

Material Science and Engineering Courses Prerequisites - Spring 2013

FRESHMAN YEAR - 1ST semester		
Course	cr hrs	prerequisite
MSE 110 Intro Matls Sci	2	none
Engl 101 Comp [W] GER	3	placement test or Engl 100
♦ Math 171 Calc I [N] GER	4	C or better in Math 107 or 108, or placement test
♦ Chem 105 Chem I [P] GER	4	Math 107c//, HS chem or 101
Gened 110 [A] GER	3	none

FRESHMAN YEAR - 2nd semester		
Course	cr hrs	prerequisite
♦ Math 172 Calc II	4	C or better in Math 171
♦ Chem 106 Chem II [P] GER	4	Chem 105; C or better in Math 107 or 108, or Math 171 placement
♦ Phys 201 Engr Physics I [P] GER	4	C or better in Math 171 or Math 172 placement
Gened 111 [A] GER	3	none
BioS Elective [B] GER	3	See catalog

SOPHOMORE YEAR - 1st semester		
Math 273 Calculus III	2	C or better in Math 172
Math 220 Lin Algebra	2	Math 171 or c//
♦ CE 211 Statics	3	Math 172 or c//, Phys 201 or c//
Phys 202 Engr Physics II[P] GER	4	C or better in Phys 201; C or better in Math 172 or placement in Math 273
MSE 201 Matls Science	3	Chem 106, Phys 201 or c//
Hum Elec [H, G] DER*	3	See Catalog

SOPHOMORE YEAR - 2nd semester		
Math 315 Diff Equations	3	C or better in Math 273; Math 220 with C or better or c//
CE 215 Mechanicals of Materials	3	CE 211 with C or better
ME 220 Materials Laboratory	1	CE 215 or c//
EE 221 or CptS 121	2	See catalog
EconS 102 Macroecon [S] GER	3	none
Intercultural Stds [G, I, K] GER	3	See catalog

Must complete Writing Portfolio by the end of the Sophomore year.

JUNIOR YEAR - 1st semester		
Stat/Math 360 or 370 Statistics	3	Math 172
MSE 316 Chem&Phys Reactions	3	none
MSE 302 Electronic Materials	3	Chem 105, Phys 202 or c//
MSE 320 Matls str prop Lab [M]	3	MSE 201 or c//
ME 310 Manufacturing Proc.	2	MSE 201
MSE 402 Polymeric Materials	3	MSE 201

JUNIOR YEAR - 2nd semester		
<i>apply for graduation by the end of this semester</i>		
Engr & Science Elective*	3	See catalog
EE 304 Circuits	2	Math 315 or c//
MSE 401 Metallic Materials	3	MSE 201
MSE 321 Matls Characterization	3	MSE 201
MSE 323 Matls Character Lab	2	MSE 321 or c//
MSE 403 Ceramic Materials	3	MSE 201

SENIOR YEAR - 1st semester		
MSE 413 Mechanics of Solids	3	CE 215, MSE 201
MSE 425 Senior Thesis I [M] GER	3	MSE 320, 323, senior in MSE
ME 416 Senior Design [Tier III]	3	ME 348, 404, 414 or c//
Engr & Science Elective*	3	See catalog

SENIOR YEAR - 2nd semester		
Hum/SocS Tier III [H,G,S,K,T] GER****	3	See catalog
Technical Elect **	3	See catalog
Engl 402 Pro Tech Writing [W] GER	3	Engl 101, Junior standing
MSE Elective***	3	See catalog

♦ Courses for certification (grade of "C" or better in each course)

* Any three from Biol 301; BE 481; CE 341; EE 214; ME 116, ME 216, ME 212, 303, 313, 316, 348, 404, 141, 449, 461, 472; Chem 331, 332, 336, 345, 346, 347; Phys 303, 304, 463; MBioS 303; Any 400 or 500-level ME (except Tier III courses in Engineering)

** Upper-division CE, Ch E, Chem, Cpt S, EE, Math; MSE, ME, Phys, or Stat course (except Tier III courses in Engineering) MSE course not part of the core curriculum

*** Any 400 or 500-level MSE course

**** Students with a PSED of 2000 or later must select one of their G, H, I, K or S GERS from the diversity [D] GER list