

## Mechanical Engineering Courses Prerequisites - Fall 2016

FRESHMAN YEAR - 1st semester		
course	cr hrs	prerequisite
♦ Math 171 Calc I [QUAN]	4	C or better in Math 108 or placement test
♦ Chem 105 Chem I [PSCI]	4	Math 107 or 108 c//, HS Chem or 101
Engr 120 Innov in Design	2	none
Engl 101 Comp [WRTG]	3	placement test or Engl 100
Creative & Professional Arts [ARTS]	3	See catalog

FRESHMAN YEAR - 2nd semester		
course	cr hrs	prerequisite
♦ Math 172 Calc II	4	C or better in Math 171
Chem 106 Chem II	4	Chem 105; C or better in Math 107 or 108, or Math 171 placement
ME 116 CAD & Visualization	2	Math 171 or c//
History 105 [ROOT]	3	none
BioS Elective [BSCI]	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	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 [SSCI]	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	Math 172 with C or better; CE 211 with a C or better
Phys 202 Engr Physics II	4	C or better in Phys 201; C or better in Math 172 or placement in Math 273
CE 215 Mechanics of Materials	3	CE 211 with C or better
ME 220 Materials Lab	1	CE 215 or c//
ME 216 Integrated CAD Design	2	C or better in ME 116, CE 215 or c//

*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 201 or c//
Stat 370 (or 360) Statistics	3	Math 172 or Math 182
ME 303 Fluid Mechanics	3	ME 212
ME 313 Engr Analysis	3	Math 315 or c//, CE 215, EE 221 or CptS 121
EE 304 or EE 261 Circuits	2	Math 315 or c//

JUNIOR YEAR - 2nd semester		
course	cr hrs	prerequisite
ME 306 Thermal Fluids Lab	2	ME 301, ME 303, Math 370 or c//; MIE
ME 310 Manufacturing Proc.	2	MSE 201, MIE
ME 311 Manufacturing Proc. Lab	1	ME 310 or c//, MIE
ME 316 Mech Co Analysis&Dsgn	3	CE 215, ME 216 or c//, ME 220 or c//, MIE
ME 348 Dynamic Systems	3	ME 212, ME 313, MIE
ME 304 Heat Transfer	3	ME 303, ME301, MIE
Engl 402 [WRTG]	3	Engl 101, Junior Standing

SENIOR YEAR - 1st semester		
course	cr hrs	prerequisite
Diversity [DIVR]	3	see catalog
ME 401 Mechatronics	3	ME 348, EE 304
ME 405 Thermal Systems Dsgn	3	ME 304, MIE
ME 415 Engineering Design	3	ME 310 or c//, ME 311 or c//, ME 316 or c//, MIE
Tech Elect **	3	see catalog

SENIOR YEAR - 2nd semester		
course	cr hrs	prerequisite
Humanities Elec [HUM]	3	See catalog
ME 406 Exp Design Lab [M]	3	ME 220, ME 304, ME 306, ME 348, Engl 402 or c//, MIE
ME 416 Senior Design [CAPS]	3	ME 304, ME 348, ME 415
Tech Elect**	3	See catalog

*Complete Fundamentals of Engineering Exam*

*Register for Fundamentals of Engineering Exam*

**Note: MIE = Certified Major In Engineering**

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

\* Students may take EE221, CptS 121 or higher (C++, JAVA, or MatLab)

\*\* Technical Elective: ME or MSE (400 or 500 level,) or BE 425

ME 316 (Mechanical Component Analysis and Design) was ME 414 (Machine Design)

ME 415 (Engineering Design) was ME 316 (Systems Design)