UNSW Course Outline

RISK5009 Risk Management Strategies - 2024

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General Course Information

Course Code : RISK5009
Year : 2024
Term : Term 3
Teaching Period : T3
Is a multi-term course? : No
Faculty : UNSW Business School
Academic Unit : School of Risk and Actuarial Studies
Delivery Mode : In Person
Delivery Format : Standard
Delivery Location : Kensington
Campus : Sydney
Study Level : Postgraduate
Units of Credit : 6

Useful Links

Handbook Class Timetable

Course Details & Outcomes

Course Description

Navigating the volatile world of financial markets demands a precise and efficient risk assessment framework. This course empowers the participants with various risk measurement techniques which are commonly employed by financial industry professionals. Topics include

the foundational concepts for risk analysis, such as probability distributions, statistical inference, linear regression, time series analysis, and risk modelling techniques. Furthermore, key measurement methodologies, such as VaR, expected shortfall, parametric and non-parametric estimation, default likelihood, credit VaR, expected and unexpected loss for various risks will be introduced.

Course Aims

This course aims to equip students with tools necessary for effective risk measurement. Students will develop expertise in applying quantitative methodologies to assess risk and will also become aware of the challenges that face risk analysists as they implement quantitative models.

Relationship to Other Courses

This course introduces risk assessment tools for various financial risks. It's a recommended course for those pursuing certifications in financial risk management.

Course Learning Outcomes

Course Learning Outcomes	Program learning outcomes
CLO1 : Understand the foundational statistical concepts for risk analysis	• PLO1 : Business Knowledge • PLO2 : Problem Solving
CLO2 : Apply a range of quantitative methods to measure various risks	• PLO1 : Business Knowledge • PLO2 : Problem Solving • PLO3 : Business Communication
CLO3 : Explain the advantages and disadvantage of the measurement approaches	• PLO1 : Business Knowledge • PLO2 : Problem Solving • PLO3 : Business Communication • PLO5 : Responsible Business Practice
CLO4 : Connect theoretical concepts with real-world risk modelling applications	• PLO1 : Business Knowledge • PLO2 : Problem Solving • PLO3 : Business Communication • PLO5 : Responsible Business Practice • PLO6 : Global and Cultural Competence

Course Learning Outcomes	Assessment Item
CLO1 : Understand the foundational statistical concepts for risk analysis	• Tutorial Participation and Discussion • Weekly Quiz Questions • Assignment • Final exam
CLO2 : Apply a range of quantitative methods to measure various risks	• Tutorial Participation and Discussion • Weekly Quiz Questions • Assignment • Final exam
CLO3 : Explain the advantages and disadvantage of the measurement approaches	• Tutorial Participation and Discussion • Weekly Quiz Questions • Assignment • Final exam
CLO4 : Connect theoretical concepts with real-world risk modelling applications	• Tutorial Participation and Discussion • Weekly Quiz Questions • Assignment • Final exam

Learning and Teaching Technologies

Moodle - Learning Management System

Learning and Teaching in this course

The philosophy underpinning this course and its Teaching and Learning Strategies are based on

‘Guidelines on Learning that Inform Teaching at UNSW’. Specifically, the lectures, tutorials, and assessments have been designed to appropriately challenge students and support the achievement of the desired learning outcomes.

The broad approach to learning and teaching in the course is to combine institutional knowledge, theoretical analysis, and practical examples. With appropriate guidance, students are encouraged to take responsibility for their own learning through a combination of:

• Review of course material, lecture slides, and the lectures/lecture recordings;

• Interactive discussion of issues with the course coordinator;

• Class discussions (face-to-face or via online discussion forums);

• Feedback through exercises, class participation, and comments on class discussions.

This approach equips students to be able to develop the necessary analytical and communication skills to assess new problems encountered, rather than rote learning of particular problems, which are unlikely to be met in precisely the same format in practice.

Assessments

Assessment Structure

Assessment Item	Weight	Relevant Dates	Program learning outcomes
Tutorial Participation and Discussion Assessment Format: Individual	5%		• PLO1 : Business Knowledge • PLO2 : Problem Solving • PLO3 : Business Communication
Weekly Quiz Questions Assessment Format: Individual Short Extension: Yes (1 day)	30%		• PLO1 : Business Knowledge • PLO2 : Problem Solving • PLO3 : Business Communication • PLO5 : Responsible Business Practice
Assignment Assessment Format: Individual Short Extension: Yes (3 days)	30%		
Final exam Assessment Format: Individual	35%		• PLO1 : Business Knowledge • PLO2 : Problem Solving • PLO3 : Business Communication • PLO5 : Responsible Business Practice • PLO6 : Global and Cultural Competence

Assessment Details

Tutorial Participation and Discussion

Assessment Overview

To help students reinforce and clarify the concepts covered in the lectures.

