Grade of C	
EEE 202: Circuits I	4	☐		Grade of C	
MAE 322: Structural Mechanics	4	☒		Grade of C	
MAE 384: Numerical Methods for Engineers (CS)	3	☒		Grade of C	
TERM SIX: 76 90 CREDIT HOURS					
BME 111: Engineering Perspectives on Biological Systems (or dept approved BIO)	3	☐			
MAE 318: Sensors and Controls	5	☒		Grade of C	
MAE 323 Computer-Aided Engineering II	2	☒		Grade of C	
MAE 342: Principles of Mechanical Design	3	☒		Grade of C	
Technical Elective	3	☒		Grade of C	
TERM SEVEN: 91 105 CREDIT HOURS					
MAE 491: Experimental Mechanical Engineering (L)	3	☒		Grade of C	
MAE 488: Mechanical Engineering Design I	3	☒		Grade of C	
Technical Elective	3	☒		Grade of C	
Technical Elective	3	☒		Grade of C	
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the US (C), Global Awareness, (G), or Historical Awareness (H)	3	☐			
TERM EIGHT: 106 120 CREDIT HOURS					
MAE 400: Engineering Profession (L)	3	☒		Grade of C	
MAE 489: Mechanical Engineering Design II	3	☒		Grade of C	
Technical Elective	3	☒		Grade of C	
Social & Behavioral Science (SB) AND Cultural Diversity in the US (C), Global Awareness (G), or Historical Awareness (H)	3	☐			
UD Humanities, Fine Arts & Design (HU) OR Social & Behavioral Science (SB)	3	☒			

ASU ARIZONA STATE UNIVERSITY

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: 2009-2010

Graduation Requirements Summary:

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

General University Requirements: Legend

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

Additional Notes:

ASU ARIZONA STATE UNIVERSITY

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: 2009-2010

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					
+ASU 101-FSE: The ASU Experience	1	☐			• **Complete CHM 114 or 116 or 115; MAT 265 each with a minimum grade of "C"**
CHM 114: General Chemistry for Engineers(SQ) OR CHM 115: General Chemistry with Qualitative Analysis (SQ) OR CHM 116: General Chemistry II* (SQ)	4	☐		Grade of C	+ ASU 101-FSE and MAE 100 required for freshmen and should be completed first semester. Non-freshmen see advisor for petitioning replacement electives.
+MAE 100: Introduction to Mechanical and Aerospace Engineering (or Department Approved Elective)	2	☐		Grade of C in MAE 100	• An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition courses
MAT 265: Calculus for Engineers I	3	☐		Grade of C	• ASU Math Placement Exam score determines placement in Mathematics course
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	*CHM 113 is a prerequisite and does not apply towards degree credit
Social & Behavioral Science (SB) AND Cultural Diversity in the US (C), or Historical Awareness (H)	3	☐			**If ENG 105 a 3 hr applicable elective must also be taken prior to graduation. See Advisor.
TERM TWO: 16 30 CREDIT HOURS					
MAT 266: Calculus for Engineers II	3	☐		Grade of C	• **Complete MAT 266; PHY 121, 122 each with a minimum 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 107 or 108: English for Foreign Students**	3	☐		Grade of C	
Humanities, Fine Arts & Design (HU) AND Cultural Diversity in the US (C), or Historical Awareness (H)	3	☐			
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 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 (SQ)	3/1	☐		Grade of C	
MAE 214: Computer-Aided Engineering I	1	☐		Grade of C	
MAT 267: Calculus for Engineers III	3	☐		Grade of C	
TERM FOUR: 46 60 CREDIT HOURS					
MAE 213: Solid Mechanics	3	☐		Grade of C	• **Complete MAE 213, 240 each with a minimum grade of "C"**
MAE 240: Thermofluids I	4	☐		Grade of C	
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	☐		Grade of C	
TERM FIVE: 61 75 CREDIT HOURS					
MAE 340: Thermofluids II	3	☒		Grade of C	
EEE 202: Circuits I	4	☐		Grade of C	
MAE 322: Structural Mechanics	4	☒		Grade of C	
MAE 323: Computer-Aided Engineering II	2	☒		Grade of C	
MAE 384: Numerical Methods for Engineers (CS)	3	☒		Grade of C	
TERM SIX: 76 90 CREDIT HOURS					
BIO 319 Environmental Science (G) or BIO 320: Fundamentals of Ecology	3	☒			
MAE 318: Sensors and Controls	5	☒		Grade of C	
MAE 342: Principles of Mechanical Design	3	☒		Grade of C	
Technical Elective	3	☒		Grade of C	
TERM SEVEN: 91 105 CREDIT HOURS					
MAE 382: Thermodynamics	3	☒		Grade of C	
MAE 491: Experimental Mechanical Engineering (L)	3	☒		Grade of C	
Technical Elective	3	☒		Grade of C	
Technical Elective	3	☒		Grade of C	
GCU 364: Energy in the Global Arena (SB,G) or PUP 190: Sustainable Cities (HU, G or SB,G)	3	☐			
TERM EIGHT: 106 120 CREDIT HOURS					
MAE 400: Engineering Profession (L)	3	☒		Grade of C	
MAE 446: Energy Systems Design	3	☒		Grade of C	
Technical Elective	3	☒		Grade of C	
GPH 314: Global Change (HU,G) or PHI 310: Environmental Ethics (HU)	3	☒			
Humanities, Fine Arts & Design (HU) OR Social & Behavioral Science (SB) (6 hrs min in both SB & HU required)	3	☐			

ASU ARIZONA STATE UNIVERSITY

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: 2009-2010

Graduation Requirements Summary:

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

General University Requirements: Legend

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

Additional Notes:

