COMPUTER SCIENCE - DATA SCIENCE (BACHELOR OF SCIENCE)

The data science concentration is available for CS/CIS majors. Data science and analytics contribute to a wide range of scholarly disciplines and commercial endeavors. The courses provide principles and techniques of Descriptive, Predictive, and Prescriptive Analytics.

Course	Title	Credits
Prescriptive Courses		
CS 230	Fundamentals of Computing	3
CS 231	Computer Programming I	3
CS 232	Computer Programming II	3
CS 234	Discrete Computational Structures	3
CS 304	Technical Writing for Computer Science (WI)	3
CS 310	Software Engineering I	3
CS 331	Data Structures and Algorithms	3
CS 333	Computer Organization and Architecture	3
CS 350	Fundamentals of Computer Operating Systems	3
CS 450	Computer Networking	3
CS 462	Ethics and Legal Issues (WI)	3
CS 488	Database Systems	3
CS 491	Software Engineering II	3
Data Science		
CS 306	Introduction to Data Science	3
CS 445	Predictive Analysis	3
CS 480	Special Topics in Data Science	3
CS 489	Business Intelligence	3
MS 444	Applied Statistical Methods	3
Courses in the major may not be taken until all prerequisites are completed with a grade of "C" or better.		
In addition to the major courses, support courses required are:		
MS 125	Calculus I	4
MS 126	Calculus II	4
MS 302	Applied Probability and Statistics	3
MS 352	Linear Algebra	3

In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations. **More information about general education requirements can be found in the** Summary of Degrees/Requirements (catalog.jsu.edu/undergraduate/summary-degrees-requirements/) **section of the catalog.**

Course	Title	Hours
Freshman		
Fall		
EH Composition sequence		3
Natural Science sequence		4
CS 201	Introduction to Information Technology	3
CS 230	Fundamentals of Computing	3
STU 101	First Year Experience	0
	Hours	**13**
Spring		
EH Composition sequence		3
EH 141	Oral Communication	3
Natural Science sequence		4
CS 231	Computer Programming I	3
CS 234	Discrete Computational Structures	3
	Hours	**16**
Sophomore		
Fall		
Fine Arts		3
MS 125	Calculus I	4
History		3
CS 232	Computer Programming II	3
CS 304	Technical Writing for Computer Science (WI)	3
	Hours	**16**
Spring		
History, Social/Behavioral Science [1]		3
MS 126	Calculus II	4
CS 310	Software Engineering I	3
CS 331	Data Structures and Algorithms	3
CS 333	Computer Organization and Architecture	3
	Hours	**16**
Junior		
Fall		
Literature		3
Social/Behavioral Science		3
CS 306	Introduction to Data Science	3
CS 488	Database Systems	3
MS 302	Applied Probability and Statistics	3
	Hours	**15**
Spring		
Humanities/Fine Arts [1]		3
CS 350	Fundamentals of Computer Operating Systems	3
CS 491	Software Engineering II	3
MS 352	Linear Algebra	3
MS 444	Applied Statistical Methods	3
	Hours	**15**
Senior		
Fall		
Social/Behavioral Science		3
CS 445	Predictive Analysis	3
CS 450	Computer Networking	3
Electives		5
	Hours	**14**
Spring		
CS 462	Ethics and Legal Issues (WI)	3
CS 480	Special Topics in Data Science	3
CS 489	Business Intelligence	3
Electives		6
	Hours	**15**
	Total Hours	**120**

[1] Either a history sequence or a literature sequence is required.