

# RISK MANAGEMENT AND INSURANCE (RMI)

## RMI 300 – PRINCIPLES OF RISK MANAGEMENT

3 credits.

Nature of risk, principal techniques of risk management, including insurance markets, and the bases for decision-making in managing risk effectively.

**Requisites:** (ECON 101 or 111) or declared in undergraduate Business Exchange program. Not open to graduate/professional students

**Course Designation:** Breadth - Social Science

Level - Intermediate

L&S Credit - Counts as Liberal Arts and Science credit in L&S

**Repeatable for Credit:** No

**Last Taught:** Spring 2025

**Learning Outcomes:** 1. Recognize the general types and characteristics of situations involving risk, how to identify them, and why they are important

Audience: Undergraduate

2. Possess the skills and knowledge to measure and assess risk

Audience: Undergraduate

3. Know the basics of how risk management tools work and their benefits/costs in any given situation

Audience: Undergraduate

4. Apply the risk management process in a simple situation involving risk

Audience: Undergraduate

5. Explain the value that sound risk management provides individuals, organizations, and society

Audience: Undergraduate

## RMI 365 – CONTEMPORARY TOPICS

1-3 credits.

Exploration of subject areas possibly to be introduced into the business curriculum.

**Requisites:** None

**Repeatable for Credit:** Yes, unlimited number of completions

**Last Taught:** Spring 2025

## RMI 399 – READING AND RESEARCH-RISK MANAGEMENT

1-6 credits.

Individual work suited to the needs of undergraduate students may be arranged with a faculty member.

**Requisites:** Consent of instructor

**Course Designation:** Level - Advanced

L&S Credit - Counts as Liberal Arts and Science credit in L&S

**Repeatable for Credit:** Yes, unlimited number of completions

**Last Taught:** Spring 2024

## RMI/ECON 530 – INSURING LIFE'S RISKS: HEALTH, AGING, AND POLICY

3 credits.

Covers risks related to health and aging, rationales for social insurance programs to protect against these risks, and costs and benefits of these programs. Broad topics include health insurance, disability insurance, and Social Security and pension policy.

**Requisites:** (ECON 301 or 311) and ECON 310; or graduate/professional standing

**Course Designation:** Breadth - Social Science

Level - Advanced

L&S Credit - Counts as Liberal Arts and Science credit in L&S

**Repeatable for Credit:** No

**Last Taught:** Spring 2025

**Learning Outcomes:** 1. Describe and interpret models of risk and insurance

Audience: Undergraduate

2. Identify and interpret the basic features (and rationales) of major US social insurance programs related to health and aging

Audience: Undergraduate

3. Apply knowledge from Learning Outcomes 1 and 2 to be able to critique and evaluate the merits of recent research articles

Audience: Undergraduate

## RMI 620 – EMPLOYEE BENEFITS MANAGEMENT

3 credits.

Nongovernmental schemes for treating the risks of superannuation of members of a group; property, liability, legal expense, life and health coverages available to groups; organizational characteristics, benefit structure and pricing of risk transfer schemes for groups; characteristics and funding of various types of pension plans; effects of ERISA.

**Requisites:** RMI 300 or graduate standing or declared in the Business Exchange program

**Repeatable for Credit:** No

**Last Taught:** Fall 2022

### **R M I 635 – CAPTIVE INSURANCE**

1-2 credits.

Examines how captive insurance works, the different structures of captives, and advantages and disadvantages of their use in various settings. In addition, the captive feasibility process, as well as techniques for measuring financial performance, will be covered.

**Requisites:** R M I 300, 700, or declared in the Business Exchange program

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Spring 2024

**Learning Outcomes:** 1. Summarize the advantages and disadvantages of captives

Audience: Both Grad & Undergrad

2. Explain how captives financially and operationally work

Audience: Both Grad & Undergrad

3. Differentiate the types of captive structures

Audience: Both Grad & Undergrad

4. Manage a captive feasibility study

Audience: Both Grad & Undergrad

5. Conduct analyses to choose a captive domicile and select service providers

Audience: Both Grad & Undergrad

6. Design a captive

Audience: Both Grad & Undergrad

7. Summarize complex concepts, present information succinctly and with logical flow, respond effectively to questions, and listen to critiques

Audience: Graduate

### **R M I 636 – INSURER FINANCIAL STATEMENT ANALYSIS AND CAPTIVE INSURANCE**

1-3 credits.