ASU ARIZONA STATE UNIVERSITY

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

Walter Cronkite School of Journalism, Downtown Phoenix Campus
Catalog Year: 2009-2010

Course Subject and Title *(courses in bold/shading are critical)*	Hrs.	Upper Division	*Completed ATP:* ☐ *Yes* ☐ *No* Transfer Course/Grade	Minimum Grade if Required	*Completed AGEC:* ☐ *Yes* ☐ *No* Additional Critical Tracking Notes
TERM ONE: 0 15 CREDIT HOURS					
ASU 101: The ASU Experience	1	☐		Grade of C	• ASU 101 is for ASU freshman students only. Not required of transfer students • An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition courses • ASU Math Placement Exam score determines placement in Mathematics course • Minimum 2.50 ASU cumulative GPA
ENG 101 and 102: First-Year Composition OR ENG 107 and 108: English for Foreign Students OR ENG 105: Advanced First-Year Composition	3	☐		Grade of C	
MAT 142: College Mathematics (MA) or higher	3	☐			
Second Language	4	☐		Grade of C	
JMC 101: Grammar for Journalists	1	☐		Grade of Y	
JMC 110: Principles and History of Journalism (SB) (includes English Grammar Exam)	3	☐		Grade of C	
TERM TWO: 16 30 CREDIT HOURS					
ENG 101 and 102: First-Year Composition OR ENG 107 and 108: English for Foreign Students OR ENG 105: Advanced First-Year Composition	3	☐		Grade of C	• Minimum 2.50 ASU cumulative GPA
Statistics (CS)	3	☐			
Second Language	4	☐			
JMC 201: News Reporting and Writing (L)	3	☐		Grade of C	
HST 109: United States to 1865 (HU/SB, H) OR HST 110: United States since 1865 (SB, H)	3	☐			
TERM THREE: 31 45 CREDIT HOURS					
Complete at least one of two: **JMC 366: Journalism Ethics and Diversity OR JMC 301: Intermediate Reporting & Writing (Print/PR/Digital) JMS 315: Intermediate Reporting & Writing (Broadcast/Digital)**	3	☒		Grade of C	• Minimum 2.50 ASU cumulative GPA
JMC 425: Online Media	3	☒		Grade of C	
Natural Science – Quantitative (SQ)	4	☐			
Second Language	3	☐			
SOC 101: Intro to Sociology (SB)	3	☐			
TERM FOUR: 46 60 CREDIT HOURS					
Complete at least one of two: **JMC 366: Journalism Ethics and Diversity OR JMC 301: Intermediate Reporting & Writing (Print/PR/Digital) JMS 315: Intermediate Reporting & Writing (Broadcast/Digital)**	3	☒		Grade of C	• Minimum 2.50 ASU cumulative GPA • Must complete 366 and 301 or 315 (depending on track) by end of term 4 with grade of "C or better"
POS 110: Government and Politics (SB) OR POS 310: American Government (SB)	3	☐			
Second Language (G)	4	☐			
English Literature (HU)	3	☐			
HST Elective:	3	☐			
TERM FIVE: 61 75 CREDIT HOURS					
JMC 313: Introduction to Editing (Print/PR/Digital) **OR** JMC 345: Videography (Broadcast/Digital)	3	☒		Grade of C	• Minimum 2.50 ASU cumulative GPA
Track class ***	3	☒		Grade of C	
JMC 484: Internship	3	☒		Grade of C	
PHI 101: Introduction to Philosophy (HU) OR PHI 103: Principles of Sound Reasoning (L or HU) OR PHI 105: Intro to Ethics (HU) OR PHI 305: Ethical Theory (HU) OR PHI 306: Applied Ethics (HU) OR PHI 309: Social and Political Philosophy (HU)	3	☐			
Natural Science (SQ or SG)	4	☐			
TERM SIX: 76 90 CREDIT HOURS					
JMC 402: Mass Communication Law (L)	3	☒		Grade of C	• Minimum 2.50 ASU cumulative GPA
ECN 211: Macroeconomic Principles (SB) OR ECN 212: Microeconomic Principles (SB)	3	☐			
Track class ***	3	☒		Grade of C	
Related Area	3	☐		Grade of C	
Elective	2	☐			
TERM SEVEN: 91 105 CREDIT HOURS					
Track class ***	3	☒		Grade of C	• Minimum 2.50 ASU cumulative GPA
PGS 101: Intro to Psychology (SB)	3	☐			
Related Area	3	☒		Grade of C	
Related Area	3	☒		Grade of C	
Awareness Area – Cultural Diversity (C) or Elective if completed	3	☐			
TERM EIGHT: 106 120 CREDIT HOURS					
JMC 473: Business of Journalism	3	☒		Grade of C	• Minimum 2.50 ASU cumulative GPA
JMC/MCO Elective	3	☒		Grade of C	
Related Area	3	☒		Grade of C	
Upper Division Elective	3	☒			

ASU ARIZONA STATE UNIVERSITY

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

Walter Cronkite School of Journalism, Downtown Phoenix Campus
Catalog Year: 2009-2010

***Track Classes:

Broadcast
JMC 330: Television Reporting AND
JMC 475: Television Newscast Production (3-9 hrs) OR
JMC 437: Documentary Production and Broadcast Elective
JMC 478: Cronkite News Service (3-9 hrs)

Print Journalism
JMC 325: Multimedia Reporting OR
JMC 440: Magazine Writing OR
JMC 470: Depth Reporting AND
JMC 478: Cronkite News Service (3-9 hrs) OR
2 Paired Journalism/online electives
(chosen in consultation with your advisor)

