Nebraska Wesleyan University

Integrative Data Science (B.A., B.S.)

Catalog

2019-2020

Program Description

The Integrative Data Science major is a technology-oriented liberal arts major that brings together twenty-first century skills in computer programming, quantitative reasoning, collaboration, communication, design, and creative thinking. Students who pursue this major will develop the skills to collaborate with and lead interdisciplinary teams in many industries. By taking courses and pursuing internships in a range of disciplines, students will acquire flexible and integrative problem-solving skills for a rapidly-changing professional environment.

Departments

1. Mathematics and Computer Science

Integrative Data Science Major (B.A. or B.S.**, 42-43 hours)

Programming and Quantitative Research	**21 hours**
CMPSC 1000 Introduction to Computational Problem Solving	3 hours
CMPSC 1500 Program Design	4 hours
MATH 1300 Statistics	3 hours
CMPSC 2000 Data Structures	4 hours
CMPSC-3XXX Data Visualization (course TBD)	4 hours
BUSAD 3300 Quantitative Methods	3 hours
Visual Communication	**6 hours**
ART 1050 Basic Design	3 hours
ART 1200 Introduction to Graphic and Web Design	3 hours
Professional Communication and Leadership	**7 hours**
BUSAD 2500 Principles of Management or LEAD 3100 Introduction to Leadership	3 hours
COMM 4100 Communication in the Professions or ENG 3150 Professional and Community Writing	4 hours
Research or Disciplinary Practice	**3-4 hours**
The research or disciplinary practice requirement is a one- or two-course introduction to methods of inquiry and/or techniques of practice central to the supporting program. Examples are provided below, but students may propose alternatives. • HHP 4800 Research And Statistical Methods - I AND HHP 4810 Research And Statistical Methods - II • BUSAD 3100 Managing Information Systems • IDS 2020 Design Labs • POLSC 3010 Research Methods: Qualitative Research AND POLSC 3020 Research Methods: Quantitative Research • PSYCH 2110 Research Methods in Psychology • SOC 3960 Quantitative Research Methods	3-4 hours

Experiential Learning Capstone	5 hours
CMPSC 3960 Special Projects or CMPSC 3970 Internship	2 hours
CMPSC 4970 Internship	3 hours

Required Supporting Program	20 hours
In addition to the major requirements listed above, students must also complete a minor or major (hereinafter referred to as a "supporting program") in another discipline. The supporting program serves as a context in which students can exercise the skills developed in the core of the major. Students with a supporting program in a natural, health, or social science will earn a B.S. in Integrative Data Science. Students with a supporting program in an arts or humanities discipline will earn a B.A. in Integrative Data Science. (Students may not choose Computer Science as their supporting program.) The Program Director will approve the student's major or minor choice for the supporting program.	

***An Integrative Data Science major may earn either a B.A. or B.S. degree. The Program Director will help the student determine which degree is appropriate based on the student's supporting program.*