

Martin Tuchman School of Management New Jersey Institute of Technology

# MASTER OF BUSINESS ADMINISTRATION IN MANAGEMENT TECHNOLOGY (MBA)

# MARTIN TUCHMAN SCHOOL OF MANAGEMENT CURRICULUM COURSES

MARCH 2020

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Modes of Instructional Delivery for classes offered at MTSM	
FF : Face to Face DL : Distance Learning	

Hy: Hybrid (Combines Face to Face and Distance Learning)

OMBA : Online MBA Program Students Only



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# MASTER OF BUSINESS ADMINISTRATION IN MANAGEMENT TECHNOLOGY (MBA)

# MARTIN TUCHMAN SCHOOL OF MANAGEMENT

#### **CURRICULUM COURSES**

**MARCH 2020** 

#### MODULE I

#### ACCT 615 - Management Accounting

**Description:** Builds on traditional concepts of managerial accounting (break-even analysis, alternate choice decisions, profit planning, and transfer pricing) and develops the skills that an executive needs in strategic cost analysis. Explores strategic decisions of value chains and activity-based management. Emphasis on using managerial accounting data in executive planning and control.

Credits: 3 creditsContact Hours: 3 contact hoursPrerequisites: NoneTechnology: Excel

#### ECON 610 - Managerial Economics

**Description:** This course covers the role of economic theory in management analysis and decisions. The study of demand, cost, and supply theories from a business viewpoint are also covered. This course is about economic principles and their relevance to business decision- making. The course examines the interaction of information, economic incentives and market competition and how these interact to determine prices, products available, profits, and patterns of trade and organization. **Credits:** 3 credits **Contact Hours:** 3 contact hours

Prerequisites: None

## FIN 600 - Corporate Finance

**Description:** Builds on traditional concepts of managerial accounting (break-even analysis, alternate choice decisions, profit planning, and transfer pricing) and develops the skills that an executive needs in strategic cost analysis. Explores strategic decisions of value chains and activity-based management. Emphasis on using managerial accounting data in executive planning and control.

Credits: 3 credits	Contact Hours: 3 contact hours
Prerequisites: None	Technology: Excel

## HRM 601 - Organizational Behavior

**Description:** Analysis of key organizational components; individual perception; learning ability; conflict resolution models; group processes in decision making; motivation; problem diagnosis, and the organization as the mechanism for joining into a coherent productive system. Organizational assessment for innovation, leadership styles, and environmental interaction.

Credits: 3 creditsContact HPrerequisites: NoneTechnolog

Contact Hours: 3 contact hours Technology: None

## MGMT 630 - Decision Analysis

**Description:** 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.

Credits: 3 credits Prerequisites: None

## MGMT 680 - Entrepreneurial Strategy

**Description:** 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.* 

Credits: 3 credits Prerequisites: None

Contact Hours: 3 contact hours Technology: None

### MGMT 691 - Legal and Ethical Issues

**Description:** This course explores the legal and ethical responsibilities of managers. Analyzes extent to which shareholders should be allowed to exercise their legitimate economic, legal, and ethical claims on corporate managers; extent of regulation of a particular industry, individual rights of the employee and various corporate interests, and corporate responsibility to consumers, society, and conservation of natural resources and the environment.

Credits: 3 creditsContact Hours: 3 contact hoursPrerequisites: NoneTechnology: None

#### MGMT 692 - Strategic Management

**Description:** 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.

Credits: 3 credits

Prerequisites: None

## MIS 645 - Information Systems Principles

**Description:** The management of information processing resources, including: role of information processing, estimates of personnel resources and budgets, integration of corporate and MIS plans, organizational alternatives for MIS departments and support staffs, management of computer operations, equipment and general software acquisitions, intermediate and long-range MIS plans, integration of personal computers, minicomputers, and mainframes, and security and controls.

Credits: 3 credits Prerequisites: None Contact Hours: 3 contact hours Technology: None

### MRKT 620 - Global Marketing Management

**Description:** Designed to help prepare students to become effective managers overseeing global market activities in an increasingly competitive environment. It will examine the impact of global economic, financial, cultural, political, and legal factors on the development of marketing programs and on the marketing/R&D and marketing/manufacturing interfaces.

