Cleveland State University
Washkewicz College of Engineering and College of Arts & Sciences
Bachelor of Science Computer Science and Design
Computer Science + Design Degree 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	ENG 102 College Writing II or ESC 102 Technical Writing	3		RPW
MTH 148 Business Math I OR MTH 181 Calculus I	3 or 4		FQR	MTH 149 Business Math II or MTH 182 Calculus II	4		DDL/FQR
CIS 151 Invitation to Computing	3	X		CIS 260 Introduction to Programming	4	X	
ART 244 Introduction to Visual Technology	3	X		ART 242 Introduction to Typography	3	X	
Inquiry Launch (CC)	3		IL				
Semester Total	15 or 16			Semester Total	14		

Second Year

Fall Semester	Credits	Major	CC	Spring Semester	Credits	Major	CC
CIS 265 Data Structures & Algorithms	4	X		CIS 340 Systems Programming	3	X	
ART 346 Human Centered Graphic Design	3	X		CIS 390 Introduction to Algorithms	3	X	
ART 347 Intermediate Visual Technology-Web	3	X		PHL 215 Technology Ethics (OR) PHL 216 AI & Data Ethics	3		HCC
MTH 220 Intro to Discrete Math	3			ART 342 Advanced Typography	3	X	
African American History and Culture (CC)	3		AAHC	ESC 282 Engineering Economy	3	X	
ESC 130 Engineering & Computer Science Career Preparation*	1						
Semester Total	17			Semester Total	15		

Third Year

Fall Semester	Credits	Major	CC	Spring Semester	Credits	Major	CC
CIS 345 Operating Systems	3	X		CIS 430 Database Concepts	3	X	
CIS 424 Comparative Program Language	3	X		CIS 434 Software Engineering	3	X	
ART 447 User Experience/User Interface Design (UX/UI)	3	X		CIS 454 Data Communication & Networking	3	X	
CIS 402 CS Technical Writing	2	X	WAC	ART 348 Intermediate Visual Technology-Motion	3		
Science Inquiry (CC)	3		SI	Society and Human Behavior (CC)	3		SHB
Science Investigations (CC)	1		SIL				
Semester Total	15			Semester Total	15		

Fourth Year

Fall Semester	Credits	Major	CC	Spring Semester	Credits	Major	CC
ART 343 Data Visualization & Info Design	3	X		Senior Capstone ART 450 or CIS 492	3	X	CAP
Global Human Perspectives (CC)	3		GHP	General Elective	3	X	
Science Inquiry (CC)	3		SI	Diversity in Society (CC)	3		DS
General Elective	3			General Elective	3		WAC
General Elective	3			General Elective	3		
Semester Total	15			Semester Total	15		
Total Degree Hours: 121-122 including optional 1 credit ESC 130 course							

*ESC 130 Engineering & Computer Science Career Preparation is an optional course for the interested students

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 need to 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

Core Curriculum Key:

IL = Inquiry Launch	HCC = Human Culture and Creativity	SI = Scientific Inquiry
FYV = Finding Your Voice	GHP= Global Human Perspectives	SIL = Scientific Investigations Lab
RPW = Research & Professional Writing	WAC = Writing Across the Curriculum Req	DS = Diverse Society
AAHC = African-American History and Culture	CAP = Capstone Requirement	DDL= Data & Digital Literacy
FQR = Formal & Quantitative Literacy	SHB = Society & Human Behavior	

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