

**Bachelor of Science
Data Science Major
Catalogue 2019-20**

| <u>Course #</u> | <u>Description</u> | <u>Credits</u> | <u>Credits</u> | <u>Grade</u> |
|----------------------------------|----------------------------------|----------------|----------------|--------------|
| Required Courses | | | | |
| CS 064 | - Discrete Structures or | 3 | | |
| MATH 052 | - Fundamentals of Mathematics | 3 | | |
| STAT 151 or STAT 251 or CS 128 | | 3 | | |
| (min 6) | | | | |
| CS Core | | | | |
| CS 008 | - Intro to Website Dev | 3 | | |
| CS 021 | - Programming I | 3 | | |
| CS 110 | - Intermediate Prog. | 3 | | |
| CS 124 | - Data Structures | 4 | | |
| CS 204 | - Database Systems | 3 | | |
| CS 224 | - Algorithm Design & Analysis | 3 | | |
| CS 1XX | | 3 | | |
| (min 22) | | | | |
| STAT Core | | | | |
| STAT 087 | - Introduction to Data Science | 3 | | |
| STAT 141 or STAT 143 or STAT 211 | | 3 | | |
| STAT 221 | - Statistical Methods II | 3 | | |
| STAT 201 | - Stat Computing & Data Analysis | 3 | | |
| STAT 223 | - Applied Multivariate Analysis | 3 | | |
| STAT 229 | - Survival/ Logistic Regression | 3 | | |
| STAT/ CS 287 | - Data Science I | 3 | | |
| (min 21) | | | | |
| MATH Core | | | | |
| Math 021 | - Calculus I | 4 | | |
| Math 022 | - Calculus II | 4 | | |
| MATH 124 | - Linear Algebra or | 3 | MATH | |
| 122 | - Applied Linear Algebra | 3 | | |
| MATH 1XX | | 3 | | |
| MATH 1XX | | 3 | | |
| MATH 1XX | | 3 | | |
| (min 20) | | | | |

Credit Summary

Left column credits (69 min):
Right column credits (51 min):
Total Credits Required (120 min):

**Student:
NetID:
Advisor:**

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|---|------------------------------|----------------|----------------|--------------|
| Data Science Electives* | | | | |
| *Choose 12 Credits in Data Science (DS) electives selected from the list of approved courses in MATH/STAT/CS/CSYS/NR, with at least 9 of these credits at the 200-level (or above): Options include CS 120, 148, 166, 167, 205, 224, 228, | | | | |
| (min 12) | | | | |
| Science sequence in PHYS, CHEM or BIOL | | | | |
| PHYS 051 | - Fundamentals of Physics I | 4 | | |
| PHYS 152 | - Fundamentals of Physics II | 4 | | |
| CHEM 031 | - General Chemistry I | 4 | | |
| CHEM 032 | - General Chemistry II | 4 | | |
| BIOL 001 | - Principles of Biology | 4 | | |
| BIOL 002 | - Principles of Biology | 4 | | |
| (min 8) | | | | |
| University Requirements | | | | |
| D1 diversity | | 3 | | |
| D1 or D2 diversity | | 3 | | |
| FWIL: Foundational Writing and Info Literacy (ENGS 001 or HCOL 085) | | 3 | | |
| SU: Sustainability | | 3 | | |
| (min 9) | | | | |
| Free Electives | | | | |
| Students are encouraged to use free elective credits to complete a minor in an area of application (e.g., biology, social sciences). | | | | |
| (min 22) | | | | |