

Undergraduate Business Administration Program

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The Tepper School program in undergraduate business education is intended for students interested in an undergraduate management educational experience that is broad and based upon the liberal arts, quantitative studies and analytical reasoning as its foundation. Such a program is both intellectually strong and flexible enough to accommodate the interests of students with diverse, ranging from beginning a career to graduate study.

The curriculum is designed around a central core of courses in the liberal arts, the functional areas of business, economics, mathematics and computing course requirements. To this is added a requirement for in-depth study in one of the core functional business areas such as finance, information systems, marketing, entrepreneurship or manufacturing management. Finally, the curriculum requires all students to have a minor in the curricula of another college in order to obtain the additional breadth and flexibility that promotes confidence in one's knowledge and its benefits for a lifetime. We believe this curriculum structure is that needed for those who will be leaders in the globalizing business and political environment in which organizations of the future will pursue their goals.

Our curriculum prepares students to begin their professional careers in all areas of management and they do so in some of the world's leading service, manufacturing, and governmental organizations. Many go on to graduate study in law, economics, finance and policy studies at the leading universities in the world.

In addition to the major in business administration, we offer the opportunity for a minor or second major to students in other programs of the university. If you are seriously interested in management education in an environment that offers the best undergraduate experience, please contact the undergraduate business advisor in the Tepper School of Business.

Business Administration Major Requirements

To receive a degree in Business Administration, students must complete at least 364 units, consisting of three basic core sequences, as well as breadth, track and minor requirements.

These requirements break down as follows:

Functional Business Core	Units
70-100 Introduction to Business	9
70-122 Introduction to Accounting	9
70-201 Professional and Service Projects	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 Production/Operations Management	9
70-381 Marketing	9
70-391 Finance	9
70-401 Management Game	12
70-451 Management Information Systems	9
Total:	111

Economics Core	Units
73-100 Principles of Economics	9
73-150 Microeconomics	9
73-200 Macroeconomics	9
Total:	27

Mathematics/Computing Core Units	Units
15-100 Intro/Inter Programming	10
21-120 Differential and Integral Calculus	10
21-256 ¹ Multivariate Analysis and Approximation	9
21-257 ² Models and Methods of Optimization	9
70-207 Probability and Statistics	9
70-208 Regression Analysis	9
99-101/102 Computing @ Carnegie Mellon	3
Total:	59

¹ or 21-259 Calculus in 3D

² or 21-292 Operations Research

Breadth Requirements 63 Units

For a list of courses in each category, please see the Undergraduate Business Administration website: www.tepper.cmu.edu.

Required:

76-101 Interpretation and Argument
79-104 Introduction to World History

Science & Technology
Cognition, Choice & Behavior
Political & Social Institutions
Creative Production & Reflection
Cultural Analysis

A TOTAL OF SEVEN BREADTH COURSES IS REQUIRED.

Track Requirements 54 Units

A BA Track consists of a menu of courses (both required and elective) that the student must complete in order to obtain in-depth knowledge of a particular functional area of management expertise.

Tracks:

Computing and Information Technology
Entrepreneurship
Finance
General Management
Graphic Media Management
International Management
Manufacturing Management and Consulting
Marketing

Minor Requirement 54 Units

Students are required to complete a minor in another department. Students may select any minor offered at Carnegie Mellon to fulfill this requirement. Minors that blend well with the business curriculum include: Psychology, Statistics, Economics, Communication Design, and Political Science. Students should consult the catalog regarding the specific requirements of any minor and should meet with their advisor to discuss their choice.

Suggested Course Plan

What follows is a suggested course plan for BA students. Be careful to observe any pre- and co-requisite requirements for each course. These are given in the course descriptions found at the back of this catalog.

First Year		Units
	Fall	
21-120	Differential and Integral Calculus	10
70-100	Introduction to Business	9
73-100	Principles of Economics	9
76-101	Interpretation and Argument ³	9
xx-xxx	Breadth course	9
99-101/102	Computing @ Carnegie Mellon	3
		49
	Spring	
21-256	Multivariate Analysis and Approximation	9
73-150	Microeconomics	9
15-100	Intro/Inter Programming	10
79-104	Introduction to World History	9
xx-xxx	Breadth course	9
		46

³ 76-101 and 79-104 can switch semesters, but cannot be taken together.

