

Computer Science - Data Science Concentration

Bachelor of Science

NAME:

W#

	Grade	Semester	Minimum Grade of "D" Required:	Grade	Semester	Minimum Grade of "C" Required:		
ENGLISH (12 hrs)			ENGL 101 Freshman Composition (3 hrs)			MATH 200 Calculus I (5 hrs)	MATH (19 hrs)	
			ENGL 102 Critical Reading and Writing (3 hrs)			MATH 201 Calculus II (5 hrs)		
			ENGL 230, 231 <u>or</u> 232 (3 hrs)			MATH 223 Foundation of Discrete Mathematics (3 hrs)		
			ENGL 322 Intro to Prof and Technical Writing (3 hrs)			MATH 360 ¹ Linear Algebra (3 hrs)		
NATURAL SCIENCE (12 hrs)			GBIO 151 - General Biology I (3 hrs)			MATH 380 ¹ Applied Statistics with Probability (3 hrs)	COMPUTER SCIENCE (54 hrs)	
			BIOL 152 - Biology Lab I (1 hr)	¹ A minimum grade of "D" is required.				
			Science Course Lecture (3 hrs)			CMPS 161 Algorithm Design & Implementation I (3 hrs)		
			Science Course Lab (1 hr)			CMPS 280 Algorithm Design & Implementation II (3 hrs)		
			Science Course Lecture (3 hrs)			CMPS 285 Software Engineering (3 hrs)		
			Science Course Lab (1 hr)			CMPS 340 Introduction to Data Science (3 hrs)		
				Choose a two-course sequence of lectures & lab coursework from: either (Biology 151/152 & 153/154) <u>or</u> (Physics 221/223 & 222/224) <u>or</u> (Chemistry 121/123 & 122/124). All science course must come from the above set of science courses. If the science sequence is biology, then the science electives must be in either physics or chemistry. At least one biology course must include a lab. Note that some of these science courses require additional math prerequisites.				CMPS 375 Computer Architecture (3 hrs)
								CMPS 390 Data Structures (3 hrs)
ELECTIVES (6 hrs)			Application Area/Free Elective (3 hrs)			CMPS 391 <u>or</u> MATH 392 Numerical Methods (3 hrs)		
			Application Area/Free Elective (3 hrs)			CMPS 401 Survey of Programming Languages (3 hrs)		
	Recommended Courses, CMPS Electives: HSM 210, HSM 375, KIN 321					CMPS 411 Capstone I (3 hrs)		
OTHER (17 hrs)			ART, DNC, MUS, HONR <u>or</u> THEA (3 hrs)			CMPS 431 Operating Systems (3 hrs)		
			HIST Elective (3 hrs)			CMPS 434 Fundamental Algorithms (3 hrs)		
			COMM 211 Introduction to Public Speaking (3 hrs)			CMPS 439 Database Systems (3 hrs)		
			ECON 201 Macroeconomics <u>or</u> ECON 202 Microeconomics (3 hrs)			CMPS 451 Data Mining (3 hrs)		
			Social Science (3 hrs)			CMPS 470 Machine Learning (3 hrs)		
	Social Science Choices: Anthropology, Criminal Justice, Geography, Psychology, Political Science, or Sociology					CMPS 473 Introduction to Computer Vision (3 hrs)		
			SE 101 or Free Elective (2 hrs)			CMPS 482 Current Trends in Computer Science (3 hrs)		
	Southeastern 101 is not required of transfer or re-admitted Southeastern students with 30 hours or more.					CMPS 300-400 Level Data Science Elective ² (3 hrs)		
					CMPS 300-400 Level Data Science Elective ² (3 hrs)			
				² Must be chosen from: CMPS 441, CMPS 443, CMPS 447, CMPS 450, CMPS 455, CMPS 458, CMPS 460, CMPS 479, CMPS 491.				

LAST UPDATED : 03/1/2021

TOTAL MAJORS HOURS: 54 TOTAL SEMESTER HOURS: 120

(NOTE: 1/2 of all major hours must be taken at Southeastern)