

# B.S. Computer Science, Application Concentration

## Starting as CS&E General with MAT 050

Fall 2018

	Fall		Spring		
<b>Freshman</b>	CSC 120 Intro. to Computer Science & Metacognition	3	CSC 110/107 Computer Science I	4	
	MAT 050 [does count towards graduation]	3	MAT 140B	3	
	ENG114 WIFYS	3	HCS 100 Intro to Human Communications	3	
	Gen Ed 1	3	Gen Ed 2	3	
	UNIV 101	3	HIS 105 Historical Foundations of Global Cultures	3	
		15		16	28 (+3)
<b>Sophomore</b>	CSC 111 Computer Science II <sup>1</sup>	4	MAT 225 Discrete Math	4	
	MAT 175 Precalculus	4	Gen Ed 4	3	
	Gen Ed 3	3	Gen Ed 5	3	
	Science I (BIO 161, CHM 121/123, or PHY 205/123)***	4	Science II (BIO 162, CHM 122/124, or PHY 206/125)***	4	
		15		14	57
<b>Junior</b>	SWE 200 Design Patterns	4	CSC 310 Design & Analysis of Algorithms	4	
	CMPE 220 Computer Organization	4	CMPE 320 Operating Systems	4	
	MAT 211 Calculus 1	4	CSC 371 Database Management	4	
	Gen Ed 6	3	Gen Ed 7	3	
		15		15	87
<b>Senior (Odd AY)**</b>	CSC 350 Intro. to Computer Graphics	4	CSC 410 Theory of Computing	4	
	MAT 318 Elementary Linear Algebra	3	CSC 498 Sr. Research I	2	
	Gen Ed 8	3	MAT 217 Statistics	4	
	Gen Ed 9	3			
		13		10	110
<b>Senior++ (Even AY)*</b>	CSC 462 Artificial Intelligence	4	CSC 403 Machine Learning	4	
	CSC 499 Sr. Research II	2	CSC 431 Networks	4	
		6		14	124
<b>Senior (Even AY)*</b>	CSC 462 Artificial Intelligence	4	CSC 431 Networks	4	
	MAT 318 Elementary Linear Algebra	3	CSC 403 Machine Learning	4	
	Gen Ed 8	3	CSC 498 Sr. Research I	2	
	Gen Ed 9	3	MAT 217 Statistics	4	
		13		14	114
<b>Senior++ (Odd AY)**</b>	CSC 350 Intro. to Computer Graphics	4	CSC 410 Theory of Computing	4	
	CSC 499 Sr. Research II	2			
		6		4	124

<sup>1</sup> Recommendation: take CSC 111 in the summer between freshmen & sophomore year to get back on track for graduation. CSC 111 is typically **not** offered at Shippensburg.

\* (Even AY) Academic years that have an even fall: 2018-2019, 2020-2021, 2022-2023

\*\* (Odd AY): Academic years that have an odd fall: 2017-2018, 2019-2020, 2021-2022

\*\*\* Science I and II must be in the same discipline (So if you take BIO for Science I, you must take BIO for Science II)