

# COMPUTER SCIENCE & ENGINEERING

Department of Electrical and Computer Engineering



## Sample Four-Year Plan

### First Year

1st Semester		sh	2nd Semester		sh
F/S	<b>MATH:1550 Math I: Single Variable Calculus</b> <i>(P: ALEKS score ≥ 75 or MPT Level 3 score ≥ 9)</i>	4	ALL	<b>RHET:1030 Rhetoric</b>	4
ALL	<b>CHEM:1110 Principles of Chemistry I</b> <i>(P: ALEKS score ≥ 55 or MPT Level 3 score ≥ 9)</i>	4	ALL	<b>PHYS:1611 Introductory Physics I</b> <i>(C: MATH:1550)</i>	4
F	<b>ENGR:1100 Intro to Engineering Problem Solving</b>	3	ALL	<b>MATH 1560 Math II: Multivariable Calculus</b> <i>(P: MATH:1550)</i>	4
F/S	<b>ENGR:1300 Intro to Engineering Computing</b> <i>(C: MATH:1550)</i>	3	ALL	<b>MATH:2550 Math III: Matrix Algebra</b> <i>(P: MATH:1550)</i>	2
F	<b>ENGR:1000 Engineering Success for First-Year Students</b> <i>(First semester standing)</i>	1	F/S	<b>CS:1210 Computer Science I, Fundamentals</b> <i>(C: MATH:1550)</i>	4
		<b>15</b>			<b>18</b>

### Second Year

3rd Semester		sh	4th Semester		sh
ALL	<b>General Education Course</b>	3	F/S	<b>General Education Course</b>	3
ALL	<b>MATH:2560 Math IV: Differential Equations</b> <i>(P: MATH:1560 &amp; MATH:2550)</i>	3	ALL	<b>CS:2210 Discrete Structures</b>	3
F/S	<b>PHYS:1612 Introductory Physics II</b> <i>(P: PHYS:1611; C: MATH:1560)</i>	4	F/S	<b>CS:2230 Computer Science II, Data Structures</b> <i>(P: ENGR:2730 minimum C- or CS:1210 minimum C-)</i>	4
F/S	<b>ENGR:2120 Engineering Fundamentals II: Electrical Circuits</b> <i>(C: MATH:2560)</i>	W	F/S	<b>ECE:2400 Linear Systems I</b> <i>(P: ENGR:2120 &amp; MATH:2560)</i>	3
F/S	<b>ENGR:2730 Computers in Engineering</b> <i>(P: ENGR:1300)</i>	3	F/S	<b>ECE:2410 Principles of Electronic Instrumentation</b> <i>(P: PHYS:1612, ENGR:2120, &amp; MATH:2560)</i>	4
		<b>13</b>			<b>17</b>

### Third Year

5th Semester		sh	6th Semester		sh
ALL	<b>General Education Course</b>	3	ALL	<b>General Education Course</b>	3
F/S	<b>STAT:2020 Probability &amp; Statistics For Engr &amp; Phys Sci</b> <i>(P: MATH:1560)</i>	3	ALL	<b>CS:3330 Algorithms</b> <i>(P: CS:2230 minimum C-, CS:2210, minimum C-, &amp; MATH:1550)</i>	3
F	<b>ECE:3320 Introduction to Digital Design</b> <i>(Sophomore Status)</i>	3	F/S	<b>CS:3820 Programming Language Concepts</b> <i>(P: CS:2100, CS:2230, &amp; ECE:3330)</i>	3
F/S	<b>ECE:3330 Introduction to Software Design</b> <i>(P: ENGR:2730)</i>	3	S	<b>ECE:3350 Computer Architecture and Organization</b> <i>(P: ECE:3320 &amp; ENGR:2730)</i>	3
ALL	<b>Elective:</b> Technical, CS	3	F/S	<b>ECE:3360 Embedded Systems</b> <i>(P: ENGR:2730 &amp; ECE:3320; C: ECE:2410)</i>	3
F	<b>ECE:3000 Professional Seminar</b> <i>(Junior Status)</i>	1	ALL	<b>Elective:</b> Focus Area, Minor, Certificate, etc. (minimum 2 sh)	2
		<b>16</b>			<b>17</b>

### Fourth Year

7th Semester		sh	8th Semester		sh
F/S	<b>CS:3620 Operating Systems</b> <i>(P: CS:2210 minimum C-, CS:2230 minimum C-, &amp; ECE:3350 minimum C-)</i>	3	ALL	<b>General Education Course</b>	3
F	<b>ECE:3540 Communication Networks</b> <i>(C: STAT:2020)</i>	3	F/S	<b>ECE:4890 ECE Design</b> <i>(P: ECE:4880 and 3 of: ECE:3330, ECE:3350, ECE:3360, ECE:3400, ECE:3410, ECE:3500, ECE:3600, CS:3330)</i>	3
F/S	<b>ECE:4880 Principles of ECE Design</b> <i>(P: Senior Status; ECE:2410, &amp; ENGR:2730)</i>	3	ALL	<b>Elective:</b> Theory	3
ALL	<b>Elective:</b> Focus Area, Minor, Certificate, etc.	3	ALL	<b>Elective:</b> Advanced, CS	3
ALL	<b>Elective:</b> Technical, ECE	3	ALL	<b>Elective:</b> Advanced, ECE	3
		<b>15</b>			<b>15</b>