Course Learning Outcomes

- CLO1 : Understand the foundational statistical concepts for risk analysis
- CLO2 : Apply a range of quantitative methods to measure various risks
- CLO3 : Explain the advantages and disadvantage of the measurement approaches
- CLO4 : Connect theoretical concepts with real-world risk modelling applications

Assessment information

Week 1-5, 7-10

Generative AI Permission Level

Planning/Design Assistance

You are permitted to use generative AI tools, software or services to generate initial ideas, structures, or outlines. However, you must develop or edit those ideas to such a significant extent that what is submitted is your own work, i.e., what is generated by the tool, software or service should not be a part of your final submission. You should keep copies of your iterations to show your Course Authority if there is any uncertainty about the originality of your work.
If your Convenor has concerns that your answer contains passages of AI-generated text or media that have not been sufficiently modified you may be asked to explain your work, but we recognise that you are permitted to use AI generated text and media as a starting point and some traces may remain. If you are unable to satisfactorily demonstrate your understanding of your submission you may be referred to UNSW Conduct & Integrity Office for investigation for academic misconduct and possible penalties.
For more information on Generative AI and permitted use please see here.

Weekly Quiz Questions

Assessment Overview

To develop students' critical thinking skills

Course Learning Outcomes

- CLO1 : Understand the foundational statistical concepts for risk analysis
- CLO2 : Apply a range of quantitative methods to measure various risks
- CLO3 : Explain the advantages and disadvantage of the measurement approaches

- CLO4 : Connect theoretical concepts with real-world risk modelling applications

Assessment information

Details will be shared on Moodle.

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Assignment

Assessment Overview

To help students to practice the concepts learned in the lecture.

Course Learning Outcomes

- CLO1 : Understand the foundational statistical concepts for risk analysis
- CLO2 : Apply a range of quantitative methods to measure various risks
- CLO3 : Explain the advantages and disadvantage of the measurement approaches
- CLO4 : Connect theoretical concepts with real-world risk modelling applications

Assessment information

Two assignments will be given.

Assignment submission Turnitin type

This assignment is submitted through Turnitin and students can see Turnitin similarity reports.

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Final exam

Assessment Overview

To assess students' knowledge of course contents

Course Learning Outcomes

- CLO1 : Understand the foundational statistical concepts for risk analysis
- CLO2 : Apply a range of quantitative methods to measure various risks
- CLO3 : Explain the advantages and disadvantage of the measurement approaches
- CLO4 : Connect theoretical concepts with real-world risk modelling applications

Generative AI Permission Level

No Assistance

This assessment is designed for you to complete without the use of any generative AI. You are not permitted to use any generative AI tools, software or service to search for or generate information or answers.
For more information on Generative AI and permitted use please see here.

General Assessment Information

Tutorial Participation and Discussion (5%)

The purpose of the tutorial class is to reinforce and clarify the concepts and issues covered in the lectures, and to provide a forum for further analysis and discussion of these issues. 5% of the course marks are reserved for tutorial participation and discussion. In order to obtain the marks, you must participate in a relevant and constructive way in tutorial activities and discussions.

Your tutor is the final judge of the quality of your participation. A record of attendance at tutorials will be kept.

Weekly Quiz Questions (30%)

The course offers weekly quiz questions to practice the concepts you have learned each week.

Assignments (30%)

The assignment provides an opportunity for you to develop your critical thinking skills. Please see more information about the assignment on the course website.

Final Exam (35%)

The purpose of the Final Exam is to assess your understanding of all material presented in the course, including lectures and the exercises and questions covered in tutorials. The Final Exam will be held during the University examination period and will be 1 hours. The Final Exam will cover the entire course.

As a student at UNSW you are expected to display academic integrity in your work and interactions. Where a student breaches the UNSW Student Code with respect to academic integrity, the University may take disciplinary action under the Student Misconduct Procedure.