Comprehensive overview of insurer financial statement analysis and captive insurance. Examine the construction of insurer financial statements, including premiums, expenses, and losses. Financial statement analysis focusing on the statutory statement with differences from GAAP highlighted. Assess captive insurance, covering its structures, feasibility studies, and financial performance measurement.

**Requisites:** (R M I 300 or 700) or declared in undergraduate Business Exchange Program. Not open to students with credit for R M I 635.

**Repeatable for Credit:** No

**Last Taught:** Spring 2025

**Learning Outcomes:** 1. Explain the construction of insurer financial statements.

Audience: Undergraduate

2. Analyze insurer financial statements to assess an insurer's strategy and solvency.

Audience: Undergraduate

3. Summarize the advantages and disadvantages of captive insurance.

Audience: Undergraduate

4. Conduct a captive feasibility study of captive insurance, including actuarial loss projections and financial pro formas.

Audience: Undergraduate

5. Differentiate between various captive structures and domiciles.

Audience: Undergraduate

**RMI 637 – REINSURANCE**

1 credit.

Focuses on reinsurance, a key component to the successful implementation of the insurance mechanism. Provides exposure to the types and uses of reinsurance, its specific regulatory requirements, how it affects and is affected by primary insurance, and general market mechanisms.

**Requisites:** RMI 300 or 700**Repeatable for Credit:** No**Learning Outcomes:** 1. Explain the uses of reinsurance, and the types of reinsurance most beneficial for each use

Audience: Undergraduate

2. Distinguish across the various markets of reinsurance, benefits and detriments of each

Audience: Undergraduate

3. Differentiate regulation of reinsurance compared with regulation of other financial transactions

Audience: Undergraduate

4. Identify how to price reinsurance contracts

Audience: Undergraduate

5. Describe the strategic approaches to use of reinsurance

Audience: Undergraduate

**RMI 640 – MANAGEMENT OF INSURANCE ENTERPRISE**

3 credits.

Functional analysis of the operations of insurance organizations; legal organization, marketing systems, management and control, underwriting, rating, financial analysis, rate making and regulation.

**Requisites:** (RMI 300 or 700) or declared in the Business Exchange program**Repeatable for Credit:** No**Last Taught:** Spring 2025**RMI 645 – COMMERCIAL INSURANCE**

3 credits.

Consideration of the structure, use, benefits, and limitations of corporate insurance products. Fundamental to the material is the economic underpinning of the insurance contract structure. The major commercial property and liability insurance products will be analyzed in detail with the purpose of illustrating these economic principles and applying them to specific organizational situations.

**Requisites:** (RMI 300 or 700) or declared in the Business Exchange program**Repeatable for Credit:** No**Last Taught:** Spring 2025**RMI 650 – SUSTAINABILITY, ENVIRONMENTAL AND SOCIAL RISK MANAGEMENT**

2-3 credits.

The assessment, control, financing and management of risks deriving from pressures on and damages to the environment, workers and local/foreign communities. Risks include liability and directors and officers law suits, boycotts, regulations and competitors' actions.

**Requisites:** Junior standing**Repeatable for Credit:** No**Last Taught:** Fall 2024**Learning Outcomes:** 1. Explain the manner and extent to which organizations and individuals contribute to degradation of the world's ecosystems, including a historical perspective

Audience: Undergraduate

2. Recognize legal obligations of organizations and individuals in protecting the environment and conducting business as it relates to workers, customers, and the community at large

Audience: Undergraduate

3. Compare methods to identify, evaluate, and manage risks associated with environmental and social justice issues

Audience: Undergraduate

4. Evaluate organizations' sustainability risk management strategies

Audience: Undergraduate

5. Design effective sustainability risk management strategies

Audience: Undergraduate

6. Demonstrate that investment in sustainability risk management is value enhancing (that is, make the business case for it)

Audience: Undergraduate

### **R M I 655 – RISK FINANCING TECHNIQUES**

3 credits.

Study of advanced risk management tools and markets for financing loss costs. Topics include: insurance, self-insurance, retrospective premium plans, risk retention and purchasing groups, reinsurance, insurance subsidiaries (captives), and other policyholder-owned facilities.

