

DATA SCIENCE, BS

Code	Title	Credits
Data Science		
<i>Data Science courses:</i>		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	
<i>Computer Science courses:</i>		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	
<i>Mathematics courses:</i>		13
MATH-151	CALCULUS I	
MATH-207	DISCRETE MATHEMATICS I	
MATH-208	DISCRETE MATHEMATICS II	
MATH-241	LINEAR ALGEBRA	
<i>DS Electives from below options:</i>		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	
<i>Data Science Subject Electives</i> 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

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.

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.