

# RISK MANAGEMENT AND INSURANCE (RMI)

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## **RMI 167. Introduction to Cybersecurity. 3 Credit Hours.**

This course introduces cybersecurity and the NIST Framework from three different perspectives: technology, societal dynamics in cybercrime, and policy and law. Cybersecurity principles including confidentiality, integrity and availability as well as assurance, authenticity and anonymity are demonstrated via examples from each perspective. Students gain awareness of the broad scope of cybersecurity through readings, discussions, and hands-on exercises.

## **RMI 210. Introduction to Risk Management and Insurance. 3 Credit Hours.**

This course introduces risk management and insurance and provides an overall approach to risk management, including risk identification and analysis, risk evaluation, and approaches to risk treatment and mitigation, with particular emphasis on the use of insurance to treat and mitigate risks. The course will cover the importance of managing risks across the enterprise, the benefits of effective enterprise risk management, loss forecasting, and financial analysis in risk management decisioning. The course will examine the basic characteristics of insurance, the types and forms of insurance that are available covering individuals and commercial enterprises, and the benefits of and costs of insurance to society. The course also covers insurance delivery systems and introduces insurance company operations. Legal principles related to insurance, government regulation of insurance, and insurance contracts will also be examined.

## **RMI 250. Intermed Microeconomic Theory. 3 Credit Hours.**

Microeconomics studies the behavior of individual participants within the economic system. Models are developed and evaluated which explain the choices of consumers, producers and government agents related to consumption, production, and distribution of goods and services within the economy. Significant attention is paid to market theory, pricing policies, and incentive facing firms in different market environments ranging from the very competitive to the monopoly. Concepts covered include profit maximization and methods of optimization, indifference curves, economic efficiency, market failure, resource markets, monopolistic competition, oligopoly, externalities and public goods.

Prerequisites: ECO 113 and ECO 114.

Cross-listed Courses: ECO 250

## **RMI 320. Enterprise Risk Management. 3 Credit Hours.**

This course focuses on the culture capabilities and practices, integrated with strategy setting and performance, that organizations rely on to manage risks in creating, preserving and realizing value. The course focuses on the role of risk identification, risk analysis and evaluation, risk treatment and monitoring, and risk communication as key components of effective risk management. Also, the course discusses several analytic approaches to risk management and mitigation. Using several strategic models, students discuss the importance of tactical and strategic risk management, and employ several of the models in case analysis. Management of strategic, financial, operational, technological, reputational, social, environmental, and legal and regulatory risks will be explored. Students will complete and present a semester-long project in risk management. Guest speakers and case studies from local, national and international business enterprises will be employed in this course.

Prerequisites: RMI 210.

## **RMI 350. Insurance & Reinsurance Company Operations. 3 Credit Hours.**

This course provides an overview and analysis of insurance and reinsurance company operations, including the issues and challenges faced by management, in the areas of marketing, sales, underwriting, rate-making, distribution, claims, customer service, and regulation. Key insurance and reinsurance company operational functions and how they work together to create and deliver insurance products efficiently and effectively will be examined. The importance of aligning information technology strategy with the strategy and goals of the insurance organization will also be examined, along with the impact that innovative technologies, such as InsurTech, digital insurance, robotics process automation and artificial intelligence are having on operations.

Prerequisite: RMI 210.

## **RMI 360. Intermediate Managerial Finance. 3 Credit Hours.**

Advanced coverage of corporate finance issues, including capital budgeting, capital structure, dividend policy, corporate governance, merger and acquisition, public and private offerings and bankruptcy and reorganization.

Prerequisite: FIN 301.

Cross-listed Courses: FIN 360

## **RMI 370. Property and Casualty Insurance. 3 Credit Hours.**

This course covers property and casualty risks facing commercial businesses and individuals; the effective management of these risks through both risk mitigation strategies and insurance products. Commercial insurance covers for-profit businesses and not-for-profit businesses against the adverse financial effects of property and liability losses. The risk exposures addressed by commercial property and liability insurance will be examined, along with the respective insuring agreements, coverage limits, and exclusions. Also personal lines insurance covering property and liability risks facing individuals will also be examined.

Prerequisite: RMI 210.

## **RMI 380. Life, Health and Annuities. 3 Credit Hours.**

This course provides an in-depth analysis of life, health and annuity insurance products and their role in personal financial planning. Life insurance will be examined in a broad context to encompass insurance that pays on the death of an insured (i.e., mortality risks), promises to pay while an insured is alive (i.e., longevity risks), and promised payment or services to insureds in the event of incapacity, disability, or losses of health (i.e., morbidity risks). The course will examine how life insurance products fit within an individual's personal financial plans, retirement plans, and estate plans. The course will examine the technical details of how various types of annuities operate, how and when they should be used in an individual's financial plans, and the structure, costs, benefits and risks that come with the different types of annuities. Also, the course will examine health insurance products, managed care, health plan provisions, and regulations affecting health insurance.

Prerequisite: RMI 210.

**RMI 385. Risk Financing. 3 Credit Hours.**

This course provides an analysis of processes for providing funding to cover the financial effects of unexpected losses, including identification and analysis of exposures; analysis of alternative financing techniques; and selection, implementation, and monitoring of selected techniques. The course will address how risk financing alternatives should be examined in light of an organization's risks and the techniques for estimating losses arising from such risks. The purpose, intended use, and administration of alternative financing techniques including insurance, self-insurance, retrospective rating, reinsurance, captive insurance, and contractual risk transfer will be addressed, as well as various methods of transferring financial risk and hazard risk to the capital markets.  
Prerequisite: RMI 210.

