

ENTERPRISES
University of Pretoria

Risk Management Course Series

Presented by the Department of Mining Engineering, University of Pretoria

Welcome to the world of comprehensive risk management education offered by Enterprise University of Pretoria in conjunction with the Department of Mining Engineering.

Our carefully crafted series of courses are designed to cater to individuals at various proficiency levels, providing a structured and strategic approach to establishing and maintaining multi-dimensional risk management frameworks. From the fundamental principles to advanced methodologies, our courses empower participants to navigate the complexities of risk management with confidence and proficiency.

Whether you are a manager seeking to enhance your decision-making capabilities, a supervisor aiming to conduct formal risk assessments, or a safety and risk professional looking to delve into specialized techniques, our courses offer a pathway to excellence aligned with international guidelines, standards, and best practices.

Join us on this journey to elevate your skills, fortify your organization, and champion a culture of safety and risk management excellence.

- 4 to 5 Hour Enterprise Risk Management for Executives.
- 5-Day Operational Risk Management for Manages.
- 3-Day Operational Risk Management for Supervisors.
- 1 Day Operational Risk Management for Employees.
- 12 Day Fundamentals in Risk Management for newly appointed Health, Safety and Environmental officers.
- 16 Day Advance Risk Management for Risk Specialist, Facilitators and Risk Managers,

Empowering Excellence, Ensuring Safety, Transforming Tomorrow!



Shifting knowledge to insight

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CoURSE 1

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Course Series

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1. C-MiRM (Course for Managers in Risk Management) – Level 4 - Executives

Duration:
5 Hours

Course overview:

Enterprise risk management go beyond legal obligations and have the holistic objective with a specific approach to Governance, Risk Management, and Compliance (GRC). This course provide insight to strategic objectives which is subject to risk appetite statements, risk accountabilities, layered approach, and measurement of a risk culture.

In this short 5-hour course, Executives gain a comprehensive understanding of the need of a risk appetite statement (RAS) and the dissemination of leading indicators emanating from high level risk decisions and how this influences the risk tolerance at lower echelon decision makers.

Unpacking the ISO31000 Risk Management guideline within the international framework of The Committee of Sponsoring Organizations of the Treadway Commission (COSO) provide attendees an objective view of the three lines of defenses used for internal control. Discussions follow that will cover risk assessments, control activities, information and monitoring requirements, control environment and the methods of assurance of the aforementioned.

The last session of the course shows practical implementation of an Enterprise Risk Management framework. It allows for dialogues on topics such as risk maturity, risk registers and the use thereof in the boardroom, response plans and critical controls.

Key Learning outcomes:

By attending this course, attendees will be able to:

- Acknowledge the differences between preventable risk, strategic risks, and external risks.
- Recognize the needs for alignment of risk governance on international best practices,
- Identify the structures required for the effective integration of risk management systems.
- Comprehend compliance responsibilities for reporting of key risk indicators.
- Engage effectively and efficiently to the internal control audit framework.
- Validate the presence and efficacy of critical controls within the Bow Tie Analysis control and monitoring regime.
- Develop a risk appetite statement and cultivate understanding of risk decisions.
- Engaging with operational managers on risk maturity and the key risk improvement plans.

Who should attend:

This course is essential for Executives, Operational Managers and Heads of departments.

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CoURSE 2

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4. C-MiRM (Course for Managers in Risk Management) – Level 3 – Managers

Duration:
5 Days

Course overview:

Enhance your risk management skills through our C-MiRM course, designed to equip managers with the tools to establish and maintain a comprehensive risk management framework. Guided by ISO standards like ISO 31000, this course synchronizes risk management processes across various international standards such as ISO 14001 and ISO 45001.



Key Learning outcomes:

By attending this course, delegates will be able to:

- Trace the evolution of risk management.
- Develop action plans for advancing risk maturity based on specific criteria.
- Grasp essential risk management terminology.
- Recognize the links between accident causes, behavioural traits, threat events, and consequences.
- Integrate risk management within a
- multidimensional framework.
- Apply concepts like SWOT and Force Field analysis to identify risk opportunities for improvement.
- Deconstruct risk categories into vital related components.
- Comprehend diverse risk assessment techniques aligned with company objectives.
- Understand critical controls, management regimes, and vulnerability analysis.
- Recognize the layers of protection needed for critical controls.
- Gain insights into Health and Safety Leadership principles.

Who should attend:

- Operational Managers and Heads of Departments
- Operational Middle Management
- Subordinate Managers
- Professional Engineers
- Risk Professionals and Practitioners
- Contractor Managers
- Safety Specialists
- Internal and External Auditors
- Risk Assurance Personnel
- HSE Managers and Officers

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COURSE 3

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2. C-MiRM (Course for Managers in Risk Management) – Level 2 - Supervisors

Duration:
3 days

Course overview:

Elevate your risk management skills with the c-MiRM Level 2 course. This comprehensive course offers a structured approach, complete with well-defined guidelines and strategic insights, to establish and uphold a multi-dimensional risk management framework. Grounded in the principles of the operational risk management layered approach, this course empowers supervisors to conduct formal task-related risk assessments.

