

## Computer Science and Engineering

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UI Course #	University of Iowa Course Title	SH		DMACC Course #	DMACC Course Title	SH		
<b>Semester 1</b>								
Fall	MATH:1550	Engineering Math I – Single Variable Calculus	4	<b>BOTH</b>	MAT 211	Calculus I	5	
					MAT 217	Calculus II	5	
	ENGR:1300	Introduction to Engineering Computing	3	<b>CHOOSE 1</b>	CIS 161	C++	3	
					CIS 169	C#	3	
					CIS 171	Java	3	
					<b>OR BOTH</b>	CIS 125	Intro to Programming Logic	3
						EGR 155	Engineering C/C++	2
	CHEM:1110	Principles of Chemistry I & Lab	4		CHM 165	General/Inorganic Chemistry I	4	
	RHET:1030	Rhetoric (Writing Component 1, Writing Component 2, and a single Speech Component all required)	4	<b>CHOOSE 1</b>	ENG 105	Composition I	3	
					ENG 106	Composition II	3	
ENG 108					Composition II: Technical Writing	3		
SPC 101					Fundamentals of Oral Communication	3		
ENGR:1000	Engr Success for First-Year Students	1*		No equivalent course offered				
	<b>Total</b>	<b>16</b>						
<b>Semester 2</b>								
Spring	MATH:1560	Engineering Math II: Multi-Variable Calculus	4		MAT 219**	Calculus III	4	
	MATH:2550	Engineering Math III: Matrix Algebra	2		MAT 148	Linear Algebra w/ Applications	4	
	CS:1210	Computer Science I: Fundamentals	4		No equivalent course offered			
	PHYS:1611	Introductory Physics I	4		PHY 213	Classical Physics I	6	
						General Education Component #1	3	
		<b>Total</b>	<b>17</b>					
<b>Semester 3</b>								
Fall	MATH:2560	Engineering Math IV: Differential Equations	3		MAT 227	Differential Equations with Laplace	4	
	PHYS:1612	Introductory Physics II	4		PHY 223	Classical Physics II	6	
	ENGR:2110	Engineering Fundamentals I: Statics	2		EGR 180	Statics	3	
	ENGR:2120	Engineering Fundamentals II: Electrical Circuits	3		No equivalent course offered			
	ENGR:2130	Engineering Fundamentals III: Thermodynamics	3		No equivalent course offered			
		<b>Total</b>	<b>15</b>					
<b>Semester 4</b>								
Spring	CS:2210	Discrete Structures	3		No equivalent course offered			
	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					
		<b>Total</b>	<b>16</b>					

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		No equivalent course offered
		Elective Focus Area #3 (technical, ECE)	3		No equivalent course offered
	ECE:3540	Communication Networks	3		No equivalent course offered
	CS:3620	Operating System	3		
		Total	15		
Semester 8					
OR	ECE:4890	Senior CSE Design	3		No equivalent course offered
	CS:4330	Theory of Computation (Theory Elective)	3		No equivalent course offered
Spring	CS:4350	Logic in Computer Science (Theory Elective)	3		No equivalent course offered
		Elective Focus Area #4 (advanced CS)	3		No equivalent course offered
		Elective Focus Area #5 (advanced ECE)	3		No equivalent course offered
		General Education Component #5	3		
		Total	15		

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

updated May 2018

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