

Computer Science and Engineering (CSE) – Curriculum

1 st Year	Session	Course	Course Name	SH	P: Prerequisite; C: Corequisite
	F/S	Math 1550 (22M:031)	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 (059:006)	Introduction to Engineering Computing	3	C: MATH:1550 (22M:031)
	ALL	CHEM:1110(004:011)	Principles of Chemistry I	4	
	ALL	RHET:1030 (010:003)	Rhetoric	4	
	F	ENGR:1000 (059:090)	Engr Success for First Year Students	1	First Semester Standing
Total				16	
	F/S	MATH1560 (22M:032)	Engineering Math II: Multi-Variable Calculus	4	P: MATH 1550 (22M:031)
	F/S	CS:1210	Computer Science I: Fundamentals	4	C: MATH:1550 (22M:031)
	ALL	PHYS:1611 (029:081)	Introductory Physics I	4	C: MATH:1550 (22M:031)
	ALL	MATH:2550(22M:033)	Engineering Math III: Matrix Algebra	2	P: MATH:1550 (22M:031)
	ALL		General Education Component #1	3	
2nd Year	TOTAL			17	
	ALL	MATH2560(22M:034)	Engineering Math IV: Differential Equations	3	P:MATH:1560(22M:032):MATH 2550(22M:033)
	F/S	PHYS:1612 (029:082)	Introductory Physics II	4	P:PHYS:1611(029:081); C:MATH:1560(22M:032)
	ALL	ENGR:2110 (059:007)	Engineering Fundamentals I: Statics	2	P:MATH:1550(22M:031); C:MATH1560(22M:032); C:PHYS:1611(029:081)
	F/S	ENGR:2120(059:008)	Engineering Fundamentals II: Electrical Circuits	3	C:MATH:2560(22M:034)
	ALL	ENGR:2130(059:009)	Engineering Fundamentals III: Thermodynamics	3	P:CHEM:1110(004:011); PHYS:1611(029:081) C:MATH:1560 (22M:032)
Total				15	
	ALL	CS:2210(22C:019)	Discrete Structures	3	C: ENGR: 2730(057:017)
	S	ECE:2400(055:040)	Linear Systems I	3	P: ENGR:2120(059:008); MATH2560(22M:034)
	S	ECE:2410 (055:018)	Principles of Electronic Instrumentation	4	P: PHYS:1612 (029:082); ENGR:2120(059:008)
	F/S	ENGR:2730(057:017)	Computers in Engineering	3	P: ENGR:1300(059:006)
	ALL		General Education Component #2	3	
3rd Year	Total			16	
	F/S	STAT:2020(22S:039)	Probability and Stat for Engineering & Phys Sci	3	P:MATH:1560 (22M:032)
	F	ECE:3320 (055:032)	Intro to Digital Design	3	Sophomore Status
	ALL	CS:2230 (22C:021)	Computer Science II, Data Structures	4	P: ENGR 2730 (057:017), C: CS:2210 (22C:019)
	F	ECE:3330 (055:033)	Introduction to Software Design	3	P: ENGR:2730 (057:017)
	ALL		General Education Component #3	3	
	F	ECE:3000 (055:091)	Professional Seminar	1	Junior Status
Total				17	
	ALL	CS:3330 (22C:031)	Algorithms	3	P: CS2230 (22:021) ; MATH 1550 (22M:031)
	S	ECE:3350 (055:035)	Computer Architecture and Organization	3	P: ECE:3320 (055:032); ENGR:2730(057:017)
	S	ECE:3360 (055:036))	Embedded Systems and System Software	3	P: ENGR:2730(057:017)
	ALL		Elective Focus Area #1	3	
	ALL		General Education Component #4	3	
	F/S	CS:3820(22C:111)	Programming Language Concepts	3	P: CS:2230 (22C:021) and ECE:3330 (55:033)
4th Year	Total			18	
	F/S	ECE:4880	Principles of CSE Design	3	Senior Status; P: ECE:3330, CS:3330, ECE:3350
	ALL		Elective Focus Area #2 (technical, CS)	3	
	ALL		Elective Focus Area #3 (technical, ECE)	3	
	F	ECE:3540 (055:054)	Communication Networks	3	
	F	CS:3620	Operating System	3	
Total				15	
	F/S	ECE:4890	Senior CSE Design	3	P: ECE:4880
	ALL		Theory Elective: CS:4330 or CS:4350	3	
	ALL		Elective Focus Area #4 (advanced CS)	3	
	ALL		Elective Focus Area #5 (advanced ECE)	3	
	ALL		General Education Component #5	3	
Total				15	