

## Comparing Bachelor of Science Degrees

[College of Natural Science Data Science Degree](#) (*NatSci Data Science*)

[College of Engineering Computational Data Science Degree](#) (*EGR Computational Data Science*)

In the Fall of 2019, MSU started two new Bachelor of Science degrees in data science. These degree programs were developed in concert to provide training at the undergraduate level in the emerging discipline of data science.

Both degrees offer a solid foundation in data science with the goal of building data acumen in students. The *NatSci Data Science* degree emphasizes the integration of skills and domain expertise needed for complete data workflows and the flexibility to pursue an academic minor. The *EGR Computational Data Science* degree emphasizing software engineering and application development.

### Summary of degree requirements

College of Natural Science Data Science		College of Engineering Computational Data Science	
	CMSE 201	Computational Modeling and Data Analysis I	
	CMSE 202	Computational Modeling and Data Analysis II	
	CMSE 381	Fundamentals of Data Science Methods	
	CMSE 382	Optimization Methods in Data Science	
	CMSE 495	Experiential Learning in Data Science	
	STT 180	Intro to Data Science	
	STT 380	Probability and Statistics for Data Science	
	CSE 232	Intro to Programming II	
	CSE 331	Algorithms and Data Structures	
12 additional credits from specific 400-level CMSE, CSE, MTH, or STT courses		CSE 404	Intro to Machine Learning
		CSE 482	Big Data Analysis
		CSE 480	Database Systems
		6 Additional credits from specific 400-level CSE courses	
		6 Additional credits from specific 400-level CMSE, CSE, MTH, or STT courses	
<i>Math Requirements</i>			
	MTH 132,133	Calculus I & II	
	MTH 234	Multivariable Calculus	
	MTH 314	Matrix Algebra with Computational Applications	
	-	MTH 235	Differential Equations
<i>Additional Degree/College Requirements</i>			
	PHY 183,184	Physics for Scientists & Engineers I & II Bioscience (variety of options)	
CEM 141,142	General Chemistry I & II	-	
CEM 161	General Chemistry lab	One-credit science lab	
Any additional requirements of the College of Natural Science for the Bachelor of Science degree		Any additional requirements of the College of Engineering for the Bachelor of Science degree	
Total Credits: 120		Total Credits: 120	

Note: This list is intended for informational, comparison purposes only. Course scheduling should be based on the official degree requirements on the MSU registrar page.