South Dakota State University

Bachelor of Science
Major: Data Science
2025-2026 Sample 4-Year Plan
Total Degree Requirements: 120 credits

Student _____ **Student ID#** _____ **Student Phone #** _____

Advisor _____ **Minimum GPA** _____ **Minor/Career Interest(s)** _____

Students are not limited to this plan; it is meant to be used as a guide for planning purposes in consultation with your advisor. The sample schedule is one possible path to completing your degree within four years. For official program requirements, please refer to the Undergraduate Catalog.

FIRST YEAR

Fall

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
MATH 123	Calculus I (SGR #5)	p. Placement	4		
MATH 198	Mathematics Professions 1		1	F	
SGR #4	Arts and Humanities		4		
SGR #6	Natural Sciences		3		
STAT 101	Introduction to Data Science		3	F	
		Total Credit Hours	15		

Spring

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
CSC 150 or INFO 101	Computer Science I or Introduction to Informatics		3		
ENGL 101	Composition I (SGR #1)		3		
MATH 125	Calculus II	p. MATH 123	4		
SGR #2	Oral Communication		3		
SGR #6	Natural Sciences		3		
		Total Credit Hours	16		

SECOND YEAR

Fall

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
ENGL 201 or ENGL 277	Composition II (SGR #1) or Technical Writing in Engineering (SGR #1)	p. ENGL 101	3		
MATH 225	Calculus III	p. MATH 125	4		
STAT 415	R Programming	p. INFO 101 or CSC 150/online	3	F	
STAT 382	Probability and Statistics I	p. MATH 125	3	F	
		Total Credit Hours	13		

Spring

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
SGR #3	Social Sciences	Satisfied with coursework from 2 disciplines, one must meet civics requirement	3		
SGR #3	Social Sciences	Satisfied with coursework from 2 disciplines, one must meet civics requirement	3		
SGR #4	Arts and Humanities		3		
MATH 270	Computational Linear Algebra	p. MATH 125	3		
STAT 482	Probability and Statistics II	p. MATH 125	3	S	
		Total Credit Hours	15		

Information Subject to Change. This is not a contract.

p. = Course Prerequisite
Semester: F = Fall, S = Spring, SU = Summer

THIRD YEAR

Fall

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
MATH 316	Discrete Mathematics	p. MATH 123	3		
Choose 2:			6		
STAT 442	Exploratory and Cloud-Based Data Analysis	p. (STAT 281 or STAT 381 or STAT 482) and (STAT 414 or STAT 415)		F	
STAT 460	Time Series Analysis	p. STAT 441 or STAT 482		F	
CSC 250	Computer Science II	p. CSC 150			
General Electives	General Electives		6		
		Total Credit Hours	15		

Spring

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
MATH 374	Scientific Computation I	p. MATH 125 and CSC 150	3	S	
STAT 410	SAS Programming		3	S	
Choose 2:			6		
STAT 383	Geospatial Data Analysis	p. MATH 114 or STAT 281 or STAT 381 or STAT 382		S	
STAT 445	Nonparametric Statistics	p. STAT 281 or STAT 381 or STAT 382		S	
CSC 300	Data Structures	p. CSC 250			
General Electives	General Electives		3		
		Total Credit Hours	15		

FOURTH YEAR

Fall

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
CSS 401	Data Science Senior Capstone		3		
Choose 1:			3		
MATH 475	Operations Research I	p. MATH 125 - strongly recommend MATH 250		F	
STAT 442	Exploratory and Cloud-Based Data Analysis	p. STAT 441 or STAT 482		F	
STAT 460	Time Series Analysis	p. STAT 441 or STAT 482		F	
CSC 250	Computer Science II	p. CSC 150			
General Electives	General Electives		9		
		Total Credit Hours	15		

Spring

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
Choose 1:			3		
STAT 383	Geospatial Data Analysis	p. MATH 114 or STAT 281 or 381 or 382		S	
STAT 445	Nonparametric Statistics	p. STAT 281 or 381 or 382		S	
STAT 451	Predictive Analytics I	p. STAT 415 and STAT 482		S	
CSC 300	Data Structures (or CSC 325, 447, or 484)	p. CSC 250			
General Electives	General Electives		12		
		Total Credit Hours	15		

COMMENTS/NOTES

If progressing on to the M.S. in Data Science, consider taking STAT 451 and MATH 475 as STAT 551 and MATH 575, and six other credits of graduate statistics courses as General Electives during the fourth year.

Students from all academic majors can pursue graduation with Fishback Honors College distinction. View the Honors program requirements.

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p. = Course Prerequisite
Semester: F = Fall, S = Spring, SU = Summer