Cleveland State University – Washkewicz College of Engineering

Bachelor of Science in Computer Science

Effective Fall 2025

Name	I.D. No.	

			First	Year			
Fall Semester	Credits Grade CC Spring Semester		Credits	Grade	cc		
ENG 101 English I	3		FYV	ESC 102 Tech. Writing or ENG 102 English II	3		RPW
MTH 181 Calculus I	4		FQR	MTH 182 Calculus II	4		DDL/FQR
CIS 151 Invitation to Computing	3			PHY 241 University Physics I	5		SI/SIL
INQ 170 Inquiry Launch to Engineering*	3		IL	CIS 260 Introduction to Programming	4		
Semester Total	13			Semester Total	16		

			Secon	d Year			
Fall Semester	Credits	Grade	СС	Spring Semester	Credits	Grade	СС
CIS 265 Data Structures	4			CIS 335 Language Processors	3		
PHY 242 University Physics II	5		SI/SIL	MTH 288 Linear Algebra	3		
ESC 310 Engineering Probability & Statistics	3			PHL 215 Technology Ethics (OR) PHL 216 AI & Data Ethics	3		HCC
MTH 220 Intr. to Discrete Mathematics	3			Society and Human Behavior (A&H)	3		SHB
				ESC 282 Engineering Economy	3		
Semester Total	15			Semester Total	15		

			Third	l Year			
Fall Semester	Credits	Grade	СС	Spring Semester	Credits	Grade	СС
CIS 340 Systems Programming	3			CIS 345 Operating Systems	3		
CIS 390 Introduction to Algorithms	3			CIS 430 Database Concepts	3		
CIS 424 Programming Languages	3			CIS 434 Software Engineering	3		
CIS 402 Technical Communication	2		WAC	CIS 454 Computer Networks	3		
CIS 480 Introduction to Computer Architecture	3			Global Human Perspectives (A&H)	3		GHP
African-American History & Culture	3		AAHC				
Semester Total	17			Semester Total	15		

			Fourt	h Year			
Fall Semester	Credits	Grade	СС	Spring Semester	Credits	Grade	СС
CIS 493 Senior Design I	2		WAC	CIS 494 Senior Design II	3		CAP
CIS 475 Computer Security	3			CS Major Elective	3		
CS Major Elective	3			CS Major Elective	3		
CS Major Elective	3			CS Major Elective	3		
CS Major Elective	3			Diversity in Society	3		DS
Semester Total	14			Semester Total	15		
	Degr	ee Tot	al hours:	120 hours			

^{*} 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.

The plan above is a suggested guide to ensure that all General Education, College, University, and Major requirements are met within 5 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 actual to the minimum credit hour totals needed for graduation. Students must have a minimum of 120 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 declaring a Math Minor with the courses you already need for the CS major, email: impt.engr.info@csuohio.edu.

Core Curriculum Key

IL = Inquiry Launch
FYY = Finding Your Voice
RPW = Research & Professional Writing
AAHC = African-American History and Culture
FQR = Formal & Quantitative Literacy

HCC = Human Culture and Creativity
GHP= Global Human Perspectives
WAC = Writing Across the Curriculum Req
CAP = Capstone Requirement
SHB = Society & Human Behavior

SI = Scientific Inquiry SIL = Scientific Investigations Lab DS = Diverse Society DDL= Data & Digital Literacy

Cleveland State University – Washkewicz College of Engineering

Bachelor of Science in Computer Science Co-op version

Curriculum Sheet (Effective Fall 2025)

Name:	I.D. No:

Fall Semester	Credits	СС	Spring Semester	Credits	СС	Summer Semester	Credits	СС
ENG 101 English I	3	FYV	ENG 102 English II or ESC 102 Tech Writing	3	RPW			
MTH 181 Calculus I	4	FQR	MTH 182 Calculus II	4	DDL/ FQR			
CIS 151 Invitation to Computing	3		PHY 241 University Physics I	5	SI/SIL			
INQ 170 Inquiry Launch to Engineering*	3	IL	CIS 260 Introduction to Programming	4				
			ESC 130 Engineering & Comp Science Career Prep	1				
Semester Total	13		Semester Total	17		Semester Total		

Second Year								
Fall Semester	Credits	СС	Spring Semester	Credits	СС	Summer Semester	Credits	СС
CIS 265 Data Structures	4		CIS 335 Languages Processors	3		ESC 300/400 Fenn Co-op Education Experience	1	
PHY 242 University Physics II	5	SI/SIL	MTH 288 Linear Algebra	3				
ESC 310 Eng. Stat & Probability	3		PHL 215 Technology Ethics (OR) PHL 216 AI & Data Ethics	3	НСС			
MTH 220 Intr. To Discrete Mathematics	3		Society & Human Behavior (A&H)	3	SHB			
			ESC 282 Engineering Economy	3				
Semester Total	15		Semester Total	15				

Third Year								
Fall Semester	Credits	СС	Spring Semester	Credits	СС	Summer Semester	Credits	СС
CIS 340 Systems Programming	3		ESC 300/400 Fenn Co-op Education Experience	1		African-American History & Culture	3	ААНС
CIS 390 Introduction to Algorithms	3							
CIS 424 Programming Languages	3							
CIS 402 Technical Communication	2	WAC						
CIS 480 Introduction to Comp Architecture	3							
Semester Total	14		Semester Total			Semester Total	3	

Fourth Year								
Fall Semester	Credits	СС	Spring Semester	Credits	СС	Summer Semester	Credits	СС
ESC 300/400 Fenn Co-op Education Experience	1		CIS 345 Operating Systems	3		ESC 300/400 Fenn Co-op Education Experience	1	
			CIS 430 Database Concepts	3				
			CIS 434 Software Engineering	3				
			CIS 454 Computer Networks	3				
			Global Human Perspectives (A&H)	3	GHP			
Semester Tota	1		Semester Total	15		Semester Total		

Fifth Year								
Fall Semester	Credits	сс	Spring Semester	Credits	СС	Summer Semester	Credits	СС
CIS 493 Senior Design I	2	WAC	CIS 494 Senior Design II	3	CAP			
CIS 475 Computer Security	3		CS Major Elective	3				
CS Major Elective	3		CS Major Elective	3				
CS Major Elective	3		CS Major Elective**	3				
CS Major Elective	3		Diversity in Society	3	DS			
					`			
Semester Total	14		Semester Total	15		Semester Total		
		-	Degree Total: 121 hours (excludes ESC	300/4	100)			

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Core Curriculum Key + Notes

SI = Scientific Inquiry
SIL = Scientific Investigations Lab
DS = Diverse Society
DDL= Data & Digital Literacy

^{**} Students who complete three semesters of co-op (ESC 300/400) can substitute one CS major elective course with these three co-op credits and the complete three semesters of co-op (ESC 300/400) can substitute one CS major elective course with these three co-op credits are considered as the co-op credits are considered as the co-op credits are considered as the co-op credits are co-op