Public Relations
JMC 310: Public Relations AND
JMC 415: Writing for Public Relations AND
JMC 417: Public Relations Campaign

Digital Journalism
JMC 460: Advanced Online AND
JMC 494: Digital Media Entrepreneurship AND
JMC 325: Multimedia Reporting OR
JMC 494: Knight Center Independent Study OR
JMC 494: New Media Innovation Lab

Graduation Requirements Summary:

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

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:

Students other than first time freshmen may take the English Grammar Exam one time to attempt to test out of JMC 101 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

ASU ARIZONA STATE UNIVERSITY

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

Sandra Day O'Connor College of Law | Catalog Year: 2009-2010

Course Subject and Title *(courses in **bold/shading** are critical)*	Hrs.	Upper Division	*Completed ATP: ☐Yes ☐ No* Transfer Course/Grade	Minimum Grade if Required	*Completed AGEC: ☐ Yes ☐ No* Additional Critical Requirement Notes
TERM ONE: 0 15 CREDIT HOURS					
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	• An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition courses • ASU Math Placement Exam score determines placement in Mathematics course • Complete First-Year Composition requirement by the end of semester 3 • Complete Math course requirement by end of semester 3
LAW 105: Structure/Methodology of American Legal System	3	☐		Grade of C	
MAT 142: College Mathematics or higher (MA)	3	☐		Grade of C	
Social & Behavioral Science (SB)	3	☐			
ASU 101: The ASU Experience	1	☐			
Elective	3	☐			
TERM TWO: 16 30 CREDIT HOURS					
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	• Complete First-Year Composition requirement by the end of semester 3 • Complete Math course requirement by end of semester 3
Computer/Statistics/Quantitative applications (CS)	3	☐			
Cultural Diversity in the US (C)	3	☐			
Natural Science – General (SG) or Quantitative (SQ)	4	☐			

NOTE: The College of Law is still considering and developing the curriculum for the BS in Legal Studies and may propose changes to the LAW courses required after term 2. The LAW courses listed in terms 3-8 are still pending final approval by the College of Law and the University.

TERM THREE: 31 45 CREDIT HOURS					
LAW 210: Legal Research	3	☐		Grade of C	• Complete First-Year Composition requirement by the end of semester 3 • Complete Math course requirement by end of term 3
POS 270: American Legal System (SB)	3	☐		Grade of C	
Literacy & Critical Inquiry (L)	3	☐			
Natural Science – Quantitative (SQ)	4	☐			
Elective	3	☐			
TERM FOUR: 46 60 CREDIT HOURS					
LAW 215: Legal Writing	3	☐		Grade of C	
LAW 220: Technology & Legal Practice	3	☐			
Humanities, Fine Arts & Design (HU)	3	☐			
Historical Awareness (H)	3	☐			
Elective	3	☐			
TERM FIVE: 61 75 CREDIT HOURS					
LAW 310: Advanced Legal Research	3	☒			
LAW 320: Legal Ethics	3	☒			
LAW 330: Alternative Dispute Resolution	3	☒			
Upper division Literacy & Critical Inquiry (L) (ENG 301: Writing for Professions or ENG 302: Business Writing recommended)	3	☒			
Humanities, Fine Arts & Design (HU)	3	☐			
TERM SIX: 76 90 CREDIT HOURS					
LAW 340: Torts/Personal Injury Practice	3	☒			
LAW 350: Law Office Management & Accounting	3	☒			
LAW 360: Administrative Law & Process	3	☒			
Upper division Humanities, Fine Arts & Design (HU) or Social & Behavioral Science (SB)	3	☒			
Global Awareness (G)	3	☐			
TERM SEVEN: 91 105 CREDIT HOURS					
LAW 370: Business & Corporate Practice	3	☒			
LAW 380: Litigation Practice	3	☒			
Upper division LAW course	3	☒			
Elective	3	☐			
Elective	3	☐			
TERM EIGHT: 106 120 CREDIT HOURS					
Upper division LAW course	3	☒			
Upper division LAW course	3	☒			
Upper division LAW course	3	☒			
Upper division elective	3	☒			
Elective	3	☐			

Graduation Requirements Summary:

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

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:

ASU ARIZONA STATE UNIVERSITY

Major Map: General Studies – Bachelor of General Studies (B.G.S.)

School of Letters & Sciences | Catalog Year: 2009-2010

I. First Year Composition (3-6 hours)	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 (35 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.

HU:				
HU:				
SB:				
SB:				
HU or SB:				
Natural Sciences *(8 hours)*				
SQ:				
SQ/SG:				
Mathematics & Statistics/Computer Applications *(6 hours)*				
MA: MAT 142: College Mathematics (MA) or higher				
CS:				
Literacy & Critical Inquiry *(6 hours)*				
L:				
Upper division L:				

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):				

II. Major requirements

ASU 101: The ASU Experience (freshmen only)	1			
COM 494: Society and the Individual	3	3		

Graduation Requirements

Total Hours Required (120 hrs. min)	Upper Division Hours Required (45 hrs min)	ASU Resident Hours Required (30 hrs min)	Max. 2-yr Transfer Hours allowed (64 hrs max.)	Minimum GPA required (2.00 min.)	ASU Resident Hours for Academic Recognition (56 hrs min)

III. BGS Clusters (36 hours)	Total Hours	UD Hours	Res Hours	Grade
Cluster #1				
Cluster #2				
Cluster #3				
Cluster #4				

IV. Electives

Please Note:

