

B.S. Data Science Degree

This is not an official list of degree requirements. Adjustments may be required due to curriculum changes.

First Year

Fall

Course	Prerequisite	Credit
Essential Education: Composition		3
Essential Education: Natural and Physical Science		3
MA 1160: Calculus with Technology		4
DATA 1000: Explorations in Data Science		1
DATA 1100: Practical Data Science Tools		1
CS 1121: Intro to Programming I		3
Total		15

Spring

Course	Prerequisite	Credit
Essential Education: Foundations of the Human World		3
Essential Education: Activities for Well-being and Success		1
CS 1122: Intro to Programming II	CS 1121	3
DATA 1200: Data Science with Python	MA 1160	3
MA 2320: Elementary Linear Algebra	MA 1160	2
MA 2710: Intro to Statistical Analysis	MA 1160	3
Total		15

Second Year

Fall

Course	Prerequisite	Credit
Essential Education: Arts & Culture		3
MA Elective:		3
DATA 2201: Foundations of Data Science	DATA 1200 CS 1122 MA 2320	3
CS 2311: Discrete Structures	CS 1121 MA 1160	3
CS 2321: Data Structures	CS 1121	3
Total		15

Spring

Course	Prerequisite	Credit
Essential Education: Communication Intensive		3
DATA 2600: Data Visualization		3
CS 3425: Introduction to Database Systems	CS 2311 CS 2321	3
Data Science Elective / Focus Area		3
Data Science Elective / Focus Area		3
Total		15

Third Year

Fall

Course	Prerequisite	Credit
Essential Education: Intercultural Competency		3
Essential Education: Activities for Well-being and Success		1
CS 4801: Foundations of Machine Learning	DATA 2201 MA 2710	3
MA Elective		3
Data Science Elective / Focus Area		3
Free Elective		3
Total		16

Spring

Course	Prerequisite	Credit
Essential Education: Experience		3
CS 4770: Software Architecture	CS 3425	3
CS 4321: Introduction to Algorithms	CS 2311 CS 2321	3
Data Science Elective / Focus Area		3
Data Science Elective / Focus Area		3
Total		15

Fourth Year

Fall

Course	Prerequisite	Credit
Essential Education: Activities for Well-being and Success		1
CS 3000: Ethical and Social Aspects of Computing		3
Data Science Elective / Focus Area		3
Data Science Elective / Focus Area		3
Technical Focus Area		3
Total		

Spring

Course	Prerequisite	Credit
DATA 4991: Data Science Capstone		3
Data Science Elective / Focus Area		3
Data Science Elective / Focus Area		3
Technical Focus Area		3
Free Elective		3
Total		

Grand Total = XXX Credits

