

DATA SCIENCE: COMPUTER SCIENCE, MS

Requirements for Students Matriculating in or before Academic Year 2025-2026. Learn more about Graduate College Academic Regulation 7.0 (<https://catalog.okstate.edu/graduate-college/#70>).

Total Hours: 33

Code	Title	Hours
Core Courses		
Select 15 hours:		15
IEM 5083	Data Science and Applications	
CS 5433	Big Data Management	
STAT 5543	Applied Regression Analysis	
STAT 5253	Mathematical Statistics I	
or STAT 5123	Probability Theory	
or IEM 5003	Probability and Statistics for Engineers	
IEM 5653	Data Engineering ¹	
OR		
MATH 5653	Data Engineering ¹	
OR		
STAT 5653	Data Engineering ¹	
Hours Subtotal		15
Required Courses		
		9
CS 5233	Intro to Database Systems	
CS 5413	Data Structures and Algorithm Analysis II	
STAT 5263	Mathematical Statistics II	
Hours Subtotal		9
Elective Courses		
Select at least 9 hours:		9
CS 5030	Professional Practice	
CS 5123	Cloud Computing and Distributed Systems	
CS 5683	Big Data Analytics	
CS 5723	Artificial Intelligence I	
CS 5783	Machine Learning	
STAT 5073	Categorical Data Analysis	
STAT 5053	Time Series Analysis	
STAT 5213	Bayesian Analysis	
STAT 5223	Statistical Inference	
MATH 5503	Introduction to Optimization	
IEM 5683	Advanced Data Analytics in Industrial Engineering	
IEM 5723	Data, Process and Object Modeling	
IEM 5783	Applied Statistical Analysis in R for Engineers	
Hours Subtotal		9
Total Hours		33

1

Only three of the 15 hours can be taken from IEM 5653, MATH 5653 and STAT 5653.

Graduate College Master's Program Requirements

Learn more about Graduate College 2025-2026 Master's Degree Program Requirements (<https://catalog.okstate.edu/graduate-college/>). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.