

Cleveland State University  
Washkewicz College of Engineering

Bachelor of Science in Electrical Engineering and Computer Science-Integrated Degree (Effective Fall 2025)

First Year							
Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed
ENG 100 Intensive College Writing ENG 101 College Writing I	3		FYV	ESC 102 Technical Writing or ENG 102 College Writing II	3		RPW
MTH 181 Calculus I	4		FQR	MTH 182 Calculus II	4		DDL/FQR
CIS 151 Invitation to Computing or ESC 151 C Programming	3	X		PHY 241 University Physics I	5		SI/SIL
INQ 170 Engineering Launch <sup>a</sup>	3	X	IL	CIS 260 Introduction to Programming	4	X	
Society and Human Behavior	3		SHB				
<b>Semester Total</b>	<b>16</b>			<b>Semester Total</b>	<b>16</b>		

Second Year							
Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed
PHY 242 University Physics II	5		SI/SIL	EEC 311 Electric Circuits II	4	X	
EEC 310 Electric Circuits I*	4	X		EEC 313 Electronics I**	3	X	
Complexities of Pluralistic Society (CC)	3		CPS	EEC 316 Electronics Devices Lab***	1	X	
MTH 288 Linear Algebra	3	X		CIS 265 Data Structure and Algorithm	4	X	
ESC 250 Differential Equations	3	X		ESC 130 Career Prep Course <sup>§</sup>	1		
				PHL 216 AI & Ethics	3	X	HCC
<b>Semester Total</b>	<b>18</b>			<b>Semester Total</b>	<b>15 or 16</b>		

Third Year							
Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed
CIS 340 Systems to Programming	3	X		CIS 345 Operating Systems	3	X	
MTH 220 Discrete Mathematics	3	X		CIS 390 Introduction to Algorithms	3	X	
EEC 383 Digital Systems	3	X		CIS 480 Computer Architecture	3	X	
CIS 335 Language Processor	3	X		EEC 318 Analysis, Des. & Sim. of Dyn. Systems	3	X	
ESC 310 Engineering Stats/Probability	3	X		EEC 384 Digital Systems Lab	2	X	
<b>Semester Total</b>	<b>15</b>			<b>Semester Total</b>	<b>14</b>		

Fourth Year							
Fall Semester	Credits	Major	Gen Ed	Spring Semester	Credits	Major	Gen Ed
CIS 493/EEC 493 Design Project I <sup>¶</sup>	2	X	WAC	CIS 494/EEC 494 Design Project II <sup>¶</sup>	3	X	CAP
ESC 282 Engineering Economy	3	X		EEC 417 Embedded Systems	3	X	
American Civic Literacy	3		ACL	EEC 440 Control Systems	3	X	
Global Human Perspectives	3		GHB	CIS 402/EEC 414 Technical Communication	2	X	WAC
General Elective	3	X		General Elective	1	X	
<b>Semester Total</b>	<b>14</b>			<b>Semester Total</b>	<b>12</b>		

Total Degree Hours: 120 (121 with ESC 130)

<sup>a</sup> 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.

**Specifically for EE+CS integrated degree majors:**

\* MTH 288, instead of MTH 284, is a co-requisite of EEC 310.

\*\* EEC 316, instead of EEC 315, and EEC 311 are co-requisites of EEC 313.

\*\*\* EEC 311 and EEC 313 are co-requisites (not pre-requisites) of EEC 316.

§ ESC 130 is highly recommended but not required.

¶ Students who choose CIS 493 must also take CIS 494; similarly, students who choose EEC 493 must also take EEC 494.

**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 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 have a **minimum of 120 (or 121 including ESC 130) total credit hours.**

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

This information is provided solely for the convenience of the reader, and the University expressly disclaims any liability which may otherwise be incurred. This publication is neither a contract nor an offer to make a contract. While every effort has been made to ensure the accuracy of the information, the University reserves the right to make changes at any time with respect to course offerings, degree requirements, services provided, or any other subject addressed herein.