

Business Administration, B.S.

Degree Requirements

To receive the B.S. degree in Business Administration, students must complete at least 364 units, consisting of the requirements for the Business Foundations, Business Core, Concentration, Business Electives, University Core, and a Minor

Business Foundations

Mathematics	Units
21-120 Differential and Integral Calculus	10
or 21-111 Differential Calculus & 21-112 and Integral Calculus	
21-256 Multivariate Analysis	9
or 21-259 Calculus in Three Dimensions	
70-257 Optimization for Business	9
or 21-292 Operations Research I	
Economics	
73-102 Principles of Microeconomics	9
or 73-104 Principles of Microeconomics Accelerated	
73-103 Principles of Macroeconomics	9
73-230 Intermediate Microeconomics	9
or 73-240 Intermediate Macroeconomics	
Statistics	
70-207 Probability and Statistics for Business Applications	9
or 36-200 Reasoning with Data	
70-208 Regression Analysis	9
or 36-202 Methods for Statistics & Data Science	

Business Core

	Units
70-106 Business Science	9
70-110 Business Computing	9
70-122 Introduction to Accounting	9
70-311 Organizational Behavior	9
70-332 Business, Society and Ethics	9
70-340 Business Communications	9
70-345 Business Presentations	9
70-371 Operations Management	9
70-381 Marketing I	9
70-391 Finance	9
70-104 Business Leadership Endeavor I	3
70-204 Business Leadership Endeavor II	3
70-304 Business Leadership Endeavor III	3
70-401 Management Game	12
or 70-447 Client Consulting Project: Strategic Management of the Enterprise	

Concentration

Students must complete one concentration (p.) that allows them to gain knowledge and expertise in a particular area of business practice. For students electing to complete an additional major, the concentration requirement is waived (as is the minor requirement) and students must complete 27 units of business elective courses as part of the waived concentration requirement. Concentration courses cannot double-count with any other degree requirement including the minor requirement.

- Accounting
- AI and Business

- Business Analytics and Technologies
- Entrepreneurship
- Finance
- Global Economics and Business
- Islamic Business Management
- Marketing Management
- Operations Management
- Product Management
- Strategic Management

Business Electives

Students must complete 18 units of business electives. A business elective course is any Business course (70-3xx) that is not being used to satisfy another degree requirement. This can include 21-270 Introduction to Mathematical Finance and upper-level Economics courses (73-3xx and above). Business Electives cannot double-count with any other degree requirement, including the minor.

Minor

In order to obtain the degree, students must complete an academic minor. Students pursuing the business administration primary major are not permitted to complete the following minors: Business Administration, Business Analytics and Optimization, Financial Management, Product Management, and/or Operations and Supply Chain. For students electing to complete an additional major or dual degree, the minor and concentration requirements are waived and the student must complete 9 additional units of business elective coursework.

University Core

As part of all Tepper School undergraduate degrees, students must complete general education coursework in the liberal arts and sciences. These courses connect students to the vast array of academic disciplines offered at CMU and offer an opportunity for students to explore intellectual interests in new ways to meet their academic goals.

The University Core offers deliberative choice in selecting courses to meet the general education that aligns with university competencies. Students select courses from particular CMU departments and two courses as free electives. External transfer courses can be used to fulfill University Core Requirements 2-5.

University Core Requirement 1: CMU First Year Writing (9 units)

Semester Long Writing Course:

- 76-101 Interpretation and Argument
- 76-102 Advanced First Year Writing: Special Topics

OR Select 2 Mini Writing Courses:

- 76-106 Writing about Literature, Art and Culture
- 76-107 Writing about Data
- 76-108 Writing about Public Problems

University Core Requirement 2: Scientific Reasoning (9+ units)

- Any Biological Sciences course 03-100 or higher
- Any Chemistry course 09-100 or higher
- Any Computational Biology course 02-100 or higher
- Any Computer Sciences course 15-100 or higher
- Any Physics course 33-100 or higher
- Any Psychology course 85-102 or higher
- Any Robotics course 16-100 or higher

University Core Requirement 3: Information Literacy (9+ units)

- Any Philosophy course 80-100 or higher
- Any Information Systems course 67-100 or higher
- Any Social and Decision Science course 88-100 or higher

University Core Requirement 4: Global, Cultural, and Diverse Perspectives (18+ units)

- Any History course 79-100 or higher
- Any English course 76-200 or higher
- Any Institute for Strategy and Technology course 84-001 or higher
- Any Languages, Cultures, and Applied Linguistics course 82-100 or higher

Please note that this requirement requires at least 18 units (two or more classes) to complete.

