DATA SCIENCE, BS

Code	Title	Credits
Data Science		
Data Science courses:		*17*
DS-107	INTRO TO DATA & DATA ANALYTICS	
DS-201 & DSL-201	DATA SCIENCE TOOLKIT and DATA SCIENCE TOOLKIT LAB	
DS-301 & DSL-301	EMERGING TRENDS IN DATA SCIENCE and EMERGING TRENDS IN DATA SCIENCE LAB	
DS-351	DATA SCIENCE CASE STUDIES	
DS-401	SENIOR COMPREHENSIVE PROJECT I	
DS-402	SENIOR COMPREHENSIVE PROJECT II	
Computer Science courses:		*23*
CS-101 & CSL-101	Beauty & Joy of Computer Science and BEAUTY & JOY OF COMPUTING LAB	
CS-131 & CSL-131	OBJECT ORIENTED PROGRAMMING and OBJECT ORIENTED PROGRAMMING LAB	
CS-132 & CSL-132	ALGORITHMS & DATA STRUCTURES and ALGORITHMS & DATA STRUCTURES LAB	
CS-133 & CSL-133	INTRODUCTION TO PYTHON and INTRODUCTION TO PYTHON	
CS-243 & CSL-243	DATABASE AND BIG DATA and DATABASE AND BIG DATA LAB	
CS-258 & CSL-258	MACHINE LEARNING and MACHINE LEARNING LAB	
Mathematics courses:		*13*
MATH-151	CALCULUS I	
MATH-207	DISCRETE MATHEMATICS I	
MATH-208	DISCRETE MATHEMATICS II	
MATH-241	LINEAR ALGEBRA	
DS Electives from below options:		*9-12*
MATH-152	CALCULUS II	
MATH-251	CALCULUS III	
CS-241	COMPUTERS, SOCIETY & ETHICS	
CS-244 & CSL-244	APP DEVELOPMENT and APP DEVELOPMENT LAB	
CS-257 & CSL-257	USER EXPERIENCE DESIGN and USER EXPERIENCE DESIGN LAB	
QMX-212	STATISTICAL APPS FOR BUSINESS	
FIN-312	ECONOMETRICS FOR FINANCE	
Data Science Subject Electives [1]		*9*
General Education Requirements (https://catalog.sbu.edu/undergraduate/degree-requirements/)		**37**
Foreign Language [2]		**3**
General Electives (enough to reach 122 credits)		**9**
Total Credits		**120-123**

[1] Students must propose their own three course sequence, and it must be approved by their advisor.

[2] The foreign language must be at the level of 202 or higher. Students not prepared to begin at this level will need to take additional courses in language.

First Year

Fall	Credits	Spring	Credits
DS-107	3	CS-131 & CSL-131	4
CS-101 & CSL-101	3	MATH-207	3
BONA-101	3	ENG-102	3
ENG-101	3	Foreign Language Requirement	3
Foreign Language Requirement	3	THFS-101	3
	15		**16**

Second Year

Fall	Credits	Spring	Credits
MATH-151	4	MATH-241	3
MATH-208	3	CS-133 & CSL-133	4
CS-132 & CSL-132	4	CS-243 & CSL-243	4
PHIL-104	3	History Distribution Course	3
		DS Subject Elective	3
	14		**17**

Third Year

Fall	Credits	Spring	Credits
DS-201 & DSL-201	4	DS-301 & DSL-301	4
CS-258 & CSL-258	4	DS-351	3
DS Subject Elective	3	DS Subject Elective	3
Natural Science Distribution	4	Literature Distribution Course	3
		Theology Distribution	3
	15		**16**

Fourth Year

Fall	Credits	Spring	Credits
DS-401	2	DS-402	1
DS Elective Course	3-4	DS Elective Courses	6-8
General Electives	6	Social Science Distribution	3
Philosophy Distribution	3	General Electives	3
	14-15		**13-15**

Total Credits 120-123

Changes in the sequence of the program listed above may be desirable. These must be made in consultation with the student's academic adviser.