

COMPUTATIONAL DATA SCIENCE CERTIFICATE

Department: Computer Science and Information Systems (<https://catalog.bradley.edu/graduate/liberal-arts-sciences/computer-science-information-systems/>)

The Computational Data Science program is a 12-semester hour online graduate certificate program that enhances student skills for a career in data science and other fields. This four-course graduate certificate program provides data science related courses that broaden students' access to data science related technology careers. Students will acquire new skills in topics such as fundamentals of data science, machine learning, and data mining. Individuals who complete this program will have a solid understanding of data science concepts and exposure to the methods and tools for knowledge discovery and data mining. This program is delivered fully online.

Admission Requirements

For admission into the Computational Data Science online graduate certificate program, students must have the approval of the department and have completed:

- Discrete mathematics
- At least two semesters of calculus, matrix or linear algebra
- At least one semester of calculus-based statistics
- At least 15 hours of computer science coursework including knowledge of one structured or object-oriented programming language, assembly language, advanced data structures, and introductory computer architecture
- A minimum GPA of 3.0

Program Requirements

The Computational Data Science online graduate certificate program will require students to complete the following 12 semester hours of four required courses with an average grade among the four courses of "B" or above:

Code	Title	Hours
CS 560	Fundamentals of Data Science	3.0
CS 562	Machine Learning	3.0
CS 563	Knowledge Discovery and Data Mining	3.0
CS 571	Database Management Systems	3.0
Total Hours		12