

# Luddy School of Informatics, Computing, and Engineering Bulletin 2022-2023

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## Undergraduate Programs

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### Degree Programs

#### BS in Data Science

#### Luddy Degree and Major Requirements

**\*\* Equivalent honors versions of regular courses may substitute for all requirements. Please see specific course descriptions, posted in respective bulletin, for prerequisites and other pertinent information. \*\***

The Luddy School of Informatics, Computing, and Engineering student **database** (SAMS) enables students to check their academic degree information, add/drop minors, add/change specializations/cognates/concentrations and apply to graduate. Students are responsible for these actions.

### Luddy Degree Requirements

#### Diversity in the United States (3 cr.)

This is a General Education shared goal required by all schools. Luddy students must check the listing of courses at [CASE requirements for the College of Arts and Sciences](#). The course must be taken through the Indiana University Bloomington campus or an IU administered or IU co-sponsored Overseas Study program.

### **Intensive Writing (3 cr.)**

One intensive writing course at the 200 level or above after completing the English composition requirement. Intensive writing courses at IUB are defined by the College of Arts and Sciences. Students must check the listings for courses at [CASE requirements for the College of Arts and Sciences](#).

Intensive Writing credit will not be awarded for transfer courses and will not be awarded for written work in courses that are not listed as Intensive Writing unless special arrangements have been completed and approved prior to the relevant deadline. All special arrangements must be approved by the director of undergraduate studies in the respective division. The deadline for submitting a proposal to satisfy Intensive Writing by special arrangement is the end of the 2nd week of classes (for regular semester-length courses) and the end of the first week of classes for a summer session course.

### **Natural Sciences (10 cr.)**

**Courses may not double count between this requirement, math and science foundations, major, or specialization.**

Course list located in the [General Education bulletin](#) OR the [CASE requirements for the College of Arts and Sciences](#).

### **General Electives**

Remaining credit hours may be used to fulfill minors or pursue personal interests. Students may obtain a maximum of three minors. A maximum of 4 combined HPER-E, SPH-I, SPH-O, and SPH-W credit hours and 10 MUS-X credit hours below the 100 level may be used in total hours.

## **Major Requirements**

**A major GPA of at least 2.000 for all courses taken in the major is required (all major course attempt grades are included).**

**A minimum grade of C- or higher is required for a course to fulfill a requirement in the major.**

Students must complete the following:

### **Diversity and Ethics (3 cr.)**

- ILS-Z 410 Social and Ethical Impacts of Big Data

### **Mathematics and Science Foundations (10 cr.)**

- MATH-E 201 Linear Algebra for Data Science
- MATH-E 265 Probability for Data Science (new course)
- MATH-M 211 Calculus I

### **Programming and Discrete Structures (7 cr.)**

- CSCI-C 200 Introduction to Computers and Programming or INFO-I 210 Information Infrastructure
- CSCI-C 241 Discrete Structures for Computer Science or INFO-I 201 Mathematical Foundations of Informatics

### **Core courses:**

- CSCI-A 310 Problem Solving Using Data
- DSCI-D 321 Data Representation and Processing
- DSCI-D 351 Big Data Analytics
- INFO-I 123 Data Fluency
- STAT-S 350 Introduction to Statistical Inference
- STAT-S 352 Data Modeling and Inference

### **Capstone:**

- DSCI-D 498 Data Science Capstone I
- DSCI-D 499 Data Science Capstone II

### **Specialization Area Courses**

Students should, in consultation with their academic advisor, choose a specialization area before their junior year.

Students must receive a minimum grade of C- in each course. Please consult the specialization section of this bulletin for the list of specialization areas.

## **Academic Bulletins**

- [Indiana University](#)
- [IU Bloomington](#)

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