Computer Science and Engineering (CSE) – Curriculum

1st Year	Session	Course	Course Name	SH	P: Prerequisite; C: Corequisite
	F/S	Math:1550	Engineering Math I: Single Variable Calculus	4	P: MPT Level 3 score of 9 or higher or ALEKS score of 75
	F/S	ENGR:1300	Introduction to Engineering Computing	3	C: MATH:1550
	ALL	CHEM:1110	Principles of Chemistry I	4	
	ALL	RHET:1030	Rhetoric	4	
	F	ENGR:1000	Engr Success for First Year Students	1	First Semester Standing
			Total	16	
	F/S	MATH:1560	Engineering Math II: Multi-Variable Calculus	4	P: MATH :1550
	F/S	CS:1210	Computer Science I: Fundamentals	4	C: MATH:1550
	ALL	PHYS:1611	Introductory Physics I	4	C: MATH:1550
	ALL	MATH:2550	Engineering Math III: Matrix Algebra	2	P: MATH:1550
	ALL		General Education Component #1	3	
2nd Year			TOTAL	17	
	ALL	MATH:2560	Engineering Math IV: Differential Equations	3	P:MATH:1560; MATH:2550
	F/S	PHYS:1612	Introductory Physics II	4	P:PHYS:1611; C:MATH:1560
	ALL	ENGR:2110	Engineering Fundamentals I: Statics	2	P:MATH:1550 C:MATH1560C:PHYS:1611
	F/S	ENGR:2120	Engineering Fundamentals II: Electrical Circuits	3	C:MATH:2560
	ALL	ENGR:2130	Engineering Fundamentals III: Thermodynamics	3	P:CHEM:1110; PHYS:1611C:MATH:1560
			Total	15	
	ALL	CS:2210	Discrete Structures	3	
	F/S	ECE:2400	Linear Systems I	3	P: ENGR:2120; MATH:2560
	F/S	ECE:2410	Principles of Electronic Instrumentation	4	P: PHYS:1612; ENGR:2120;MATH:2560
	F/S	ENGR:2730	Computers in Engineering	3	P: ENGR:1300
	ALL		General Education Component #2	3	
3rd Year			Total	16	
	F/S	STAT:2020	Probability and Stat for Engineering & Phys Sci	3	P:MATH:1560
	F	ECE:3320	Intro to Digital Design	3	Sophomore Status
	ALL	CS:2230	Computer Science II, Data Structures	4	P: ENGR 2730 minimum C- or CS: 1210 minimum C-
	F/S	ECE:3330	Introduction to Software Design	3	P: ENGR:2730
	ALL		General Education Component #3	3	
	F	ECE:3000	Professional Seminar	1	Junior Status
			Total	17	
	ALL	CS:3330	Algorithms	3	P: CS:2230, minimum C-, CS:2210, minimum C-; MATH 1550
	S	ECE:3350	Computer Architecture and Organization	3	P: ECE:3320; ENGR:2730
	F/S	ECE:3360	Embedded Systems	3	P: ENGR:2730; ECE:3320. C:ECE:2410
	ALL		Elective Focus Area #1	3	
	ALL		General Education Component #4	3	
	F/S	CS:3820	Programming Language Concepts	3	P:CS:2100, CS:2230, and ECE:3330
4Th Year			Total	18	
	F/S	ECE:4880	Principles of ECE Design	3	Senior Status; P:ECE2410; ENGR:2730
	ALL		Elective Focus Area #2 (technical, CS)	3	
	ALL		Elective Focus Area #3 (technical, ECE)	3	
	F	ECE:3540	Communication Networks	3	C:: STAT:2020
	F	CS:3620	Operating Systems	3	P: CS:2210 minimum C-; CS:2230 minimum C-; ECE:3350 with minimum C-
			Total	15	
	F/S	ECE:4890	Senior ECE Design	3	Senior Status, P:ECE:4880 and 3 of: ECE:3330, ECE:3350, ECE:3360, ECE:3400, ECE:3410, ECE:3500, ECE:3600, CS:3330
	ALL		Theory Elective	3	See ECE CSE web pages
	ALL		Elective Focus Area #4 (advanced CS)	3	
	ALL		Elective Focus Area #5 (advanced ECE)	3	
	ALL		General Education Component #5	3	
			Total	15	