

Cleveland State University
Fenn College of Engineering
Bachelor of Mechanical Engineering

First Year

Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed
ENG 101 College Writing	3		W/C	ESC 102 Tech Writing & Prof Comm	3		W/C
MTH 181 Calculus I	4		M/QL	MTH 182 Calculus II	4		M/QL
CHM 261/266 General Chemistry I & Lab	5	X	NS	PHY 241 University Physics I	5	X	NS
ESC 120 Introduction to Engineering	2	X		ESC 152 Programming with Matlab	3	X	
ESC 100 New Student Orientation	1		INTRO	ESC 270 Material Science	3	X	
<i>Semester Total</i>	15			<i>Semester Total</i>	18		

Second Year

Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed
ESC 250 Differential Equations for Eng	3	X		MCE 255 Computer-Aided Eng Design	4	X	
PHY 242 University Physics II	5	X		ESC 350 Lin Algebra & Num Methods	3	X	
ESC 201 Statics	3	X		ESC 202 Dynamics	3	X	
MCE 250 Material Processing & Metrology	3	X		ESC 211 Strength of Materials	3	X	
MCE 251 Mat'l Proc & Metrology Lab	1	X		ESC 315 Electrical Eng Concepts	3	X	
MTH 283 Multivariate Calculus	2	X					
<i>Semester Total</i>	17			<i>Semester Total</i>	16		

Third Year

Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed
MCE 305 Kinematics & Dyn of Machinery	4	X		MCE 324 Heat Transfer	4	X	
ESC 301 Fluid Mechanics	3	X		MCE 367 Machine Design I	4	X	
ESC 321 Thermodynamics	3	X		MCE 380 Instrumentation & Meas Lab	3	X	
MCE 371 Vibrations	4	X		MCE 421 Applied Thermodynamics	4	X	
ESC 310 Eng Statistics & Probability	3	X		General Education Elective	3		A&H
<i>Semester Total</i>	17			<i>Semester Total</i>	18		

Fourth Year

Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed
MCE 450 Design Project I	2	X	WAC CAP	MCE 451 Design Project II	2	X	WAC CAP
ESC 282 Engineering Economy	3	X	SS	MCE 4XX M. E. Technical Elective	4	X	
MCE 441 Intro to Linear Control Theory	4	X		MCE 4XX M. E. Technical Elective	4	X	
PHL 215 Engineering Ethics	3	X	A&H WAC	General Education Elective	3		SS
MCE 48X M.E. Lab Elective	3	X		General Education Elective	3		DIV
General Education Elective	3		DIV				
Apply for Spring graduation prior to Sep 9th							
<i>Semester Total</i>	18			<i>Semester Total</i>	16		

Degree Total: 135 hours

Assumptions: college-level readiness in MTH & ENG; no Foreign Language Deficiency

College/ Program Notes:

The plan above is a suggested guide to ensure that all General Education, College, University, and Major requirements are met within 4 years of study. Students may deviate from the suggested placement of Gen Ed courses, although the M/QL and W/C requirements should be completed during the first year of study.

*General Electives ensure that a student accumulates the minimum credit hour totals needed for graduation. Students must have a **minimum of 128 total credit hours**, of which a **minimum of 42 credit hours** must be upper division (300 or 400-level courses). Depending upon other elective choices made, students may not need as many general electives as indicated above, or may need additional electives.

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University Notes:

Gen Ed Key:	SS = Social Sciences Requirement (2 courses, one of which must be focused outside the US**)
INTRO = Introduction to University Life Requirement (one course)	A&H = Arts & Humanities Requirement (2 courses, one must be focused outside the US**)
W/C = Writing/Composition Requirement (two courses; C or better required)	DIV = Social Diversity Requirement (2 courses; one US Diversity and one African American Exp.)
M/QL = Mathematics/Quantitative Literacy Requirement (two courses)	WAC/SPAC = Writing/Speaking Across the Curriculum Requirement (3 courses, one in the major)
NS = Natural Sciences (two courses, one of which must have a lab)	CAP = Capstone Requirement
** of the SS and A&H courses focused outside the US, one must be focused on Africa, Latin America, Asia or the Middle East (ALAAME)	

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