



Commerce 4FD3 Financial Institutions Fall 2022 Course Outline

Finance and Business Economics Area DeGroote School of Business McMaster University

COURSE OBJECTIVE

The goal of this course is to explain the use of modern finance theory in the financial decision-making and management of financial institutions, especially commercial banks. The financial decision in commercial banks will be looked at from the perspective of risk. The course also aims to explain the major role banks play to bear, transform, price, and monitor financial risks.

INSTRUCTOR AND CONTACT INFORMATION

Instructor: **Dr. Sultan M. Awan** <u>awan@mcmaster.ca</u> Student TA TBA

Class Schedule: WED 8:30 AM ~ 11:20 AM Office Hours: After class or by appointment

COURSE ELEMENTS

| Credit Value: | 3 | Leadership: | Yes | IT skills: | No | Global view: | Yes |
|-----------------|-----|---------------|-----|-------------|-----|------------------|-----|
| Avenue: | Yes | Ethics: | No | Numeracy: | Yes | Written skills: | Yes |
| Participation: | Yes | Innovation: | Yes | Group work: | Yes | Oral skills: | Yes |
| Evidence-based: | Yes | Experiential: | No | Final exam: | Yes | Guest speaker(s) | No |

COURSE DESCRIPTION

In the first part of the course, students will be introduced to the Canadian financial services industry, which comprises of deposit-taking banks, insurance companies, investment banks, pension, and mutual funds. We then go through the major risks of financial institutions' management: interest rate risk, liquidity risk, market risk, and credit risk. We discuss how financial institutions can identify and measure their exposures to each of these risks. In the second part of the course, we focus our attention on the risk management of financial institutions. Regulatory requirements dealing with capital adequacy and deposit insurance will be discussed. Finally, we will talk about the role of securitization and derivative instruments in risk mitigatsion.





LEARNING OUTCOMES

Upon completion of this course, students are expected to be able to:

- > Appreciate the economic challenges and opportunities encountered by financial institutions;
- Identify the risk/return trade-off of FIs' businesses in bearing, transforming, and managing financial risks;
- Apply relevant techniques to measure and manage FIs' interest rate risk, liquidity risk, market risk, and credit risk;
- Assess the implications of national and international regulatory requirements on FIs' business strategies.

REQUIRED COURSE MATERIALS AND READINGS

Financial Institutions Management: A Risk Management Approach, 10th Edition, by *Anthony Saunders and Marcia M. Cornett and Otgo Erhemjamts, McGraw-Hill 2021.*

Financial Institutions Management: A Risk Management Approach (mheducation.com)

For course contents such as lecture notes, term assignments, chapter-end quantitative problem solutions, other reference materials, and course-related announcements, please visit the course webpage on Avenue:

http://avenue.mcmaster.ca

<u>Texas Instruments BA II Plus financial calculator</u> is recommended for this course. However, any calculator that performs time value of money functions is acceptable.

OPTIONAL COURSE READINGS

Fundamentals of Risk Management Understanding, Evaluating and Implementing Effective Enterprise Risk Management, 6th Edition by Clive Thompson and Paul Hopkin (2021). *Fundamentals of Risk Management (koganpage.com)*

Risk Management and Financial Institutions, 5th Edition, by John C. Hull, Wiley (2018). <u>Risk Management and Financial Institutions</u>, 5th Edition | Wiley

An Introduction to Financial Markets: A Quantitative Approach - Wiley (2017) An Introduction to Financial Markets | Wiley Online Books

EVALUATION

Learning in this course results primarily from lectures, in-class discussions, home readings, and from assigned problem sets. Students' learning and progress in this course will be evaluated on a group and individual basis. Missed tests/exams will receive a grade of zero unless the student has submitted and been approved for a Notification of Absence or MSAF. Late assignments will be penalized 10% for each day they are late. Final letter grades in this course will be calculated as follows:





Components and Weights

| Assignment # 1 | Problem Set (Group) due on Oct. 12 | |
|----------------|--|------|
| Midterm Exam | Multiple Choice – Quantitative and Qualitative (Oct. 19) | 30% |
| Assignment # 2 | Problem Set (Group) due on Dec. 7 | 15% |
| Final Exam | Multiple Choice – Quantitative and Qualitative (semi-cumulative) | 40% |
| | Total | 100% |

Assigned Problem Sets

Two quantitative problem sets will be assigned during the term; one during the pre-midterm period (assignment #1) and the other during the post-midterm period (assignment #2). As some algebra and fundamental statistical concepts are important components of quantitative risk and management analysis of financial institutions' operations, it is imperative students practice quantitative problems that require the use of such analytical tools. Therefore, the two assigned evaluation activities should provide students with an opportunity to practice quantitative problems with the help of the concepts and methodologies learned in class. As a fairly large number of questions on the midterm and the final will be quantitative in nature, this evaluation exercise should help students prepare well for the exams. You may find some problems challenging. Please do your best. Serious attempts to arrive at the correct answer will be rewarded. Students are expected to work in **a self-chosen group** of a maximum of **TWO students** each. However, a submission from an individual student will also be accepted without any deductions of marks. The details on the problem sets and the submission will be posted on Avenue.

