Cleveland State University
Washkewicz College of Engineering
Bachelor of Mechanical and Electrical Engineering

Mechanical Engineering + Electrical Engineering Map (Effective Fall 2025)

First Year							
Fall Semester	Credits	Major	CC	**Spring Semester**	Credits	Major	CC
ENG 100 Intensive College Writing OR ENG 101 College Writing I	3		FYV	MTH 182 Calculus II	4		FQR/ DDL
MTH 181 Calculus I	4		FQR	PHY 241 University Physics I	5		SI/SIL
ESC 151 C Program OR ESC 152 MATLAB	3	X		MCE 181 Computer Aided Engineering II	2		
MCE 180 Computer Aided Engineering I	2	X		MCE 276 Materials & Manufacturing	3	X	
INQ 170 Engineering Launch	3		IL	MCE 286 Manufacturing Processing Lab	1	X	
Semester Total	15			Semester Total	15		

Second Year							
Fall Semester	Credits	Major	CC	**Spring Semester**	Credits	Major	CC
ESC 250 Differential Equations	3	X		ESC 202 Dynamics	3	X	
ESC 201 Statics	3	X		ESC 301 Fluid Mechanics	3	X	
ESC 102 Technical Writing or ENG 102 College Writing II	3		RPW	EEC 310 Electric Circuits I	4	X	
PHY 242 University Physics II	5			EEC 312 Circuits Lab	2	X	
ESC 350 Linear Algebra for Engineers	3	X		African-American History and Culture	3		AAHC
Semester Total	17			Semester Total	15		

Third Year							
Fall Semester	Credits	Major	CC	**Spring Semester**	Credits	Major	CC
EEC 313 Electronics I	3	X		EEC 384 Digital Systems Lab	2	X	
ESC 211 Strength of Materials	3	X		MCE 371 Vibrations	3	X	
EEC 383 Digital Systems	3	X		MCE 362 Machine Analysis	3	X	
ESC 321 Engineering Thermodynamics	3	X		MCE 470 Eng Measurements	3	X	
EEC 315 Electronics Lab	2	X		MCE 480 Measurements Lab	1	X	
				Society and Human Behavior	3		SHB
Semester Total	14			Semester Total	15		

Fourth Year							
Fall Semester	Credits	Major	CC	**Spring Semester**	Credits	Major	CC
MCE 450 or EEC 493 Design Project I	2	X	WAC	MCE 451 or EEC 494 Design Project II	3	X	CAP
MCE 441 Intro Linear Controls	3	X		PHL 215 Engineering Ethics	3		HCC
General Elective	3			General Elective	3		WAC
Scientific Inquiry	3		SI	MCE Lab Elective	3	X	
Global Human Perspectives	3		GHP	Diversity in Society	3		DS
Semester Total	14			Semester Total	15		
Total Degree Hours: 120							

Assumption: University Requirement of Foreign Language has been met by either successfully completing two (2) years of the same language in high school; or two (2) semesters of the same language in college; or passing CSU's language placement test in reading, writing, and speaking of a second language other than English.

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. General Electives ensure that a student accumulates the minimum credit hour totals needed for graduation. Students must have a **minimum of 120 total credit hours**. Depending upon elective choices made, students may not need as many electives as indicated above or may need additional electives.

General Education Key + Notes

General Ed. Electives can be taken in any order except ESC 282 (Engineering Economy) after MTH 182 (Calculus II) as well as PHL 215 (Engineering Ethics) after ESC 102 /ENG 102 (Tech. Writing/College Writing II.	
Intro = Introduction to University Life Requirement (one course required)	**SS** = Social Sciences Requirement (2 courses required, one of which must be focused outside the US)
W/C = Writing/Composition Requirement (two courses, each C or better required)	**A&H** = Arts & Humanities Requirement (2 courses required, one of which must be focused outside the US)
M = Mathematics (two courses required, each C or better)	**DIV** = Social Diversity Requirement (2 courses required, one US Diversity and one African American Experience)
NS = Natural Sciences (two courses required, one of which must have a lab – NS&LAB)	**WAC/SPAC** = Writing/Speaking Across the Curriculum Requirement (3 courses required, one in the major)
ESC 100/ASC 101 can be waived for transfer students with 60 credits or more	**CAP** = Capstone topic needs to be a combination of Mechanical Engineering and Electrical Engineering
*Engineering. & Computer Science Career Prep course (ESC 130) is highly recommended	**Of the SS and A&H courses, at least one must be focused on Africa, Latin America, Asia or the Middle East (ALAAME)

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