

Artificial Intelligence and Business Administration, BS (Boston)

The artificial intelligence and business administration combined major integrates a technical degree with the theory and practice of management through active learning, problem-driven research, corporate partnerships, and experiential assignments. Students study the collection, manipulation, storage, retrieval, and computational analysis of data in its various forms, including numeric, textual, image, and video data from small to large volumes. This program reflects the impact of data and machine learning in modern business practice.

Program Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified and complete any additional courses needed beyond specific college and major requirements to satisfy graduation credit requirements.

Universitywide Requirements

All undergraduate students are required to complete the Universitywide Requirements (<https://catalog.northeastern.edu/undergraduate/university-academics/university-wide-requirements/>).

NUPath Requirements

All undergraduate students are required to complete the NUPath Requirements (<https://catalog.northeastern.edu/undergraduate/university-academics/general-education-requirements/#nupathtext>).

Artificial Intelligence Courses

Code	Title	Hours
Computer Science Overview		
Must be taken in alignment with your home college:		
CS 1200	First Year Seminar	
or BUSN 1102	Personal Skill Development for Business	
or INPR 1000	First-Year Interdisciplinary Seminar	
CS 1210	Professional Development for Khoury Co-op	1
or BUSN 1103	Professional Development for Business Co-op	
Fundamental Courses		
All students can take a self-assessment to attempt to place out of CS 2000 and CS 2001. Students who place out of CS 2000 and CS 2001 will instead substitute 4-5 semester hours of CS, CY, or DS coursework at the 3000 level or higher not otherwise required in the degree.		
CS 1800	Discrete Structures	4
CS 2000 and CS 2001	Introduction to Program Design and Implementation and Lab for CS 2000	5
CS 2100 and CS 2101	Program Design and Implementation 1 and Lab for CS 2100	5
CS 3200	Introduction to Databases	4
DS 3500	Advanced Programming with Data	4
Artificial Intelligence Foundations		
DS 3000	Mathematical Foundations of Artificial Intelligence	4
DS 4200	Information Presentation and Visualization	4
DS 4300	Large-Scale Information Storage and Retrieval	4
DS 4400	Machine Learning	4
DS 4420	Advanced Machine Learning	4
Khoury Approved Electives		
With advisor approval, directed study, research, project study, and appropriate graduate-level courses may also be taken as upper-division electives.		
Complete 4 semester hours from within the following options:		4
CS 2300 or higher, except CS 5010		
CY 2000 or higher, except CY 4930		
DS 2500 or higher, except DS 4900		
EECE 2160	Embedded Design: Enabling Robotics	

EECE 2322 and EECE 2323	Fundamentals of Digital Design and Computer Organization and Lab for EECE 2322
MKTG 4606	Digital, Analytics, Technology, and Automation Research Practicum

Business Courses

Code	Title	Hours
Required Business Courses		
ACCT 1201	Financial Accounting and Reporting	4
ACCT 2301	Profit Analysis for Managers and Advisors	4
FINA 2201	Financial Management	4
INTB 1203	International Business and Global Social Responsibility	4
MKTG 2201	Introduction to Marketing	4
ORGB 3201 or ORGB 3203	Organizational Behavior Behavioral Aspects of Digital Transformation	4
Business Elective		
Complete one of the following:		4
INNO 2301	Innovation!	
MISM 2301	Introduction to Information Systems and Digital Technologies	
SCHM 2301	Supply Chain and Operations Management	
STRT 4501	Strategy in Action	

Supporting Courses

Code	Title	Hours
Mathematics		
MATH 1341 or MATH 1231 or MATH 1241 or MATH 1245 or MATH 1340	Calculus 1 for Science and Engineering Calculus for Business and Economics Calculus 1 Calculus with Applications Intensive Calculus for Engineers	4
Statistics		
MGSC 2301	Business Statistics	4
Economics		
ECON 1115 or ECON 1116	Principles of Macroeconomics Principles of Microeconomics	4

Integrative Course

Code	Title	Hours
MKTG 4604	Creating Business Value with Data and AI Technologies	4

Business Concentration

Complete at least one business concentration from the following list.

- Accounting (<https://catalog.northeastern.edu/undergraduate/business/concentrations/accounting/>)
- Accounting and Advisory Services (<https://catalog.northeastern.edu/undergraduate/business/concentrations/accounting-advisory-services/>)
- Brand Management (<https://catalog.northeastern.edu/undergraduate/business/concentrations/brand-management/>)
- Corporate Innovation (<https://catalog.northeastern.edu/undergraduate/business/concentrations/corporate-innovation/>)
- Entrepreneurial Startups (<https://catalog.northeastern.edu/undergraduate/business/concentrations/entrepreneurial-startups/>)
- Finance (<https://catalog.northeastern.edu/undergraduate/business/concentrations/finance/>)
- Fintech (<https://catalog.northeastern.edu/undergraduate/business/concentrations/fintech/>)
- Healthcare Management and Consulting (<https://catalog.northeastern.edu/undergraduate/business/concentrations/healthcare-management-consulting/>)
- International Business (<https://catalog.northeastern.edu/undergraduate/business/concentrations/international-business/>) (available only as a second concentration)
- Management (<https://catalog.northeastern.edu/undergraduate/business/concentrations/management/>)

- Marketing (<https://catalog.northeastern.edu/undergraduate/business/concentrations/marketing/>)
- Marketing Analytics (<https://catalog.northeastern.edu/undergraduate/business/concentrations/marketing-analytics/>)

Note: If the Marketing Analytics concentration is selected, an additional general elective is required.

- Social Innovation and Entrepreneurship (<https://catalog.northeastern.edu/undergraduate/business/concentrations/social-innovation-entrepreneurship/>)
- Supply Chain Management (<https://catalog.northeastern.edu/undergraduate/business/concentrations/supply-chain-management/>)

Writing Requirement

Code	Title	Hours
College Writing		
ENGW 1111	First-Year Writing	4
Advanced Writing in the Disciplines		
ENGW 3302	Advanced Writing in the Technical Professions	4
or ENGW 3304	Advanced Writing in the Business Administration Professions	
or ENGW 3315	Interdisciplinary Advanced Writing in the Disciplines	

Required General Electives

Code	Title	Hours
Complete 16 semester hours of general electives.		16

Business Experiential Learning

Code	Title	Hours
Complete at least one of the following experiences:		0-8
BUSN 4945	Experiential Professional Practicum	
COOP 3945	Co-op Work Experience	
COOP 3946	Co-op Work Experience—Half Time	
COOP 3947	Co-op Work Experience Abroad—Half Time	
COOP 3948	Co-op Work Experience Abroad	
EEBA 2945	Internship Experience	
EEBA 2948	Internship Experience Abroad	

Business GPA Requirement

Minimum 2.000 GPA required in business courses

NUpath Requirements Satisfied

- Advanced Writing in the Disciplines
- Analyzing and Using Data
- Conducting Formal and Quantitative Reasoning
- Demonstrating Thought and Action in a Capstone
- Engaging with the Natural and Designed World
- Ethical Reasoning
- Interpreting Culture
- Understanding Societies and Institutions
- Writing in the First Year
- Writing-Intensive in the Major

Integrating Knowledge and Skills Through Experience is satisfied through co-op.

Program Requirement

130 total semester hours required