Management

Master of Business Administration in Management of Technology

NJIT's MBA in the Management of Technology is designed to prepare a new generation of technology savvy business leaders. The curriculum integrates fundamental business knowledge with applications of technology to business to prepare students to think strategically about business and technology. The program is built upon four themes that are transforming business:

1. The use of data visualization, predictive modeling, data mining, forecasting simulation, to improve and influence business decisions.
2. The emergence of the technology-driven firm
3. The globalization of business; and
4. Innovation as the primary source of competitive advantage.

Concentration areas are offered in Management Information Systems, Marketing, Finance, Innovation and Entrepreneurship, and Custom.

Admission Requirements

Applicants to the MBA must submit complete transcripts of all undergraduate work and scores on the Graduate Management Admissions Test (GMAT).The GMAT is required of all applicants except those holding master's or doctoral degrees from an accredited U.S. university. Up to nine credits of graduate work may be transferred from another school, provided that they are not counted towards a terminal degree at that school.

Master of Science in Management

The Master of Science in Management is designed to allow students to build specialized knowledge in one of three concentration areas: Business Analytics, Global Project Management, and Financial Technology. Specialized knowledge is augmented with a 15 credit management core that provides the general knowledge needed to manage technical and specialized units.

Admission Requirements

Applicants to the MSM must submit complete transcripts of all undergraduate work and scores on the Graduate Management Admissions Test (GMAT).The GMAT is required of all applicants except those holding master's or doctoral degrees from an accredited U.S. university. Up to nine credits of graduate work may be transferred from another school, provided that they are not counted towards a terminal degree at that school.

NJIT Faculty

A

Anandarajan, Asokan, Professor

B

Bandera, Cesar, Associate Professor

Bonitsis, Theologos H., Associate Professor

C

Casal, Jose C., Senior University Lecturer

Caudill, Reggie, Professor Emeritus

Chakrabarti, Alok K., Distinguished Professor Emeritus

Chang, Ai Chih, Assistant Professor

Chen, Yi, Professor

Chou, Porchiung B., Senior University Lecturer

Cordero, Rene, Associate Professor Emeritus

E

Egbelu, Pius J., Distinguished Professor

Ehrlich, Michael A., Associate Professor

F

Fjermestad, Jerry L, Professor

Fox, Wayne, Senior University Lecturer

Fresneda Fernandez, Jorge, Assistant Professor

G

Gopalakrishnan, Shanthi, Professor

Gupta, Shubham, Assistant Professor

K

Kudyba, Stephan P., Associate Professor

L

Li, Jixing, Assistant Professor

Liu, Yanguang, Assistant Professor

M

Ma, Yue, Assistant Professor

Mehta, Rajiv, Professor

Micale, Joseph, Assistant Professor

P

Park, Jae, Assistant Professor

Punyatoya, Plavini, Assistant Professor

R

Rotter, Naomi G., Professor Emeritus

Roy, Raja, Associate Professor

Rudna, Olena, Senior University Lecturer

S

Schachter, Hindy L., Professor

Shi, Junmin, Professor

Somers, Mark, Professor

Sylla, Cheickna, Professor

T

Tamke, William, Senior University Lecturer

Tao, Xinyuan, Assistant Professor

Taylor, Ming, Assistant Professor

Thomas, Ellen J., Associate Professor

Tukel, Oya, Professor

U

Uddin, Ajim, Assistant Professor

W

Wang, Jinghua, Assistant Professor

Y

Yu, Dantong, Associate Professor

Z

Zhang, Haisu, Associate Professor

Zhang, Xi, Senior University Lecturer

Programs

- Management - M.S. (http://catalog.njit.edu/graduate/management/management/ms/)
- Management of Technology - M.B.A. (http://catalog.njit.edu/graduate/management/management/technology-mba/)

Business Data Science - Ph.D. (http://catalog.njit.edu/graduate/management/management/business-data-science-phd/)

Programs

- Business Analytics (http://catalog.njit.edu/graduate/management/management/business-analytics-cert/)
- Management Essentials (http://catalog.njit.edu/graduate/management/management/management-essentials-cert/)
- Management of Technology (http://catalog.njit.edu/graduate/management/management/management-of-technology-cert/)
- Innovation and Enterprenurship (http://catalog.njit.edu/graduate/management/management/innovation-and-enterprenurship-cert/)
- Management of Technology (http://catalog.njit.edu/graduate/management/management/management-of-technology-cert/)
- Mini-MBA (http://catalog.njit.edu/graduate/management/management/mini-nba-cert/)

NJIT Courses

MGMT 501. Management Foundations. 3 credits, 3 contact hours.
This course provides foundation knowledge for MSM and MBA students whose undergraduate coursework does not include coursework in accounting and finance. It therefore, serves as a pre-qualifier for the MSM and MBA programs.

