

## Mechanical Engineering Courses Prerequisites-Fall 2009

FRESHMAN YEAR - 1st semester		
course	cr hrs	prerequisite
Gened 110 [A] GER	3	none
◆ Math 171 Calc I [N] GER	4	C or better in Math107 or placement test
◆ Chem 105 Chem I [P] GER	4	Math 107c//, HS chem or 101
ENGR 120 Innov in Design	2	none
◆ Engl 101 Comp [W] GER	3	placement test or Engl 100

FRESHMAN YEAR - 2nd semester		
course	cr hrs	prerequisite
Gened 111 [A] GER	3	none
◆ Math 172 Calc II	4	C or better in Math 171
Chem 106 Chem II [P] GER	4	Chem 105; C or better in Math107 or Math 171 placement
◆ ME 116 CAD & Visualization	2	none
BioS Elective [B]GER	3	See catalog

SOPHOMORE YEAR - 1st semester		
course	cr hrs	prerequisite
Math 220 Lin Alg	2	Math 171 or c//
Math 273 Calculus III	2	C or better in Math 172
◆ Phys 201 Engr Physics I [P] GER	4	C or better in Math 171 or Math 172 placement
◆ CE 211 Statics	3	Math 172 or c//, Phys 201 or c//
Computer Programming**	2-4	see catalog
EconS 102 Macroecon [S] GER	3	none

SOPHOMORE YEAR - 2nd semester		
course	cr hrs	prerequisite
Math 315 Diff Equations	3	C or better in Math 273; Math 220 with C or better or c//
ME 212 Dynamics	3	CE 211
Phys 202 Engr Physics II [P] GER	4	C or better in Phys 201; C or better in Math 172 or placement in Math273
C E 215 Mechanics of Matls	3	CE 211 with C or better
ME 220 Matrlals Lab	1	CE 215 or c//
ME 216 Intergrated CAD Design	2	ME 116

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

JUNIOR YEAR - 1st semester		
course	cr hrs	prerequisite
ME 301 Thermodynamics	3	C or better in Phys 201 , rec Math 315
MSE 201 Materials Science	3	Chem 106, Phys 202 or c//
Math/Stat 370 Statistics	3	Math 172
ME 303 or CE315 Fluid Dynamics	3	ME 212
EE304 Circuits	2	Math 315 or c//
ME 313 Engr Analysis	3	Math 315, Cpt Programming

JUNIOR YEAR - 2nd semester		
<b>apply for graduation by the end of this semester</b>		
course	cr hrs	prerequisite
ME 305 Thermal Fluids Lab	2	ME 301, ME 303 or c//, Math 370 or c//; MIE
ME 310 Manufacturing Proc.	3	MSE 201, MIE
ME 316 Engr Design [M] GER	3	CE215; ME 216; ME 313; MSE 201 or c//, MIE
ME 348 Dynamic Systems	3	ME 212, ME 313, MIE
ME 404 Heat Transfer	3	ME 303 or c//, ME301, MIE
Hum Elec [H, G]GER*	3	see catalog

SENIOR YEAR - 1st semester		
course	cr hrs	prerequisite
Intercultural Studies [G,I,K]GER	3	see catalog
ME 402 Thermal Systems Dsgn	3	ME 404, MIE
ME 414 Machine Design	3	CE 215, ME316 or c//, rec ME220, MIE
Tech Elect ***	3	see catalog
ME 401 Mechatronics	3	ME348, EE304

SENIOR YEAR - 2nd semester		
course	cr hrs	prerequisite
Hum/SocS Tier III [H,G,S,K, T] GER****	3	see catalog
Engl 402 [W] GER	3	Engl 101, Junior Standing
Tech Elect ***	3	see catalog
ME 416 Senior Design	3	ME 348, 404, 414 or c//
ME 406 Exp Design Lab [M] GER	3	ME 305, ME 316, ME404, rec ME348

**Note: MIE = Certified Engr. Major**

◆ courses for certification (need 'C' or better in each course to certify)

\* Students with a PSED of 2000 or later must select one of their H or S GERS from the diversity [D] Ger list (There are some TierIII Hum/Soc Sci in the diversity list)

\*\* Students may take EE221, CptS 121,251(C prog.), 153(Visual Basic), FORTRAN

\*\*\* Technical Elective: ME or MSE (400-level 3 credit course) or BE 425 (may take ME or MSE 500-level courses with permission)

\*\*\*\*Tier III Capstone must be in humanities or social science. See your advisor for information on selecting a course