Martin Tuchman School of Management
New Jersey Institute of Technology

MASTER OF SCIENCE IN MANAGEMENT (MSM)

MARTIN TUCHMAN SCHOOL OF MANAGEMENT
CURRICULUM COURSES
MARCH 2020

Table of Contents:

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

BUSINESS WITH THE POWER OF TECHNOLOGY

MASTER OF SCIENCE IN MANAGEMENT (MSM)

MARTIN TUCHMAN SCHOOL OF MANAGEMENT

CURRICULUM COURSES

MARCH 2020

MODULE I : CORE COURSES

ACCT 615 - Management Accounting

Semesters and Number of Sections Offered:

FALL 2020: 3 (1 DL, 2 FF), SPRING 2021: 1 DL,

FALL 2021: 3 (1 DL, 2 FF), SPRING 2022: 1 DL, SUMMER: 1 DL

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

FIN 600 - Corporate Finance I

Semesters and Number of Sections Offered:

FALL 2020: 2 (1 DL, 1 FF), SPRING 2021: 3 (1 DL, 2 FF),

FALL 2021: 2 (1 DL, 1 FF), SPRING 2022: 3 (1 DL, 2 FF), SUMMER: 1DL

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

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HRM 601 - Organizational Behavior

Semesters and Number of Sections Offered:

FALL 2020: 5 (3 DL, 2 FF), SPRING 2021: 4 (2 DL, 2 FF),

FALL 2021: 5 (3 DL, 2 FF), SPRING 2022: 4 (2 DL, 2 FF), SUMMER: 2DL

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 credits

Contact Hours: 3 contact hours

Prerequisites: None

Technology: None

MIS 645 - Information Systems Principles

Semesters and Number of Sections Offered:

FALL 2020: 2 (1 Hy, 1 DL), SPRING 2021: 3 (1 Hy, 2 DL),

FALL 2021: 2 (1 Hy, 1 DL), SPRING 2022: 3 (1 Hy, 2 DL), SUMMER: 1 DL

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

Contact Hours: 3 contact hours

Prerequisites: None

Technology: None

MRKT 620 - Global Marketing Management

Semesters and Number of Sections Offered:

FALL 2020: 1 DL, SPRING 2021: 2 (1 FF, 1 DL),

FALL 2021: 1 DL, SPRING 2022: 2 (1 FF, 1 DL), SUMMER: 1DL

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

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MODULE II : CONCENTRATION AREAS
AREA I : GLOBAL PROJECT MANAGEMENT

ECON 610 - Manegerial Economics

Semesters and Number of Sections Offered:

FALL 2020: 1 FF, SPRING 2021: 1 DL,

FALL 2021: 1 FF, SPRING 2022: 1 DL, SUMMER: 1 DL

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	**Technology:** None

AREA II : WEB SYSTEMS AND MEDIA

MRKT 645 - Digital Marketing Strategy

Semesters and Number of Sections Offered:

FALL 2020: 0, SPRING 2021: 1 Hy,

FALL 2021: 0, SPRING 2021: 1 FF, SUMMER: 0

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

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AREA III : BUSINESS ANALYTICS

FIN 616 - Data Driven Financial Modeling

Semesters and Number of Sections Offered:

FALL 2020: 1 FF, SPRING 2021: 0,

FALL 2021: 1 FF, SPRING 2022: 0, SUMMER: 0

Description: Financial modeling driven by financial data is of critical importance to asset allocation, pricing, trading strategies, and risk management. By introducing basic and current financial modeling techniques, this course equips students with new analytic and modeling tools (e.g., spreadsheet modeling) to tackle rapidly changing and dynamic financial markets. In particular, this course delivers modeling frameworks such as regression analysis, forecasting, Monte-Carlo simulation and optimization; and it illustrates how to apply these frameworks in financial contexts such as portfolio management, term-structure estimation, capital budgeting, risk measurement, risk analysis in discounted cash flow models, and pricing of European, American, exotic, and real options.

Credits: 3 credits　　　　　　　　　　**Contact Hours:** 3 contact hours

Prerequisites: FIN 600　　　　　　　　**Technology:** Excel, Palisade Decision Tools Suite

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MGMT 630 - Decision Analysis

Semesters and Number of Sections Offered:

FALL 2020: 2 (1 DL, 1 FF), SPRING 2021: 1 DL,

FALL 2021: 2 (1 DL, 1 FF), SPRING 2022: 1 DL, SUMMER: 1 DL

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

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MGMT 635 - Data Mining and Analysis

Semesters and Number of Sections Offered:

FALL 2020: 2 (1 FF, 1 DL), SPRING 2021: 2 (1 FF, 1 DL),

FALL 2021: 2 (1 FF, 1 DL), SPRING 2022: 2 (1 FF, 1 DL), SUMMER: 1 DL

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 650 - Knowledge Management

Semesters and Number of Sections Offered:

FALL 2020: 1 FF, SPRING 2021: 1 FF,

FALL 2021: 1 FF, SPRING 2022: 1 FF, SUMMER: 1 DL

Description: 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.

