Bachelor of Science in Data Science

Required 124 credits (36 of which must be numbered 300 or above, and 30 of which must be from UND) including:

I. Essential Studies Requirements (see University ES listing).

II. Requirements of the College of Engineering and Mines. See College listing.

III. Courses from the discipline as follows:

Code	Title	Credits
CSCI 160	Computer Science I	4
CSCI 161	Computer Science II (*)	4
CSCI 166	Tools and Techniques of Computing Practice	3
CSCI 242	Algorithms and Data Structures (*)	3
CSCI 265	Introduction to Programming Languages	3
CSCI 270	Programming for Data Science	3
CSCI 280	Object Oriented Programming	3
CSCI 289	Social Implications of Computer Technology	3
CSCI 346	Introduction to Data Visualization	3
CSCI 363	User Interface Design	3
CSCI 384	Artificial Intelligence (**)	3
CSCI 389	Computer and Network Security	3
CSCI 443	Introduction to Machine Learning	3
CSCI 445	Mathematical Modeling and Simulation (**)	3
CSCI 455	Database Management Systems	3
CSCI 456	Introduction to Data Mining	3
CSCI 482	Senior Project for Data Science I	3
CSCI 483	Senior Project for Data Science II	3
CSCI Electives (***)		15
Total Credits		**71**

- Grade of 'C' or higher required

** Must be taken at UND

*** A combined total of 6 credits from EECS 397 Cooperative Education or CSCI 494 Special Projects in Computer Science may be applied toward these electives. The remaining electives must be UND Computer Science courses numbered 300 or above that do not already satisfy curriculum requirements.

IV. Courses from other departments as follows:

Code	Title	Credits
MATH 165	Calculus I	4
MATH 166	Calculus II	4
MATH 207	Introduction to Linear Algebra	2
MATH 208	Discrete Mathematics	3
MATH 265	Calculus III	4
MATH 421	Statistical Theory I	3
MATH 422	Statistical Theory II	3
2 courses in an approved application area*		6
Total Credits		**29**

*lists of currently recommended courses for the application area are available from the SEECS, but other courses may be accepted with approval from your advisor or the SEECS undergraduate program director