BUSINESS + DATA SCIENCE, BS

for the degree of Bachelor of Science in Business plus Data Science

This major is sponsored by the Department of Business Administration within the Gies College of Business, in collaboration with the iSchool and the Departments of Statistics, Computer Science, and Mathematics. The Business+Data Science major is designed for students seeking to supplement their business specialization foundations with a strong background in data science. The major prepares students for professional and graduate work while involving a particular distinction with respect to analytics.

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Graduation Requirements

Minimum hours required for graduation: 124 hours.

University Requirements

Minimum of 40 hours of upper-division coursework, generally at the 300- or 400-level. These hours can be drawn from all elements of the degree. Students should consult their academic advisor for additional guidance in fulfilling this requirement.

The university and residency requirements can be found in the Student Code (https://studentcode.illinois.edu/article3/part8/3-801/) (§ 3-801) and in the Academic Catalog (http://catalog.illinois.edu/general-information/degree-general-education-requirements/).

General Education Requirements

Follows the campus General Education (Gen Ed) requirements (https://courses.illinois.edu/gened/DEFAULT/DEFAULT/). Some Gen Ed requirements may be met by courses required and/or electives in the program.

Code	Title	Hours
Composition I		4-6
Advanced Composition		3
Humanities & the Arts (6 hours)		6
Natural Sciences & Technology (6 hours)		6
Social & Behavioral Sciences (6 hours)		6
fulfilled by ECON 102 and ECON 103		
Cultural Studies: Non-Western Cultures (1 course)		3
Cultural Studies: U.S. Minority Cultures (1 course)		3
Cultural Studies: Western/Comparative Cultures (1 course)		3
Quantitative Reasoning (2 courses, at least one course must be Quantitative Reasoning I)		6-10
fulfilled by STAT 107, STAT 207; and MATH 220, MATH 221, or MATH 234		
Language Requirement (Completion of the third semester or equivalent of a language other than English is required)		0-15

Code	Title	Hours
Business Core		**42**
ACCY 201	Accounting and Accountancy I	3
ACCY 202	Accounting and Accountancy II	3
BADM 275	Introduction to Operations and Supply Chain Management	3
BADM 300	The Legal Environment of Bus	3
BADM 310	Mgmt and Organizational Beh	3
BADM 320	Principles of Marketing	3
BADM 449	Business Policy and Strategy	3
BUS 101	Professional Responsibility and Business	3
BUS 201	Business Dynamics	3
BUS 401	Crafting Your Purpose in Business	3
CMN 101	Public Speaking	3
ECON 102	Microeconomic Principles	3
ECON 103	Macroeconomic Principles	3
FIN 221	Corporate Finance	3
Data Science Core		**29-30**
STAT/CS/IS 107	Data Science Discovery	4
STAT 207	Data Science Exploration	4
CS 307	Modeling and Learning in Data Science	4
CS 277	Algorithms and Data Structures for Data Science	4
IS 467	Ethics and Policy for Data Science	3
IS 477	Data Management, Curation & Reproducibility	3
Choose one Calculus:		4-5
MATH 220	Calculus	
MATH 221	Calculus I	
MATH 234	Calculus for Business I	
Choose one Linear Algebra:		3
MATH 227	Linear Algebra for Data Science	
MATH 257	Linear Algebra with Computational Applications	
Business Administration Specialization (choose one of the four specializations below)		**12**
Information Systems Specialization:		
BADM 350	IT for Networked Organizations	3
BADM 351	Social Media Strategy	3
BADM 352	Database Design and Management	3
BADM 353	Info Sys Analysis and Design	3
International Business Specialization:		
BADM 380	International Business	3
BADM 381	Multinational Management	3
BADM 382	International Marketing	3
BADM 383	Topics in International Business	3
Management Specialization:		
BADM 311	Leading Individuals and Teams	3
BADM 312	Designing and Managing Orgs	3
BADM 313	Strategic Human Resource Management	3
BADM 314	Leading Negotiations	3
Operations Management Specialization:		
BADM 374	Management Decision Models	3

BADM 375	Operations Strategy	3
BADM 377	Project Management	3
BADM 379	Business Process Improvement	3

Meaningful Research or Discovery Experience

Code	Title	Hours
One of the most important skills a student will gain in a BUS+ DS degree will be the ability to present data in meaningful ways. A meaningful research and experience is as much a pillar of this degree program as both the core coursework and the area of specialization. This capstone experience can be fulfilled through BUS 301. This course is an active learning, real-client experience that will allow students to join their data science skills with their business skills.		
Total Hours		3

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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. For more information 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
BUS 101	3
ECON 102	3
STAT 107	4
Composition I or CMN 101	4
Language Other Than English (3rd level)	4
	18

Total Hours 18

First Year

Second Semester	Hours
ECON 103	3
MATH 234, 220, or 221	4
FIN 221	3
CMN 101 (or Composition I)	3
General Education course	3
	16

Total Hours 16

Second Year

First Semester	Hours
BUS 201	3
ACCY 201	3
BADM 310	3
General Education course	3
General Education course	3
	15

Total Hours 15

Second Year

Second Semester	Hours
ACCY 202	3
MATH 227 or 257	3
BADM 320	3
General Education course	3
General Education course	3
	15

Total Hours 15

Third Year

First Semester	Hours
BUS 301	3
BADM 275	3
STAT 207	4
BADM 300	3
BADM Specialization	3
	16

Total Hours 16

Third Year

Second Semester	Hours
CS 277	4
IS 467	3
BADM Specialization	3
General Education course	3
General Education course	3
	16

Total Hours 16

Fourth Year

First Semester	Hours
BUS 401	3
CS 307	4
BADM Specialization	3
General Education course	3
General Education course	3
	16

Total Hours 16

Fourth Year

Second Semester	Hours
BADM 449	3
IS 477	3
BADM Specialization	3
General Education course	3
	12

Total Hours 12

Total Hours: 124

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The learning objectives related to student learning outcomes includes competence in selected concentration, data science, critical thinking, group work, communication. These outcomes are mapped to questions concerning student ability to use data analytics and problem solving to effectively understand real-world business issues, problem analysis and articulating conclusions, assuming leadership roles, grasp of international complexities effect business and data science.

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Gies College of Business

College website (https://giesbusiness.illinois.edu/undergraduate-hub/majors-and-minors/gies-and-data-science/)

Office of Undergraduate Programs

1055 Business Instructional Facility
515 East Gregory Drive
Champaign, IL 61820
(217) 333-2740

Gies Office of Undergraduate Programs webpage (https://giesgroups.illinois.edu/oua/welcome/)
undergrads@business.illinois.edu

Advising

Undergraduate Advising website (https://giesgroups.illinois.edu/advising/home/)
(217) 333-2740
undergrads@business.illinois.edu

Admissions

College Undergraduate Admissions (https://giesbusiness.illinois.edu/undergraduate-hub/admissions/)
University of Illinois Urbana-Champaign Undergrad Admissions (https://www.admissions.illinois.edu/)
admissions@illinois.edu