

Data Science Major Checklist

Modified April 2024

The Data Science major requires 13 course units: 9 units in the core and 4 units from either the graduate school or career focus.

Core (6 Units)

Course	Prerequisites	Offered Semester	Suggested Year	Done
CPSC-120 Programming	none	Fall	1st	
DATA-170 Exploring Data	CPSC-120	Spring	1st	
MATH-121 Calculus I	none	Fall and Spring	1st or 2nd	
Choose one of:				
INQ-240 Statistical Reasoning	none	Fall and Spring	1st or 2nd	
STAT-210 Statistical Methods I	none	Fall	1st or 2nd	
STAT-220 Statistical Methods	INQ-241 or STAT-210	Spring	2nd or 3rd	
DATA-248 Data Visualization	INQ-241 or STAT-210	Odd Fall	2nd or 3rd	
Choose one of:				
DATA-350 Databases for Data Science	DATA-170	Irregular	2nd or 3rd	
CPSC-350 Databases and Web Programming	DATA-170 or CPSC-170	Fall	2nd or 3rd	
DATA-480 Practicum in Data Science I	DATA-248 and (DATA-350 or CPSC-350)	Fall and Spring	4th	
Choose one of:				
DATA-490 Practicum in Data Science II	DATA-480	Fall and Spring	4th	
DATA-416 Internship	permission	Fall, Spring, and Summer	4th	

Focus Areas (Choose one)

Graduate School Focus (4 Units)

Course	Prerequisites	Offered Semester	Suggested Year	Done
CPSC-170 Fundamentals of Computer Science	CPSC-120	Spring	1st or 2nd	
MATH-131 Discrete Mathematics	MATH-121 or CPSC-120	Fall and Spring	2nd or 3rd	
STAT-304 Applied Regression Analysis	STAT-210 or STAT-220	Odd Spring	3rd or 4th	
CPSC-465 Machine Learning	CPSC-170, MATH-121, MATH-131, and STAT-210	Irregular	3rd or 4th	

Career Focus (4 Units)

Course	Prerequisites	Offered Semester	Suggested Year	Done
BUAD-205 Accounting for Decision-Making	none	Fall and Spring	2nd or 3rd	
BUAD 218 Information Systems	none	Fall and Spring	2nd or 3rd	
BUAD 248 Business Analytics	(INQ-240 or STAT 210), (MATH 111 or MATH 121), BUAD 205, and BUAD 218	Fall and Spring	3rd or 4th	
Choose one of:				
BUAD-342 Corporate Finance	BUAD-218, ECON-121, ECON-122, and BUAD-205	Fall and Spring	3rd or 4th	
ECON-348 Econometrics	(ECON-321 or ECON-322) and (INQ-240 or STAT 210)	Fall	3rd or 4th	

Course	Prerequisites	Offered Semester	Suggested Year	Done
BUAD-260 Special Topics*	none	Irregular	3rd or 4th	
ECON-261 Special Topics*	none	Irregular	3rd or 4th	
BUAD-406 Independent Study*	permission	Fall and Spring	3rd or 4th	
PHST/PHYS-260 Modeling Public Health	MATH-121	Irregular	3rd or 4th	

* Requires approval of the Data Science program coordinator.

Students interested in pairing the Data Science course courses with a different set of focus area classes should discuss their plan and needs with the program coordinator.

This check sheet is intended as a guide; the Academic Catalog contains more details and nuance. Students are encouraged to check that book along with academic advisors as needed.