MGMT 590. Coop Work Experience I. 1 credit, 1 contact hour.

MGMT 591. Coop Work Experience II. 1 credit, 1 contact hour.

MGMT 592. Coop Work Experience III. 1 credit, 1 contact hour.

MGMT 593. Coop Work Experience IV. 0 credits, 0 contact hours.
Prerequisites: One immediately prior 3-credit registration for graduate co-op work experience with the same employer. Requires approval of departmental co-op advisor and the Division of Career Development Services. Must have accompanying registration in a minimum of 3 credits of course work.

MGMT 610. Foundations of Management in Organizations. 3 credits, 3 contact hours.
Presented during the residence week for the Executive Program. Includes management accounting, managerial economics, statistics, operations research, marketing, MIS, and finance.

MGMT 620. Strategic Management of Technological Innovation. 3 credits, 3 contact hours.
The course is designed to meet the needs of managers and entrepreneurs who analyze new opportunities for value creation and capture through technological innovation. The building blocks of the course include an understanding of the various types of technological changes, patterns that emerging technologies follow during their evolution, and the unique challenges created by each type of technological change. The course discusses the role of technological innovations, including disruptive innovation, in creating new entrepreneurial opportunities and neutralizing the threats to value capture. The course wraps up with a discussion of the societal factors that affect entrepreneurial firms' efforts to create and capture value from new technological innovations.

MGMT 625. Distribution Logistics. 3 credits, 3 contact hours.
This course examines distribution logistics emphasizing techniques used to optimize corporate profit and customer service; transportation modes; inventory policies; warehousing and order processing; and the best logistics gross margin.

MGMT 630. Decision Analysis with Quantitative Modeling. 3 credits, 3 contact hours.
Introduction to the methodology of decision analysis using computer based techniques and systems analysis. Introduces concepts of modeling, probability, and choice. Addresses the philosophy and detailed methods involved in decision analysis. Methods are applied to address routine and special business decisions.

MGMT 635. Data Mining and Analysis. 3 credits, 3 contact hours.
This course provides an introduction to data mining with an emphasis on large scale databases as a source of knowledge generation and competitive advantage. Specific topics include: framing research questions; data modeling; inferential data mining techniques; and evaluation and deployment of data mining systems.

MGMT 640. New Venture Management. 3 credits, 3 contact hours.
This course is for the student who is considering starting or managing a new business. The course combines classroom instruction in business management and a term project involving the analysis of a business case study. The course is designed to build upon and integrate the student's previously acquired business knowledge and skills into an understanding of how to start and run a new business.

MGMT 641. Global Project Management. 3 credits, 3 contact hours.
The course reviews key elements of project management frameworks with a particular focus on global projects, which include people from various organizations working in different countries across the world, both face-to-face and virtually. Such projects vary in complexity based on the number of organizations, locations, cultures, languages and time-zones involved. It discusses people, technology and processes relevant to managing global projects and virtual teamwork.

MGMT 645. New Venture Finance. 3 credits, 3 contact hours.
This course is designed to provide students with an understanding of the problems and opportunities posed by financing and growing a technology-based business. Students will study financial conditions of the new businesses and examine the effect of growth upon cash flow while exploring optimal sources of capital.

MGMT 648. Distribution Channel Managemnt. 3 credits, 3 contact hours.
Prerequisite: MRKT 330 Utilizing a strategic perspective, this course augments the understanding of how a firm can effectively manage the distribution system or network of alliances among agents, wholesalers, distributors and retailers to attain a sustainable competitive advantage. This course focuses on developing and implementing strategies for planning, organizing and controlling the various external institutions, agencies as well as in-house units that ultimately deliver products and services to consumer and business-to-business markets. In addition to electronic channels, the topics studied in the distribution process include channel strategy, channel design, channel management, as well as the selection, motivation, and performance assessment of resellers.

