

**School of Administrative Studies
Faculty of Liberal Arts and Professional Studies**

AP/ADMS 4509 Financial Risk Management

Winter 2025 – Course Outline

PLEASE READ THE OUTLINE CAREFULLY!

Instructor: Yama Moradi

eClass: Access to the website is granted automatically to enrolled students.

Email: yamam@yorku.ca (Note: You *must use your my.yorku.ca email* account. Include ADMS4509 in the subject line and your **full name** and **student number** in the body of the message.)

Class: **Tuesdays , 11:30 – 14:30 p.m.**, in **ACW 002**.

Office hours:

1. After class
2. Over zoom by appointment

Course Description

Financial risk management is an area of financial services that is growing rapidly across the globe. Identifying and managing financial risks is critical for financial success, and ignoring these risks will very likely cause financial failure. This course introduces risk management theory and provides a practical approach to understanding how risks are quantified and managed. The first part of the course will present students with the tools used to assess financial risk. Students will understand how risk is measured, how derivatives and fixed-income securities work, and how these securities are used in risk management. The second part of the course will introduce students to risk management concepts such as value at risk (VaR) and stress testing. Students will then learn how to apply these concepts and the tools acquired in the first part of the course to market credit, operational, liquidity, and enterprise risk management. By the end of this class, students will be able to master key concepts and issues of financial risk management and evaluate risk management practices in an industry setting. This course will be particularly useful for those students studying for Financial Risk Manager (FRM®) and/or Professional Risk Manager (PRM®) designations.

*However, please note that this course is **not** an FRM and/or PRM prep course.*

Prerequisites

ADMS 3531 (Personal Investment Management) is the prerequisite. Both AP/ADMS 4503 (Derivative Securities) and AP/ADMS 4504 (Fixed Income Securities and Risk Management) are also highly recommended to be taken at your convenience.

Student Evaluation

Assignments (2)	30%
Midterm Exam	35%
Final Exam	35%

Required Textbook: [Risk Management and Financial Institutions](#), sixth edition, John C. Hull, Wiley, 2023, ISBN: ISBN 9781119932482 (hereafter, *Hull*). **Supplementary Readings:** [Value at Risk: The New Benchmark for Managing Financial Risk](#), third edition, Philippe Jorion, McGraw-Hill, 2007, ISBN-13: 978-0-07-146495-6. [Financial Risk Manager Handbook](#), sixth edition, Philippe Jorion, GARP, Wiley, 2011, ISBN: 978-0-470-90401-5.

Method of Instruction

Students are required to read the assigned chapters for the week *prior* to the lectures where we will go through the main topics.

Calculator

You need a handheld, non-programmable calculator that includes basic math functions (e.g. logarithm, exponential, square root, and power functions). It is also helpful if the calculator includes essential financial functions (e.g. PV, FV, PMT). If you will pursue the CFA designation in the future, note that only two **financial calculators** are currently allowed for the CFA exams: the Texas Instruments BAII Plus (and BAII Plus Pro), and the HewlettPackard 12C (HP-12C).

Assignments

There are two assignments which are due on the assigned date (more info on submission TBA later). Extensions for submitting an assignment after the due date with a penalty may be granted on a case-by-case basis. Approval must be obtained from the course director before the assignment's due date. Late assignments, if approved, will be penalized by **5% per day** (e.g. if the assignment is marked out of 30 marks and is 2 days late, then 3 marks will be deducted from the total mark).

Midterm and Final Exams

The midterm and final exams are closed book and will take place in person. A **formula sheet** will be posted on the course website and **provided** during the exam. To avoid any conflict with other exams, the midterm exam is scheduled on Tuesday February 11, 11:30 - 14:30 p.m. . If you miss the midterm exam for a legitimate reason, you will write a **cumulative final exam in coverage and weight**. There is **NO make-up midterm exam**. Students with a **conflict due to religious reasons** will be accommodated. Please inform the course director in writing by the **third class**.

The final exam will be scheduled by the RO between April 8-25. All students who need a passing grade for the course must take the final exam.

Academic Honesty and Integrity

In this course, we strive to maintain academic integrity to the highest extent possible. Please familiarize yourself with the meaning of academic integrity by completing [SPARK's Academic Integrity](#) module at the beginning of the course. Breaches of academic integrity range from cheating to plagiarism (i.e., the improper crediting of another's work, representing another's ideas as your own, etc.). All instances of academic dishonesty in this course will be reported

to the appropriate university authorities and can be punishable according to the Senate Policy on Academic Honesty.

Finance Area policy on DSA (Deferred Standing Agreement)

It is the policy of the School of Administrative Studies Finance Area that instructors **will not automatically approve a DSA form if you miss both the midterm and final exams. If the DSA is denied**, students in this situation must petition for a deferred exam, late withdrawal, or a remedy appropriate to their circumstances.

Relevant University/LA&PS/School Regulations

The regulations on many aspects of coursework that apply to you are:

<http://sas.laps.yorku.ca/students/>

You are responsible for understanding and following these regulations.

Forms and Policies

Attending Physician's Statement form for missed midterm or missed final exam:

http://www.registrar.yorku.ca/pdf/attend_physician_statement.pdf

DSA Form for missed final exam:

http://www.registrar.yorku.ca/pdf/deferred_standing_agreement.pdf

DSA Process and Petitions for ADMS classes: <http://www.yorku.ca/laps/sas/links.html>

Tentative Course Schedule

The topic order will be as stated below. However, if we cannot finish the material listed in a lecture, the remainder will be carried forward to the following one. Dates and topics are *tentative and subject to change with notice.*

Lecture	Date	Topics and Chapters Readings
1	January 7	Chapter 1 – Intro: Risk Return Trade off Chapter 14 – Interest Rate Risk
2	January 14	Chapter 8 – Volatility Chapter 9 – Correlations & Copulas
3	January 21	Chapter 5 – Financial Instruments (Topics: Derivatives Markets, Futures, Options) Chapter 15 – Derivatives Risk
4	January 28	Chapter 11 – Value at Risk and Expected Shortfall Chapter 12 – Historical Simulation and Extreme Value Theory Assignment 1 is posted
5	February 4	Regulation I Chapter 25 – Basel I, Basel II, and Solvency II Chapter 26 – Basel II.5, Basel III and Other Post-Crisis Changes
6	February 11 Midterm Exam	Coverage: Lectures 1 – 5 Location: ACW 002
7	February 25	Regulation II Chapter 27 – Fundamental Review of the Trading Book Chapter 28 – Economic Capital and RAROC
8	March 4	Credit Risk I Chapter 17 – Estimating Default Probabilities Chapter 18 – xVAs Assignment 1 is due, Assignment 2 Posted
9	March 11	Credit Risk II Chapter 18 – xVAs Chapter 19 – Credit Value at Risk
10	March 18	Other Risks Chapter 20 – Operational Risk Chapter 21 – Liquidity Risk
11	March 25	Other Risks Chapter 23 - Climate Risk, ESG, Sustainability Chapter 24 – Enterprise Risk Management Assignment 2 is due
12	April 1	Other Topics Chapter 29 - Financial Innovation Chapter 30 - Risk Management Mistakes to Avoid
13	Final Exam	Coverage: Lectures 7 – 12 Location: TBD