- A grade of C or better is required in all Major courses
- Majors must maintain at least a 2.0 ASU cumulative GPA and 2.0 Major GPA
- Twenty one hours in the major must be upper division
- Cluster classes in the Major cannot be used for Minor classes or other clusters
- Consult the ASU catalog for more information about General Studies requirements
- Elective hours needed may change and are dependent on how other requirements are satisfied
- Evaluation of transfer courses for cluster requirements should be directed to the appropriate departmental advisor.
- Questions regarding cluster requirements, course prerequisites and class registration should be directed to an advisor in the department or college offering the cluster.
- See ASU catalog for information about repeating courses
- This assessment is supplemental to your DARS report. To obtain a copy of your DARS report, go to: http://www.asu.edu/interactive

Cluster Choices: Students will choose four [4] clusters and at least three [3] classes within each one. Language and Culture; Values and Society; Healthcare; Society and Mass Media; Special Events Management; Nonprofit Management; Meeting Planning; The Urban Experience; Leadership; U.S. Social Welfare System and Social Services; Criminology and Criminal Justice; Law and Criminal Justice; Science, Technology and Society. See http://sls.asu.edu/gs/clusters.html.

Updated: 6/19/09

ASU ARIZONA STATE UNIVERSITY

Major Map: History and Culture – Bachelor of Arts (B.A.)

School of Letters and Sciences | Catalog Year: 2009-2010

Course Subject and Title *(courses in **bold/shading** are critical)*	Hrs.	Upper Division	Completed ATP: ☐ Yes ☐ No Transfer Course/Grade	Minimum Grade if Required	Completed AGEC: ☐ Yes ☐ No Additional Critical Requirement Notes
TERM ONE: 0 16 CREDIT HOURS					
ASU 101: The ASU Experience	1	☐			• ASU 101 is for ASU freshman students only Not required of transfer students • An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition courses • ASU Math Placement Exam score determines placement in Mathematics course
ENG 101 and 102: First-Year Composition OR ENG 107 and 108: English for Foreign Students OR ENG 105: Advanced First-Year Composition	3	☐		Grade of C	
Humanities, Fine Arts & Design (HU)	3	☐			
MA (MAT 142 or higher)	3	☐			
Elective	3	☐			
Elective	3	☐			
TERM TWO: 17 32 CREDIT HOURS					
ENG 101 or 102: First-Year Composition ENG 105: Advanced First-Year Composition ENG 107 or 108: English for Foreign Students	3	☐		Grade of C	• Minimum C grade in first-year composition courses • Math (MA) requirement must be completed by the end of the second semester
Humanities, Fine Arts & Design (HU)	3	☐			
Computer/Statistics/Quantitative applications (CS)	3	☐			
Natural Science – Quantitative (SQ)	4	☐			
Elective	3	☐			
TERM THREE: 33 47 CREDIT HOURS					
HTY 301 Historical Research Methods (SB, H)	3	☒		Grade of C	• First-year composition requirement completed with a minimum "C" grade. • Academic Review: Students should choose a track within the degree
Track specific focus area course (see list below)	3	☐		Grade of C	
Literacy & Critical Inquiry (L)	3	☐			
Natural Science – Quantitative (SQ) or General (G)	4	☐			
Elective	2	☐			
TERM FOUR: 48 62 CREDIT HOURS					
HST 343 American Southwest (SB, H)	3	☒		Grade of C	• A minimum of 6 hours of Upper Division Coursework must be completed in this semester
HST 344 Arizona (SB, H)	3	☒		Grade of C	
Track specific elective course (see list below)	3	☐		Grade of C	
Elective	3	☐			
Elective	3	☐			
TERM FIVE: 63 76 CREDIT HOURS					
Track specific focus area course (see list below)	3	☐		Grade of C	• A minimum of 9 hours of Upper Division coursework must be completed in this semester.
Track specific focus area course (see list below)	3	☐		Grade of C	
Elective	3	☐			
Elective	2	☐			
Elective	3	☐			
TERM SIX: 77 91 CREDIT HOURS					
Track specific focus area course (see list below)	3	☐		Grade of C	• A minimum of 9 hours of Upper Division coursework must be completed in this semester
Track specific elective area course (see list below)	3	☐		Grade of C	
Elective	3	☐			
Elective	3	☐			
Elective	3	☐			
TERM SEVEN: 92 106 CREDIT HOURS					
Track specific elective area course (see list below)	3	☐		Grade of C	• A minimum of 9 hours of Upper Division coursework must be completed in this semester • C (cultural awareness) requirement may be satisfied by track-specific course or other elective
Cultural Diversity in the US (C), or if completed, Elective	3	☐			
Upper Division Elective	3	☒			
Upper Division Elective	3	☒			
Elective	3	☐			
TERM EIGHT: 107 120 CREDIT HOURS					
HTY498: History and Culture Capstone Project	3	☒		Grade of C	• A minimum of 9 hours of Upper Division coursework must be completed in this semester • G (global awareness) requirement may be satisfied by track-specific course or other elective
Global Awareness (G) or if completed, Elective	3	☐			
Elective	3	☐			
Elective	3	☐			
Elective	2	☐			

Graduation Requirements Summary:

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

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:

The B.A. in History and Culture has six tracks: The following are the focus area & specific elective courses for each track:

Track 1: Archival Preservation and Digital Media Focus Area Courses	Track 1: Archival Preservation and Digital Media Track Specific Elective Courses
GIT 294 Special Topics: Introduction to Digital Photography GIT 303 Digital Publishing HTY 220/294 Intro to Digital Archives HTY 230/294 Intro to Corporate Archiving HTY 334/394 Archival Preservation and Digital Media HTY 336/394 Editing Historical Documents HTY 370/394 History of Collecting HTY 410/394 Historic Preservation	Any courses with ARD, ARS, ART, GIT, HST, HTY or TWC prefix

