

15-1 Concentrations

The requirements for the concentrations are:

- All concentrations are five subjects. Two six-unit subjects are counted as one subject.
- At least three full subjects must be from Course 15
- The subjects in the concentration should reflect a coherent, interrelated learning goal.
- **Think about how you would explain your concentration to someone during a job interview!**

An initial set of concentrations from the Classes of 2017-2019 are included along with additional sample concentrations. Individualized concentration proposals must be approved by the Undergraduate Education Office in consultation with the student's Course 15 advisor.

Declaring a Concentration:

Students have to indicate their concentration and the courses for their concentration by Spring of their Junior year. When you declare your 15-1 major, you can indicate your concentration or area of interest, but you do not need to. We are very open in that first meeting (and subsequent meetings) to discuss what a concentration may be or how to structure your interests into a coherent set of courses.

Concentrations and Restricted Electives:

The Restricted electives for the Management major are considered the foundations for deeper study in the concentrations. Restricted electives should help to inform students of which concentration they would be most interested in completing and how they should organize their subject choices within the concentration. **Subjects cannot count towards both the required number of Restricted Electives and required number of Concentration Electives.**

Restricted electives:

15.401, Managerial Finance or 15.417, Laboratory in Investments
15.7611 or 15.761, Introduction to Operations Management
15.8141 or 15.814, Marketing Innovation (formerly 15.812)
15.9001 or 15.900, Competitive Strategy

CONCENTRATIONS FROM THE CLASSES OF 2017 - 2019

(please note – you have flexibility in deciding the courses that can count toward a concentration.
This list should not be viewed as either comprehensive or absolute)

Organizational Analytics and Strategy

1.00, Engineering Computation and Data Science
15.053, Optimization Methods in Business Analytics
15.220 (1/2 class), New Models for Global Business
15.320, Strategic Organizational Design
15.665, Power and Negotiation
15.S74 (1/2 class), Strategies for People Analytics

Concentration Description: The above courses all center on analytics and strategy for working with and developing both people and organizations. My concentration has given me analytical skills and taught me organizational and coordination capabilities for working with teams, executing tasks, and solving problems.

Finance and Project Management

1.011, Project Evaluation and Management
15.054, The Airline Industry
15.418, Corporate Finance Laboratory
15.4311, Entrepreneurial Finance and Venture Capital
15.4451, Mergers, Acquisitions, and Private Equity

Concentration Description: My concentration aims to focus on the intersection of finance and large scale projects. As someone who is going to work in the finance industry and will be focusing on large scale transportation and infrastructure related projects, this concentration tailors my management education towards the intersection of those two fields.

Business Analytics

6.0001 (1/2 class), Introduction to Computer Science Programming in Python
6.0002 (1/2 class), Introduction to Computational Thinking and Data Science
15.053, Optimization Methods in Business Analytics
15.772, D-Lab: Supply Chains
15.780, Stochastic Models in Business Analytics
15.8141, Marketing Innovation

Concentration Description: My concentration has given me the technical, analytical, and communication skills to solve real-world problems and cases. Through my concentration, I have developed strong quantitative capabilities that will help me use data-driven approaches to create business value and apply them to my management consulting path.

Management in Health Care Innovations and Drug Development

1.011, Project Evaluation and Management
15.136, Principles and Practice of Drug Development
15.402, Corporate Finance
15.615, Essential Law for Business
17.30, Making Public Policy

Concentration Description: My concentration has given me leadership and management skills and taught me organizational and coordination capabilities for working with teams, executing tasks, and solving problems in a multi-disciplinary way spanning various disciplines from law to business to science.

Entrepreneurial Strategy and Innovation

6.036, Machine Learning

9.00, Introduction to Psychological Science

15.359, Innovation Engineering

15.3901, New Enterprises

15.S12 (1/2 class), Applied Behavioral Economics

15.S14 (1/2 class), Global Business of Artificial Intelligence and Robotics

Concentration Description: The combination of courses in my concentration has given me exposure to the fundamental concepts in entrepreneurship and innovation along with machine learning and AI, which is the specific area in which I hope to focus my entrepreneurial efforts.

Finance and Healthcare

15.402, Corporate Finance

15.4451, Mergers, Acquisitions, and Private Equity

15.777, Healthcare Lab

15.780, Stochastic Modeling for Business Analytics

15.951, Independent Study

Concentration Description: My concentration focuses on finance in the context of healthcare. My career interests are in the healthcare entrepreneurship and investment space. I believe investment is way to foster innovation from the ground-up (financing startups). Thus, I chose this concentration to learn about the finance toolkits and challenges in healthcare.

