

Bachelor of Arts (VS)- Insurance Management

Semester VII

Discipline Specific Elective Course -7.1 (Dse-7.1)- Enterprise Risk Management

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
ENTERPRISE RISK MANAGEMENT (DSE- 7.1)	4	3	-	1	12th	-

Learning Objectives:

- To provide comprehensive knowledge of risk management models.
- To understand internal and external factors affecting risk in financial institutions.
- To explain tools and techniques used for risk identification.
- To develop insights into quantitative and qualitative risk measures.
- To introduce statistical concepts relevant to risk modeling.
- To equip students with knowledge and skills required for enterprise risk management.

Learning Outcome: Students will be able to:

- Explain the principles and scope of ERM in the context of financial institutions.
- Compare different risk management frameworks.
- Identify and classify a wide range of risks including emerging risks like cyber and climate risk.
- Utilize appropriate risk identification tools and techniques.
- Apply and interpret various risk measures (VaR, TVaR, etc.).
- Analyse data using statistical methods including correlation, regression, and copulas.

Course Content

(Theory 45 Hours + 30 hours Practical)

Unit 1: An introduction to enterprise risk management

10 Hours

Definitions and concepts of risk, significance of managing risk. Enterprise risk management frameworks. Corporate governance. Models of risk management. The risk management time horizon. Types of financial institution, banks, insurance companies, pension schemes.

Foundations and endowments. The internal environment of an enterprise: internal stakeholders, culture, structure, capabilities. The external environment of an enterprise: external stakeholders, political environment, economic environment, social and cultural environment, competitive environment, regulatory environment, professional environment, industry environment.

Unit 2: Risk categories and identification

10 Hours

Identify the risks faced by an entity, including market and economic risk, interest rate risk, foreign exchange risk, credit risk, liquidity risk, systemic risk, demographic risk, non-life insurance risk, operational risks, residual risks, environmental risk, legal risk, regulatory risk, political risk, agency risk, reputational risk, project risk, strategic risk, including climate risk and cyber risk, demographic risk and moral hazard. Risk identification: risk identification tools, risk identification techniques, assessment of risk nature, risk register.

Unit 3: Risk measurement and assessment

10 Hours

The different methods of assessing risk, Understand common risk measures. The properties and limitations of the following risk measures: Value at Risk (VaR), Tail Value at Risk (TVaR), Probability of ruin, Expected shortfall. Determine risk exposures and tolerances using these measures. Choosing of suitable time horizon and risk discount rate.

Unit 4: Modelling techniques

15 Hours

Spread, Skew, Kurtosis, Correlation, Regression. Statistical distributions: Univariate discrete distributions: Univariate continuous distributions, Multivariate distributions, Copulas, fitting data to a distribution, fitting data to a model, smoothing data, using models to classify data, Uncertainty, Credibility, Model validation. Modelling time series, Deterministic modelling, Stochastic modelling, Time series processes.

Reference

- Crouhy, M., Galai, D., & Mark, R. (2014). *The essentials of risk management* (2nd ed.). McGraw-Hill Education.
- Lam, J. (2014). *Enterprise risk management: From incentives to controls* (2nd ed.). Wiley.
- McNeil, A. J., Frey, R., & Embrechts, P. (2015). *Quantitative risk management: Concepts, techniques and tools* (Revised ed.). Princeton University Press.

Practical: The learners are required to:

- Submit a report on enterprise risk management practice of an enterprise of your choice.
- Describe and analyse the internal and external environment of an enterprise of your choice.
- Identify and measure the risks faced by an enterprise of your choice and prepare a report on that. Propose changes for the better management of risks of such enterprise.
- Design a risk management model for the enterprise of your choice.
- The learners are required to do practical exercise from unit 3 & 4