Cleveland State University – Washkewicz College of Engineering
Bachelor of Science in Computer Engineering
Effective Fall 2025
Degree Map for students immediately eligible for College Writing I, General Chemistry I, and Calculus I

First Year

Fall Semester	Credits	Major	CC	Spring Semester	Credits	Major	CC
ENG 100/101 Intensive Writing **OR** College Writing I	3		FYV	ESC 102/ENG 102 Tech. Writing **OR** College Writing II	3		RPW
MTH 181 Calculus I	4	X	FQR	MTH 182 Calculus II	4	X	DDL/FQR
CHM 261 General Chemistry I	3	X	SI	PHY 241 University Physics I	5	X	SI/SIL
CHM 266 General Chemistry I Lab	1	X	SI	ESC 151 C Programming	3	X	
INQ 170 Inquiry Launch to Engineering*	3	X	IL	Society and Human Behavior (A&H)	3		SHB
Semester Total	**14**			**Semester Total**	**18**		

Second Year

Fall Semester	Credits	Major	CC	Spring Semester	Credits	Major	CC
EEC 383 Digital Systems	3	X		EEC 310 Circuits I	4	X	
CIS 260 Introduction to Programming	4	X		EEC 384 Digital Systems Laboratory	2	X	
PHY 242 University Physics II	5	X	SI/SIL	CIS 265 Data Structures & Algorithms	4	X	
MTH 220 Discrete Mathematics	3	X		ESC 250 Differential Equations for Engineers	3	X	
MTH 284 Matrices for Engineers	2	X		PHL 215 Engineering Ethics	3	X	HCC
				ESC 130 Engineering & Comp Sci Career Prep **	1		
Semester Total	**17**			**Semester Total**	**17**		

Third Year

Fall Semester	Credits	Major	CC	Spring Semester	Credits	Major	CC
EEC 311 Circuits II	4	X		EEC 316 Electronics Devices Lab	1	X	
EEC 313 Electronics I	3	X		EEC 414 Technical Communication	2	X	WAC
EEC 487 Advanced Digital Systems	3	X		EEC 483 Computer Organization	3	X	
CIS 340 Systems Programming	3	X		CIS 345 Operating Systems	3	X	
American Civic Literacy	3		ACL	ESC 282 Engineering Economy	3	X	
				ESC 310 Engineering Statistics & Probability	3	X	
Semester Total	**16**			**Semester Total**	**15**		

Fourth Year

Fall Semester	Credits	Major	CC	Spring Semester	Credits	Major	CC
EEC 488 Hardware-Software Co-design	3	X		EEC 494 Senior Design II	3	X	CAP
EEC 493 Senior Design I	2	X	WAC	EEC/CIS Technical Elective	3	X	
CIS 454 Computer Networks	3	X		EEC/CIS Technical Elective	3	X	
EEC/CIS Technical Elective	3	X		EEC/CIS Technical Elective	3	X	
Global Human Perspectives (A&H)	3		GHB	Complexities of Pluralistic Society	3		CPS
Semester Total	**14**			**Semester Total**	**15**		

Degree Total Hours: 125 (or 126 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 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 the FYP, RPW, FQR and DDL 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 125 total credit hours**, of which a **minimum of 42 credit hours** must be upper division (300 or 400-level courses). For information about acquiring a Math Minor by substituting **ESC 250** Differential Equations with **MTH 286** Differential Equations, email: impt.engr.info@csuohio.edu. C or better is required for ENG 100/101, ESC 102/ENG 102, MTH 181&181, CHM 261&266 and PHY 241.

