

Data Science Major BS
{Computer Science Track, Code: NB219S}
Curriculum Sheet
As of April 1, 2024

Foundational Courses			
Course	Credits	Notes and Prerequisites	Generally Offered *
01:198:142/01:960:142 Data 101	4	Placement into 01:740:026 (Math 026)	Fall, Spring, Summer
01:960:291 Statistical Inference for Data Science OR, 01:960:212. Statistics II, OR, 01:960:384 Intermediate Statistical Analysis, OR, 33:136:385 Statistical Methods in Business	3	Prereqs for 01:960:291 01:198:142/ 01:960:142 and 01:640:115 Prereqs for 01:960:212 01:640:115 or permission of department. Prereqs for 01:960:284 One of the following courses: 960:201, 211, 285, 379, 381 or permission of department. Prereqs for 33:136:385 01:640:135, 01:960:285.	Fall, Spring
01:198:210 Data Management for Data Science (4) OR, 01:960:295 Data Wrangling and Management with R (3) OR, 04:547:221 Fundamentals of Data Curation and Management (3)	3-4	Prereqs for 01:198:210 01:198:142/01:960:142 /01:198:111 Prereqs for 01:960:295 01:198:142/01:960:142 or Level II Statistics Prereqs for 04:547:221 04:547:202 or both 01:198:142/01:960:142 and 01:960:291	198:210 -> Fall, Spring 960:295 -> Spring 547:221 -> Fall, Spring
01:640:135/01:640:151 Calculus I	4	01:640:112 or 115 or appropriate performance on the placement test in mathematics.	Fall, Spring, Summer
01:640:250 Introductory Linear Algebra	3	Precalculus (Math 115 or 111-112) or placement into Calculus.	Fall, Spring, Summer
04:189:220 Data in Context	3	None	Fall, Spring, Summer
Credit Total	20-21		

Computer Science Track Courses			
Course	Credits	Notes and Prerequisites	Generally Offered *
01:640:152 Calculus II	4	01:640:135/151 Calculus I or placement into Calculus II	Fall, Spring, Summer

01:640:251 Multivariable Calculus	4	01:640:136/152 Calculus II	Fall, Spring, Summer
01:198:205 Intro Discrete Structures I	4	01:198:111 Introduction to Computer Science.	Fall, Spring, Summer
01:198:206 Intro Discrete Structures II	4	01:198:205 or 14:332:202; 01:640:152. Credit not given for this course and 01:640:477 or 14:332:226.	Fall, Spring, Summer
01:198:439 Introduction to Data Science	4	01:198:205 Introduction to Discrete Structures 1.	Fall, Spring
01:198:111 Introduction to Computer Science	4	01:640:115 or placement in CALC1.	Fall, Spring, Summer
01:198:112 Data Structures	4	01:198:111 Introduction to Computer Science.	Fall, Spring, Summer
01:198:461 Machine Learning Principles OR 01:198:462 Intro Deep Learning	4	Prereqs for 01:198:461 Although the course has CS 206 as one of the prerequisites, which requires M 152 (Calculus II), this prerequisite can be replaced by alternative classes on probability in Mathematics or Statistics. Prereqs for 01:198:462 01:640:250 Intro Linear Algebra AND, 01:198:112 Data Structures AND, (01:198:206 Intro Discrete II OR 01:640:477 Math Theory of Probability OR 01:960:379 Basic Prob and Stat) Addl. Prereq Combos for ML Principles: (01:640:250 Intro Linear Algebra AND, 14:332:226 Prob & Random Processes AND, 01:198:112 Data Structures)	198:461 -> Fall 198:462 -> Spring
01:960:463 Regression Methods	3	Level II Statistics {The Level II Statistics prerequisites for some courses may be fulfilled by 960:212 or 960:384 or 960:401 or 960:484 or 960:291 or the equivalent. Credit will not be given for more than one Level II Statistics course.}	Fall, Spring, Summer
01:960:186 Applied Statistical Learning	3	Level II Statistics {The Level II Statistics prerequisites for some courses may be fulfilled by 960:212 or 960:384 or 960:401 or 960:484 or 960:291 or the equivalent. Credit will not be given for more than one Level II Statistics course.}	Fall, Spring

04:547:321 Information Visualization	3	04:547:201 Information Technology Fundamentals (for ITI students) OR (01:198:142/01:960:142 Data 101 AND 01:960:291 Statistical Inference for Data Science	Fall, Spring, Summer
01:198:336 Principles of Information and Data Management	4	(01:198:205 Introduction to Discrete Structures I OR 14:332:312 Discrete Mathematics ECE) AND (01:198:112 Data Structures OR 14:332:252 Programming Methodology I) AND 01:640:152 Calculus II	Fall, Spring, Summer
Credit Total	45		

*Please note that the respective departments can change the semester(s) in which the course(s) are offered. Students must confirm the same with the individual departments.