Grading Basis

Standard

Requirements to pass course

In order to pass this course students must:

- Achieve a composite mark of at least 50 out of 100
- Engage actively in course learning activities and attempt all assessment requirements
- Meet any additional requirements specified in the assessment details
- Meet the specified attendance requirements of the course

Course Schedule

Teaching Week/Module	Activity Type	Content
Week 1 : 9 September - 15 September	Lecture	Introduction to Risk Management Process
Week 2 : 16 September - 22 September	Lecture	Foundational Concepts for Market Risk Assessment
Week 3 : 23 September - 29 September	Lecture	VaR and Expected Short Fall
Week 4 : 30 September - 6 October	Lecture	Portfolio Risk Measurement
Week 5 : 7 October - 13 October	Lecture	VaR System
Week 6 : 14 October - 20 October	Other	Felxibility Week. No Lecture, No Tutorial
Week 7 : 21 October - 27 October	Lecture	Foundational Concepts for Credit Risk Assessment
Week 8 : 28 October - 3 November	Lecture	Credit Risk Measurement
Week 9 : 4 November - 10 November	Lecture	Asset and Liability Managment
Week 10 : 11 November - 17 November	Lecture	Liquidity Risk Management and Review

Attendance Requirements

Students are strongly encouraged to attend all classes and review lecture recordings.

General Schedule Information

Lectures

The purpose of lectures is to provide a logical structure for the topics that make up the course and to emphasise the important or difficult concepts and methods of each topic. Lectures commence in Week 1.

Tutorials

Tutorials begin in Week 1 and are an integral part of the course. The tutorial questions and exercises provide a vehicle for discussion of applications and case studies of the concepts and theories introduced in lectures.

Course Resources

Prescribed Resources

The website for this course is on Moodle, which contains the following information:

- Announcements
- Course outline
- Lecture slides and recording
- Tutorial exercises and solutions
- Online quizzes and assignment information and feedbacks

- Final exam information and instruction

The recommended textbooks for the course are:

Philippe Jorion, “Value at Risk". Third edition, McGraw Hill

Christoffersen, P, Elements of Financial Risk Management, Academic Press.

Anthony Saunders, Marcia Cornett and Otgo Erhemjamts, “Financial Institutions Management, A Risk Management Approach”. 11th edition, McGraw Hill

Course Evaluation and Development

Feedback is regularly sought from students and continual improvements are made based on this feedback. At the end of this course, you will be asked to complete the myExperience survey, which provides a key source of student evaluative feedback. Your input into this quality enhancement process is extremely valuable in assisting us to meet the needs of our students and provide an effective and enriching learning experience. The results of all surveys are carefully considered and do lead to action towards enhancing educational quality.

In this course, we will seek your feedback through end-of-term myExperience responses, as well as voluntary weekly student feedback surveys. You are strongly encouraged to take part in the feedback process. We take student feedback and evaluations very seriously and respond to comments and suggestions made by students in the current and future course design and assessments.

Staff Details

Position	Name	Email	Location	Phone	Availability	Equitable Learning Services Contact	Primary Contact
	Shirley Huang		School of Risk and Actuarial Studies		TBA on Moodle	No	Yes

Other Useful Information

Academic Information

COURSE POLICIES AND SUPPORT

The Business School expects that you are familiar with the contents of this course outline and

the UNSW and Business School learning expectations, rules, policies and support services as listed below:

- Program Learning Outcomes
- Academic Integrity and Plagiarism
- Student Responsibilities and Conduct
- Special Consideration
- Protocol for Viewing Final Exam Scripts
- Student Learning Support Services

Further information is provided on the Policies and Guidelines page.

Students may not circulate or post online any course materials such as handouts, exams, syllabi or similar resources from their courses without the written permission of their instructor.

STUDENT LEARNING OUTCOMES

The Course Learning Outcomes (CLOs) – under the Outcomes tab – are what you should be able to demonstrate by the end of this course, if you participate fully in learning activities and successfully complete the assessment items.

CLOs also contribute to your achievement of the Program Learning Outcomes (PLOs), which are developed across the duration of a program. PLOs are, in turn, directly linked to UNSW graduate capabilities. More information on Coursework PLOs is available on the Policies and Guidelines page. For PG Research PLOs, including MPDBS, please refer to UNSW HDR learning outcomes.

Academic Honesty and Plagarism

As a student at UNSW you are expected to display academic integrity in your work and interactions. Where a student breaches the UNSW Code of Conduct with respect to academic integrity, the University may take disciplinary action. To assure academic integrity, you may be required to demonstrate reasoning, research and the process of constructing work submitted for assessment.

