

# RISK MANAGEMENT & INSURANCE (RMI)

## **RMI 150 Nat Disast & Com Recov (3 credits)**

The goal of this course is to empower students to use primary and secondary sources to investigate community recovery from natural disasters. The research will highlight the economics and social impact of insurance. Specifically, students will compare and contrast community recovery from different types of natural disasters while evaluating the successes and/or struggle of insurance products in aiding community recovery from natural disasters. Does not satisfy any major or minor Risk Management & Insurance requirement. Does not satisfy any free elective credit.

*Attributes:* First-Year Seminar, Undergraduate

## **RMI 170 Special Topics (3 credits)**

Topic and content varies from semester to semester.

*Attributes:* Undergraduate

## **RMI 200 Introduction to Insurance (3 credits)**

This course is the introductory course of the risk management and insurance program. It also covers the insurance component of the financial planning track. The focus of the course is to introduce the students to the terminology of insurance. To understand insurance, students need to review contract law and agency relationships. Also provided is an overview of the financial services industry. Once these areas have been covered, the course will examine personal property and liability insurance, commercial property and general liability insurance. In addition, there will be a discussion of employee benefits, medical plans, and social insurance programs. This course is also approved under The Institutes Collegiate Studies for CPCU program for CPCU 500.

*Attributes:* Undergraduate

## **RMI 270 Special Topics (3 credits)**

Topic and content varies from semester to semester.

*Attributes:* Undergraduate

## **RMI 300 Property and Casualty (3 credits)**

This course addresses the property and casualty insurance business, markets, and types of companies. The course provides a review of the commercial property and casualty insurance products with a particular focus on the underlying exposure to loss, insurance policy coverage, and exclusions. In addition this course analyzes the Property/Casualty market and explores current issues in the Property/Casualty insurance industry. This course is closely aligned with the industry designation exam, CPCU 557. This course is also approved under The Institutes Collegiate Studies for CPCU program.

*Prerequisites:* RMI 200

*Attributes:* GEP: Ethics Intensive, Undergraduate

## **RMI 301 Corporate Risk Management (3 credits)**

This course provides a survey of risk management theory and practice as it relates to corporate risk management. The course then takes a detailed examination of the value proposition for corporate risk management (for individuals as well as corporations). The course then has students apply the risk management process to a publicly-traded corporation. The course guides students through a risk financing simulation exercise, optimizing hedges given practical constraints for individual risks as well as for collections of risks. The course explores disaster recovery strategies by working through real-world examples. The course concludes with motivating the principles of enterprise risk management by examining both the advantages and potential pitfalls associated with developing portfolio models of the firm's risks. This course is aligned with the industry designation exam, ARM 54.

*Prerequisites:* (FIN 200 or FIN 225) and (DSS 210 or MAT 118 or MAT 128 or MAT 321 or MAT 322)

*Attributes:* Undergraduate

## **RMI 306 Intro to Probability in Insura (3 credits)**

This course and RMI 307, Applied Probability and Statistics in Insurance, provide a two semester study of probability and statistics used in insurance and risk management. RMI 306 covers basic probability theory, Bayes Theorem and discrete random variables. Applications of Binomial, Hypergeometric, Poisson, Geometric, Negative Binomial, and Uniform distributions will be used to solve problems in insurance and risk management.

*Prerequisites:* MAT 161 and MAT 162 and DSS 210

*Attributes:* Undergraduate

## **RMI 307 Applied Prob & Stats in Insura (3 credits)**

This is the second course covering probability and statistics used in insurance and risk management. RMI 307 covers continuous random variables, multivariate distributions and density functions representing an insurance loss. Students will be able to apply continuous distributions such as uniform, exponential, Gamma, Normal, and lognormal to generate expected frequency of loss and predict claim probability. Moment generating functions with continuous random variables, simulation of continuous distributions and mixed distributions will be used to solve problems in risk management and insurance.

*Prerequisites:* RMI 306

*Attributes:* Undergraduate

## **RMI 310 Insurance Company Operations (3 credits)**

The course covers how property-casualty insurance functions work together to create and deliver products. The various functions covered include: Underwriting; Marketing and Distribution; Risk Control and Premium Auditing; Claims; Actuarial Operations; Information Technology; Reinsurance; and Regulation. This course is closely aligned with the industry designation exam, CPCU 520. This course is also approved under The Institutes Collegiate Studies for CPCU program.

*Prerequisites:* RMI 200

*Attributes:* Undergraduate

## **RMI 321 Insurance Law& Cyber Liability (3 credits)**

This course will focus on Insurance Law and Managing Cyber Risk from an Enterprise Risk Management perspective. The goal is for students to understand the best practices embraced by leaders in handling Cyber Risk and understanding the legal obligations associated with Insurance Law.

