

Computer Science: Software Systems, B.S. (with Program of Study)

[Please refer to the Undergraduate Catalog for further program requirements and course descriptions.](#)

First Year – 30-34 Hours			
Fall Semester:	Hrs	Spring Semester:	Hrs
CPSC 1100: <i>Fundamentals of Computer Science</i>	4	CPSC 1110: <i>Data Structures and Program Design</i>	4
MATH 1830: <i>Calculus for Mgmt, Life, and Social Sciences</i> or MATH 1950: <i>Calculus w/ Analytic Geometry I (Quantitative Reasoning)</i>	3-4	ENCE 2220: <i>Probability and Statistics for Engineering</i> , MATH 2100: <i>Introductory Statistics</i> , or MGT 2130: <i>Statistics for Business (Quantitative Reasoning)</i>	3
Writing and Communciation (ENGL 1010 or 1011)	3-4	Writing and Communication (ENGL 1020)	3
Humanities and Fine Arts	3-4	Humanities and Fine Arts	3-4
Elective	1	Behavioral and Social Science	3
	14-17		16-17
Second Year – 29-31 Hours			
Fall Semester:	Hrs	Spring Semester:	Hrs
CPSC 2800: <i>Introduction to Operating Systems</i>	3	CPSC 2100: <i>Software Design and Development</i>	3
MATH 2030: <i>Discrete Math for Computer Science</i> or MATH 3000: <i>Introduction to Logic and Proof</i>	3	MGT 2140: <i>Data Modeling for Business</i> , or Math elective above MATH 1830/1950, or Statistics Elective above MATH 2100)*	3
Natural Science with Lab Sequence	4	Natural Science with Lab Sequence	4
MATH 2200: <i>Elementary Linear Algebra</i>	3	Humanities and Fine Arts	3-4
Behavioral and Social Science	3		
	16-17		13-14
Third Year – 29-33 Hours			
Fall Semester:	Hrs	Spring Semester:	Hrs
CPEN 3700: <i>Digital Logic and Introduction to Computer Hardware</i>	4	CPSC 3200: <i>Algorithm Analysis and Advanced Data Structure</i>	3
CPSC 3610: <i>Ethical and Social Issues in Computing (Humanities and Fine Arts)</i>	3	Approved CPSC or Technical Elective (3000-4000 Level)	3
Approved CPSC or Tech Elective (3000-4000 Level)	3	Approved CPSC or Technical Elective (3000-4000 Level)	3
Approved CPSC or Tech Elective (3000-4000 Level)	3	Natural Science with Lab	4
Elective	0-3	Individual and Global Citizenship	3-4
	13-16		16-17
Fourth Year – 26-30 Hours			
Fall Semester:	Hrs	Spring Semester:	Hrs
CPEN 4700: <i>Computer Architecture</i>	3	CPSC 4100: <i>Survey of Programming Languages</i>	3
CPSC 4900: <i>Software Engineering</i>	3	CPSC 4910: <i>Senior Capstone</i> or CPSC 4995r: <i>Thesis</i>	3
Approved CPSC or Technical Elective (3000-4000 Level)	3	Approved CPSC or Technical Elective (3000-4000 Level)	3
Approved CPSC or Technical Elective (3000-4000 Level)	3	Natural Science without Lab	3
Elective	2-3	Elective	0-3
	14-15		12-15

*Additional courses may be required to meet prerequisite course selected. Consult Catalog and advisor.

Completed:			
Graduation Requirements:	Hrs	Degree Requirements:	Hrs
120 Total Hours		31-36 General Education Hours	
39 Upper Division (3000-4000) Hours		80-81 Program (Major) Hours	
30 Hours at UTC		Minor (<i>Not Required</i>)	
45 Hours at 4-year Institution		3-9 Elective Hours	
		Foreign Language (<i>Not Required</i>)	