

DATA SCIENCE

Requirements

Any student may obtain a Multidisciplinary Minor in Data Science by taking the following courses:

Code	Title	Hours
Introductory Statistics Course		
MA 223	Engineering Statistics	4
or MA 382	Introduction to Statistics with Probability	
Introductory Computer Science Courses		
CSSE 120	Introduction to Software Development	4
CSSE 220	Object-Oriented Software Development	4
Electives		
Select two of the following:		8
MA 386	Statistical Programming	
MA 384	Data Mining	
CSSE 230	Data Structures and Algorithm Analysis	
Select a minimum of two additional course from the list below: (See degree separation requirement below.)		8
BMTH 312	Bioinformatics	
CSSE 313	Artificial Intelligence	
CSSE 314	Bio-Inspired Artificial Intelligence	
CSSE 315	Natural Language Processing	
CSSE 333	Intro to Database Systems	
CSSE/MA 415	Machine Learning	
CSSE/MA 416	Deep Learning	
CSSE 433	Advanced Database Systems	
CSSE 434	Introduction to the Hadoop Ecosystem	
CSSE 463	Image Recognition	
CSSE/MA 335	Introduction to Parallel Computing	
ECON S451	Econometrics	
MA 384	Data Mining	
MA 386	Statistical Programming	
MA 482	Biostatistics	
MA 483	Bayesian Data Analysis	
MA 485	Applied Linear Regression	
PH 327	Thermodynamics & Statistical Mechanics	

Notes and Limitations on Requirements

Degree Separation Requirement: The Multidisciplinary Minor in Data Science must be separated from any other minor and the named required courses of any major by a minimum of 16 credit hours. Exceptions to this requirement must be approved by the minor advisor for Data Science and the heads of both the Department of Mathematics and the Department of Computer Science and Software Engineering.

Electives not listed above may be substituted with other courses with the approval of the minor advisor for Data Science.

The minor plan of study must be approved by the minor advisor for Data Science and the student's advisor.