To assist you in understanding what academic integrity means, and how to ensure that you do comply with the UNSW Code of Conduct, it is strongly recommended that you complete the Working with Academic Integrity module before submitting your first assessment task. It is a free, online self-paced Moodle module that should take about one hour to complete.

Submission of Assessment Tasks

SHORT EXTENSIONS

Short Extension is a new process that allows you to apply for an extended deadline on your assessment without the need to provide supporting documentation, offering immediate approval during brief, life-disrupting events. Requests are automatically approved once submitted.

Short extensions are ONLY available for some assessments. Check your course outline or Moodle to see if this is offered for your assessments. Where a short extension exists, all students enrolled in that course in that term are eligible to apply. Further details are available the UNSW Current Students page.

SPECIAL CONSIDERATION

You can apply for special consideration when illness or other circumstances beyond your control interfere with your performance in a specific assessment task or tasks, including online exams. Special consideration is primarily intended to provide you with an extra opportunity to demonstrate the level of performance of which you are capable.

Applications can only be made online and will NOT be accepted by teaching staff. Applications will be assessed centrally by the Case Review Team, who will update the online application with the outcome and add any relevant comments. The change to the status of the application immediately sends an email to the student and to the assessor with the outcome of the application. The majority of applications will be processed within 3-5 working days.

For further information, and to apply, see Special Consideration on the UNSW Current Students page.

LATE SUBMISSION PENALTIES

LATE SUBMISSION PENALTIES

For assessments other than examinations, late submission will incur a penalty of 5% per day or part thereof (including weekends) from the due date and time. An assessment will not be accepted after 5 days (120 hours) of the original deadline unless special consideration has been approved. In the case of an approved Equitable Learning Plan (ELP) provision, special consideration or short extension, the late penalty applies from the date of approved time

extension. After five days from the extended deadline, the assessment cannot be submited.

An assessment is considered late if the requested format, such as hard copy or electronic copy, has not been submitted on time or where the 'wrong' assessment has been submitted.

For assessments which account for 10% or less of the overall course grade, and where answers are immediately discussed or debriefed, the LIC may stipulate a different penalty. Details of such late penalties will be available on the course Moodle page.

FEEDBACK ON YOUR ASSESSMENT TASK PERFORMANCE

Feedback on student performance from formative and summative assessment tasks will be provided to students in a timely manner. Assessment tasks completed within the teaching period of a course, other than a final assessment, will be assessed and students provided with feedback, with or without a provisional result, within 10 working days of submission, under normal circumstances. Feedback on continuous assessment tasks (e.g. laboratory and studio-based, workplace-based, weekly quizzes) will be provided prior to the midpoint of the course.

Faculty-specific Information

PROTOCOL FOR VIEWING FINAL EXAM SCRIPTS

UNSW students have the right to view their final exam scripts, subject to a small number of very specific exemptions. The UNSW Business School has set a protocol under which students may view their final exam script. Individual schools within the Faculty may also set up additional local processes for viewing final exam scripts, so it is important that you check with your School.

If you are completing courses from the following schools, please note the additional school-specific information:

- Students in the **School of Accounting, Auditing & Taxation** who wish to view their final examination script should also refer to this page.
- Students in the **School of Banking & Finance** should also refer to this page.
- Students in the **School of Information Systems & Technology Management** should also refer to this page.

COURSE EVALUATION AND DEVELOPMENT

Feedback is regularly sought from students and continual improvements are made based on this feedback. At the end of this course, you will be asked to complete the myExperience survey,

which provides a key source of student evaluative feedback. Your input into this quality enhancement process is extremely valuable in assisting us to meet the needs of our students and provide an effective and enriching learning experience. The results of all surveys are carefully considered and do lead to action towards enhancing educational quality.

QUALITY ASSURANCE

The Business School is actively monitoring student learning and quality of the student experience in all its programs. A random selection of completed assessment tasks may be used for quality assurance, such as to determine the extent to which program learning goals are being achieved. The information is required for accreditation purposes, and aggregated findings will be used to inform changes aimed at improving the quality of Business School programs. All material used for such processes will be treated as confidential.

TEACHING TIMES AND LOCATIONS

Please note that teaching times and locations are subject to change. Students are strongly advised to refer to the Class Timetable website for the most up-to-date teaching times and locations.