Credits: 3 credits	Contact Hours: 3 contact hours
Prerequisites: None	Technology: None

#### MODULE II

### HRM 630 - Managing Technological and Organizational Change

**Description:** Managing planned and unplanned change in organizations. The change process is studied in relation to technology-driven changes in the workplace and to other environmental factors. Focuses on planned and unplanned systemic change, such as downsizing, re-engineering, mergers, and acquisitions.

Credits: 3 credits	Contact Hours: 3 contact hours
Prerequisites: None	Technology: Excel

#### MGMT 620 - Management of Technology

**Description:** Technology as a main component of an organizational entity. Generation, development, and implementation of technology are outlined. Influence of technology on global competitiveness is also discussed.

Credits: 3 credits	Contact Hours: 3 contact hours
Prerequisites: None	Technology: None

#### MGMT 635 - Data Mining and Analysis

**Description:** 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.

Credits: 3 creditsContact Hours: 3 contact hoursPrerequisites: NoneTechnology: None

### MGMT 640 - New Venture Management

Description: For the student who is considering starting or managing a new business. The coursecombines classroom instruction in business management and a term project involving the analysisof a business case. The course is designed to build upon and integrate the student's previously acquiredbusiness knowledge and skills into an understanding of how to start and run a new business.Credits: 3 creditsPrerequisites: FIN 516Contact Hours: 3 contact hours

## MGMT 641 - Global Project Management

**Description:** 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.

Credits: 3 creditsContact Hours: 3 contact hoursPrerequisites: NoneTechnology: None

#### MGMT 650- Knowledge Management

Description: Students will learn the principles of the knowledge management process. At the end of<br/>the course, students will have a comprehensive framework for designing and implementing a<br/>successful knowledge management effort and be able to assist in the development of knowledge.Credits: 3 creditsContact Hours: 3 contact hoursPrerequisites: NoneTechnology: None

### MGMT 699 - ST in Management

Description: Not Available Credits: 3 credits Prerequisites: None

Contact Hours: 3 contact hours Technology: None

### MGMT 670 - International Business

Description: 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. Credits: 3 credits Contact Hours: 3 contact hours

Prerequisites: None

Technology: None

### MIS 648 - Decision Support Systems for Managers

**Description:** Covers the use of decision support systems to support management decision making in a real world environment. Topics include: establishing and measuring decision support systems success criteria, software tools, model management, elements of artificial intelligence, and statistics. Justification, design, and use of decision support systems.

Credits: 3 credits Prerequisites: MIS 645

#### MODULE III

AREA I : MANAGEMENT INFORMATION SYSTEMS (MIS) CONCENTRATION

## MGMT 630 - Decision Analysis

**Description:** 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.

Credits: 3 credits	Contact Hours: 3 contact hours
Prerequisites: None	Technology: None

### MGMT 635 - Data Mining and Analysis

**Description:** 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.

Credits: 3 credits	Contact Hours: 3 contact hours
Prerequisites: None	Technology: None

#### MGMT 641 - Global Project Management

Description: The course reviews key elements of project management frameworks with a particularfocus on global projects, which include people from various organizations working in differentcountries across the world, both face-to-face and virtually. Such projects vary in complexity based onthe number of organizations, locations, cultures, languages and time-zones involved. It discussespeople, technology and processes relevant to managing global projects and virtual teamwork.Credits: 3 creditsContact Hours: 3 contact hoursPrerequisites: None

## MGMT 650- Knowledge Management

Description: Students will learn the principles of the knowledge management process. At the end ofthe course, students will have a comprehensive framework for designing and implementing asuccessful knowledge management effort and be able to assist in the development of knowledge.Credits: 3 creditsContact Hours: 3 contact hoursPrerequisites: NoneTechnology: None

### MIS 648 - Decision Support Systems for Managers

**Description:** Covers the use of decision support systems to support management decision making in a real world environment. Topics include: establishing and measuring decision support systems success criteria, software tools, model management, elements of artificial intelligence, and statistics. Justification, design, and use of decision support systems.

