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)	
			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)	**COMPUTER SCIENCE (54 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)	
						CMPS 391 <u>or</u> **MATH 392** Numerical Methods (3 hrs)	
ELECTIVES (3 hrs)			**Application Area/Free Elective** (3 hrs)			**CMPS 401** Survey of Programming Languages (3 hrs)	
			Application Area/Free Elective (3 hrs)			**CMPS 411** Capstone I (3 hrs)	
	Recommended Courses, **CMPS Electives**: HSM 210, HSM 375, KIN 321					**CMPS 431** Operating Systems (3 hrs)	
OTHER (17 hrs)			**ART, DNC, MUS, HONR** <u>or</u> **THEA** (3 hrs)			**CMPS 434** Fundamental Algorithms (3 hrs)	
			HIST Elective (3 hrs)			**CMPS 439** Database Systems (3 hrs)	
			COMM 211 Introduction to Public Speaking (3 hrs)			**CMPS 451** Data Mining (3 hrs)	
			ECON 201 Macroecoomics <u>**or**</u> **ECON 202** Microeconomics (3 hrs)			**CMPS 470** Machine Learning (3 hrs)	
			Social Science (3 hrs)			**CMPS 473** Introduction to Computer Vision (3 hrs)	
	Social Science Choices: Anthropology, Criminal Justice, Geography, Psychology, Political Science, or Sociology					**CMPS 482** Current Trends in Computer Science (3 hrs)	
			SE 101 or **Free Elective** (2 hrs)			**CMPS 300-400 Level** Data Science Elective[2] (3 hrs)	
						CMPS 300-400 Level Data Science Elective[2] (3 hrs)	
	Southeastern 101 is not required of transfer or re-admitted Southeastern students with 30 hours or more.				[2] Must be chosen from: CMPS 441, CMPS 443, CMPS 447, CMPS 450, CMPS 455, CMPS 458, CMPS 460, CMPS 479, CMPS 491.		

TOTAL MAJOR HOURS: <u>54</u>   TOTAL SEMESTER HOURS: <u>120</u>

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