## 1

## DATA SCIENCE CONCENTRATION, APPLIED STATISTICS (MS)

## Concentration Requirements - All 4 courses / 16 credit hours

Course	Title	Quarter Hours
MAT 449	STATISTICAL DATA MANAGEMENT	4
MAT 450	ADVANCED STATISTICAL COMPUTING	4
MAT 491	DATA MINING	4
CSC 555	MINING BIG DATA	4

## **Electives - Any 1 course / 4 credit hours**

Course	Title	Quarter Hours
Select one of the following:		
MAT 454	MULTIVARIATE STATISTICS	
MAT 455	STOCHASTIC PROCESSES	
MAT 457	NONPARAMETRIC STATISTICS	
MAT 459	SIMULATION MODELS AND MONTE CARLO METHOD	
MAT 488	OPERATIONS RESEARCH: OPTIMIZATION THEORY	
MAT 512	APPLIED TIME SERIES AND FORECASTING	
DSC 465	DATA VISUALIZATION	
DSC 478	PROGRAMMING MACHINE LEARNING APPLICATIONS	
DSC 480	SOCIAL NETWORK ANALYSIS	
CSC 575	INTELLIGENT INFORMATION RETRIEVAL	