Credits: 3 credits

Prerequisites: MIS 645

Contact Hours: 3 contact hours Technology: None

### AREA II : FINANCE CONCENTRATION

#### FIN 611 - Intro to Topics in Fin Tech

 Description: The financial services industry is presently undergoing dramatic changes as recent technological advances have enabled the automation of former workflows. This course will survey current trends in the Financial Technology (FinTech) industry. Students will have the opportunity to develop their own software related to FinTech ideas discussed during this course.

 Credits: 3 credits
 Contact Hours: 3 contact hours

 Prerequisites: Students must have taken an introductory
 Technology: None

 programming course prior to enrolling in FIN 611 that
 concentrated on learning at least one of Python, Java,

MATLAB, C/C++, or R.

## FIN 624 - Corporate Finance II

**Description:** The trade-off between risk and return will be examined in the context of historical analysis, portfolio optimization, the Capital Asset Pricing Model and other alternative models. The course will begin with the understanding of the Modigliani and Miller results and introduce bankruptcy, taxes, information asymmetries and other market imperfections. Financial options, putcall parity and option pricing will be introduced.

Credits: 3 credits Prereguisites: FIN 600

Contact Hours: 3 contact hours Technology: Excel

## FIN 626 - Financial Investment Institutions

**Description:** Introduces the role of banking institutions and investment banks in the domestic and international money market and capital environment to the financial managers. Covers instruments and services of financial intermediaries that are crucial to business management. Discussions range from the financial services and facilities of regional banks to money-center banking institutions. Alternatives of project financing, lending requirements and regulations, project financing, and role of intermediaries in local and international transactions. Focuses on the private placement procedures of all types of securities in the capital market and the unique role undertaken by the investment banking firms. Provides an insight about the public offering process for existing and venture capitalized firms.

Credits: 3 credits Prerequisites: FIN 600

Contact Hours: 3 contact hours Technology: Excel, Palisade Decision Tools Suite

## FIN 634 - Mergers, Acquisitions, and Restructuring

**Description:** Focuses on identifying and evaluating potential and international companies for mergers and acquisitions as well as structuring of deals. The financial, social and managerial implications of these changes in corporate ownership will be examined. Topics are: financing

M&As, deal structuring, tax implications, valuation, broker/finder agreements, merger negotiations, and post-merger integration.

Credits: 3 credits Prerequisites: FIN 600 Contact Hours: 3 contact hours Technology: Excel, Palisade Decision Tools Suite

### FIN 641 - Derivatives Markets

**Description:** This course introduces students to futures, options, and other derivative securities. Topics include option valuation models, principles of forward and futures pricing, structure of markets for derivative securities, and strategies for hedging and speculation.

Credits: 3 credits Prereguisites: FIN 600

Contact Hours: 3 contact hours Technology: Excel, Palisade Decision Tools Suite

#### FIN 650 - Investment Analysis and Portfolio Theory

**Description:** This is a basic course in the theory and practice of investing. We will study in depth why and how to form portfolios of securities. A significant amount of mathematical and statistical analysis will be used in answering these questions. Theories of asset pricing based on the relationship between risk and return will be included. We will also discuss criteria for selecting specific securities in different asset classes, such as, stocks, bonds, and derivatives.

Credits: 3 credits	Contact Hours:	3 contac	t hours
Prerequisites: FIN 600	Technology:	Excel,	Palisade
	D	ecision To	ools Suite

### AREA III : MARKETING CONCENTRATION

#### MRKT 631 - Marketing Research

**Description:** Provides a research and managerial perspective on advanced marketing research methods and analytical techniques. Topics include problem formulation, research design, data collection and analysis, managerial report writing. Students will acquire experience by developing and executing their own marketing research project using sophisticated computerized analytical techniques.

Credits: 3 credits Prerequisites: None Contact Hours: 3 contact hours Technology: None

# MRKT 636 - Design and Development of High Technology Products

**Description:** Covers the use of decision support systems to support management decision making in a real world environment. Topics include: establishing and measuring decision support systems success criteria, software tools, model management, elements of artificial intelligence, and statistics. Justification, design, and use of decision support systems.