*Prerequisites:* RMI 200 or (FIN 200 and DSS 210)

*Attributes:* Undergraduate

**RMI 330 Insurance Data & Analytics (3 credits)**

This course explores the evolving role of data and analytics in the insurance industry, providing foundational knowledge for data-driven decision-making. Topics include big data, predictive analytics, and modeling techniques in underwriting, claims, and risk management. Through a team-based project using real industry data, students will gain hands-on experience in assessing data quality, interpreting analytical results, and effectively communicating data-driven conclusions to support business decision-making.

*Prerequisites:* DSS 210 and RMI 200

*Attributes:* Undergraduate

**RMI 340 Employee Benefits (3 credits)**

This course will provide an overview of employee benefits including retirement plans such as 401(k) and profit sharing plans, group life and health plans, disability insurance, and flexible benefit programs. Individual life and health products will also be discussed.

*Prerequisites:* RMI 200 and (FIN 200 or FIN 225)

*Attributes:* Undergraduate

**RMI 370 Topics in Risk Mgt & Insurance (3 credits)**

This course is designed to give greater coverage to those risk management and insurance topics that are not covered in great detail in other courses. The topics selected are at the discretion of the instructor.

*Prerequisites:* RMI 200 or (FIN 200 and DSS 210)

*Attributes:* Undergraduate

**RMI 400 Underwriting (3 credits)**

This course covers property and casualty underwriting through the principles of underwriting; strategic underwriting techniques; the insurance production environment; and insurance agency management tools and processes. Students will learn to assess whether to accept insurance risks (or groups of risks) and at what price. Prerequisite may be taken concurrently.

*Prerequisites:* RMI 300 (may be taken concurrently)

*Attributes:* Undergraduate

**RMI 406 Adv Insurance Financial Models (3 credits)**

This course covers advanced topics from finance (derivative securities and corporate financial models) from a quantitative perspective. RMI 406 covers the topics in actuarial exam IFM.

*Prerequisites:* (FIN 225 and RMI 307)

*Attributes:* Undergraduate

**RMI 410 Enterprise Risk Management (3 credits)**

This course will cover the latest methodologies in enterprise risk management (ERM) and how they are implemented in practice. Enterprise risk management (ERM) is a significant advancement in the field of risk management, addressing limitations with the traditional, "siloed" approach to risk management. ERM provides a better framework for fundamental risk-return decision-making at the highest levels of the organization. This course will address extracting information from risk experts; converting information from risk experts into quantitative ERM information; and quantifying risks using a value-based ERM model. RMI 301 prerequisite may be taken concurrently upon Instructor's or Department Chair's approval.

*Prerequisites:* RMI 301

*Attributes:* Undergraduate

**RMI 415 Strategic Transformation RMI (3 credits)**

This case-based course will introduce students to analytical frameworks in which insurance organizations can develop business strategies and innovations to remain competitive in response to changing business conditions. Students will apply their knowledge through a team-based project that will evaluate real-world insurance applications.

*Prerequisites:* FIN 200 and DSS 210 and (RMI 300 or RMI 310)

*Attributes:* Undergraduate

**RMI 420 Alternative Risk Financing (3 credits)**

The course focuses on evaluating the value impact of risk financing options. The course covers developing risk financing strategies, evaluating risk financing options (after-tax, NPV), offshore financing, role of reinsurance, history of alternative risk financing, forecasting risk loss, capital market functions, forming captive insurance companies. The course's projects rely heavily on Excel as a tool to evaluate and model risk financing options - using both simulated and real-world data. This course is closely aligned with the risk management industry designation exam, ARM 56. This course is also approved under The Institutes Collegiate Studies for CPCU program.

*Prerequisites:* RMI 301

*Attributes:* Undergraduate

**RMI 470 Adv Topics: Risk Mgmt & Insura (3 credits)**

These courses are upper division courses designed to give greater coverage to those risk management and insurance topics that are not covered in great detail in other courses. The topics selected are at the discretion of the instructor.

*Prerequisites:* RMI 200 and FIN 200 and (DSS 210 or MAT 118 or MAT 128 or MAT 322)

*Restrictions:* Enrollment limited to students in the Finance department.

*Attributes:* Undergraduate

**RMI 493 Individual Research in RMI (3 credits)**

Independent study may be approved to allow a student to pursue an in-depth study of an RMI topic. Acceptable Independent Study topics include traditional research/reading programs as well as rigorous pre-approved internship programs with an appropriate academic component, as defined by the Department chair.

*Prerequisites:* RMI 200 and FIN 200 and DSS 210

*Restrictions:* Enrollment limited to students with a class of Junior or Senior.

*Attributes:* Undergraduate