Across three intensive days, this course delves into each operational risk management layer, outlining the specific responsibilities of supervisors within each tier. It provides a step-by-step methodology that aligns with the course's comprehensive coverage, including management expectations and the overarching goal of achieving zero harm.



Key Learning outcomes:

By completing this course, attendees will be equipped to:

- Comprehend essential risk management concepts and terminology.
- Apply principles for identifying hazards and assessing risks in the workplace.
- Recognize the influence of human factors and decision-making in the context of risk management.
- Validate the effectiveness of control measures.
- Expertly facilitate high-quality risk assessments and Task Evaluations within a team framework.
- Embrace their roles and responsibilities within the risk management layered approach.
- Proficiently implement and oversee the Risk Identifier process, engaging and coaching team members.
- Grasp the principles underpinning critical controls, critical control management, and control verification.
- Understand the requisites of Health and Safety Leadership principles.

Who should attend:

This course is ideal for Supervisors and Artisans

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CoURSE 4



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1. C-MiRM (Course for Managers in Risk Management) – Level 1 - Employees

Duration:
1 day

Course overview:

Unveil the structured methodology of operational risk management through the c-MiRM Level 1 course. This course equips participants with clear directives and strategic insights to establish and uphold a multi-dimensional risk management framework, utilizing the operational risk management layered approach as its foundation. The objective is to enhance the capabilities of all employees, enabling them to actively engage in the risk management process.

In this concise 1-day course, participants gain a comprehensive understanding of the operational risk management layers. The course delineates employee responsibilities, offering a step-by-step methodology for application.

The structure is designed to foster clarity among team members regarding:

- Essential safety risk management terminologies and concepts.
- Their role in implementing the four-layered safety risk management approach.
- The tools and techniques necessary to assess and manage risks within their operational scope.

Key Learning outcomes:

By attending this course, attendees will be able to:

- Identify workplace and operating environmental hazards.
- Validate the presence and efficacy of all controls.
- Recognize situations necessitating work cessation and the reporting of unsafe conditions, including instances of inadequate or malfunctioning controls.
- Conduct proficient risk assessments using the designated tools for this specific layer.
- Contribute effectively and efficiently to Task Evaluation processes.
- Cultivate continuous situational awareness, engaging with others to uphold vigilance over surrounding risks and intervene when necessary.

Who should attend:

This course is essential for individuals at the frontline of operations, as it equips them with the knowledge and skills to proactively identify, assess, and respond to risks, contributing to the overall safety and well-being of the organisation.

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COURSE 5

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3. C-MiRM (Course for Managers in Risk Management) Fundamentals

Duration:

12 contact days (or option to spread across 10 months with 12 contact session)

Course overview:

Our course is designed to equip managers with a structured approach, clear guidelines, and effective strategies to establish and maintain a multi-dimensional risk management framework. By leveraging the principles of ISO 31000, this program harmonizes risk management processes, including the C-MiRM processes, across existing and forthcoming implementations of key International Standards like ISO 31010 (Risk Management Techniques) and ISO 45001 (Occupational Health and Safety Management Systems).

This comprehensive course provides a broad perspective on the related International Standards, primarily focusing on Operational Risk Management within a layered approach, addressing risks both horizontally and vertically.

The C-MiRM Fundamentals program comprises 7 modules with interactive assignments spanning over a ten-month period. This includes an initial three-day contact session followed by eight monthly contact days, with the final assessment conducted on the tenth day. This arrangement encompasses twelve interactive contact days distributed across ten months.

Key Learning outcomes:

Throughout the course, participants will:

- Evaluate risk management evolution.
- Advance risk maturity with targeted plans.
- Master risk management vocabulary.
- Uncover accident-behaviour-event connections.
- Integrate risk seamlessly in multi-dimensions.
- Apply SWOT, Force Field for risk insight.
- Dissect risk categories effectively.
- Grasp pragmatic risk assessment techniques.
- Understand critical controls and management.
- Appreciate layers for control effectiveness.
- Embrace ISO-compliant Safety Leadership.

Who should attend:

- Newly appointed Risk professionals
- Newly appointed Safety practitioners
- Internal and external auditors
- Risk assurance personnel
- HSE Officers



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CoURSE 6

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6. C-MiRM (Course for Managers in Risk Management) - Advanced

Duration:

16 days (or option of delivery over 3 months with 16 contact days)

Course overview:

Empower Safety and Risk Personnel with specialized knowledge in risk management techniques aligned with international guidelines, standards, and best practices. Leveraging ISO 31010 (Risk Management Techniques), this course equips participants with a comprehensive understanding of advanced risk methodologies.

c-MiRM Advanced elevates the application of methodologies by providing detailed insights into planning, implementing, verifying, and validating risk management techniques within the scope and framework of ISO 31000. Covering a diverse range of techniques, this course guides participants through the phases of implementing a layered risk approach across horizontal and vertical tiers. These techniques are vital for risk identification, analysis, and evaluation, as outlined in ISO 31000, and are universally relevant whenever understanding uncertainty and its impact on risk is essential.