Credits: 3 credits Prerequisites: None

# MRKT 638 - Sales Management for Technical Professionals

**Description:** Focuses on the promotion and sales of products in the business-to-organization market. All elements of the marketing communications mix are covered according to their importance in that market: selling, sales promotion, trade advertising, and publicity. The latest techniques are reviewed and discussed using case histories and student projects. Issues of global competitiveness, high technology products, and the role of total quality management in marketing communications are emphasized.

Credits: 3 creditsContact Hours: 3 contact hoursPrerequisites: NoneTechnology: None

### MRKT 645 - Digital Marketing Strategy

**Description:** Introduction to the use of the Internet and electronic commerce in the development of marketing strategy. Examines the characteristics of electronic markets, the use of Internet for data collection and market research, the Internet as a communication and distribution medium, and the development of Internet-based marketing strategies.

Credits: 3 credits	Contact Hours: 3 contact hours
Prerequisites: None	Technology: None

## AREA IV : HEALTHCARE MANAGEMENT

### MGMT 635 - Data Mining and Analysis

**Description:** 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.

Credits: 3 credits	Contact Hours: 3 contact hours
Prerequisites: None	Technology: None

# MIS 648 - Decision Support Systems for Managers

**Description:** Covers the use of decision support systems to support management decision making in a real world environment. Topics include: establishing and measuring decision support systems success criteria, software tools, model management, elements of artificial intelligence, and statistics. Justification, design, and use of decision support systems.

Credits: 3 credits

Prerequisites: MIS 645

Contact Hours: 3 contact hours Technology: None

# AREA V: INNOVATION AND ENTREPRENEURSHIP CONCENTRATION

# HRM 630 - Managing Technological and Organizational Change

**Description:** Managing planned and unplanned change in organizations. The change process is studied in relation to technology-driven changes in the workplace and to other environmental factors. Focuses on planned and unplanned systemic change, such as downsizing, re-engineering, mergers, and acquisitions.

Credits: 3 credits	Contact Hours: 3 contact hours
Prerequisites: None	Technology: Excel

#### MGMT 620 - Management of Technology

**Description:** Technology as a main component of an organizational entity. Generation, development, and implementation of technology are outlined. Influence of technology on global competitiveness is also discussed.

Credits: 3 credits	Contact Hours: 3 contact hours
Prerequisites: None	Technology: None

# MGMT 640 - New Venture Management

**Description:** 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. 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. **Credits:** 3 credits

Prereguisites: FIN 516

Contact Hours: 3 contact hours Technology: None

## MGMT 691 - Legal and Ethical Issues

**Description:** This course explores the legal and ethical responsibilities of managers. Analyzes extent to which shareholders should be allowed to exercise their legitimate economic, legal, and ethical claims on corporate managers; extent of regulation of a particular industry, individual rights of the employee and various corporate interests, and corporate responsibility to consumers, society, and conservation of natural resources and the environment.

Credits: 3 credits Prerequisites: None Contact Hours: 3 contact hours Technology: None

### MRKT 631 - Marketing Research

**Description:** Provides a research and managerial perspective on advanced marketing research methods and analytical techniques. Topics include problem formulation, research design, data collection and analysis, managerial report writing. Students will acquire experience by developing and executing their own marketing research project using sophisticated computerized analytical techniques.

Credits: 3 credits	Contact Hours: 3 contact hours
Prerequisites: None	Technology: None

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**Description:** Covers the use of decision support systems to support management decision making in a real world environment. Topics include: establishing and measuring decision support systems success criteria, software tools, model management, elements of artificial intelligence, and statistics. Justification, design, and use of decision support systems.

Credits: 3 creditsContact Hours: 3 contact hoursPrerequisites: NoneTechnology: None

### MRKT 645 - Digital Marketing Strategy

**Description:** Introduction to the use of the Internet and electronic commerce in the development of marketing strategy. Examines the characteristics of electronic markets, the use of Internet for data collection and market research, the Internet as a communication and distribution medium, and the development of Internet-based marketing strategies.

Credits: 3 credits Prerequisites: None

