

Enterprise Risk Management

Subject Syllabus 2026





1. Overview and aim

This subject is a Fellowship principles subject.

The subject aims to promote the concept of the actuary as a trained ERM practitioner, both effective as a Line 1 manager of risk, but also capable of moving into specialist risk management Line 2 roles. The subject is inherently principles-based, ensuring that the skills will remain transferable for students as they transition across different industries and geographies throughout their careers. Importantly, students will have been trained ‘to be experts in ERM, adding value to businesses in the traditional actuarial fields and in the newer, wider fields’¹. The subject aims to provide students with the confidence to explore roles outside their traditional comfort zone in financial services and financial risk management. This aligns with the growing regulatory expectation that actuaries start adding more value in non-financial risk management.

In this subject, you will learn how to apply risk management concepts, skills, and techniques to achieve organisational objectives. Risk is ‘the effect of uncertainty on objectives’², so it follows that enterprise risk management should take an organisation-wide approach to support the management of uncertainty on objectives.

The syllabus, level of assessment, and required skill level for this subject have been adopted from the Global Syllabus for the Chartered Enterprise Risk Actuary (CERA). This subject is an approved pathway for the CERA credential.

2. Student outcomes

After completing this subject, students will be able to:

- explain the fundamentals of ERM, including the impact of internal and external environments on risk;
- apply the elements of a risk assessment process in an organisation; and
- propose strategies for embedding ERM into organisational decision-making processes.

¹ What a CERA knows about ERM—CERA Global Association.

² ISO Guide 73:2009(en), Risk management—Vocabulary.



3. Prerequisites

It is assumed that students have studied (but not necessarily passed) the Foundation and Actuary program subjects or equivalent.

It is assumed students are confident in key risk modelling competencies covered in Subject CS2A Risk Modelling and Survival Analysis, specifically in relation to:

- *Risk Distributions*—Describe and use statistical distributions for risk modelling;
- *Time Series*—Describe and apply the main concepts underlying the analysis of time series models;
- *Stochastic Processes*—Describe and apply Markov chains and processes; and
- *Survival Models*—Describe and apply techniques of survival analysis.

Further, it is assumed that students will be able to apply learnings from the Control Cycle to the ERM learning objectives.

4. Assessment skill level

Assessment of this subject will be split across the following skill levels:

- Simple Application (25%): demonstration of a detailed knowledge and understanding of the topic;
- Application (50%): demonstration of an ability to apply the principles underlying the topic within a given context; and
- Higher Order (25%): demonstration of an ability to perform deeper analysis and assessment of situations, including forming judgements, considering different points of view, comparing and contrasting situations, suggesting possible solutions and actions and making recommendations.

5. Assessment method

The subject is assessed via a three-hour (plus 15-minute reading time) open-book examination worth 80% of the mark and an assignment worth 20% of the mark.



6. Learning objectives

1. Explain the fundamentals of Enterprise Risk Management (ERM).

- 1.1 Describe the concept of ERM, the drivers behind it and the resulting value to organisations.
- 1.2 Demonstrate the application of a risk control process, such as the risk management process.
- 1.3 Describe the characteristics of effective risk communication appropriate for the target audience.

2. Consider the elements of the internal environment of an organisation that support effective risk management.

- 2.1 Recommend an appropriate enterprise risk management framework for an organisation.
- 2.2 Evaluate the health of an organisation's risk management culture.
- 2.3 Demonstrate an understanding of governance issues, such as agency, compliance and legal risks and the need for audit and market conduct compliance activities.
- 2.4 Evaluate the elements and structure of a successful risk management function.
- 2.5 Analyse the ERM roles and responsibilities of the people within an organisation and how the different groups can collaborate effectively.

3. Explain the elements of the external environment that affect organisations.

- 3.1 Examine the impact of the external environment on an organisation's ability to achieve its objectives.
- 3.2 Describe how an organisation can adapt to unforeseen changes in its risk environment.

4. Examine and categorise risks within an organisation.

- 4.1 Describe how individual risks might be categorised in different ways.



4.2 Identify specific risks faced by an organisation.

4.3 Detect emerging risks.

4.4 Determine an appropriate monitoring mechanism for emerging risks.

5. Assess risks to an organisation.

5.1 Determine the implications of risks on the balance sheet and income statement.

5.2 Describe the properties and limitations of common risk measures (e.g. VaR and TVaR).

5.3 Demonstrate risk aggregation techniques that illustrate the concept of risk diversification.

5.4 Demonstrate the use of scenario analysis and stress testing in the measurement of risks.

5.5 Demonstrate the use of techniques to assess risk accumulations and compounding risks.

5.6 Demonstrate how events of low frequency and high severity can be modelled.

5.7 Demonstrate an understanding of model risk.

5.8 Propose an appropriate modelling technique that meets organisational needs to analyse risks.

5.9 Analyse risks that can be quantified using appropriate methods.

5.10 Analyse risks that are not easily quantifiable, such as operational, environmental and contagion-related risks.

6. Examine how an organisation makes decisions in the presence of uncertainty.

6.1 Describe how an organisation can articulate its approach to risk using risk appetite and risk limits.

6.2 Determine how an organisation's risks and opportunities influence the selection of strategy.



- 6.3 Determine how ERM can be appropriately embedded into an organisation's strategic planning.
- 6.4 Assess the risk and return trade-offs for decisions (e.g. those targeting changes in the organisation's risk profiles).
- 6.5 Demonstrate application of the following responses to risk, including consideration of their costs and benefits: avoidance, acceptance, reduction without transfer, and transfer to a third party.
- 6.6 Assess how an organisation's risk decisions affect its stakeholders.

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7. Propose techniques to respond to and manage risk in an organisation.

- 7.1 Propose ERM solutions or strategies that effectively manage risk under different real (case study) and hypothetical situations facing organisations.
- 7.2 Demonstrate the use of controls in an organisational process.
- 7.3 Demonstrate how derivatives or similar methods may be used to manage or reduce risk.



- 7.4 Demonstrate how reinsurance or similar methods may be used to manage or reduce risk.
- 7.5 Analyse how ALM and similar risk strategies can be used to manage or reduce risk in an organisation.
- 7.6 Demonstrate possible techniques for managing non-financial risks.
- 7.7 Explain how to manage the impact of significant events after they have occurred (e.g. customer remediation).
- 8. Examine the use of capital by organisations.**
- 8.1 Demonstrate a conceptual understanding of economic measures of value and capital requirements (e.g. EVA, embedded value, economic capital, regulatory measures, and accounting measures) and their uses in decision-making processes.
- 8.2 Explain how to develop a capital model for a hypothetical organisation.
- 8.3 Apply risk measures (such as VaR and TVaR) and demonstrate how to use them in value and capital assessment.
- 8.4 Demonstrate the use of techniques to allocate risk once aggregated.
- 8.5 Propose techniques of attributing the 'cost' of risk/capital strategies to business units to gauge performance (e.g. returns on marginal capital).



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Actuaries use data for good by harnessing the evidence to navigate into the future and make a positive impact. They think deeply about the issue at hand, whether it's advising on commercial strategy, influencing policy, or designing new products. Actuaries are adept at balancing interests of stakeholders, clients and communities. They're called upon to give insight on complex problems and they'll look at the full picture. Actuaries analyse the data and model scenarios to form robust and outcome-centred advice.

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