Undergraduate Certificate in Data Science

OVERVIEW

This certificate is designed to provide exposure to the three major pedagogical categories within data science: understanding of the theoretical underpinnings; computational method design, development and use; and domain-specific applications. It is expected that a student obtains specialization in one of these three areas through their choice of electives.

Mathematical Prerequisite: Calculus sequence or its equivalent

Required Courses (21 hours)	
MATH 2270	Linear Algebra (3)
MATH 3070	Applied Statistics I (4) or CS 3130/ECE 3530 : Engineering Probability and Statistics (3)
COMP 1010	Programming for All I (3)
COMP 1020	Programming for All II (3)
DS 2500	Data Wrangling (3)
DS 3390	Ethics of Data Science (3)
CS 3190	Foundations of Data Analysis (3) or MATH 4100 / COMP 5360: Introduction to Data Science (3)

Note: (CS 1400 and CS 1410) or CS 1420 can be substituted for both COMP 1010 and COMP 1020. If CS 1420 is used, an additional 3 credits among the Application Courses is required.

Applications Courses (take at least 3 hours)

These courses should expose students to scientific engineering, or societal topics which are dependent on "data" (broadly defined) and its interpretation. These will provide students exposure to subject specific data and how it is analyzed or otherwise used within the discipline.

Full list of pre-approved courses is here:
https://www.cs.utah.edu/wp-content/uploads/2021/11/DS-Data-Domain-Electives_11.23.21.pdf