Track 2: Environmental History and Culture Focus Area Courses	Track 2: Environmental History and Culture Track Specific Elective Courses
HST 319 U.S. Urban History HTY 320/394 History of American Agriculture HTY 326 History of Landscaping HTY 350/394 Environmental History HTY 374/394 Western Rivers HTY 440/494 The Pre-Modern City HTY 450/494 History of Ecology and Conservation PHI 327 Environmental Philosophy	Any courses with an ABS, AGB, BIO, HST, or HTY prefix

Track 3: History and Culture of The American Southwest Focus Area Courses	Track 3: History and Culture of the American Southwest Track Specific Elective Courses
HST 293 Historical Themes in Latin America HST 305 Studies in Latin American History HST 329 Women in 20th Century U.S. West HST 330 Mexican Women in the U.S. Conquests and Migration HST 331 Mexican-American History to 1900 HST 332 Mexican-American History since 1900 HST 337 American Indian History to 1900 HST 338 American Indian History since 1900 HST 341 U.S. West, 19th Century HST 342 U.S. West, 20th Century HST 417 Topics in Mexican American History	Any courses with an AIS, CCS, HST, or HTY prefix. Students may also take courses with an SPA or SPN prefix. Students are strongly encouraged to complete SPA 101 and SPA 102.

Track 4: History and Philosophy of Science and Technology Focus Area Courses	Track 4: History and Philosophy of Science and Technology Track Specific Elective Courses
HTY 310/394 History of Technology HTY 312/394 History of Science HTY 314/394 History of Computing HTY 316 History of Engineering HTY 320/394 History of American Agriculture HTY 325/394 History of American Business HTY 326 History of Landscaping HTY 330/394 History of Printing and Media HTY 340/394 Exploration and Science HTY 350/394 Environmental History HTY 360/394 Women in Science PHI 306 Applied Ethics PHI 314 Philosophy of Science	Any courses with an ABS, AGB, BIO, GIT, HST, HTY, or PHI prefix.

Track 5: History and Public Policy Focus Area Courses	Track 5: History and Public Policy Track Specific Elective Courses
HST 109 The United States to 1865 HST 110 The United States since 1865 HST 210 American Social History HST 315 Political History of the United States HST 320 U.S. Urban History Since 1850 HST 325 Immigration and Ethnicity in the United States HST 342 The U.S. West in the 20th Century HST 484 Internship POS 220 Political Issues and Public Policy POS 310 American National Government POS 325 Public Policy Development POS 426 Elements of Public Policy	Any courses with an HST, HTY, PGV, PLS, or POS prefix.

Track 6: History for Secondary Teachers Focus Area Courses	Track 6: History for Secondary Teachers Track Specific Elective Courses
HST 101 Global History HST 102 Western Civilization HST 103 Western Civilization HST 104 Western Civilization HST 109 United States to 1865 HST 110 United States since 1865 HST 210 American Social History HST 313 American Cultural History to 1865 HST 314 American Cultural History since 1865 HST 325 Immigration and Ethnicity HST 337 American Indian History to 1900 HST 338 American Indian History since 1900 HST 341 U.S. West, 19th Century HST 342 U.S. West, 20th Century REL 100 Religions of the World	In consultation with an advisor, students may use courses with the following prefixes: ASB, ECN, GCU, GPH, HST, HTY, PGV, POL, REL, SOC, WSH, or WST.

SCHOOL of LETTERS & SCIENCES
ARIZONA STATE UNIVERSITY

Bachelor of Interdisciplinary Studies (BIS)
Organizational Studies Concentration
Catalog: 2009-2010

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				

II. University General Studies (35-37 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.

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	Satisfied by major			
L: BIS 402: Senior Seminar	Satisfied by major			
Mathematics & Statistics/Computer Applications *(6 hours)*				
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: http://sls.asu.edu/bis/org_studies.html
- Course pre-requisites are available online at: http://www.asu.edu/catalogs
- This check sheet is for reference only; please consult your DARS report for official information about your requirements.

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

IV. Organizational Studies Concentration (30 hours)[1]

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

ASU ARIZONA STATE UNIVERSITY

Major Map: Literature, Writing and Film – Bachelor of Arts (B.A.)

