

Minor

Data Science Minor

This interdisciplinary minor in data science is focused on the analytical and ethical principles of data collection, data analysis, and the application of data in various domains. An interdisciplinary foundation is used to demonstrate the connections between phenomena studied by scientists and the impact of scientific data analysis on businesses and societies. The program includes coursework focusing on the principles of data analysis as well as coursework selected by students to apply those principles to topical domains.

Requirements

Required Courses

DASC 300	Foundations of Data Science	3
DASC 357E	Ethics and Data	3
<i>Select two of the following:</i>		<i>6-8</i>
BDA 401	Programming Languages for Data Science	
BDA 411	Introduction to Machine Learning	
BIOL 451	Bioinformatics and Genomics I	
BIOL 454	Research in Pathogen Biology I: Laboratory Investigation	
BIOL 455	Research in Pathogen Biology II: Analysis	
BNAL 306	Business Analytics II	
CYSE 420	Applied Machine Learning in Cybersecurity	
CS 422	Introduction to Machine Learning	
CS 432	Web Science	
CS 480	Introduction to Artificial Intelligence	
CRJS 344	Social Science and Crime Mapping	
CRJS/SOC 436	Capstone Research Project	
ECE 407	Introduction to Game Development	
ECON 311	Analytical Tools for Economists	
ECON 400	From Correlation to Causation: Applied Causal Inference	
ENVH 448	Epidemiology and Biostatistics	
EXSC 420	Research Methods in Exercise Science	
GAME 440	Advanced Visual Design and Digital Graphics for Games	
GEOG 402	Geographic Information Systems	
GEOG 425	Internet Geographic Information Systems	
HPE 406	Tests and Measurement in Physical Education and Health	
OEAS 451W	Data Collection and Analysis in Oceanography	
POLS 418	Quantitative Methods	
PUBH 445	Health Services Research Methods	
PUBH 461	Managerial Epidemiology	
SEPS 420	Fashion Research	
STAT 310	Introductory Data Analysis	
STEM 382	Industrial Design	

Total Credit Hours **12-14**

For completion of a minor, a student must have a minimum grade point average of 2.00 in all courses specified as a requirement for the minor exclusive of lower-level courses and prerequisite courses and complete a minimum of six hours in upper-level courses in the minor requirement through courses offered by Old Dominion University.

Three credit hours in the interdisciplinary minor may be in the major if a major course is listed as an option for the interdisciplinary minor. As such, it will be credited toward both the major and the interdisciplinary minor. Interdisciplinary minors require twelve credit hours of 300/400-level courses selected from at least two different disciplines with a maximum of six credits

from any one discipline. Course substitutions may be approved by the interdisciplinary minor coordinator.