

Cleveland State University
Washkewicz College of Engineering
Bachelor of Science in Electrical and Environmental Science-Integrated Degree (Effective Fall 2026)

First Year								
Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed	
INQ 170 Engineering Launch	3	X	IL	CHM 262/267 General Chemistry II/Lab	4	X	SI/SIL	
CHM 261/266 General Chemistry I/Lab	4	X	SI/SIL	PHY 243 University Physics	5	X	SI/SIL/WAC	
MTH 181 Calculus I	4	X	QFR	ENG 102 College Writing II	3		RPW	
ENG 101 College Writing I	3		FYV	MTH 182 Calculus II	4	X	DDL/QFR	
Semester Total	14			Semester Total	16			

Second Year								
Fall Semester	Credits	Major	Core	Spring Semester	Credits	Major	Core	
PHY 470 Environmental Physics	3	X		EVS 302/303 Bio Feat of Ecosystems/Lab (Spring only)	4	X	NS	
ESC 151 C Programming	3	X		EEC 310 Electric Circuits I	4	X		
ESC 250 Differential Equations	3	X		EEC 312 Electric Circuits Lab	2	X		
EVS 300/301 Physc. Feat. OR EVS 322/323 Geo. Conc.&Tools	4	X		EVS Physical Science Elective* (Spring only)	3 or 4	X		
UST 436 Urban Sustainability	3	X	WAC	PHL 215 Engineering Ethics	3		HCC	
Semester Total	16			Semester Total	16 or 17			

Third Year								
Fall Semester	Credits	Major	Core	Spring Semester	Credits	Major	Core	
EVS 322/323 Geospat. Con. & Tools OR EVS 300/301 Physical Feat.	4	X		EEC 314 Electronics II	3	X		
EEC 311 Electric Circuits II	4	X		EEC 318 Signals & Systems	3	X		
EEC 313 Electronics I	3	X		EEC 383 Digital Systems	3	X		
EEC 315 Electronics Lab	2	X		EVS Physical Science OR Ecosystem Science Elective*	3 to 5	X		
ESC 310 Statistics & Probability	3	X		Free elective**	1 to 5			
Semester Total	16			Semester Total	13 to 19			

Fourth Year								
Fall Semester	Credits	Major	Core	Spring Semester	Credits	Major	Core	
Free elective**	1 to 5			EVS Physical Science OR Ecosystem Science Elective*	3 to 5	X		
EEC 384 Digital Systems Lab	2	X		Exit Evaluation	3			
EEC 493 Senior Design I	2	X	CAP	Global Human Perspectives	3		GHP	
EVS Ecosystem Science Elective*	3 to 5	X		Complexities of Pluralistic Society	3		CPS	
American Civic Literacy	3		ACL	Free elective**	1 to 5			
Society & Human Behavior	3		SHB					
Semester Total	14 to 20			Semester Total	13 to 19			

Total Degree Hours: 120 minimum

Program Notes:

* Students must complete a **minimum of 12 credit hours** total from a list of **EVS Physical Science Electives** and a list of **EVS Ecosystem Science Electives**. Courses in these lists can be 3, 4 or 5 credit hours. Therefore, students may need three or four such electives depending on their choices. A least one course must be chosen from each of the two elective lists.

** Free Electives must be chosen from one of the following four categories for a **minimum of 5 credit hours**:

- (1) EEC 440 Control Systems (3 cr-hr; spring only) **and** EEC 441 Control Systems Laboratory (2 cr-hr; spring only)
- (2) EEC 450 Communications (3 cr-hr; fall only) **and** EEC 451 Communications Laboratory (2-cr-hr)
- (3) MTH 284 Matrices for Engineers (2 cr-hr; prerequisite) **and** EEC 449 Introduction to Machine Learning (3 cr-hr; spring only)
- (4) Any CSU course or combination of courses for a minimum total of 5 credit hours.

University/College/Program Notes: The plan above is a suggested guide to ensure that all Core Curriculum, College, University, and Major requirements are met within 4 years of study. Students may deviate from the suggested placement of Core Curriculum courses, although some requirements need to be completed during the first year. Students must complete a **minimum of 120 total credit hours**.

Assumptions: (1) College-level readiness in Math and English; (2) University requirement of Foreign Language has been met by either successfully completing two years of the same language in high school; or two 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.

Core Curriculum Key		
ACL = American Civic Literacy	CAP = Capstone Requirement	DDL = Data & Digital Literacy
CPS = Complexities of Pluralistic Society	QFR = Quantitative & Formal Literacy	FYV = Finding Your Voice
GHP = Global Human Perspectives	HCC = Human Culture & Creativity	IL = Inquiry Launch
RPW = Research & Professional Writing	SHB = Society & Human Behavior	SI = Scientific Inquiry
SIL = Scientific Investigations Lab	WAC = Writing Across the Curricula	

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