School of Letters and Sciences | Catalog Year: 2009-2010

Course Subject and Title *(courses in **bold/shading** are critical)*	Hrs.	Upper Division	Completed ATP: ☐ Yes ☐ No Transfer Course/Grade	Minimum Grade if Required	Completed AGEC: ☐ Yes ☐ No Additional Critical Requirement Notes
TERM ONE: 0 16 CREDIT HOURS					
ASU 101: The ASU Experience	1	☐			• ASU 101 is for ASU freshman students only. Not required of transfer students • An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition courses • ASU Math Placement Exam score determines placement in Mathematics course
ENG 101 and 102: First-Year Composition OR ENG 107 and 108: English for Foreign Students OR ENG 105: Advanced First-Year Composition	3	☐		Grade of C	
MAT 142: College Mathematics (MA) or higher	3	☐			
Social & Behavioral Sciences (SB)	3	☐			
Elective	3	☐			
Elective	3	☐			
TERM TWO: 17 32 CREDIT HOURS					
ENG 101 and 102: First-Year Composition OR ENG 107 and 108: English for Foreign Students OR ENG 105: Advanced First-Year Composition	3	☐		Grade of C	• Complete Mathematical Studies (MA)
Computer Science course (CS)	3	☐			
Natural Science-Quantitative (SQ)	4	☐			
Elective	3	☐			
Elective	3	☐			
TERM THREE: 33 47 CREDIT HOURS					
Complete 2 courses from: **ENG 200: Critical Reading and Writing About Literature (HU)**	3	☐		Grade of C	• Complete First-Year Composition requirement: ENG 101 & 102 OR ENG 107 & 108 or 105 • MILESTONE: Students must select a track
ENG 217: Writing Reflective Essays (L) **ENH 230: Introduction to Film Studies (HU)**	3	☐		Grade of C	
Natural Science- Quantitative (SQ) or General (SG)	4	☐			
Elective	3	☐			
Elective	2	☐			
TERM FOUR: 48 62 CREDIT HOURS					
Complete remaining course from: **ENG 200: Critical Reading and Writing About Literature (HU)** **ENG 217: Writing Reflective Essays (L)** **ENH 230: Introduction to Film Studies (HU)**	3	☐		Grade of C	• HU or SB requirement may be satisfied by track-specific course or other elective
Track specific focus area course (see list on page 2)	3	☐		Grade of C	
Track specific focus area course (see list on page 2)	3	☐		Grade of C	
Social & Behavioral Sciences (SB)	3	☐			
Elective	3	☐			
TERM FIVE: 63 76 CREDIT HOURS					
Track specific focus area course (see list on page 2)	3	☐		Grade of C	• A minimum of 9 hours of Upper Division coursework must be completed in this semester. • HU or SB requirement may be satisfied by track-specific course or other elective
Track specific focus area course (see list on page 2)	3	☐		Grade of C	
Upper Division Literacy & Critical Inquiry (L)	3	☒			
Elective	2	☐			
Upper Division Elective	3	☒			
TERM SIX: 77 91 CREDIT HOURS					
Track specific elective course (see list below)	3	☐		Grade of C	• A minimum of 12 hours of Upper Division coursework must be completed in this semester • H (historical awareness) requirement may be satisfied by track-specific course or other elective • Upper Division HU or SB requirement may be satisfied by track-specific course or other elective
Track specific elective course (see list below)	3	☐		Grade of C	
H, if completed take elective	3	☐			
Upper Division HU or SB, if completed take elective	3	☒			
Elective	3	☐			
TERM SEVEN: 92 106 CREDIT HOURS					
Track specific elective course (see list below)	3	☐		Grade of C	• A minimum of 12 hours of Upper Division coursework must be completed in this semester • C (cultural awareness) requirement may be satisfied by track-specific course or other elective
C (cultural awareness) if completed, take elective	3	☐			
Upper Division Elective	3	☒			
Upper Division Elective	3	☒			
Elective	3	☐			
TERM EIGHT: 107 120 CREDIT HOURS					
ENH498: Literature, Writing, and Film Capstone Project	3	☒		Grade of C	• A minimum of 12 hours of Upper Division coursework must be completed in this semester • G (global awareness) requirement may be satisfied by track-specific course or other elective
G (global awareness) if completed, take elective	3	☐			
Upper division Elective	3	☒			
Elective	3	☐			
Elective	2	☐			

ASU ARIZONA STATE UNIVERSITY

Major Map: Literature, Writing and Film – Bachelor of Arts (B.A.)

School of Letters and Sciences | Catalog Year: 2009-2010

Graduation Requirements Summary:

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

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:

The B.A. in Literature, Writing, and Film has six tracks. The following are the focus area & specific elective courses for each track:

Tracks	Track Specific Focus Area Courses	Track Specific Elective Courses
Literature and Film	Students choose from among the following: ENH 230: Introduction to Film Studies (L or HU) ENH 332: Literature on Film ENH 372: Environmental Creative Nonfiction (L & HU) ENH 374: Environmental Issues in Literature (L & HU) ENH 378: The American Southwest in Literature and Film (L & HU) ENH 380: Medievalism in Modern Culture ENH 430: Studies in International Film (L or HU, G) ENH 436: American Film Musicals (L or HU) ENH 440: Great Directors (L or HU) ENH 475: Environmental Literary Criticism ENG 221: Survey of English Literature (HU) ENG 222: Survey of English Literature (HU, H) ENG 241: Literatures of the United States to 1860 (HU) ENG 242: Literatures of the United States, 1860-Present (HU) ENG 321: Introduction to Shakespeare (L or HU) ENG 365: History of Film (HU) ENG 385: Career Development for English Majors (L)	Any ENG, ENH, or FMS prefix courses
Writing	Students choose from among the following: ENH 245: Introduction to Writing Family History (L) ENH 246: Introduction to Researching Family History ENH 317: Publishing in Literary Magazines ENH 320: Writing a Personal History (L) ENH 322: Editing Family History for Public Audiences (L) ENH 325: Writing Creative Nonfiction for Publication ENH 346: Intermediate Family History Research ENH 360: Travel Writing ENH 362: Digital Project Management for Humanities and Arts ENH 364: Digital Media in the Humanities and Arts ENH 370: Travel Writing (L) ENG 204: Introduction to Contemporary Literature (HU) ENG 210: Introduction to Creative Writing ENG 310: Intermediate Creative Writing ENG 411: Advanced Creative Writing ENG 412: Creative Nonfiction ENG 212 English Prose Style ENG 215 Strategies for Academic Writing ENG 216 Persuasive Writing on Public Issues ENG 385 Career Development for English Majors ENG 472 Rhetorical Studies TWC 301 General Principles of Multimedia Writing	Any ENG or ENH Writing courses Any Upper Division ENG or ENH literature coursesAny of the following GIT courses: GIT 194: Introduction to Computer Documents GIT 294: Introduction to Digital Photography GIT 210: Creative Thinking and Design Visualization GIT 237: Web Content Design GIT 233 Digital Publishing GIT 333 Printing Technology GIT 414 Web Site Design and Internet/Web Technologies Any of the following TWC courses: TWC 401 Principles of Technical Communication TWC 403 Writing for Professional Publication TWC 411 Principles of Visual Communication TWC 421 Principles of Writing with Technology
English for Secondary Teachers	Students choose from among the following: ENH 332: Literature on Film ENH 378: The American Southwest in Literature (L & HU) ENH 380: Medievalism in Modern Culture (L & HU) ENH 420: Methods of Teaching Secondary Writing ENH 425: Methods of Teaching Secondary Literature and Language ENG 221: Survey of English Literature (HU) ENG 222: Survey of English Literature (HU, H) ENG 241: Literatures of the United States to 1860 (HU) ENG 242: Literatures of the United States, 1860-Present (HU) ENG 314 Modern Grammar ENG 321: Introduction to Shakespeare (L or HU) ENG 333 American Ethnic Literature	Any courses with an ENG or ENH prefix