**RMI 420. Strategic, Operational, Environmental Risk Management. 3 Credit Hours.**

This course provides students with an in-depth analysis of the risks and the mitigation and management approaches related to an organization's business strategy and objectives; operational processes and systems, including outsourcing and use of third-party service providers; and environmental impacts and sustainability. Operational risk, which refers to the risk of loss resulting from inadequate or failed internal processes, people and systems, including technology, or from external events, will be examined, along with the controls and procedures that can be implemented to mitigate and manage such risk. Strategic risk will be examined related to an organization's strategy selection, execution, and modification over time that results in business objectives not being achieved. Also, environmental risk management and sustainability will be examined; this is a topic that is gaining increased attention and deals with the impacts to an organization from environmental incidents, and failure to use energy efficiently, protect the environment, prevent global warming, and portray social responsibility.  
Prerequisite: RMI 320.

**RMI 450. Underwriting and Brokerage. 3 Credit Hours.**

This course provides an in-depth analysis of the underwriting process of assessing the risks and exposures of insurance applicants in determining whether to accept the risks on behalf of the insurance company, the amount of coverage to be provided, and pricing; and brokerage processes of soliciting, negotiating and selling of insurance. The course will examine the legal liability associated with underwriting, the activities that comprise the underwriting process, including the establishment of underwriting policy and related constraints, and the pricing processes, including ratemaking methods and factors that affect ratemaking. Also, the course will examine the specific underwriting processes and differences for general liability, business auto, workers compensation, professional liability, property, and business income insurance products. Also, the processes and activities comprising insurance brokerage will be examined in detail.  
Prerequisite: RMI 350.

**RMI 455. Managing the Technological Enterprise. 3 Credit Hours.**

This course covers the requirements, management and performance of enterprises engaged in the use of technology. Requirements determination, analysis, design and cost management activities for technological enterprises are covered; a focus on the management of life cycle costs is emphasized. The management of third party organizations, outsourcing and project management activities are also covered. The legal, environmental and ethical issues associated with the management and performance of technological enterprises are important components of this course. Guest speakers and case studies from local, national and international technological enterprises, agencies and regulatory organizations are employed in this course.  
Prerequisites: MIS 201 or permission of department chair.

Cross-listed Courses: MIS 455

**RMI 460. Claims Processing. 3 Credit Hours.**

This course provides an in-depth analysis of claims processing, including claims intake, member and provider verification, claims adjudication, and claims payment processes; the use of automation in claims processing; and the processes for minimizing fraud and errors. The claim handling process will be examined in detail, including the processes for investigating and documenting the claim and determining the cause of the loss, the liability, and the loss amount across specific categories of claims; bodily injury liability claims, property claims, workers compensation claims, medical claims, and auto claims. The importance of detecting and preventing insurance fraud, and effective communication and negotiation skills in the handling of claims will also be covered. Lastly, we will examine how technology and artificial intelligence is being used in the claims management process to increase the quality in claims assessment management and administration.  
Prerequisite: RMI 350.

**RMI 461. Financial Derivatives. 3 Credit Hours.**

This course introduces various derivative securities such as options, forward contracts, futures contracts, and swaps. The key focus of the course will be how to use these derivatives in financial risk management by institutions and investors. The course will focus on both theoretical models and their applications in financial markets. Emphasis will be given to application of derivatives in hedging and recent developments in the practice of financial risk management using derivatives.  
Prerequisite: FIN 301.

Cross-listed Courses: FIN 460

**RMI 462. Managing Systems Projects. 3 Credit Hours.**

This course focuses on introductory project management processes, technology and tools, utilizing the Project Management Institute's (PMI) Project Management Body of Knowledge (PMBOK) and the Software Engineering Institute's (SEI's) Capability Maturity Model Integration (CMMI) processes and nomenclature. Students examine the processes and theory of project management as well as industry case studies, and will utilize project management software in support of their management activities. Guest speakers and field research provide students with access and information from industry and academia. Students are engaged in a semester-long project. Initially, they are required to identify the project scope and team charter for their project; subsequent assignments require them to prepare a business case, work breakdown structure, cost estimate, and final project documentation for their project.  
Prerequisite(s): MIS 201 or permission of instructor.  
Cross-listed Courses: MIS 460, CSC 460, MGT 460

**RMI 470. Risk and Insurance Analytics and Trends. 3 Credit Hours.**

This course explores the use of applied analytics in the analysis of risk and insurance data to enable more effective decision making across the industry and examines future trends that will impact risk management and insurance companies and the industry going forward. An analytics strategy and execution framework will be examined, along with a business intelligence strategy framework, insurance industry data flows, and commonly used analytics to support key processes. Students will gain experience in planning and executing analytics applications to analyze data supporting insurance company processes. Also, we will examine how the use of AI in the insurance value stream can increase quality and provide information that can lead to more informed business decisioning. In addition to AI, we will examine how the increasing use of digital, InsurTech, other technological innovations, and other industry disruptions are impacting the insurance industry.

Prerequisites: RMI 210 and RMI 350.