

# BUSINESS MANAGEMENT MAJOR: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING OPTION (B.S.)

<https://www.unh.edu/program/bachelor-science/business-management-artificial-intelligence-machine-learning>

## Description

The Bachelor of Science degree in Business Management offers students the appropriate breadth and depth of study with a concentration of five courses to pursue other areas of interest in management.

The degree is responsive to the education needs of businesses and includes an appropriate foundation for further graduate study. The outcomes-based program is built upon a foundation of six essential competencies that are integrated throughout the curriculum: critical thinking, effective oral and written communication, applied quantitative analysis, managing in a global environment, ethical practice, and leadership.

## Requirements

### Degree Requirements

**Minimum Credit Requirement:** 120 credits

**Minimum Residency Requirement:** 30 credits must be taken at UNH

**Minimum Cumulative GPA:** 2.0 is required for conferral\*

**Core Curriculum Required:** General Education Program

Major, Option and Elective Requirements as indicated.

\*GPA: Major and any state certification GPA requirements may be higher and are indicated in program details.

A minimum grade of C- is required in all Major coursework. Some programs may have higher grade requirements for Major coursework as noted in the Major requirements section below. Students are allowed a maximum of two course overlaps. Overlaps can be used between Major, Minor, and General Education requirements with only 8 credits overlapped between the Major and Minor. Please note that Option requirements are considered part of the Major. Students must complete 16 upper-level credits in majors within the College of Professional Studies, Online.

### General Education Program Requirements

A minimum grade of D- is required in all General Education coursework. Students are allowed a maximum of two course overlaps. Overlaps can be used between Major, Minor and General Education requirements with only 8 credits overlapped between the Major and Minor.

All General Education requirements must be taken prior to the capstone.

Code	Title	Credits
ENG 420	The Writing Process	4
COM 460	Interpersonal Communication and Group Dynamics	4

COM 480	Visual Communication	4
CRIT 501	Introduction to Critical Inquiry	4
Select one of the following:		4
MTH 402	Math for Our World	
MTH 504	Statistics	
MTH 510	Pre-Calculus	
Knowledge of Human Behavior & Social Systems		4
Knowledge of the Physical & Natural World		4
Knowledge of Human Thought & Expression		4
CRIT 602	Advanced Critical Analysis and Strategic Thinking	4
IDIS 601A	Interdisciplinary Seminar: Being Happy	4
or IDIS 601B	Interdisciplinary Seminar: Business of Beer	
or IDIS 601C	Interdisciplinary Seminar: Paranormal Activities	
<b>Total Credits</b>		<b>40</b>

## Writing Program Requirements

All bachelor's degree candidates are required to complete four writing intensive courses as part of the University [Writing Program Requirements](#) as follows:

Code	Title	Credits
ENG 420	The Writing Process	
One Writing Intensive course in the Major		
One Writing Intensive course at the 600-level or above		
One Additional Writing Intensive Course		

*Writing Intensive courses are identified with the label "Writing Intensive Course" in the "Attributes" section of the course description and/or a W following the course number.*

## Major Requirements

Prior to capstone enrollment, students are expected to complete all General Education program requirements. Students should consult with their advisor regarding specific major courses that may be completed with their capstone. Refer to the Degree Plan for a sample course sequence. Academic Advisor approval is required for registration to be processed.

Code	Title	Credits
<b>Major in Business Management</b>		
<i>Foundational Courses</i>		
APST 405	Career Development and Planning	2
CMPL 402	Excel	2
MGMT 410	Principles of Management	4
MTH 504	Statistics	4
<i>Intermediate Courses</i>		
ACCT 532	Financial Accounting	4
or MGMT 569	Budget Management	
<i>Advanced Courses</i>		
Select three of the following:		12
CMPL 643	Managing Information Technology	
ECO 470	Principles of Economics	
HRM 420	Human Resource Management	
MGMT 625	Legal and Ethical Issues in Business Management	
MKT 510	Principles of Marketing	
OPS 600	Operations Management	
<i>Option in Artificial Intelligence and Machine Learning</i>		
CMPL 570	Foundations of AI: A Business Perspective	4
CMPL 572	Foundations of Machine Learning	4
CMPL 610	Artificial Intelligence for Information Technology Professionals	4
CMPL 618	Mathematics for AI and Machine Learning	4
CMPL 750	Programming for AI with Python	4
<i>Integrative Capstone</i>		
MGMT 795	Integrative Capstone: Industry-Based Internship	4
or MGMT 797	Integrative Capstone: Industry-Based Project	

or MGMT 798	Integrative Capstone: Strategic Management Experience
<b>Total Credits</b>	<b>52</b>

## Electives

Open electives are courses students will need to take in addition to their general education and major requirements in order to satisfy the remaining credit totals for their programs. Open electives are defined as any credit course offered by the College not already included in the student's general education, major, option or minor. Students will need 120 credits total to graduate with a bachelor's degree from the Online Division of the College of Professional Studies.