The C-MiRM Advanced program is structured around six modules, each featuring interactive assignments, and is delivered with at least 16 contact days.

This is an extensive course having 20 compulsory practical assignments. The course requires each attendee to write 4 examinations allocated to each of the sessions. Examinations consists of Theory, Practical application, comprehension of guiding principles.

Key Learning outcomes:

Throughout the course, participants will:

- Understand the objectives, methodology, advantages, limitations, and use of risk assessment techniques.
- Grasp various risk assessment techniques, ERM, Baseline, Issue based, Lifecycle, Project, HAZOP, FMECA, Bow Tie Analysis Masterclass, FTA/ETA, SWOT and Force Field, Facilitation skills.
- Understand the process of selecting appropriate risk management techniques.
- Comprehend the objectives of distinct risk assessment and analysis techniques.
- Seamlessly integrate risk management techniques within a multi-dimensional framework.
- Apply concepts and methods to proficiently identify, analyse, and evaluate responses in line with established guidelines.
- Gain a firm understanding of using a risk matrix, risk measurement, and trigger mechanisms tailored to each technique.
- Recognize the limitations of techniques within their applicable scope.
- Acquire the ability to devise a change process utilizing principles from SWOT and Force Field analysis.

Who should attend:

- Risk professionals and practitioners
- Safety specialists
- Internal and external Auditors
- Risk assurance personnel
- HSE Managers and Officers
- Anyone involved in assessing or managing risk

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CoURSE 7

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7. Bow Tie Analysis Masterclass

Duration:
3 days

Course overview:

The Bow Tie Analysis Masterclass is a comprehensive training programme designed to equip participants with a practical and proactive approach to risk analysis within the mining and related mineral resources industries. This course focuses on the strategic significance of Bow Tie Analysis, offering a visual framework to compare audit outcomes, accidents, and incidents. Through the analysis of risk identification processes using passive and active controls, participants will gain valuable insights. The course includes hands-on experience with BowTieXP software, enhancing understanding of energy timelines, threat assessment, consequence evaluation, and strategies for mitigating major accidents.

Who should attend:

This course is suitable for a diverse range of professionals, including:

- Production and project managers
- Engineers and junior engineers
- Geotechnical managers and rock engineers
- Mineral resource managers
- Survey managers
- Training managers
- Metallurgical managers
- Process managers
- Risk and safety managers
- Environmental managers
- Occupational hygienists
- Occupational medical practitioners
- Community and social development managers
- Managers responsible for risk-related decisions at various levels

Key Learning outcomes:

Upon successful completion of this course, participants will:

- Acquire a solid grasp of BowTieXP terminology and its application.
- Demonstrate proficiency in organizing data within the software program.
- Develop the ability to establish rules and guidelines for decision-making criteria.
- Gain competence in defining a company's risk appetite.
- Comprehend critical control identification, role classification, and management responsibilities.
- Interpret Bow Tie Analysis diagrams, evaluating their effectiveness and vulnerability against set criteria.
- Break down information into interconnected components, recognizing relationships between accident causes, behaviour traits, and Bow Tie threats and consequences.
- Define escalating factors that can compromise control effectiveness and classify them within cognitive domains and material/equipment categories.
- Create standards for critical control performance, verification, and trigger action response plans (TARPs).
- Utilize deductive reasoning to construct and improve Bow Tie diagrams, devise action plans, and propose cost-effective control measures to enhance integrated risk management objectives.

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5. C-MiRM (Course for Managers in Risk Management) Refresher – Middle Managers

Duration:
2 days

Course overview:
Enhance your risk management expertise with the c-MiRM Refresher course. This refresher course offers a structured approach, guiding you through well-defined guidelines and strategies to establish and uphold a dynamic multi-dimensional risk management framework. Anchored in the principles of ISO 31000, this course harmonizes risk management processes across diverse international standards, including ISO 31010 (Risk Management Techniques) and ISO 45001 (Occupational Health and Safety Management Systems).

Key Learning outcomes:
Upon course completion, you will:

- Comprehend risk management's evolution.
- Develop actionable plans for risk maturity.
- Master essential risk management vocabulary.
- Discern intricate accident-behaviour-event relationships.
- Integrate risk activities across dimensions.
- Apply innovative concepts like SWOT analysis.
- Break down complex risk information adeptly.
- Grasp practical risk assessment techniques.
- Understand critical control principles.
- Internalize Health and Safety Leadership requisites.
- Safeguard critical controls with protection assurance.

Who should attend:
- Executives
- Operational Managers
- Professional Engineers
- Risk Professionals
- Safety Specialists
- Auditors
- HSE Managers



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At Enterprises UP, we understand that every organisation is unique, facing distinct challenges and opportunities. That's why we invite you to contact us today for a bespoke solution that addresses your specific requirements. Let us help you chart a course towards enhanced risk management success.

Join us and embrace a future where risk becomes an opportunity.



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