MGMT 649. Convention, Creativity and Innovation. 3 credits, 3 contact hours.
This course explores the role of creativity and disruptive thinking in relation to the development of new products, processes, technologies and industries. It begins with a focus on the behavioral aspects of creativity and disruptive thinking and includes exercises and tools to challenge conventional thinking. Disruption is then studied through a strategic lens with an emphasis on understanding the conditions under which radical change is appropriate and when it is not.

MGMT 650. Knowledge Management. 3 credits, 3 contact hours.
Students will learn the principles of the knowledge management process. At the end of the course, students will have a comprehensive framework for designing and implementing a successful knowledge management effort and be able to assist in the development of knowledge.

MGMT 654. Management Consulting. 3 credits, 3 contact hours.
Management Consulting is a course that examines the business of management consulting beginning with the use of management consultants and the basic economics of their business. It then builds on this initial foundation to explore in depth the development of strategic consulting that spans a wide range of topics, businesses and functional organization issues in both a domestic and international economic and institutional context.

MGMT 655. Global Competitiveness. 3 credits, 3 contact hours.
Improves knowledge of the issues involved in international business operations and their management. Develops skills in selecting key issues and familiarization with emerging methods for organizing and managing international operations. Emphasis will be on companies with technological, product, production, or design focus.

MGMT 656. Public Policy and Business. 3 credits, 3 contact hours.
This course explores the relationship between business and government with a focus on regulatory policies and public/private partnerships. Areas of focus include sustainability and environmental regulations, trade policies and their influence on international commerce, public policy concerning the Internet and emerging digital technologies, patent rights, and opportunities for public/private partnerships with regard to fostering economic development.

MGMT 660. Managing Supply and Value Chains. 3 credits, 3 contact hours.
This course is focused on the flow of products, information and revenue across supply and value chains in organizations. Special emphasis is placed on emerging e-business models and their effects on supply and value chains, and customer relationship management. The course also includes a survey of relevant information technologies.

MGMT 670. International Business. 3 credits, 3 contact hours.
Covers the scope and the essential characteristics of international business in the world economy; MNEs as economic, political, and social institutions; national and international control; functional management and operations; country evaluation; and regional market analysis.

MGMT 680. Entrepreneurial Strategy. 3 credits, 3 contact hours.
For the student who is considering starting and/or managing a new business. Integrates knowledge of the different aspects of business that have been learned as separate subjects. Provides an understanding of the decisions that guide the overall operations of an entrepreneurial business organization and how it interacts with its markets, competitors, and suppliers. Combines classroom instruction in business strategy along with case analysis of small firms. Should be taken in the last semester of the program, unless prior arrangement has been made with the instructor or the graduate advisor. Taken in the final semester only.

MGMT 682. Business Research Methods I. 3 credits, 3 contact hours.
A comprehensive introduction to business research methods covering the fundamental concepts of problem definition and the research process including quantitative and qualitative research, survey research, observation methods and experimental research methods. The course also covers data analytics, including advanced descriptive and predictive analysis models, involving inferential statistics, regression and correlation analyses and non-parametric methods. The course emphasizes problem solving using advanced quantitative software tools such as SPSS, Minitab, SAS, Matlab, Python and R. Students will be required to work on business research case studies and projects involving the collection and/or treatment of large data sets, as well as to develop research constructs and hypotheses and to write and present reports documenting research findings and recommendations.

MGMT 685. Operations Research and Decision Making. 3 credits, 3 contact hours.
Introduces the concepts of objective functions and constraints, concepts of value and utilities, optimization algorithms, networks, and game theory. Covers models of linear programming, inventory systems, multi-criteria decision-making, project management, and transportation planning. Topics discussed from probabilistic and deterministic approaches.