**Requisites:** (R M I 300 or graduate/professional standing) and (GEN BUS 306, 704, ECON 310, STAT/MATH 309, 431, or MATH 331), and (FINANCE/ECON 300 or FINANCE 700), or declared in the Business Exchange program

**Repeatable for Credit:** No

**Last Taught:** Spring 2025

**Learning Outcomes:** 1. Explain the objective of risk management for corporations, and summarize and interpret how risk management creates value for corporations

Audience: Undergraduate

2. Apply the enterprise risk management process for a corporation

Audience: Undergraduate

3. Use statistical tools (regression, Value-at-Risk, and simulation analysis) to quantify and analyze risk exposures and how they impact the value of a corporation

Audience: Undergraduate

4. Classify and differentiate the institutions, contracts, and strategies available to finance risks

Audience: Undergraduate

5. Evaluate the potential risks to a corporation and generate recommendations regarding the risk management strategy that leads to the greatest increase in corporate value

Audience: Undergraduate

### **R M I 660 – RISK ANALYTICS AND BEHAVIORAL SCIENCE**

3 credits.

Learning to effectively navigate uncertainty is a key issue for all areas of business and especially for those engaged in explicit risk-management activities. The skills for success in these environments include knowing how to formulate the right questions to ask, how to identify the information that is valuable for answering those questions, understanding how to process incoming information to distinguish signal from noise, and how to use that information to put structure to uncertain environments so that one can take good calculated risks. This collective set of skills are at the heart of "decision analysis", which is a structured rational approach to making decisions under uncertainty.

**Requisites:** (R M I 300 or graduate/professional standing) and (GEN BUS 306, 704, 705, ECON 310, MATH/STAT 309, 431, or MATH 331), or declared in the Business Exchange program

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Spring 2025

**Learning Outcomes:** 1. Recognize situations where potential biases in perceptions, understanding, and decisions related to risk management are likely to arise

Audience: Both Grad & Undergrad

2. Articulate the behavioral factors and psychological processes that may generate bias in that situation

Audience: Both Grad & Undergrad

3. Employ appropriate decision/evaluation process and business analytics to help improve decisions in the face of potential bias. These techniques include Monte Carlo Simulation, Decision Tree Analysis, and Expected Value Maximization

Audience: Both Grad & Undergrad

4. Diagnose risk management failures for corporations and suggest techniques and alternative management approaches that could mitigate these risk management issues

Audience: Graduate

**R M I 670 – CYBER RISK & REGULATIONS**

2-3 credits.

Defines cyber risk and studies prominent case examples to become familiar with the many challenges it poses. Includes an in-depth look at the current state of data privacy law both in the US and globally. Establishes a framework and some basic methods to quantify cyber risk. Explores current cyber risk management options in the market including the implementation of internal risk controls as well as options in the burgeoning market for cyber insurance.

**Requisites:** None

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Spring 2025

**Learning Outcomes:** 1. Identify and evaluate exposures, perils, and hazards of cyber risk that companies face

Audience: Both Grad & Undergrad

2. Assess cyber risk and employ basic measurement frameworks

Audience: Both Grad & Undergrad

3. Comply with cyber laws and regulations across geographies with legal exposure

Audience: Both Grad & Undergrad

4. Implement behavioral risk controls to manage the human side of cyber risk

Audience: Both Grad & Undergrad

5. Analyze available cyber risk management options for most efficient use of capital

Audience: Both Grad & Undergrad

6. Explain current cyber risk transfer options in the market

Audience: Both Grad & Undergrad

7. Analyze company cyber risk practices from an enterprise risk perspective

Audience: Graduate

8. Apply a multidisciplinary approach to design organizational data privacy policies

Audience: Graduate

9. Negotiate strategic business contracts with an understanding of rapidly developing data privacy law and compliance

Audience: Graduate

**R M I 700 – PRINCIPLES OF RISK MANAGEMENT**

3 credits.

Nature of risk, principal techniques of risk management, including insurance markets, and the bases for decision-making in managing risk effectively.

**Requisites:** Graduate/professional standing. Not open to students with credit for R M I 300

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Fall 2024

**Learning Outcomes:** 1. Recognize the general types and characteristics of situations involving risk, how to identify them, and why they are important

Audience: Graduate

2. Explain risk preferences and how they impact risk management decisions

Audience: Graduate

3. Apply the risk management process in a situation involving risk

Audience: Graduate

4. Use statistical tools to value, summarize, and analyze risk

Audience: Graduate

5. Differentiate the methods for managing risk: avoidance, risk control, retention, and transfer

Audience: Graduate

6. Judge the effectiveness of a risk management technique for particular risk or portfolio of risks

Audience: Graduate

7. Use statistical tools to demonstrate the benefits of risk pooling

Audience: Graduate

8. Explain the value that sound risk management provides individuals, organizations and society

Audience: Graduate

**R M I/GEN BUS 701 – MANAGING LEGAL RISKS**

3 credits.