Sophomore Year

Fall		Units
21-257 ⁴	Models and Methods of Optimization ⁷	9
70-122	Introduction to Accounting	9
70-207	Probability and Statistics	9
73-200	Macroeconomics	9
xx-xxx	Breadth course	9
		45
Spring		Units
70-208	Regression Analysis	9
70-311	Organizational Behavior	9
70-340	Business Communication	9
xx-xxx	Minor Course	9
xx-xxx	Breadth course	9

⁴ or 21-292 Operations Research, offered in spring semesters only

Junior Year

Fall		Units
70-371	Production and Operations Management	9
70-381	Marketing	9
70-391	Finance	9
70-451	Management Information Systems	9
xx-xxx	Breadth Course	9
		45
Spring		Units
70-332	Business, Society and Ethics	9
70-345	Business Presentations	9
70-451	Minor Course	9
70-xxx	Track Course	9
70-xxx	Track Course	9

Senior Year

Fall		Units
70-xxx	Track Course	9
70-xxx	Track Course	9
xx-xxx	Minor Course	9
xx-xxx	Minor Course	9
70-201	Service Project	9
		45
Spring		Units
70-401	Management Game	12
70-xxx	Track Course	9
70-xxx	Track Course	9
xx-xxx	Minor Course	9
xx-xxx	Minor Course	9

Total units required: 364

Bachelor of Science in Computational Finance

The Bachelor of Science in Computational Finance is an Intercollege Program. Students who pursue Computational Finance as their primary major may elect to have either the Mellon College of Science (MCS) or the Tepper School of Business (Tepper) as their home college. The coursework required for the major is the same in either case, with the exception of the breadth component requirement and those of the functional business core.

Tepper Students must complete the breadth requirements of the undergraduate business administration program. Additionally, they must complete the Functional Business Core. The complete sequence of courses for this major may be found in the Intercollege Programs section of the catalog.

Students who are thinking of the BSCF major should meet with an academic advisor in the Tepper School as soon as their interest is firm in order to make sure they are completing the correct sequence of courses.

Additional Major Requirements

Students may apply to be admitted to the study of an additional major in business administration in their junior year. Applications will be accepted two weeks prior to Spring & Fall Registration week.

The decision to accept a student into the additional major will be based upon a variety of factors including:

- An overall GPA of 3.25 or greater;
- Having completed or being currently enrolled in all of the mathematics & statistics, economics, and computing requirements of the business administration degree prior to submitting an application for admission to the additional major;
- The extent of completion of the business administration functional core course requirements;
- The availability of admission enrollment spaces in the graduating class year for which the student is applying.

Acceptance in the additional major is subject to the University policy which states that the ability to satisfy the requirements for an additional major cannot be guaranteed for any student and will be based upon course availability and the time the student is willing to invest to satisfy all of the requirements of the additional major. In some cases this might require more than 8 semesters of undergraduate study.

The student seeking an additional major in business administration is required to complete all of the requirements listed below without substitution:

Course Requirements**Mathematics and Statistics**

21-120	Calculus (or 21-111 and 21-112)
21-256	Multivariate Analysis and Approximation (or 21-259)
21-257	Models and Methods of Optimization (or 21-292 Operations Research)
70-207	Probability and Statistics (or 36-201 Statistical Reasoning)
70-208	Regression Analysis (or 73-226 Quantitative Economic Analysis)

Computing

99-101/102	Computing @ Carnegie Mellon
15-100/102	Programming Course

Economics

73-100	Principles of Economics
73-150	Microeconomics
73-200	Macroeconomics

Business

70-122	Introduction to Accounting
70-311	Organizational Behavior
70-332	Business, Society and Ethics
70-345	Business Presentations
70-371	Production/Operations Management
70-381	Marketing
70-391	Finance
70-451	Management Information Systems ⁵
70-401	Management Game ⁶
70-3xx/4xx	Electives (2)

⁵ Students in IS and CS must select a 70-4xx course from the Computing and Information Technology Track.

⁶ Students seeking an additional major in BA may not substitute 70-440 for 70-401.

