

MANAGEMENT

Undergraduate Study

Bachelor of Science in Management (Course 15-1)

The Bachelor of Science in Management (<http://catalog.mit.edu/degree-charts/management-course-15-1>) provides students with an innovative business education that is comprehensive and flexible. Students begin with coursework that builds a strong foundation in probability and statistics, managerial communication, managerial psychology, microeconomics, and accounting. They augment this foundation by selecting two restricted electives in core business functions: finance, operations management, marketing, and strategy. Students then tailor the remainder of their program by selecting five electives that go into depth in an individualized concentration area. The Undergraduate Education Office and the Course 15 advisor provide guidance and approval for the concentration to ensure students achieve a coherent focus.

Bachelor of Science in Business Analytics (Course 15-2)

The Bachelor of Science in Business Analytics (<http://catalog.mit.edu/degree-charts/business-analytics-course-15-2>) program is for students with a strong interest and ability in math and computer science. Students learn techniques such as data modeling and analysis, optimization, and machine learning, so as to help businesses make improved decisions and design efficient processes. Electives provide the opportunity to learn additional methodologies, such as artificial intelligence, systems dynamics, and game theory; take advanced subjects in probability, statistics, and optimization; or study how analytics is applied in content areas such as operations, transportation, marketing, and finance. Students can also refine their skills in practice-based project courses.

Bachelor of Science in Finance (Course 15-3)

At the intersection of economics, strategy, and accounting, finance is about managing assets to keep markets and organizations operating. The Bachelor of Science in Finance (<http://catalog.mit.edu/degree-charts/finance-course-15-3>) is designed to train students for careers that focus on the theory and application of the tools of modern finance. The curriculum provides a theoretical foundation in managerial finance, corporate finance, and investments, and requires students to complete laboratory and communications subjects to ensure they have the ability to apply the tools of finance to industry. The restricted electives permit students flexibility to select the rest of their program from advanced topics in, and topics complementary to, finance.

Minor in Management

The Minor in Management provides undergraduates in other majors with an understanding of the business, human, and organizational dimensions of scientific and technological enterprise.

The minor consists of six subjects:

Required subjects

| | | |
|------------------------------|----------------------------------------------------|-------|
| 15.301 | People, Teams, and Organizations Laboratory | 12-15 |
| or 15.312 | Organizational Processes for Business Analytics | |
| 15.501 | Corporate Financial Accounting | 12 |
| Select one of the following: | | 9-15 |
| 15.417 | Laboratory in Investments | |
| 15.7611 | Introduction to Operations Management ¹ | |
| 15.8141 | Marketing Innovation | |
| 15.9001 | Competitive Strategy | |

Electives

| | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| Select any three Course 15 subjects other than Undergraduate Research Opportunities Program (UROP) and general-elective transfer credit. (Two six-unit subjects count as a single elective subject.) ² | 27-36 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|

Total Units **60-78**

¹ Subject has prerequisites that are outside of the program.

² 14.01 Principles of Microeconomics is also a permissible elective.

Minor in Business Analytics

The Minor in Business Analytics introduces data analysis techniques and their application to practical business problems. Its focus reflects the core content of the SB degree program in business analytics.

The minor consists of six subjects:

| | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|----|
| 15.053 | Optimization Methods in Business Analytics | 12 |
| 15.076 | Analytics for a Better World | 12 |
| 15.069 | Applied Probability and Statistics | 12 |
| or 14.30 | Introduction to Statistical Methods in Economics | |
| or 18.05 | Introduction to Probability and Statistics | |
| Select three additional subjects from a list of electives. (Consult Sloan Undergraduate Education Office regarding additional options.) At least two of the subjects must be from Course 15. Two six unit subjects count as one elective. | 27-36 | |

Total Units **63-72**

Electives

| | | |
|------------|--------------------------------------|----|
| 6.1200[[]] | Mathematics for Computer Science | 12 |
| 6.3900 | Introduction to Machine Learning | 12 |
| 6.4100 | Artificial Intelligence | 12 |
| 14.12 | Economic Applications of Game Theory | 12 |
| 14.15[[]] | Networks | 12 |

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|------------|--------------------------------------------------------------------------|----|
| 14.32 | Econometric Data Science | 12 |
| 15.0201[J] | Economics of Energy, Innovation, and Sustainability | 12 |
| 15.0251 | Game Theory for Strategic Advantage | 9 |
| 15.0341 | Econometrics for Managers: Correlation and Causality in a Big Data World | 9 |
| 15.037[J] | Energy Economics and Policy | 12 |
| 15.0621 | Data Mining: Finding the Models and Predictions that Create Value | 6 |
| 15.0711 | The Analytics Edge | 12 |
| 15.276 | Communicating with Data | 12 |
| 15.312 | Organizational Processes for Business Analytics | 12 |
| 15.6731 | Negotiation Analysis | 6 |
| 15.690 | Diversity as Discovery | 6 |
| 15.7611 | Introduction to Operations Management | 9 |
| 15.780 | Analytics of Operations Management | 12 |
| 15.8141 | Marketing Innovation | 9 |
| 15.8731 | System Dynamics: Tools for Solving Complex Problems | 9 |
| 15.874[J] | People and the Planet: Environmental Governance and Science | 9 |
| 18.06 | Linear Algebra | 12 |
| 18.Co6[J] | Linear Algebra and Optimization | 12 |
| 18.615 | Introduction to Stochastic Processes | 12 |
| IDS.012[J] | Statistics, Computation and Applications | 12 |

Minor in Finance

The Minor in Finance provides an understanding of the major areas of finance—corporate finance and investments. The minor will prepare students to understand and apply financial tools for different roles in financial industries or corporate finance positions.

The minor consists of five subjects:

Required Subjects

| | | |
|--------|---------------------------------|----|
| 15.417 | Laboratory in Investments | 15 |
| 15.418 | Laboratory in Corporate Finance | 15 |
| 15.501 | Corporate Financial Accounting | 12 |

Electives

| | | |
|-------------------------------------------|---------------------------------------------|----|
| Select two of the following: ¹ | | 18 |
| 15.4311 | Entrepreneurial Finance and Venture Capital | |
| 15.4331 | Financial Markets | |
| 15.4341 | Advanced Corporate Finance | |

| | | |
|--------------------|-------------------------------------------|-----------|
| 15.4371 | Options and Futures Markets | |
| 15.4451 | Mergers, Acquisitions, and Private Equity | |
| 15.5181 | Taxes and Business Strategy | |
| Total Units | | 60 |

¹ Consult the Sloan Undergraduate Education Office regarding additional options.

Interdepartmental (Non-Course 15) Students

Course 15 undergraduate subjects are open for WebSIS pre-registration or online registration. There is no bidding necessary for undergraduate subjects. All students who wish to take unrestricted Sloan graduate subjects should consult the MIT Sloan undergraduate website (<http://mitsloan.mit.edu/undergrad>) where the course schedule and course syllabi are most readily available for assistance in subject selection.

Inquiries

For additional information about these Course 15 undergraduate programs or about taking a Course 15 class, students are encouraged to visit or contact the Office of Undergraduate Education, Room E52-154 (Suite 133), 617-253-8614, and the MIT Sloan undergraduate website (<http://mitsloan.mit.edu/undergrad>).