

Bachelor of Science in Data Science

Each required course for this degree plan is separated into one of four disciplines, which identifies the emphasis of the content in that course.

1. Required Courses:

DATA SCIENCE CORE

- ___ MATH 150 Introduction to Data Science (3)
- ___ MATH 350 Tech. Comm. for Math Sci. (3)
- ___ MATH 473 Machine Learning I (4)
- ___ MATH 474 Machine Learning II (4)
- ___ MATH 482 Data Science Capstone I (1)
- ___ MATH 483 Data Science Capstone II (2)
- ___ CIS 483 Database Design/SQL (3)

MATHEMATICS CORE

- ___ MATH 210 Calculus and Analytic Geometry I (4)
- ___ MATH 211 Calculus and Analytic Geometry II (4)
- ___ MATH 212 Calculus and Analytic Geometry III (4)
- ___ MATH 341 Linear Algebra (3)
- ___ MATH 374 Discrete Mathematics (3)

STATISTICS CORE

- ___ MATH 160 Introduction to Statistics (3)
- ___ MATH 464 Probability and Statistics I (3)
- ___ MATH 465 Probability and Statistics II (3)
- ___ MATH 470 Computational Statistics (3)

COMPUTER SCIENCE CORE

- ___ MATH 175 Intro. to Programming in Python (3)
- ___ MATH 220 Data Structures (3)
- ___ MATH 320 Algorithm Design (3)

2. Required Mathematics Electives:

Students must complete six credit hours from the following courses.

- ___ MATH 349 Number Theory (3)
- ___ MATH 375 Applied Differential Equations (3)
- ___ MATH 475 Numerical Analysis (3)
- ___ MATH 478 Special Topics in Mathematics (1 to 3)
- ___ MATH 479 Special Problems in Mathematics (1 to 3)

Note: MATH 478 and MATH 479 may be repeated for credit toward the B.S. in Data Science.

3. Minor Requirement:

In addition to the requirements listed above, students in this degree program are required to complete a minor at West Liberty University.