***** 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.

****** ESC 130 is highly recommended but not required.

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	

Cleveland State University – Washkewicz College of Engineering
Bachelor of Science in Computer Engineering
Effective Fall 2025
Degree Map **with Co-Op** for students immediately eligible for College Writing I, General Chemistry I, and Calculus I

First Year

Fall Semester	Cr.	Type	Spring Semester	Cr.	Type	Summer Semester	Cr.	Type
ENG 100 or ENG 101 Writing	3	FYV	ENG 102 or ESC 102 Writing	3	RPW			
MTH 181 Calculus I	4	FQR	MTH 182 Calculus II	4	DDL/FQR			
CHM 261 General Chemistry I	3	SI	PHY 241 University Physics I	5	SI/SIL			
CHM 266 General Chemistry I Lab	1	SI	ESC 151 C Programming	3				
INQ 170 Inquiry Launch to Engr.*	1	IL						
Semester Total	***14***		***Semester Total***	***15***		***Semester Total***		

Second Year

Fall Semester	Cr.	Type	Spring Semester	Cr.	Type	Summer Semester	Cr.	Type
EEC 383 Digital Systems	3		EEC 310 Circuits I	4		ESC 300/400 Fenn Co-op Educ Exper	1	
CIS 260 Introduction to Programming	4		EEC 384 Digital Systems Laboratory	2				
PHY 242 University Physics II	5	SI/SIL	CIS 265 Data Structures & Algorithms	4				
MTH 220 Discrete Mathematics	3		ESC 250 Diff. Eq. for Engineers	3				
MTH 284 Matrices for Engineers	2		PHL 215 Engineering Ethics	3	HCC			
			ESC 130 Engineering & Comp Science Career Prep	1				
Semester Total	***17***		***Semester Total***	***17***		***Semester Total***		

Third Year

Fall Semester	Cr.	Type	Spring Semester	Cr.	Type	Summer Semester	Cr.	Type
EEC 311 Circuits II	4		ESC 300/400 Fenn Co-op Educ Exper	1		Global Human Perspectives (A&H)	3	GHB
EEC 313 Electronics I	3					Society and Human Behavior (A&H)	3	SHB
EEC 487 Advanced Digital Systems	3							
CIS 340 Systems Programming	3							
American Civic Literacy	3	ACL						
Semester Total	***16***		***Semester Total***			***Semester Total***	***6***	

Fourth Year

Fall Semester	Cr.	Type	Spring Semester	Cr.	Type	Summer Semester	Cr.	Type
ESC 300/400 Fenn Co-op Educ Exper	1		EEC 316 Electronics Devices Lab	1		ESC 300 or ESC 400 Co-Op	1	
			EEC 414 Technical Communication	2	WAC			
			EEC 483 Computer Organization	3				
			CIS 345 Operating Systems	3				
			ESC 282 Engineering Economy	3	HCC			
			ESC 310 Engr. Statistics & Probability	3				
Semester Total			***Semester Total***	***15***		***Semester Total***		

Fifth Year

Fall Semester	Cr.	Type	Spring Semester	Cr.	Type	Summer Semester	Cr.	Type
EEC 488 Hardware-Software Co-des.	3		EEC 494 Senior Design II	3	CAP			
EEC 493 Senior Design I	2	WAC	EEC/CIS Technical Elective	3				
CIS 454 Computer Networks	3		EEC/CIS Technical Elective	3				
EEC/CIS Technical Elective	3		EEC/CIS Technical Elective**	3				
Complexities of Pluralistic Society	3	CPS						
Semester Total	***14***		***Semester Total***	***12***		***Semester Total***		

Degree Total Hours: 126 (excludes ESC 300/400)

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 5 years of study. Students may deviate from the suggested placement of Core Curriculum courses, although the FYP, RPW, FQR and DDL 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). For information about acquiring a Math Minor by substituting **ESC 250** Differential Equations with **MTH 286** Differential Equations, email: impt.engr.info@csuohio.edu. C or better is required for ENG 100/101, ESC 102/ENG 102, MTH 181&181, CHM 261&266 and PHY 241.

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** Students who complete 3 credit hours of ESC 300/400 (three semesters of co-op rotations) can substitute 3 credit hours of Computer Engineering Technical Electives with the three ESC 300/400 courses.

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ACL = American Civic Literacy	**CAP** = Capstone Requirement	**DDL**= Data & Digital Literacy
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GHP= Global Human Perspectives	**HCC** = Human Culture and Creativity	**IL** = Inquiry Launch
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