Cleveland State University Washkewicz College of Engineering Bachelor of Science in Computer Science

Name	I.D. No.

Curriculum Sheet (Effective Fall 2021)

First Year										
Fall Semester	Credits	Grade	Gen Ed	Spring Semester	Credits	Grade	Gen Ed			
ENG 101 English I	3		W/C	ESC 102 Tech. Writing or ENG 102 English II	3		W/C			
MTH 181 Calculus I	4		M/QL	MTH 182 Calculus II	4		M/QL			
CIS 151 Invitation to Computing	3			PHY 243 University Physics I (Writing)	5		NS/WAC			
ESC 120 Introduction to Engineering Design	2			CIS 260 Introduction to Programming	4					
ESC 100 Orientation*	1		INTRO							
	·									
Semester Total	13			Semester Total	16					

Second Year										
Fall Semester	Credits	Grade	Gen Ed	Spring Semester	Credits	Grade	Gen Ed			
CIS 265 Data Structures	4			CIS 335 Language Processors	3					
PHY 244 University Physics II (Writing)	5		NS/WAC	MTH 288 Linear Algebra	3					
ESC 310 Engineering Probability & Statistics	3		M/QL	PHL 215 Engineering Ethics**	3		A&H/WAC			
MTH 220 Intr. to Discrete Mathematics	3			Social Diversity African-American	3		DIV			
				ESC 282 Engineering Economy**	3		SS			
Semester Total	15			Semester Total	15					

Third Year										
Fall Semester	Credits	Grade	Gen Ed	Spring Semester	Credits	Grade	Gen Ed			
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					
EEC 414 Technical Communication	2		WAC	CIS 454 Computer Networks	3					
CIS 480 Introduction to Computer Architecture	3			Arts & Humanities**	3		A&H			
Social Science**	3		SS							
Semester Total	17			Semester Total	15					

Fourth Year										
Fall Semester	Credits	Grade	Gen Ed	Spring Semester	Credits	Grade	Gen Ed			
EEC 493 Senior Design I	2			EEC 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			U.S. Diversity	3		DIV			
Semester Total	14			Semester Total	15					
Degree Total hours: 120 hours										

Gen Ed Key

INTRO = Introduction to University Life Requirement (one course)
W/C = Writing/Composition Requirement (two courses; <u>C or better</u> required)
M/QL = Mathematics/Quantitative Literacy Requirement (two courses)

NS = Natural Sciences (two courses, one of which must have a lab) * ESC 100 is waived for transfer students.

** of the SS and A&H courses, at least one must be focused on Africa, Latin America, Asia or the Middle East (ALAAME)

SS = Social Sciences Req (2 courses, one of which must be focused outside the US**)

A&H = Arts & Humanities Requirement (2 courses, one must be focused outside the US**)

DIV = Social Diversity Req (2 courses; one US Diversity and one African American Exp.)

DIV = Social Diversity Req (2 courses; one US Diversity and one African American Exp.)
WAC/SPAC = Writing/Speaking Across the Curriculum Req (3 courses, one in the major)

CAP = Capstone Requirement

Cleveland State University Washkewicz College of Engineering

Bachelor of Science in Computer Science (Co-Op Program)

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Name	I.D. No.
THATTIC	1101 1101

Curriculum Sheet (Effective Fall 2021)

First Year										
Fall Semester	Credits	Grade	Gen Ed	Spring Semester	Credits	Grade	Gen Ed			
ENG 101 English I	3		W/C	ESC 102 Tech. Writing or ENG 102 English II	3		W/C			
MTH 181 Calculus I	4		M/QL	MTH 182 Calculus II	4		M/QL			
CIS 151 Invitation to Computing	3		NS	PHY 243 University Physics I (Writing)	5		NS/WAC			
ESC 130 Engineering Co-op Orientation	1		NS	CIS 260 Introduction to Programming	4					
ESC 100 Orientation*	1		INTRO							
ESC 120 Introduction to Engineering Design	2									
Semester Total	14			Semester Total	16					

Second Year										
Fall Semester	Credits	Grade	Gen Ed	Spring Semester	Credits	Grade	Gen Ed			
CIS 265 Data Structures	4			CIS 335 Language Processors	3					
PHY 244 University Physics II (Writing)	5		NS/WAC	MTH 288 Linear Algebra	3					
ESC 310 Engineering Probability & Statistics	3		M/QL	PHL 215 Engineering Ethics**	3		A&H/WAC			
MTH 220 Intr. to Discrete Mathematics	3			Social Diversity African-American	3		DIV			
				ESC 282 Engineering Economy**	3		SS			
Semester Total	15			Semester Total	15					

Third Year										
Fall Semester	Credits	Grade	Gen Ed	Spring Semester	Credits	Grade	Gen Ed			
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					
EEC 414 Technical Communication	2		WAC	CIS 454 Computer Networks	3					
CIS 480 Introduction to Computer Architecture	3			Arts & Humanities**	3		A&H			
Social Science**	3		SS							
Semester Total	17			Semester Total	15					

Fourth Year										
Fall Semester	Credits	Grade	Gen Ed	Spring Semester	Credits	Grade	Gen Ed			
EEC 493 Senior Design I	2			EEC 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			U.S. Diversity	3		DIV			
Semester Total	14			Semester Total	15					
Degree Total hours: 121 hours										

INTRO = Introduction to University Life Requirement (one course) W/C = Writing/Composition Requirement (two courses; **C or better** required) M/QL = Mathematics/Quantitative Literacy Requirement (two courses)

* ESC 100 is waived for transfer students.

NS = Natural Sciences (two courses, one of which must have a lab)

SS = Social Sciences Req (2 courses, one of which must be focused outside the US**) A&H = Arts & Humanities Requirement (2 courses, one must be focused outside the US**) DIV = Social Diversity Req (2 courses; one US Diversity and one African American Exp.) WAC/SPAC = Writing/Speaking Across the Curriculum Req (3 courses, one in the major) CAP = Capstone Requirement

** of the SS and A&H courses, at lease one must be focused on Africa, Latin America, Asia or the Middle East (ALAAME)

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