ASU ARIZONA STATE UNIVERSITY

Major Map: Science, Technology and Society – Bachelor of Science (B.S.)

School of Letters and Sciences | Catalog Year: 2009-2010

Course Subject and Title *(courses in **bold/shading** are critical)*	Hrs.	Upper Div.	Completed ATP: ☐ Yes ☐ No Transfer Course/Grade	Minimum Grade if Required	Completed AGEC: ☐ Yes ☐ No Additional Critical Requirement Notes
TERM ONE: 0 15 CREDIT HOURS					
STS 101: Introduction to Science, Technology and Society (SB)	3	☐		Grade of C	• ASU 101 is for ASU freshman students only Not required of transfer students • Transfer students with 64 credit hours or more transferred must take STS 304 instead of STS 101. • An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition courses • ASU Math Placement Exam score determines placement in Mathematics course
ASU 101: The ASU Experience	1	☐			
ENG 101 and 102: First-Year Composition **OR** ENG 107 and 108: English for Foreign Students **OR** ENG 105: Advanced First-Year Composition	3	☐		Grade of C	
Humanities, Fine Arts & Design (HU)	3	☐			
Mathematics (MA)	3	☐			
TERM TWO: 16 30 CREDIT HOURS					
STS 110: Global Technology and Development (SB, G)	3	☐		Grade of C	* It is highly recommended that STS students take a statistics course for their (CS) general studies requirement. • Transfer students with 64 credit hours or more transferred must take STS 317 instead of STS 110.
ENG 101 and 102: First-Year Composition **OR** ENG 107 and 108: English for Foreign Students **OR** ENG 105: Advanced First-Year Composition	3	☐		Grade of C	
Computer/Statistics/Quantitative applications (CS)*	3	☐			
Social & Behavioral Sciences (SB)	3	☐			
Global Awareness (G)	3	☐			
TERM THREE: 31 45 CREDIT HOURS					
STS 301: Research in Science and Technology Studies (SB)	3	☒		Grade of C	• First-year composition requirement completed
Literacy & Critical Inquiry (L)	3	☐			
Natural Science-General (SG) **OR** Natural Science-Quantitative (SQ)	4	☐			
Cultural Diversity in the US (C)	3	☐			
Elective	3	☐			
TERM FOUR: 46 60 CREDIT HOURS					
STS 302: Philosophy of Science and Technology	3	☒		Grade of C	• See your advisor for a list of courses that fulfill your chosen STS Track and to discuss the required Minor for the degree.
Humanities, Fine Arts & Design (HU)	3	☐			
Natural Science-Quantitative (SQ)	4	☐			
Approved upper division STS Track course	3	☒		Grade of C	
Approved Minor course	3	☐			
TERM FIVE: 61 75 CREDIT HOURS					
STS 303: History of Science and Technology	3	☒		Grade of C	
Approved upper division STS Track course	3	☒		Grade of C	
Approved upper division STS Track course	3	☒		Grade of C	
Approved Minor course	3	☐			
Elective	3	☐			
TERM SIX: 76 90 CREDIT HOURS					
STS 305: Science and Social Theory	3	☒		Grade of C	
Approved upper division STS Track course	3	☒		Grade of C	
Approved Minor course	3	☐			
Historical Awareness (H)	3	☐			
Upper division elective	3	☒			
TERM SEVEN: 91 105 CREDIT HOURS					
STS 306: Social Effects of Science and Technology	3	☒		Grade of C	
Approved upper division STS Track course	3	☒		Grade of C	
Approved Minor course	3	☐			
Social & Behavioral Sciences (SB)	3	☐			
Upper Division Literacy & Critical Inquiry (L)	3	☒			
TERM EIGHT: 106 120 CREDIT HOURS					
STS 484: Capstone/Internship	3	☒		Grade of C	
Approved STS Track course	3	☒		Grade of C	
Approved Minor course	3	☐			
Approved Minor course	3	☐			
Upper division Humanities, Fine Arts & Design (HU) **OR** Upper division Social & Behavioral Sciences (SB)	3	☒			

Graduation Requirements Summary:

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

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:

Students who begin the STS program at ASUPOLY as freshmen will take STS 101 and 110. STS 304 and 317 are for transfer students with 64 units who need upper division credit.

It is highly recommended that STS students take a statistics course for their (CS) general studies requirement.

Students in the Science, Technology, and Governance Track will complete the following coursework or their equivalents:

- POS 310 American National Government
- STS 318 Science, Technology and Government
- STS 325 Science, Technology and Public Policy
- STS 331 Ethical Issues in Science and Technology
- STS 364 Science, Technology and National Security
- STS 425 Law, Values, and Science and Technology

Students in the Global Technology and Development Track will complete the following coursework or their equivalents:

- STS 328 Science, Technology and Culture
- STS 329 Cultivating Technology in Newly Industrializing Countries
- STS 330 Information Technology and Globalization
- STS 331 Ethical Issues in Science and Technology
- STS 332 Seminar: Global Issues in Science and Technology
- STS 364 Science, Technology~~,~~ and National Security

Students in the General STS Track must meet with an advisor to determine the coursework needed to fulfill this area of the degree.

