INFORMATION SCIENCES + DATA SCIENCE, BS

For the Degree of Bachelor of Science in Information Sciences + Data Science

The Bachelor of Science in Information Sciences prepares students for a wide range of careers within the knowledge economy. In today's technology-centered job market, there is a high demand for information professionals. By earning a B.S. in Information Sciences (BS/IS) from the School of Information Sciences (iSchool), you will gain a competitive edge. Our interdisciplinary, STEM-designated degree will prepare students for careers in a variety of fields. As a BS/IS student, you'll learn how to manage data and other types of information to help organizations achieve their goals. You will become an information technology expert who understands the human perspective, social context, and policy implications.

Information Sciences (https://ischool.illinois.edu/degrees-programs/undergraduate/bs-data-science/)+ Data Science B.S. Degree website

Departmental Distinction: The top 10% of the graduating class will graduate with distinction.

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General education: Students must complete the Campus General Education (https://courses.illinois.edu/gened/DEFAULT/DEFAULT/) requirements.

Data Science Core

Code	Title	Hours
Total Hours		**28-31**
Mathematical Foundations		**7-8**
MATH 220	Calculus	4-5
or MATH 221	Calculus I	
or MATH 234	Calculus for Business I	
MATH 227	Linear Algebra for Data Science	3
or MATH 257	Linear Algebra with Computational Applications	
Data Science Fundamentals		**12**
STAT/CS/IS 107	Data Science Discovery	4
STAT 207	Data Science Exploration	4
CS 307	Modeling and Learning in Data Science	4
Computational Fundamentals		**4**
CS 277	Algorithms and Data Structures for Data Science	4
Social Impact in Data Science		**6**
IS 467	Ethics and Policy for Data Science	3
IS 477	Data Management, Curation & Reproducibility	3

Information Sciences Core

Code	Title	Hours
Total Hours		**61**
IS 101	Introduction to Information Sciences	3
IS 202	Social Aspects Info Tech	3
IS 204	Research Design for Information Sciences	3
IS 205	Programming for Information Problems	3
IS 206	Introduction to Database Concepts & Applications	3
IS 308	Race, Gender, and Information Technology	3
or IS 309	Computers and Culture	
or IS 310	Computing in the Humanities	
or IS 311	History and Foundations of the Information Society	
School of Information Sciences Electives or approved courses in other departments		43
Twelve hours of 300/400 level (advanced) courses in Information Sciences (IS) must be taken on this campus.		

Meaningful Research or Discovery Experience

Code	Title	Hours
Total Hours		**6**
One of the most important skills a student will gain in a IS+DS degree will be the ability to present data in meaningful ways. A research or discovery experience is as much a pillar of this degree program as both the data science core coursework (Part 1) and the coursework in Information Sciences.		
IS 189	Independent Study	0 to 3
Examples of possible experiences may include:		
A semester study-abroad with at one or more courses focused on discovery while attending the international institution.		
A multi-semester capstone experience within the student's area of specialization.		
A semester co-op experience outside of the Champaign-Urbana area focused within the student's area of specialization.		
A multi-semester undergraduate research experience under the direction of iSchool faculty.		
A summer REU program focused within your area of specialization.		

Summary of Total Hours

Code	Title	Hours
Total General Education Hours		25
Total Data Science Core Hours		28
Total Information Science Specialization Hours		61
Meaningful Research or Discovery Experience		6
Total Hours		**120**

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Sample Sequence
This sample sequence is intended to be used only as a guide for degree completion. All students should work individually with their academic advisors to decide the actual course selection and sequence that works best for them based on their academic preparation and goals. Enrichment programming such as study abroad, minors, internships, and so on may impact the structure of this four-year plan. Course availability is not guaranteed during the semester indicated in the sample sequence.

Students must fulfill their Language Other Than English requirement by successfully completing a third level of a language other than English. See the corresponding section on the Degree and General Education Requirements page *(*http://catalog.illinois.edu/general-information/degree-general-education-requirements/*).*

First Year

First Semester	Hours
IS 101	3
MATH 220, 221, or 234	5
Composition I or Language Other than English (3rd level)	4
General Education course	3
	15

Total Hours 15

First Year

Second Semester	Hours
IS 202	3
IS 107	4
IS 1XX-2XX Level Elective	3
Language Other than English (3rd level) or Composition I	4
Free Elective course	1
	15

Total Hours 15

Second Year

First Semester	Hours
IS 204	3
IS 1XX-2XX Level Elective	3
STAT 207	4
Meaningful Research or Discovery Experience	1
General Education course	3
Free Elective course	1
	15

Total Hours 15

Second Year

Second Semester	Hours
IS 206	3
MATH 227 or 257	3
IS 1XX-2XX Level Elective	3
General Education course	3
IS 205	3
	15

Total Hours 15

Third Year

First Semester	Hours
IS 308, 309, 310, or 311	3
IS 1XX-2XX Level Elective	3
IS 3XX-4XX Level Elective	3
General Education course	3

	Hours
Meaningful Research or Discovery Experience	1
Free Elective course	2
	15

Total Hours 15

Third Year

Second Semester	Hours
IS 467	3
CS 277	4
IS 3XX-4XX Level Elective	3
Meaningful Research or Discovery Experience	1
General Education course	3
	14

Total Hours 14

Fourth Year

First Semester	Hours
CS 307	4
IS 3XX-4XX Level Elective	3
Meaningful Research or Discovery Experience	3
Free Elective course	3
Free Elective course	3
	16

Total Hours 16

Fourth Year

Second Semester	Hours
IS 477	3
IS 3XX-4XX Level Elective	3
Free Elective course	3
Free Elective course	3
Free Elective course	3
	15

Total Hours 15

Total Hours: 120

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Graduates of the Bachelor of Science in Information Sciences + Data Science program will be able to:

1. Understand relationships among people, information, and technology.
2. Understand the history, theory, philosophy and methodologies of the field of information sciences.
3. Apply various approaches to research in the information sciences, including social science methods, data and text mining, digital humanities, historical approaches, and others.
4. Apply critical analytical skills to information issues.

5. Understand fundamental mathematical and programming tools for solving problems of information modeling, expression, and transformation.

6. Understand the data life cycle and be able to analyze, interpret, explain, qualify, and contextualize data at scale.

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School of Information Sciences

Interim Dean: Emily Knox

School of Information Sciences website (https://ischool.illinois.edu/)

iSchool Faculty (https://ischool.illinois.edu/people/faculty/)

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