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Modes of Instructional Delivery for classes offered at MTSM

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COMMERCIALIZATION WITH THE POWER OF TECHNOLOGY
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 credits
Prerequisites: None
Contact Hours: 3 contact hours
Technology: Excel

FIN 600 - Corporate Finance I
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
Prerequisites: None
Contact Hours: 3 contact hours
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 credits
Prerequisites: None
Contact Hours: 3 contact hours
Technology: 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
Prerequisites: None
Contact Hours: 3 contact hours
Technology: None
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
Technology: None

AREA II: WEB SYSTEMS AND MEDIA
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
**FIN 616 - Data Driven Financial Modeling**

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**

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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**MASTER OF SCIENCE OF MANAGEMENT (MSM)**

**AREA III : BUSINESS ANALYTICS**

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**BUSINESS WITH THE POWER OF TECHNOLOGY**
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 650- Knowledge Management
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
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
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

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

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
Prerequisites: Students must have taken an introductory programming course prior to enrolling in FIN 611 that concentrated on learning at least one of Python, Java, MATLAB, C/C++, or R.

AREA IV: FINANCIAL TECHNOLOGY
FIN 616 - Data Driven Financial Modeling
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
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
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, put-call parity and option pricing will be introduced.

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

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