MGMT 686. Corporate Governance. 3 credits, 3 contact hours.
Presents inter-disciplinary perspectives on the rights, responsibilities and roles of the corporation in society. Focuses on the relationships among owners, managers, and other stakeholders. Analyzes corporate control mechanisms including ownership concentration, executive compensation, boards of directors, and the market for corporate control. Includes changes in political/legal/regulatory institutional environments over time, and develops a comparative international framework.

MGMT 688. Internet Law and Policy Issues. 3 credits, 3 contact hours.
Includes historical and constitutional foundations, crimes, and torts in cyberspace, virtual property (patents online, copyrights in digital information, trade secrets in cyberspace, and cybermarks), electronic commerce contracting, electronic commerce, electronic money and the law, and information technology and online infringement of rights of intellectual property.

MGMT 691. Legal and Ethical Issues in a Digital World. 3 credits, 3 contact hours.
Explores the legal and ethical responsibilities of managers. Analyzes the extent to which shareholders should be allowed to exercise their legitimate economic, legal, and ethical claims on corporate managers; the extent of regulation of a particular industry, individual rights of the employee and various corporate interests, corporate responsibility to consumers, society, conservation of natural resources and the environment, and global intellectual property rights.

MGMT 692. Strategic Management. 3 credits, 3 contact hours.
Prerequisites: Completion of 18 credits in the MBA curriculum including ACCT 615, FIN 600, HRM 601 and MRKT 620. This course focuses on the Strategic Integration of the different functional areas in management providing a top management perspective to the role of chief executive in an organization. An integral part of this course is to understand the roles of both competitive environment and the organization's experience in developing corporate strategy to gain competitive advantage. We also emphasize ethical issues related to corporate strategies.

MGMT 699. ST in Management. 3 credits, 3 contact hours.
The study of new and/or advanced topics in the various fields of business and their application not regularly covered in any other business course.

MGMT 710. Forecasting Methods for Business Decisions. 3 credits, 3 contact hours.
Covers the application of forecasting techniques to various phases of business and management decision making. Topics include forecasting with cyclical and seasonal series; Box-Jenkins modeling; regression modeling; use of stochastic models; and the linkage of management forecasts to macro forecasts. Actual models in use will be reviewed and evaluated.

MGMT 725. Independent Study. 3 credits, 3 contact hours.
This is a self guided independent course where the student works closely with a faculty member to study selected topics in management.

MGMT 726. Independent Study II. 3 credits, 3 contact hours.

MGMT 735. Deep Learning in Business. 3 credits, 3 contact hours.
Prerequisites: FIN 620 or instructor's approval or advanced graduate standing. This course provides an in-depth study of data mining and machine learning, with a focus on business applications. As the business market becomes increasingly complicated and depends on data, analysts and fund managers must make better and faster decisions using available data. Data mining and machine learning make use of powerful tools and techniques to unlock the value inherent in available market data and routinely help managers uncover hidden patterns and correlations in data and gain insights to improve the decision-making in the market. The course is practice-oriented and develops the required skills to apply machine learning in the stock market and other business areas. Students will better understand the techniques for data mining and machine learning as well as gain hands-on knowledge of the contemporary analysis tools of data mining and machine learning. The course will enable students to better understand the major concepts, approaches, and techniques for data mining and machine learning. The included learning material provides adequate technical depth for students to know how data-driven technologies work. Coverage includes data mining and machine learning processes, methods, and techniques; the role and management of data; tools and metrics; and integration with Big Data.

MGMT 740. Innovation & Entrepreneurship. 3 credits, 3 contact hours.
Prerequisites: MGMT 640 (or equivalent) or permission of instructor. This course is designed to introduce the Ph.D. students to the extensive literature in innovation and entrepreneurship. The course builds on the early works by economists and sociologists, and progresses towards the most recent research. By discussing the early works and latest research, the course explores extant knowledge in Innovation and Entrepreneurship, the boundary conditions of the theories in Innovation and Entrepreneurship, and the possible avenues for future research.

MGMT 782. Business Research Methods II. 3 credits, 3 contact hours.
Prerequisites: MGMT 682. This course focuses on the application of quantitative methods to address business research questions. An overview of the state-of-the-art quantitative methods in business is provided, including their major areas of application, context, proper "tuning," and limitations. Beyond this, the course will also cover other relevant topics in business data science research, such as ethics, privacy, reliability, and data quality issues.