Minor in Business Administration

The minor in business administration requires a total of 6 courses or 54 units of which two courses must be 70-381 Marketing and 73-100 Principles of Economics. The remaining 4 courses can be chosen from any offered in the department. Some of the most common choices that have been made are from the following list:

(A Total of 54 units or 6 courses):

70-381	Marketing
73-100	Principles of Economics
70-122	Introduction to Accounting
70-311	Organizational Behavior
70-371	Production/Operations Management
70-391	Finance
70-342	Managing Across Cultures
70-430	International Management
70-436	Corporate Social Responsibility
70-451	Management Information Systems ⁷
70-480	International Marketing
70-481	Market Research
70-483	Advertising and Marketing Communications
70-484	Direct Marketing

⁷ Students in IS and CS cannot take 70-451; they may select another 70-4xx course from the Computing and Information Technology track.

Some courses have prerequisites that might include specific mathematics or other BA courses. These may be found in the course descriptions and should be discussed with an advisor.

Students may declare the minor at any point after their freshman year by completing the minor declaration form. The form is available online at the Undergraduate Business Administration Website.

Minor in Supply Chain Management

(CIT Students Only)

The minor in Supply Chain Management is open only to students in the Carnegie Institute of Technology. The minor consists of business courses that are oriented towards problems encountered in the manufacturing and operations environments in which many engineering students begin their careers. It is especially well-suited for engineering students for these reasons. Given the increased interest by many companies in optimization, logistics, supply chain management and their effect on enhancing efficiency and reducing costs, this minor is particularly valuable to engineering majors.

Required:

70-371	Production/Operations Management
70-471	Logistics and Supply Chain Management
21-257	Models and Methods for Optimization, or
21-292	Operations Research I
70-460	Mathematical Models for Consulting, or
70-474	Quality Principles and Techniques

Business Administration Policies

Transfer Students

The undergraduate business administration program does not accept students for transfer admission from any academic institution outside of Carnegie Mellon University.

Current Carnegie Mellon University students who are in other colleges may seek to transfer into the undergraduate business administration program on a limited basis. Freshman students will not be considered for transfer until the spring term mid-semester grades for their first year of study have been posted.

All other students may apply for transfer by completing the transfer application that is found online in the undergraduate business program pages of the Tepper School website. Students may apply for transfer two times in each academic year at the mid-semester of the Fall and Spring terms. Successful transfer is limited by both space and academic performance criteria. Students may be denied transfer if their academic performance prior to seeking transfer indicates that they will be unable to complete degree requirements in a timely way or if they have serious academic performance deficiencies. No students whose academic performance would merit an academic action in the Tepper School will be permitted to transfer into the undergraduate business program.

Transfer of Course Credit

Students may receive credit for a maximum of three courses (27 units) of course work taken at other institutions and only provided they have received prior approval to take these courses for degree credit. Students seeking an additional major may only receive credit for a maximum of two courses (18 units) and those completing a minor may only receive credit for one course (9 units) through transferred credit. No transferred credit will be awarded for any course in which the grade received is less than a B. Transferred courses count only for credit and no grade from a transferred course will count toward the student's overall QPA.

Students receiving 36 units or more of AP/IB/Cambridge credit towards their degree requirements will not be eligible to transfer any additional coursework unless it is for an approved study abroad experience. Credit for college courses taken prior to enrolling at Carnegie Mellon will be at the discretion of the department.

No courses taken online will be accepted for transfer credit.

Pass/Fail

Students may use a maximum of 9 units Pass/Fail credit towards their graduation requirement.

Academic Advising

Students are required to meet with a Business Administration advisor at least once each semester to ensure that they are making normal progress towards their degree. An appointment for advising may be scheduled at any time by sending a request to uba@andrew.cmu.edu.

Dean's List

Students who receive a semester QPA of 3.50 or higher (with at least 45 factorable units and receiving no incompletes) will be placed on the Dean's List for that semester.

The College Honors Program

Students with outstanding records (minimum QPA of 3.75) and with at least 270 units of credit are invited to undertake an honor's thesis project under the direction of a faculty member for 18 units of credit. Students meeting these criteria are highly encouraged to consider the honor's thesis option. For more information about the honor's thesis, please see the course description for 70-500 or contact an advisor.

Graduation Requirements

In order to graduate with the Bachelor of Science in Business Administration, students must meet all requirements specified for the program with a cumulative QPA of at least 2.00.

Students must also meet all university residence requirements and all financial obligations to the university before being awarded a degree. It is the student's responsibility to make certain they meet all of the requirements for graduation by consulting with our advising staff on a regular basis.