University Core Requirement 5: Free Electives (18+ units)

Any Carnegie Mellon academic course excluding Business (70-xxx), Economics (73-xxx), Physical Education (69-xxx), StuCo [Student-Led] (98-xxx), 21-270 Introduction to Mathematical Finance, or any other course within the primary major's curriculum requirements.

Core @ Carnegie Mellon

All undergraduate students are required to take 99-101 (<http://coursecatalog.web.cmu.edu/search/?P=99-101>) CORE @ Carnegie Mellon to graduate (completed during the first year).

Business Concentrations

The business concentration allows students to gain knowledge and expertise in a particular area of practice. The concentration coursework prepares students with the knowledge and skills for their career pursuits and completing a concentration is part of the business degree requirements. Students should consult with their academic advisor as they consider their business concentration selection.

Business concentrations require at least 36 units beyond the Business Core. Courses taken to meet concentration requirements are not allowed to double count toward any other BA degree requirements, including the minor requirement. Business concentrations may require prerequisites from courses outside the concentration.

Concentration Areas for Business Majors:

- Accounting (<http://coursecatalog.web.cmu.edu/schools-colleges/tepper/undergraduatebusinessadministrationprogram/business-administration-bs/#Accounting>)
- AI and Business (<http://coursecatalog.web.cmu.edu/schools-colleges/tepper/undergraduatebusinessadministrationprogram/business-administration-bs/#AI and Business>)
- Business Analytics and Technologies (<http://coursecatalog.web.cmu.edu/schools-colleges/tepper/undergraduatebusinessadministrationprogram/business-administration-bs/#Business Analytics and Technologies>)
- Entrepreneurship (<http://coursecatalog.web.cmu.edu/schools-colleges/tepper/undergraduatebusinessadministrationprogram/business-administration-bs/#Entrepreneurship>)
- Finance (<http://coursecatalog.web.cmu.edu/schools-colleges/tepper/undergraduatebusinessadministrationprogram/business-administration-bs/#Finance>)
- Global Economics and Business (<http://coursecatalog.web.cmu.edu/schools-colleges/tepper/undergraduatebusinessadministrationprogram/business-administration-bs/#Global Economics and Business>)
- Islamic Business Management ([http://coursecatalog.web.cmu.edu/schools-colleges/tepper/undergraduatebusinessadministrationprogram/business-administration-bs/#Islamic Business Management \(CMU-Q\)](http://coursecatalog.web.cmu.edu/schools-colleges/tepper/undergraduatebusinessadministrationprogram/business-administration-bs/#Islamic Business Management (CMU-Q)))
- Marketing Management (<http://coursecatalog.web.cmu.edu/schools-colleges/tepper/undergraduatebusinessadministrationprogram/business-administration-bs/#Marketing Management>)

- Operations Management (<http://coursecatalog.web.cmu.edu/schools-colleges/tepper/undergraduatebusinessadministrationprogram/business-administration-bs/#Operations Management>)
- Product Management (<http://coursecatalog.web.cmu.edu/schools-colleges/tepper/undergraduatebusinessadministrationprogram/business-administration-bs/#Product Management>)
- Strategic Management (<http://coursecatalog.web.cmu.edu/schools-colleges/tepper/undergraduatebusinessadministrationprogram/business-administration-bs/#Strategic Management>)

Concentration Coursework

Accounting

Required:

70-424 Corporate Financial and Sustainability Reporting

Choose 3 remaining courses from:

70-422 Managerial Accounting

70-427 Modern Banks: Strategy and Regulation

70-428 Financial Statement Analysis

70-498 Business Language Analytics: Mining Financial Texts and Graphs

AI and Business

Required:

70-445 Artificial Intelligence for Business Leaders

Choose 1 course:

70-317 AI, Innovation & Competitive Advantage

70-441 Intelligent Automation for Business Architects

70-389 Design Thinking with AI

Choose 1 course:

70-334 Ethics of Emerging Technologies

73-367 AI, Technology, and Work

Choose 1 course:

70-374 Data Mining & Business Analytics

70-467 Machine Learning for Business Analytics

70-498 Business Language Analytics: Mining Financial Texts and Graphs

Business Analytics and Technologies

Required, choose 1 from:

70-374 Data Mining & Business Analytics

70-467 Machine Learning for Business Analytics

Choose 3 remaining courses from:

70-374 Data Mining & Business Analytics

70-387 Strategy for High-Tech Products and Services

70-455 Data Management Fundamentals

70-458 Advanced Data Management

70-460 Mathematical Models for Consulting

70-467 Machine Learning for Business Analytics

70-469 End to End Business Analytics

70-498 Business Language Analytics: Mining Financial Texts and Graphs

73-366 Designing the Digital Economy

73-374 Econometrics II

Entrepreneurship

Required:

70-415 Introduction to Entrepreneurship

70-416 New Venture Creation

Choose 2 remaining courses from:

70-395 Funding Entrepreneurial Ventures

70-409 Innovation and Entrepreneurship in Emerging Markets

70-438 Commercialization and Innovation

70-443 Digital Marketing and Social Media Strategy

70-496 Venture Capital

49-300 Integrated Product Conceptualization

70-509 Independent Study in Entrepreneurship

Finance

Required:

70-492 Investment Analysis
70-495 Corporate Finance

Choose 2 remaining courses from:

70-337 Business of Blockchain
70-353 Financial Regulation in the Digital Age
70-388 Islamic Finance
70-398 International Finance
70-484 Data Science for Finance
70-493 Valuation and Financial Modeling
70-491 Private Equity
70-496 Venture Capital
70-497 Derivative Securities
70-498 Business Language Analytics: Mining Financial Texts and Graphs

Global Economics and Business

Required:

73-265 Economics and Data Science

Choose 1 course from:

73-347 Game Theory Applications for Economics and Business
73-421 Emerging Markets

Choose 2 remaining courses from:

70-398 International Finance
73-341 Managing through Incentives
73-354 Sports Economics
73-365 Firms, Market Structures, and Strategy
73-366 Designing the Digital Economy
73-427 Sustainability, Energy, and Environmental Economics

Islamic Business Management (CMU-Q)

Required:

70-388 Islamic Finance
73-369 Islamic Economics

Choose 2 remaining courses from:

70-342 Managing Across Cultures
70-409 Innovation and Entrepreneurship in Emerging Markets
73-421 Emerging Markets
70-492 Investment Analysis OR 70-495 Corporate Finance (students cannot complete both to fulfill the concentration)

**The Islamic Business Management concentration requires courses only available at CMU-Q.*

Marketing Management

Required:

70-481 Marketing Research

Choose 3 remaining courses from:

70-385 Consumer Behavior
70-387 Strategy for High-Tech Products and Services
70-443 Digital Marketing and Social Media Strategy
70-482 Pricing Strategy
70-483 Advertising and Marketing Communications
70-485 Brand Management

Operations Management

Required:

70-460 Mathematical Models for Consulting
70-471 Supply Chain Management

Choose 2 remaining courses from:

70-373 Sustainable Operations
70-422 Managerial Accounting

70-447 Client Consulting Project: Strategic Management of the Enterprise
70-462 Uncertainty and Risk Modeling
70-476 Service Operations Management
70-493 Valuation and Financial Modeling

Product Management

Required:

70-387 Strategy for High-Tech Products and Services
70-452 Introduction to Product Management

Choose 1 course from:*

05-391 Designing Human Centered Software
05-410 User-Centered Research and Evaluation
70-389 Design Thinking with AI

**For business majors with an HCII minor or additional major the requirement is waived and students are required to take 2 courses from 70-385, 70-443, 70-481, 70-482.*

Choose 1 course from:

70-385 Consumer Behavior
70-443 Digital Marketing and Social Media Strategy
70-481 Marketing Research
70-482 Pricing Strategy

Strategic Management

Required:

70-437 Strategic Management and Innovation

Choose 3 remaining courses from:

70-387 Strategy for High-Tech Products and Services
70-341 Team Dynamics and Leadership
70-342 Managing Across Cultures
70-385 Consumer Behavior
70-424 Corporate Financial and Sustainability Reporting