

Cleveland State University
Washkewicz College of Engineering
Bachelor of Electrical Engineering (EE)
Fall 2022

EE Degree Map for students immediately eligible for College Writing I, General Chemistry I, and Calculus I

First Year								
Fall Semester	Credits	Major	Gen. Ed.	Spring Semester	Credits	Major	Gen. Ed.	
ENG 100/101 Intensive Writing OR College Writing I	3		W/C	ESC 102/ENG 102 Tech. Writing OR College Writing II	3		W/C	
MTH 181 Calculus I	4	X	M	MTH 182 Calculus II	4	X	M	
CHM 261 General Chemistry I	3	X	NS	PHY 243 University Physics I (Writing)	5	X	NS&WAC	
CHM 266 General Chemistry I Lab	1	X	NS&LAB	ESC 151 C Programming	3	X		
ESC 100 New Student Orientation	1	X	INTRO					
ESC 120 Introduction to Engineering Design	2	X						
General Education Elective	3		AA DIV					
Semester Total	17			Semester Total	15			

Second Year								
Fall Semester	Credits	Major	Gen. Ed.	Spring Semester	Credits	Major	Gen. Ed.	
PHY 244 University Physics II (Writing)	5	X	NS&WAC	EEC 311 Electric Circuits II	4	X		
MTH 283 Multivariable Calculus for Engineers	2	X		EEC 313 Electronics I	3	X		
EEC 310 Electric Circuits I	4	X		EEC 315 Electronics Lab	2	X		
EEC 312 Circuits Lab	2	X		EEC 318 Signals & Systems	3	X		
ESC 250 Differential Equations for Engineers	3	X		PHL 215 Engineering Ethics	3	X	A&H+WAC	
ESC 130 Engineering Co-op Orientation*	1							
Semester Total	17			Semester Total	15			

Third Year								
Fall Semester	Credits	Major	Gen. Ed.	Spring Semester	Credits	Major	Gen. Ed.	
EEC 314 Electronics II	3	X		EEC Technical Elective	3	X		
EEC 361 Electromechanical Energy Conversion	3	X		EEC 384 Digital Systems Lab	2	X		
EEC 383 Digital Systems	3	X		EEC 460 Engineering Electromagnetics	4	X		
EEC 414 Technical Communication	2	X	WAC	EEC 440 Control Systems	3	X		
MTH 284 Matrices	2	X		EEC 441 Control Systems and Lab	2	X		
General Education Elective**	3		SS	ESC 310 Statistics & Probability	3	X		
Semester Total	16			Semester Total	17			

Fourth Year								
Fall Semester	Credits	Major	Gen. Ed.	Spring Semester	Credits	Major	Gen. Ed.	
EEC 493 Senior Design I	2	X		EEC 494 Senior Design II	3	X	CAP	
EEC 450 Communications	3	X		EEC Technical Elective	3	X		
EEC 451 Communications Lab	2	X		EEC Technical Elective	3	X		
EEC 470 Power Electronics I	3	X		ESC 282 Engineering Economy	3	X	SS	
EEC 471 Power Electronics Lab	2	X		General Education Elective	3		AA DIV	
General Education Elective**	3		A&H					
Semester Total	15			Semester Total	15			

Degree Total Hours: 126 or 127 with ESC 130

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 General Education 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 126 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. For information about acquiring a Math Minor by substituting solely ESC 250 Differential Equations with MTH 286 Differential Equations: visit EE.Math.Minor or email: impt.engr.info@csuohio.edu to request guidance.

University Notes:

General Education Key + Notes	
General Ed. courses 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)	SS = Social Sciences Requirement (2 courses, one of which must be focused outside the US)
W/C = Writing/Composition Requirement (two courses; C or better required)	A&H = Arts & Humanities Requirement (2 courses, one must be focused outside the US)
M = Mathematics (two courses required, each C or better)	DIV = Social Diversity Requirement (2 courses; 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, one in the major)
ESC 100 = waived for transfer students for students with 60 credits or more	CAP = Capstone Requirement
* Introduction to Co-op Orientation is highly recommended, yet not required	** 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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