- The General STS Track has been designed as the integrative component of the STS degree program. It can be used to design dual degrees and double majors with other programs. Students can utilize it in integrating other degree programs and courses available at ASU.
  - For instance, the Track can be employed in establishing a pre-law degree program with more emphasis on a science and technology curriculum.
  - Students seeking secondary teaching certification can incorporate social science pedagogy courses.
  - In each instance when this Track is chosen by a student, the student will work in conjunction with faculty advisors within Social and Behavioral Sciences and other units to work out an appropriate program of study.
  - Students can utilize courses available at any unit within ASU for this purpose.

All STS students must take an approved Minor for STS Majors (18 Semester Hours)

- Each approved program of study in the STS program must include at least one minor in a substantive field.
- STS students are encouraged to take minors in career fields, e.g., business, technology, technical communication, education, etc.
- The minor is to help prepare the student for a career upon graduation.
- Before taking minor courses, students must meet with their advisor to determine which minor is best suited for their chosen career field.

ASU ARIZONA STATE UNIVERSITY

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

School of Letters Sciences | Catalog Year: 2009-2010

Course Subject and Title *(courses in **bold/shading** are critical)*	Hrs.	Upper Division	*Completed ATP: ☐Yes ☐ No* Transfer Course/Grade	Minimum Grade if Required	*Completed AGEC: ☐ Yes ☐ No* Additional Critical Requirement Notes
TERM ONE: 0 15 CREDIT HOURS					
ASU 101: The ASU Experience	1	☐			• ASU 101 is for ASU freshman students only. Not required of transfer students • An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition courses • ASU Math Placement Exam score determines placement in Mathematics course
ENG 101 and 102: First-Year Composition OR ENG 107 and 108: English for Foreign Students OR ENG 105: Advanced First-Year Composition	3	☐		Grade of C	
MA (MAT 142 or any MA equivalent)	3	☐		Grade of C	
Humanities, Fine Arts & Design (HU)	3	☐			
Natural Science- Quantitative (SQ)	4	☐			
TERM TWO: 16 30 CREDIT HOURS					
ENG 101 or 102: First-Year Composition ENG 105: Advanced First-Year Composition ENG 107 or 108: English for Foreign Students	3	☐		Grade of C	
Computer/Statistics/Quantitative applications (CS)	3	☐		Grade of C	
Natural Science –General (SG) or Quantitative (SQ)	4	☐			
Social & Behavioral Science (SB)	3	☐			
Elective	3	☐			
TERM THREE: 31 45 CREDIT HOURS					
Humanities, Fine Arts & Design (HU)	3	☐			• First-year composition requirement completed • Related area: In consultation with an advisor; suggested courses use the following prefixes: GIT, ENG, COM, or any other course related to the student's career path.
Cultural Diversity in the US (C), if completed take elective	3	☐			
Social & Behavioral Science (SB)	3	☐			
Related Area Course	3	☐		Grade of C	
Elective	3	☐			
TERM FOUR: 46 60 CREDIT HOURS					
TWC 301 Introduction to Multimedia Writing (L)	3	☒		Grade of C	
Upper division Humanities, Fine Arts & Design (HU) or Social & Behavioral Science (SB)	3	☒			
Global Awareness (G), if completed take elective	3	☐			
Elective	3	☐			
Historical Awareness (H), if completed take elective	3	☐			
TERM FIVE: 61 75 CREDIT HOURS					
TWC 401 Principles of Technical Communication (L)	3	☒		Grade of C	
Elective	3	☐			
Elective	3	☐			
Elective	3	☐			
Upper Division Elective	3	☒			
TERM SIX: 76 90 CREDIT HOURS					
TWC 411, 421, or 431	3	☒		Grade of C	• Related area: In consultation with an advisor; suggested courses use the following prefixes: GIT, ENG, COM, or any other course related to the student's career path. • TWC Elective: Any TWC 300/400 course will fulfill this area, however an internship (TWC484) or supervised work experience is strongly recommended.
TWC 44X, Genre Course	3	☒		Grade of C	
Upper division Related Area Course	3	☒		Grade of C	
Elective	3	☐			
TWC Elective	3	☒		Grade of C	
TERM SEVEN: 91 105 CREDIT HOURS					
TWC 411, 421, or 431	3	☒		Grade of C	• Related area: In consultation with an advisor; suggested courses use the following prefixes: GIT, ENG, COM, or any other course related to the student's career path. • TWC Elective: Any TWC 300/400 course will fulfill this area, however an internship (TWC484) or supervised work experience is strongly recommended.
TWC 44X Genre Course	3	☒		Grade of C	
Upper division Related Area Course	3	☒		Grade of C	
TWC Elective	3	☒		Grade of C	
Upper Division Elective	3	☒			
TERM EIGHT: 106 120 CREDIT HOURS					
TWC 411, 421, or 431	3	☒		Grade of C	• Related area: In consultation with an advisor; suggested courses use the following prefixes: GIT, ENG, COM, or any other course related to the student's career path. • TWC Elective: Any TWC 300/400 course will fulfill this area, however an internship (TWC484) or supervised work experience is strongly recommended.
TWC 490 Capstone	3	☒		Grade of C	
Upper division Related Area Course	3	☒		Grade of C	
Elective	3	☐			
TWC Elective	3	☒		Grade of C	

Graduation Requirements Summary:

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

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: