

# CROSS DISCIPLINARY STUDIES MINOR IN DATA SCIENCE

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|---|---|-----------|
| CSC/CPE 101                                   | Fundamentals of Computer Science                        | 4         |
| CSC/CPE 202                                   | Data Structures   | 4         |
| CSC/CPE 203                                   | Project-Based Object-Oriented<br>Programming and Design | 4         |
| CSC 248<br>or MATH 248                        | Discrete Structures<br>Methods of Proof in Mathematics  | 4         |
| CSC 349                                       | Design and Analysis of Algorithms                       | 4         |
| CSC 365                                       | Introduction to Database Systems                        | 4         |
| CSC 369                                       | Introduction to Distributed<br>Computing                | 4         |
| CSC 466                                       | Knowledge Discovery from Data                           | 4         |
| DATA 301                                      | Introduction to Data Science                            | 4         |
| DATA 401                                      | Data Science Process and Ethics                         | 3         |
| DATA 402                                      | Mathematical Foundations of Data<br>Science             | 3         |
| DATA 403                                      | Data Science Projects Laboratory                        | 1         |
| DATA 451                                      | Data Science Capstone I                                 | 2         |
| DATA 452                                      | Data Science Capstone II                                | 2         |
| MATH 143                                      | Calculus III  | 4         |
| MATH 206<br>or MATH 244                       | Linear Algebra I<br>Linear Analysis I                   | 4         |
| STAT 302<br>or STAT 312                       | Statistics II<br>Statistical Methods for Engineers      | 4         |
| STAT 305                                      | Introduction to Probability and<br>Simulation           | 4         |
| STAT 334                                      | Applied Linear Models                                   | 4         |
| STAT 331                                      | Statistical Computing with R                            | 4         |
| STAT 419                                      | Applied Multivariate Statistics                         | 4         |
| Technical Electives (CSC/DATA/MATH/PHYS/STAT) |   | 5         |
| <b>Total units</b>                            |   | <b>80</b> |