

Computer Science and Engineering (CSE) - Curriculum

UI Course #		University of Iowa Course Title		SH	ICCC Course #		Iowa Central CC Course Title		SH
Semester 1									
Fall	MATH:1550	Engineering Math I – Single Variable Calculus		4	BOTH	MAT 210	Calculus I		4
						MAT 216	Calculus II		4
	ENGR:1300	Introduction to Engineering Computing		3	CHOOSE 1	CIS 172	Java		4
						CIS 162	C++		4
	CHEM:1110	Principles of Chemistry I & Lab		4		CHM 165	General Chemistry I		4
	RHET:1030	Rhetoric (Writing Component 1, Writing Component 2, and a single Speech Component all required)		4	ALL	ENG 105	Composition I		3
ENG 106						Composition II		3	
SPC 112						Public Speaking		3	
ENGR:1000	Engr Success for First-Year Students		1*	No equivalent course offered					
	Total		16						
Semester 2									
Spring	MATH:1560	Engineering Math II: Multi-Variable Calculus		4		MAT 219**	Calculus III		4
	MATH:2550	Engineering Math III: Matrix Algebra		2	No equivalent course offered				
	CS:1210	Computer Science I: Fundamentals		4	No equivalent course offered				
	PHYS:1611	Introductory Physics I		4	PHY 212	Classical Physics I		5	
		General Education Component #1		3					
		Total		17					
Semester 3									
Fall	MATH:2560	Engineering Math IV: Differential Equations		3		MAT 226	Differential Equations with Laplace		3
	PHYS:1612	Introductory Physics II		4		PHY 222	Classical Physics II		5
	ENGR:2110	Engineering Fundamentals I – Statics		2	No equivalent course offered				
	ENGR:2120	Engineering Fundamentals II: Electrical Circuits		3	No equivalent course offered				
	ENGR:2130	Engineering Fundamentals III: Thermodynamics		3	No equivalent course offered				
		Total		15					
Semester 4									
Spring	CS:2210	Discrete Structures		3	CHOOSE 1	MAT 150	Discrete Math		3
						CIS 153	Data Structures		4
	ECE:2400	Linear Systems I		3	No equivalent course offered				
	ECE:2410	Principles of Electronic Instrumentation		4	No equivalent course offered				
	ENGR:2730	Computers in Engineering		3	No equivalent course offered				
		General Education Component #2		3					
	Total		16						

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Semester 5							
Fall	STAT:2020	Probability and Stat for Engineering & Phys Sci	3			No equivalent course offered	
	ECE:3320	Intro to Digital Design	3			No equivalent course offered	
	CS:2230	Computer Science II, Data Structures	4			No equivalent course offered	
	ECE:3330	Introduction to Software Design	3			No equivalent course offered	
		General Education Component #3	3				
	ECE:3000	Professional Seminar	1			No equivalent course offered	
		Total		17			
Semester 6							
Spring	CS:3330	Algorithms	3			No equivalent course offered	
	ECE:3350	Computer Architecture and Organization	3			No equivalent course offered	
	ECE:3360	Embedded Systems and System Software	3			No equivalent course offered	
		Elective Focus Area #1	3				
		General Education Component #4	3				
	CS:3820	Programming Language Concepts	3			No equivalent course offered	
		Total		18			
Semester 7							
Fall	ECE:4880	Principles of CSE Design	3			No equivalent course offered	
		Elective Focus Area #2 (technical, CS)	3				
		Elective Focus Area #3 (technical, ECE)	3				
	ECE:3540	Communication Networks	3			No equivalent course offered	
	CS:3620	Operating Systems	3			No equivalent course offered	
		Total		15			
Semester 8							
Spring	ECE:4890	Senior CSE Design	3			No equivalent course offered	
		Theory Elective: CS:4330 or CS:4350	3			No equivalent course offered	
		Elective Focus Area #4 (advanced CS)	3				
		Elective Focus Area #5 (advanced ECE)	3				
		General Education Component #5	3				
		Total		15			

2017-18 Curriculum

updated June 2018

* 1sh; does not count toward 128 sh total required for graduation

**Students must have completed Calculus I, II, and III to receive credit for Engineering Math II