## Degree Plan

This degree plan is a sample and does not reflect the impact of transfer credit or current course offerings. UNH CPS Online undergraduate students should develop individual academic plans with their academic advisor during their first year at UNH.

### Sample Course Sequence

#### First Year

Fall		Credits
APST 405	Career Development and Planning	2
CMPL 402	Excel	2
ENG 420	The Writing Process	4
MTH 402	Math for Our World	4
General Education Course		4
<b>Credits</b>		<b>16</b>

#### Spring

COM 460	Interpersonal Communication and Group Dynamics	4
CRIT 501	Introduction to Critical Inquiry	4
MGMT 410	Principles of Management	4
Elective		4
<b>Credits</b>		<b>16</b>

#### Second Year

Fall		Credits
COM 480	Visual Communication	4
MTH 504	Statistics	4
ECO 470	Principles of Economics	4
or HRM 420	or Human Resource Management	
or MKT 510	or Principles of Marketing	
or CMPL 643	or Managing Information Technology	
or MGMT 625	or Legal and Ethical Issues in Business Management	
or OPS 600	or Operations Management	
General Education Course		4
<b>Credits</b>		<b>16</b>

#### Spring

ACCT 532	Financial Accounting	4
or MGMT 569	or Budget Management	

HRM 420	Human Resource Management	4
or ECO 470	or Principles of Economics	
or MKT 510	or Principles of Marketing	
or CMPL 643	or Managing Information Technology	
or MGMT 625	or Legal and Ethical Issues in Business Management	
or OPS 600	or Operations Management	

Elective		4
CMPL 570	Foundations of AI: A Business Perspective	4
<b>Credits</b>		<b>16</b>

#### Third Year

##### Fall

CRIT 602	Advanced Critical Analysis and Strategic Thinking	4
CMPL 643	Managing Information Technology	4
or ECO 470	or Principles of Economics	
or HRM 420	or Human Resource Management	
or MKT 510	or Principles of Marketing	
or MGMT 625	or Legal and Ethical Issues in Business Management	
or OPS 600	or Operations Management	

CMPL 572	Foundations of Machine Learning	4
Elective		4
<b>Credits</b>		<b>16</b>

##### Spring

General Education Course		4
CMPL 610	Artificial Intelligence for Information Technology Professionals	4
CMPL 618	Mathematics for AI and Machine Learning	4
Elective		4
<b>Credits</b>		<b>16</b>

#### Fourth Year

##### Fall

IDIS 601A	Interdisciplinary Seminar: Being Happy	4
or IDIS 601B	or Interdisciplinary Seminar: Business of Beer	
or IDIS 601C	or Interdisciplinary Seminar: Paranormal Activities	
CMPL 750	Programming for AI with Python	4
Elective		4
Elective		4
<b>Credits</b>		<b>16</b>

##### Spring

MGMT 795	Integrative Capstone: Industry-Based Internship	4
or MGMT 797	or Integrative Capstone: Industry-Based Project	
or MGMT 798	or Integrative Capstone: Strategic Management Experience	
Elective		4
<b>Credits</b>		<b>8</b>

<b>Total Credits</b>		<b>120</b>
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## Student Learning Outcomes

### Program Learning Outcomes

- Apply business management theories related to production and operations, organizational behavior, human resource management, and leadership throughout various functional areas of organizations.
- Communicate organizational information effectively across an organization through the use of information systems, to a broad spectrum of audiences and in a variety of business situations.
- Apply quantitative tools and information systems in business analysis and decision-making.
- Critically analyze, research and articulate organizational strengths and weaknesses in areas such as competitive advantage, operations, human resources, marketing, financial and strategic positioning.
- Make legal and ethical individual and business decisions based on legalities, evaluation of business sustainability (environmental, socio/cultural, economic, institutional) and ethical practice.
- Manage and lead to enhance the effectiveness of individuals, teams, and business organizations in a global environment.
- Design intelligent systems that solve real world problems through the use of artificial intelligence, machine learning principles, algorithm development, model training and evaluation, ethical considerations, data handling, and deployment strategies.