Product Development

2.009, The Product Engineering Process

6.0001 (1/2 class), Introduction to Computer Science Programming in Python

6.0002 (1/2 class), Introduction to Computational Thinking and Data Science

15.351 (1/2 class), Introduction to Making

15.376, Media Ventures

15.6181 (1/2 course), Entrepreneurship, Innovation, Startups and the Law

15.821 (1/2 class), Listening to the Customer

15.846 (1/2 course), Branding

Marketing

15.053, Optimization Methods in Business Analytics

15.570 (1/2 course), Digital Marketing and Social Media Analytics

15.665, Power and Negotiation

15.818 (1/2 course), Pricing

15.828, Product Management

15.835 (1/2 course), Entrepreneurial Marketing

15.846 (1/2 course), Branding

GUIDE for ADDITIONAL SAMPLE CONCENTRATIONS and COURSES THAT MAY FIT
(please note – you have flexibility in deciding the courses that can count toward a concentration.
This list should not be viewed as either comprehensive or absolute)

Business Analytics

1.00 or 1.000 or 6.0001&6.0002 or 6.01 (Computer Programming)
14.12, Economic Applications of Game Theory
15.0251/15.025, Game Theory for Strategic Advantage
15.0341/15.034, Metrics for Managers: Big Data and Better Answers
15.053, Optimization Methods in Business Analytics
15.0621/15.062, Data Mining: Finding the Data and Models that Create Value (half course)
15.068, Statistical Consulting
15.0711/15.071, The Analytics Edge
15.0741/15.074, Predictive Data Analytics and Statistical Modeling
15.276, Communicating with Data
15.570, Digital Marketing and Social Media Analytics (half course)
15.780, Stochastic Models
15.871, Introduction to System Dynamics (half course) or 15.873, System Dynamics for Business and Policy

Entrepreneurship

2.723J, Engineering Innovation and Design
3.086, Innovation and Commercialization of Materials Technology
6.933, Entrepreneurship in Engineering: The Founder's Journey
15.359J, Innovation Engineering: Moving Ideas to Impact
15.373J, Venture Engineering
15.3781, Building an Entrepreneurial Venture: Advanced Tools and Techniques
15.3901, New Enterprises
15.394, Dilemmas in Founding New Ventures
15.4311, Entrepreneurial Finance
15.6181, Law and Cutting Edge Technologies
15.911, Entrepreneurial Strategy

Finance

14.02, Principles of Macroeconomics or 15.012, Applied Macro- and International Economics (half course)
15.418, Laboratory in Corporate Finance or 15.402, Corporate Finance
15.4311, Entrepreneurial Finance
15.4331/15.433, Financial Markets
15.4341/15.434, Advanced Corporate Finance
15.4371/15.437, Options and Futures
15.460, Financial Engineering
15.466, Functional and Strategic Finance
15.487, Algorithmic Trading and Investment Strategies

15.5181/15.518, Taxes and Business Strategy
15.535, Business Analysis Using Financial Statements
15.617, Deals, Finance and the Law

Information Technology

1.00 or 1.000 or 6.0001&6.0002 or 6.01 (Computer Programming)
15.565J, Digital Evolution: Managing Web 3.0
15.320, Strategic Organizational Design
15.358, Software and Internet Entrepreneurship
15.376, Media Ventures
15.567, The Economics of Information: Strategy, Structure and Pricing
15.570, Digital Marketing and Social Media Analytics (half course)
15.571, Enterprise Transformations in the Digital Economy

Marketing

15.068, Statistical Consulting
15.392, Entrepreneurial Product Development and Marketing (half course)
15.570, Digital Marketing and Social Media Analytics (half course)
15.818, Pricing (half course)
15.821, Listening to the Customer (half course)
15.822, Strategic Market Measurement (half course)
15.828, Product Management
15.833, Business-to-Business Marketing (half course)
15.834, Marketing Strategy
15.835, Entrepreneurial Marketing (half course)
15.846, Branding (half course)
15.847, Consumer Behavior

Project Management

15.053, Optimization Methods
15.220, Global Strategy and Organization (half course)
15.276, Communicating with Data
15.318, Discovering Your Leadership Signature
15.320, Strategic Organizational Design
15.3901/15.390, New Enterprises
15.394, Dilemmas in Founding New Ventures
15.521, Management Accounting and Control
15.565J, Digital Evolution: Managing Web 3.0
15.665, Power and Negotiation or 15.6731, Negotiation Analysis (half course)
15.871, Introduction to System Dynamics (half course) or 15.873, System Dynamics for Business and Policy