

Name _____

Major: Materials Science and Engineering

Degree _____

ASU ID _____

Anticipated Grad. Date _____

AGEC-A, AGECE-B, AGECE-S;

Completed: Yes No

ASU Requirement for all incoming Freshmen			
ASU 101 The ASU Experience	1 credit		
I. English Proficiency (6 hrs) <i>(University requirement – “C” min required)</i>	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)

Social/Behavioral Sciences (6 hrs min)(SB)

Awareness Areas:

Cultural			
Global			
Historical			

B. Literacy/Critical Inquiry (6 hrs)

# L: MSE 482 Materials Design	Satisfied by Courses in Major
# L: MSE 490 Capstone Design	

C. Natural Sciences/Basic Sciences (8 hrs)

SQ: PHY 121/122 Physics I + Lab I	Satisfied by Courses in Major
SQ: PHY 131/132 Physics II + Lab II	

D. Mathematical Studies (6 hrs)

# CS: MSE 100 Intro to Matls Engr	Satisfied by Courses in Major
MA: MAT 275 Mod Dif Eqs.	

Sub Total (II) _____

III. Required Lower Division Courses (45 hrs)

A. Natural Sciences/Basic Sciences (15 hrs)

CHM 114 Chem. for Engineers (SQ)	4		
BME 111 Engr Persp on Bio Sys	3		
PHY 121 Physics I (SQ) ¹	3		
PHY 122 Physics Lab I (SQ) ¹	1		
PHY 131 Physics II (SQ) ¹	3		
PHY 132 Physics Lab II (SQ) ¹	1		
B. Mathematical Studies (15 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 Dif Eqs (MA)	3		
Math or Science elective:	3		

C. Lower Division Engineering (15 hrs)

	Hrs Cr ASU Tr	Trans From	Gr
#MSE 100 Intro to Matls Engr (CS)	3		
#MSE 211 Intro Mechanics of Matls	3		
#MSE 215 Materials Synthesis	3		
+MSE 250 Stuc & Prop of Matls	3		
IEE 220 Business & IE	3		
Sub Total (III) _____			

IV. Required Upper Division Courses (54 hrs)

MAT 343 Modern Linear Algebra	3		
#MSE 315 Math Cmp Mthds Matls	3		
#MSE 330 Matls Thermo	3		
#MSE 335 Matls Kinetics & Processing	3		
#MSE 355 Matls Struc & Microstruc	3		
#MSE 356 Matls Struc & Microstruc Lab	1		
#MSE 358 Intro EMOP	3		
#MSE 420 Phys Met	3		
#MSE 421 Phys Met Lab	1		
#MSE 440 Mechanical Props Matls	3		
#MSE 450 Intro Matls Characterization	3		
#MSE 451 Intro Matls Char Lab	1		
#MSE 470 Polymers & Composites	3		
#MSE 471 Ceramics	3		
#MSE 482 Materials Design (L)	3		
#MSE 490 Capstone Design (L)	3		
#Advanced Science Electives (6 hrs)			
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
¹Must complete lecture and lab to receive SQ credit.

Graduation Requirements
 Regular Curriculum – 120 Hours

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