

# Foundations of Data Science (MS): Computer Science Concentration

## Degree Requirements

Code	Title	Hours
<b>Required Courses</b>		<b>21</b>
Statistics Core		
ST 503	Fundamentals of Linear Models and Regression	
ST 517	Applied Statistical Methods I	
Mathematics Core (choose two of the following)		
MA 523	Linear Transformations and Matrix Theory	
MA 540	Uncertainty Quantification for Physical and Biological Models	
MA 542	Convex Optimization Methods in Data Science	
Computer Science core		
CSC 505	Design and Analysis Of Algorithms	
CSC 540	Database Management Concepts and Systems	
Machine Learning core (choose one of the following)		
ST 563	Introduction to Statistical Learning	
CSC 522	Automated Learning and Data Analysis	
<b>Concentration Electives</b>		<b>9</b>
A minimum of 9 hours of elective courses must be taken from the following courses:		
CSC 520	Artificial Intelligence I	
CSC 542	Neural Networks and Deep Learning	
CSC 555	Social Computing and Decentralized Artificial Intelligence	
CSC 580	Numerical Analysis I	
CSC 584	Building Game AI	
CSC 722	Advanced Topics in Machine Learning	
<b>Total Hours</b>		<b>30</b>