

Cleveland State University
Washkewicz College of Engineering
Bachelor of Science in Mechanical Engineering - Co-op version
Degree Map for students immediately eligible for College Writing I, General Chemistry I, and Calculus I

Name _____ I.D. No. _____

Curriculum Sheet (Effective Fall 2027)

First Year							
Fall Semester	Credits	Major	Spring Semester	Credits	Major	Summer Semester	Credits
ENG 100 Intensive Writing or ENG 101 Writing I	3		ENG 108 AI and Writing or ENG 109 Technical Writing and Professional Communication or ENG 102	3			
MTH 181 Calculus I	4	X	MTH 182 Calculus II	4	X		
CHM 261 General Chemistry I	3	X	ESC 152 Programming with MATLAB	3	X		
CHM 266 General Chemistry Laboratory I	1	X	PHY 241 University Physics I	5	X		
INQ 170 Inquiry Launch to Engineering*	3		MCE 181 Computer Aided Engineering II	2	X		
MCE 180 Computer Aided Engineering I	2	X					
		X					
Semester Total	16		Semester Total	17			

Second Year							
Fall Semester	Credits	Major	Spring Semester	Credits	Major	Summer Semester	Credits
ESC 250 Differential Equations	3	X	ESC 202 Dynamics	3	X	ESC 400 Fenn Co-op Education Experience	1
MTH 283 Multivariable Calculus for Engineers	2	X	ESC 301 Fluid Mechanics	3	X		
ESC 201 Statics	3	X	PHY 242 University Physics II	5	X		
MCE 276 Materials & Manufacturing Processes	3	X	ESC 211 Strength of Materials	3	X		
MCE 286 Manufacturing Processes Lab	1	X	ESC 130 Engineering & Computer Science Career Prep	1			
Society and Human Behavior (Core Curriculum)	3						
Semester Total	15		Semester Total	15			

Third Year							
Fall Semester	Credits	Major	Spring Semester	Credits	Major	Summer Semester	Credits
MCE 260 Kinematics	3	X	ESC 300 Co-op	1			
MCE 371 Vibrations	3	X					
MCE 362 Machine Analysis	3	X					
ESC 321 Engineering Thermodynamics I	3	X					
ESC 350 Linear Algebra for Engineers	3	X					
Semester Total	15		Semester Total	1			

Fourth Year							
Fall Semester	Credits	Major	Spring Semester	Credits	Major	Summer Semester	Credits
ESC 300 Fenn Co-op Education Experience	1		MCE 315 Electrical SYstems for Mech. Eng.	3	X	ESC 400 Fenn Co-op Education Experience	1
			MCE 365 Machine Design I	3	X		
			MCE 324 Intro to Heat Transfer	3	X		
			MCE 421 Applied Thermodynamics	3	X		
			MCE 481 Thermodynamics Lab	1	X		
			Global Human Perspectives (Core Curriculum)	3			
Semester Total	1		Semester Total	16			

Fifth Year							
Fall Semester	Credits	Major	Spring Semester	Credits	Major		
MCE 450 Design Project I	2	X	MCE 451 Design Project II	3	X		
MCE 441 Introduction to Linear Controls	3	X	MCE XXX Mechanical Engineering Elective	3	X		
MCE 470 Engineering Measurements	3		MCE XXX Mechanical Engineering Lab Elective	3	X		
MCE 480 Measurements Lab	1	X	PHL 215 Engineering Ethics (Core Curriculum)	3	X		
MCE XXX Mechanical Engineering Elective**	3		American Civic Literacy (Core Curriculum)	3			
ESC 282 Engineering Economy	3		Complexities of Pluralistic Society (Core Curriculum)	3			
Semester Total	15		Semester Total	18			

* INQ 170 is required for all engineering, technology, and computer science majors, and meets the Core Curriculum requirement for Inquiry Launch. ESC 120 is required in place of INQ 170 in the following cases: (a) transfer students; however, those who have had co-op experience in engineering/computer science and/or have transferred 12 credits of engineering/computer science courses can petition to waive ESC 120; (b) students who, as freshmen at CSU, started in another major and completed an Inquiry Launch course different from INQ 170; (c) Honors students who take the Honors Inquiry Launch course. Neither INQ 170 nor ESC 120 is required for transfer students with an Associates of Applied Science degree.

** 3 credits of ESC 300/400 Co-op may replace one 3 credit MCE XXX Mechanical Engineering Elective.

Degree Total: 129 (Excluding ESC 300/400 Co-op courses) – SEE (CC) KEY ON REVERSE SIDE (non-co-op degree map version)