

# The Hong Kong University of Science and Technology

## UG Course Syllabus

[Course Title] System Risk Management

[Course Code] IEDA4510

[No. of Credits] 3

[Any pre-/co-requisites] Calculus, Probability, Linear Algebra, IEDA 3010 AND IEDA 3250

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### Course Description

Risk management has drawn tremendous amount of attention from various industries. This course focuses on the risk within financial institutions. This course covers the basic concepts of financial risks and provides analytical approaches to quantify and control various types of risk in finance.

### Major Topics Covered

- Banks
- Insurance and Pension Plans
- Mutual Funds, ETFs, and Hedge Funds
- Trading in Financial Markets
- Valuation and Scenario Analysis
- Managing Risks
- Interest Rate Risk
- Volatility
- Value at Risk and Expected Shortfall

### Assessments

Assessment Task	Contribution to Overall Course grade (%)
Homework	20%
Mid-term	35%
Final Exam	45%

### Textbook

Risk Management and Financial Institutes, Fifth Edition, by John C. Hull, Wiley