

Course: Enterprise Risk Management

SYLLABUS

Entrepreneurship, Leadership, Innovation and Technology in Engineering (ELITE) Certificate
Faculty of Applied Science & Engineering | University of Toronto

Course Overview

Risk Management is a highly valued discipline and eagerly sought after by organizations that are heavily regulated, requiring high resiliency, that deal with environmental, health and safety issues, involved in project management, insurance, financial services and also within the public sector.

Enterprise Risk Management (ERM) is a decision support system that helps such organizations understand risk and assure the achievement of their goals. Engineers often play an integral role in an organization's ERM effort, from identifying risk and assisting in the design and implementation of risk response solutions. This course is intended to provide to a high level understanding of what is risk and what does an ERM process look like for organizations including some common challenges and pitfalls of institutionalizing an ERM culture.

Course Objectives

The over-arching aim of this course is to provide an overview of risk management principles and ensure students gain a strong grounding in the risk management discipline and provide an opportunity to apply a contextual risk management framework. This course will:

- Provide students with the knowledge and skills appropriate to the practice of risk management in preparation for a possible career that touches on the broad area of risk management.
- Provide students with a framework, process, skills and tools for the critical analysis of issues relating to an enterprise risk management (ERM) program
- Explain how an organization applies strategic risk management, project risk management and operational risk management
- Explain the concepts of organizations risk position including risk appetite and risk tolerance.
- Demonstrate risk assessment and risk response methods and techniques
- Explain key risk modeling methods, and associated limitations of risk modeling
- Describe ERM in strategic planning, risk oversight and corporate governance, internal audit and control, regulation and compliance
- Explain how an organization's internal culture and external environments relate to its risk management program

Course Format

Upon successful completion of this four (4) day course, the student will be cognizant of best practices in enterprise risk management and will be expected to conduct a risk assessment from the risk event identification process to steps taken by organizations to balance risks and rewards,

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gain an understanding of types of methods that can be used to respond to these risks, monitoring and reporting, and produce high level reports of business risk.

Type: Lecture with interactive group activities

Dates: 4 days - Saturday, October 15, 29, November 12 and November 26, 2016

Duration: 9:00 to 16:30 with 30-minute lunch break

Course Assessment

5% attendance and in-class active participation

35% three (3) exams

60% team project

Students will be required to plan all components of an ERM program based on a case study. Teams will work together to develop, plan, prepare a report on their ERM program and present it in class on Day 4 of this course.

Suggested Reading Materials

TEXTBOOK: Enterprise Risk Management, 1st Edition, Edited by Michael W. Elliott, The Institutes, October 2013

Instructor

Joanna Makomaski is an internationally recognized senior enterprise risk management (ERM) executive and educator. Currently, Joanna is serves as President of Baldwin Global Risk Solutions Inc. where she now shares her 18 years of risk management experience from the energy, healthcare, and mega events planning sectors with clients and industry partners.

Joanna's prior roles included Vice President of Enterprise Risk Management with the Toronto 2015 Organizing Committee of the Pan/Parapan American Games, Vice President and Chief Risk Officer at HealthNow New York, Inc., principal at BGRS Advisory Group, and Risk Manager for Enbridge Inc.

In April 2016, Joanna was honoured with the prestigious Risk Management Professional of the Year 2016 award by the Global Institute of Risk Management in the United Kingdom. In addition, in June 2007, Joanna Makomaski was chosen as one the "100 most influential people in finance" by Treasury and Risk magazine recognized for "elevating risk management to rocket science". Ms. Makomaski is also a staff columnist for Risk and Insurance magazine, an instructor of ERM principles, co-author of "ERM for Dummies", a regular key note speaker, and a licensed professional engineer.

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PART 1 Course outline

Learning objectives

Foundations of Enterprise Risk Management (ERM)

- ERM background, evolution and new world order
- Foundations of ERM: Why?
- Current risk management legislation, regulatory standards and compliance obligations
- Risk management and the role of the Board and senior management

Students shall be able to explain how various drivers have influenced the development of enterprise risk management.

Students shall be able to describe compliance and governance models and their role in an enterprise risk management program.

Understanding Enterprise Risk Management

- Understanding Risk: What is Risk?
- Defining ERM
- Hallmarks of ERM
- Goals, risk rulers and risk position (appetite tolerance)
- ERM five step process overview
- ERM contexts: Strategic risk management, project risk management, operational risk management

Students shall be able to define enterprise risk management and the value that can be provided by an enterprise risk management program

Students shall learn the importance of articulating an organization's goals, values and risk position as well understanding how they assist in setting an organization's materiality standard.

Enterprise Risk Management Process

Step 1: Risk programming

- Vision, mission, values – “Triple bottom line” concept
 - Strategic planning and ERM
 - Role of engineers in risk programming
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PART 2 Course outline	Learning objectives
<p>Enterprise Risk Management Process Step 2: Risk Analysis</p> <ul style="list-style-type: none">• Context of risk analysis• Identifying and describing, measuring and analyzing risk• Expressing risk: introduction concept of heat map, values map, risk modelling, risk-adjusted financial forecasting and portfolio theory• Identification methods• Risk description and expression methods• Role of engineers in risk analysis	<p>Students shall learn how to elicit, describe, and categorize risk events and gain a basic understanding of risk event quantification analysis and engineers assist organizations in these analyses</p> <p>Students shall become familiar with multiple forms of risk prevention and mitigation solutions commonly used within organizations and also learn how engineers assist in risk response planning in organizations.</p>
<p>Enterprise Risk Management Process Step 3: Solution Assessment</p> <ul style="list-style-type: none">• Risk response categories: prevention, mitigation, avoidance, resilience• Occupational health and safety, environmental risk and construction practices, physical and corporate security• Financial solutions, insurance and contract management• Claims and incident management• Organizational resilience, business continuity, disaster recovery, contingency, crisis management plans• Role of engineers in risk solution assessments	

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PART 3 Course outline

Learning objectives

Enterprise Risk Management Process

Step 4: Decision Process

- Risk-based decision making
- Multi hierarchy attribute process
- Role of engineer in risk decisions

Students shall learn how to develop a comprehensive decision model for risk solution options and how engineers assist organizations in this process.

Enterprise Risk Management Process

Step 5: System Administration

- Risk management structure - Board committees (audit, finance, HR), risk management function, internal audit and compliance function
- Key risk indicators and risk position statements
- Risk registers, dashboards, reports
- Organizational Risk Management Maturity assessments
- Risk monitoring and reporting obligations
- Role of engineers in risk administration

Students shall learn the basics of how an enterprise risk management system is administered within an organization and how engineers can assist organizations in this process.

Students shall learn how risk maturity models can be used as an enterprise risk management performance scorecard and add organizational value.

Students shall be able to describe a risk management environment and how an organization's attitude toward risk is influenced by organizational culture

Risk Culture in Organizations

- Diverse value objectives within organizations
- Risk management environment, risk psychology, and culture of discipline
- Importance of common risk language
- Legal considerations, confidentiality, risk information security and privacy
- Hazardous cultures: punitive, fraud environments and morale hazards
- Uncertainty and “black swans”
- Wisdom of the crowds

PART 4 Team ERM project report presentations