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

MIS 645 - Information Systems Principles

Semesters and Number of Sections Offered:

FALL 2020: 2 (1 Hy, 1 DL), SPRING 2021: 3 (1 Hy, 2 DL),

FALL 2021: 2 (1 Hy, 1 DL), SPRING 2022: 3 (1 Hy, 2 DL), SUMMER: 1 DL

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	**Contact Hours:** 3 contact hours
Prerequisites: None	**Technology:** None

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MIS 648 - Decision Support Systems for Managers

Semesters and Number of Sections Offered:

FALL 2020: 1 DL, SPRING 2021: 1FF,

FALL 2021: 1 DL, SPRING 2022: 1FF, SUMMER: 1DL

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   **Contact Hours:** 3 contact hours

Prerequisites: MIS 645   **Technology:** None

MRKT 645 - Digital Marketing Strategy

Semesters and Number of Sections Offered:

FALL 2020: 0, SPRING 2021: 1 Hy,

FALL 2021: 0, SPRING 2021: 1 FF, SUMMER: 0

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: FINANCIAL TECHNOLOGY

FIN 611 - Intro to Topics in Fin Tech

Semesters and Number of Sections Offered:

FALL 2020: 1 FF, SPRING 2021: 0,

FALL 2021: 1 FF, SPRING 2022: 0, SUMMER: 0

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:** Excel
programming course prior to enrolling in FIN 611 that
concentrated on learning at least one of Python, Java,
MATLAB, C/C++, or R.

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FIN 616 - Data Driven Financial Modeling

Semesters and Number of Sections Offered:

FALL 2020: 1 FF, SPRING 2021: 0,

FALL 2021: 1 FF, SPRING 2022: 0, SUMMER: 0

Description: Financial modeling driven by financial data is of critical importance to asset allocation, pricing, trading strategies, and risk management. By introducing basic and current financial modeling techniques, this course equips students with new analytic and modeling tools (e.g., spreadsheet modeling) to tackle rapidly changing and dynamic financial markets. In particular, this course delivers modeling frameworks such as regression analysis, forecasting, Monte-Carlo simulation and optimization; and it illustrates how to apply these frameworks in financial contexts such as portfolio management, term-structure estimation, capital budgeting, risk measurement, risk analysis in discounted cash flow models, and pricing of European, American, exotic, and real options.

Credits: 3 credits

Contact Hours: 3 contact hours

Prerequisites: FIN 600

Technology: Excel, Palisade Decision Tools Suite

FIN 620 - Adv Financial Data Analytics

Semesters and Number of Sections Offered:

FALL 2020: 0, SPRING 2021: 1 FF,

FALL 2021: 0, SPRING 2022: 1 FF, SUMMER: 0

Description: Data-driven finance becomes the mainstream from Wall Street to Main Street. Large financial institutions (for example, Bank of America Merrill Lynch with its Quartz project or JP Morgan Chase with the Athena project) strategically use Python with other established technologies to build, enhance, and maintain some of their core IT systems. There is also a multitude of larger and smaller hedge funds that make heavy use of Python programming when it comes to efficient financial application development and productive data analytics efforts. Establishing quantitative view and mastering analytical approaches are critical nowadays for students and professionals in the finance industry. It becomes a necessary skill set for personal investors. This course will provide essential skills in finance data analytics and vital capacity to quickly create, develop, and deploy trading models.

Credits: 3 credits

Contact Hours: 3 contact hours

Prerequisites: FIN 616 or instructor's approval, and familiarity with at least one programming language (for example, C, Java, Python, R or MATLAB)

Technology: Excel, Palisade Decision Tools Suite

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FIN 624 - Corporate Finance II

Semesters and Number of Sections Offered:

FALL 2020: 1 OMBA, SPRING 2021: 1 Hy,

FALL 2021: 1 OMBA, SPRING 2022: 1 Hy, SUMMER : 0

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, put-call parity and option pricing will be introduces.

Credits: 3 credits

Prerequisites: FIN 600

Contact Hours: 3 contact hours

Technology: Excel

FIN 626 - Financial Investment Institutions

Semesters and Number of Sections Offered:

FALL 2020: 0, SPRING 2021: 1 OMBA,

FALL 2021: 0, SPRING 2022: 1 OMBA, SUMMER: 0

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

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FIN 641 - Derivatives Markets
Semesters and Number of Sections Offered:

FALL 2020: 1 FF, SPRING 2021: 0,

FALL 2021: 1 FF, SPRING 2022: 0, SUMMER : 1DL

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

Prerequisites: FIN 600

Contact Hours: 3 contact hours

Technology: Excel, Palisade Decision Tools Suite

MGMT 635 - Data Mining and Analysis
Semesters and Number of Sections Offered:

FALL 2020: 2 (1DL, 1FF), SPRING 2021: 2 (1DL, 1FF),

FALL 2021: 2 (1DL, 1FF), SPRING 2022: 2 (1DL, 1FF), SUMMER: 0

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

Prerequisites: FIN 600

Contact Hours: 3 contact hours

Technology: Excel, Palisade Decision Tools Suite

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