ARIZONA STATE UNIVERSITY

2007-08 Curriculum Check Sheets — ***Fulton School of Engineering***

Name _____ Major: Mechanical Engineering Degree BSE

ASU ID _____ Concentration: Energy and Environment

Anticipated Grad. Date _____ *AGEC-A, AGEC-B, AGEC-S;* *Completed:* □ *Yes* □ *No*

ASU Requirement for all incoming Freshmen				
ASU 101 The ASU Experience	1 credit			
I. English Proficiency (6 hrs) *(University requirement – "C" min required)*	Hrs Cr ASU	Tr	Trans From	Gr
+ENG 101 / 107 First-Year Comp (3) and				
+ENG 102 / 108 First-Year Comp (3)				
Or, if eligible (see Catalog for eligibility), +ENG 105 Adv First-Year Comp (3) and				
An Applicable Elective (3) – see Department				
Sub Total (I) _____				

II. General Requirements (15 hrs) *(See Catalog for approved courses)*

A. Humanities & Social Sciences *(15 hrs min)*

(Required: 1 course upper division; plus a minimum of two courses that satisfy three awareness areas: cultural (C), global (G), and historical (H). Double counting is permissible between HU or SB and the awareness areas and also within the awareness areas.)

Humanities, Fine Arts, and Design (6 hrs min)(HU)					
GPH 314 Global Change (HU,G) **or** PHI 310 Environmental Ethics (HU)	3				
Social/Behavioral Sciences (6 hrs min)(SB)					
GCU 364 Energy in the Global Arena (SB,G) or PUP 190 Sustainable Cities (HU,G or SB,G)					
Awareness Areas					
Cultural					
Global					
Historical					

B. Literacy/Critical Inquiry *(6 hrs)*

#*L:* MAE 491 Experimentl Mech Engr	***Satisfied by Courses in Major***
#*L:* MAE 400 Engineering Profession	

C. Natural Sciences/Basic Sciences *(8 hrs*

+*SQ:* PHY 121/122 Physics I/Lab I	***Satisfied by Courses in Major***
+*SQ:* PHY 132 Physics Lab II	

D. Mathematical Studies *(6 hrs) – mark after taken*

#*CS*: MAE 100 Intro to ME & AE	***Satisfied by Courses in Major***
+*MA:* MAT 275 Modern Diff Eqs	

Sub Total (II) _____

III. Required Lower Division Courses (52 hrs)

A. Natural Sciences/Basic Sciences *(18 hrs)*

BIO 319 Environmental Sci *(G)* or BIO 320 Fund of Ecology	3				
+CHM 114, 115[1, 2], or 116[2] Chemistry *(SQ)*	4				
+CHM 231 Intro to Organic Chem	3				
+ PHY 121 Physics I *(SQ)*[3]	3				
+ PHY 122 Physics Lab I *(SQ)*[3]	1				
+ PHY 131 Physics II *(SQ)*[3]	3				
+ PHY 132 Physics Lab II *(SQ)*[3]	1				

B. Mathematical Studies *(12 hrs)*

+MAT 265 Calc for Engrs I	3				
+MAT 266 Calc for Engrs II	3				
+MAT 267 Calc for Engrs III	3				
+MAT 275 Mod Diff EQ *(MA)*	3				

# C. Lower Division Engr*(22 hrs)*	Hrs Cr ASU	Tr	Trans From	Gr
+MAE 100 Intro to ME & AE *(CS)*	3			
+MAE 212 Engineering Mechanics	4			
MAE 213 Mechanics of Solids	3			
MAE 214 CAE I	1			
MAE 240 Thermofluids I	4			
MSE 250 Struc & Prop of Materials	3			
EEE 202 Circuits I	4			
Sub Total (III) _____				

IV. Required Upper Division Courses (47 hrs)

#MAE 318 Sensors and Controls	5			
#MAE 322 Structural Mechanics	4			
#MAE 323 CAE II	2			
#MAE 340 Thermofluids II	3			
#MAE 342 Principles of Design	3			
#MAE 382 Thermodynamics II	3			
#MAE 384 Numerical Methods *(CS)*	3			
#MAE 400 Engineering Profession *(L)*	3			
#MAE 446 Energy Syst Design	3			
#MAE 491 Experimental Mech Engr *(L)*	3			
+MAT 343 Applied Linear Algebra	3			
# Technical Electives (12 hrs)[4]				
Sub Total (IV) _____				

Total Upper Division _____ (minimum 45 required)

+ A minimum grade of "C" (2.0) required

 # Designates Major Course: A minimum cumulative GPA of 2.00 required

Designates a skill-set course

[1] Only 4 hours of CHM 115 will apply toward degree credit

[2] CHM 113 is prerequisite and does not apply toward degree credit

[3] Must complete lecture and lab to receive SQ credit

[4] Two electives must be chosen from the Energy and Environment approved list of courses

Graduation Requirements

Regular Curriculum – 120 Hours

Semester Hour Summary	*Hrs/ASU*	*Tr Hrs*	*Total*
I. English Proficiency			
II. General Requirements			
III. Required Lower Division			
IV. Required Upper Division			
Total Program Hours			

Submitted by _____ _____
Student Signature *Date*

Approved _____ _____
Advisor *Date*

Approved _____ _____
Department Chair *Date*