Legal implications for business managers of selected areas of the law including negligence, contract, intellectual property, officer/director liability, financing the business enterprise, and employment and trade regulation; introduction to the legal process, including alternative dispute resolution systems.

**Requisites:** Graduate/professional standing or declared in graduate Business Exchange program

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Spring 2019

**RMI 705 – RISK MANAGEMENT AND TECHNOLOGIES IN A DIGITAL AGE**

3 credits.

Develop insight into the principles of risk management, including institutions engaged in identifying, assessing, preventing, mitigating, and transferring risk. Specific focus is given to how the digitization of data, technology, and analytics are creating a new risk landscape, and how conventional risk management approaches can adapt to meet these emerging business needs.

**Requisites:** Graduate/professional standing. Not open to students with credit for RMI 300 or 700.

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Spring 2025

**Learning Outcomes:** 1. Explain risk, including differentiation from uncertainty, and frameworks for risk mitigation and management.

Audience: Graduate

2. Assess, quantify, and categorize emerging risk factors associated with the digital landscape, and how conventional management and mitigation strategies will have to adjust.

Audience: Graduate

3. Anticipate how insurance and risk management operations, institutions, markets, and regulation will evolve due to digital transformation.

Audience: Graduate

4. Support the development of novel risk management, mitigation, and transfer solutions supported by digital technology.

Audience: Graduate

**RMI 710 – RISK MANAGEMENT**

2 credits.

The purpose of risk management is to minimize the adverse consequences of variability. Topics include the general philosophy of risk management, environmental factors affecting risk, options to manage risk, and decision processes to select among those options.

**Requisites:** Graduate Students Only

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Summer 2024

**RMI 765 – CONTEMPORARY TOPICS**

1-4 credits.

Exploration of advanced subject areas possibly to be introduced into the business curriculum.

**Requisites:** Graduate/professional standing or declared in graduate Business Exchange program

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** Yes, unlimited number of completions

**Last Taught:** Fall 2024

**RMI 799 – READING AND RESEARCH-RISK MANAGEMENT**

1-6 credits.

Individual work suited to the needs of graduate students may be arranged.

**Requisites:** Consent of instructor

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** Yes, unlimited number of completions

**Last Taught:** Spring 2025

**RMI 820 – ADVANCED TOPICS IN RISK MANAGEMENT**

3 credits.

Examination of data collection and analysis methods for risk management decisions. Analysis of qualitative and quantitative data to support transfer, retention, and loss control decisions, including loss trending, and evaluation of regulatory controls.

**Requisites:** Consent of instructor

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Spring 2025

**RMI 875 – SEMINAR-RISK MANAGEMENT AND INSURANCE**

3 credits.

Applied learning in risk management and insurance.

**Requisites:** Consent of instructor

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Spring 2024

**RMI 920 – SEMINAR IN ACTUARIAL SCIENCE, RISK MANAGEMENT & INSURANCE I**

3 credits.

Doctoral seminar in actuarial science, risk management and insurance with emphasis on developing an appreciation of existing literature and appropriate skills to conduct own scholarly work in the field.

**Requisites:** Graduate/professional standing or declared in graduate Business Exchange program

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Spring 2025

**RMI 930 – SEMINAR IN ACTUARIAL SCIENCE, RISK MANAGEMENT & INSURANCE II**

3 credits.

Doctoral seminar in actuarial science, risk management and insurance, with emphasis on developing an appreciation of existing literature and appropriate skills to conduct own scholarly work in the field.

**Requisites:** Graduate/professional standing or declared in graduate Business Exchange program

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** No

**Last Taught:** Spring 2018

**R M I 990 – RISK & INSURANCE INDEPENDENT RESEARCH PHD THESIS**

1-12 credits.

Individual work to complete dissertation requirement of Ph.D. program.

**Requisites:** Consent of instructor

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** Yes, unlimited number of completions

**Last Taught:** Spring 2025

**R M I 999 – READING AND RESEARCH-RISK MANAGEMENT AND INSURANCE PHD**

1-6 credits.

Individual work suited to the needs of Ph.D. students may be arranged.

**Requisites:** Consent of instructor

**Course Designation:** Grad 50% - Counts toward 50% graduate coursework requirement

**Repeatable for Credit:** Yes, unlimited number of completions

**Last Taught:** Spring 2023