Midterm and Final Exam

Midterm and final exams will include multiple-choice questions ONLY. The nature and format of the questions will be similar to the ones on slides, examples discussed in class, and the ones found in assigned evaluation activities. The answer key to selected chapter-end qualitative and quantitative questions will be posted on the avenue after a topic was discussed in the class. This answer key should provide enough sample questions for practice and enough details to work on similar chapter-end questions. The info on the readings for the midterm and the final exams are provided at the end of this outline and will also be posted on avenue before each of the exams. The Final will be semi-cumulative and only selected topics will make it to the readings list for the final. Such details will be posted on avenue well before the final exams. *The midterm and finals will be an open-book and in-person exam*. Students will be allowed to use reading material such as course textbook (hard copy), copy of lecture slides, handwritten notes, and formula sheets in the midterm and final exams. The use of a PC and any other digital devices will not be allowed in the midterm and final exams. The use of a financial calculator is highly recommended.

PLEASE NOTE:

- 1. Students who do not submit the assignments by the deadline, with approval, will receive an extension of 3 days unless approved by the student experience office based on the supporting documentation submitted.
- 2. Students who do not write midterm, with approval, will have marks moved to final and will write a cumulative final of 70%.
- 3. If a student misses a lecture for any reason, it is the student's responsibility to obtain class





lecture notes and other relevant material from other classmates.

- 4. Marks for all pre-final exam evaluation activities will be posted on Avenue.
- 5. Your letter grade will appear on MOSAIC through official channels. Hence, marks for the final exam will not be posted on Avenue.
- 6. You are encouraged to contact the course instructor or course TA for any questions on the outlines, course material, evaluation scheme, and Exams.

COMMUNICATION AND FEEDBACK

Students who wish to correspond with instructors or TAs directly via email must send messages that originate from their official McMaster University email account. This protects the confidentiality and sensitivity of information as well as confirms the identity of the student. Emails regarding course issues should NOT be sent to the Area Administrative Assistants. All students must receive feedback regarding their progress before the final date by which a student may cancel the course without failure by default.

- For Level 1 and Level 2 courses, this feedback must equal a minimum of 20% of the final grade.
- For Level 3 courses and above, this feedback must equal a minimum of 10% of the final grade.

Instructors may solicit feedback via an informal course review with students by Week #4 to allow time for modifications in curriculum delivery.

ACADEMIC DISHONESTY

You are expected to exhibit honesty and use ethical behavior in all aspects of the learning process. The academic credentials you earn are rooted in principles of honesty and academic integrity.

Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behavior can result in serious consequences, e.g. a grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: "Grade of F assigned for academic dishonesty"), and/or suspension or expulsion from the university.

It is your responsibility to understand what constitutes academic dishonesty. For information on the various types of academic dishonesty please refer to the Academic Integrity Policy, located at: www.mcmaster.ca/academicintegrity

The following illustrates only three forms of academic dishonesty:

- 1. Plagiarism, e.g. the submission of work that is not one's own or for which another credit has been obtained.
- 2. Improper collaboration in group work.
- 3. Copying or using unauthorized aids in tests and examinations.

ACADEMIC ACCOMMODATION OF STUDENTS WITH DISABILITIES

Students with disabilities who require academic accommodation must contact Student Accessibility Services (SAS) at 905-525-9140 ext. 28652 or <u>sas@mcmaster.ca</u> to make arrangements with a Program Coordinator. For further information, consult McMaster University's <u>Academic Accommodation of Students with Disabilities</u> policy.

ACADEMIC ACCOMMODATION FOR RELIGIOUS, INDIGENOUS, OR SPIRITUAL OBSERVANCES (RISO)

Students requiring academic accommodation based on religious, indigenous, or spiritual observances should follow the procedures set out in the <u>RISO</u> policy. Students should submit their request to their Faculty Office *normally*





within 10 working days of the beginning of the term in which they anticipate a need for accommodation <u>or</u> to the Registrar's Office before their examinations. Students should also contact their instructors as soon as possible to make alternative arrangements for classes, assignments, and tests.

COPYRIGHT AND RECORDING

Students are advised that lectures, demonstrations, performances, and any other course material provided by an instructor include copyright-protected works. The Copyright Act and copyright law protect every original literary, dramatic, musical, and artistic work, including lectures by university instructors.

The recording of lectures, tutorials, or other methods of instruction may occur during a course. Recording may be done by either the instructor for authorized distribution or by a student for personal study. Students should be aware that their voices and/or image may be recorded by others during the class. Please speak with the instructor if this is a concern for you.

CONDUCT EXPECTATIONS

As a McMaster student, you have the right to experience, and the responsibility to demonstrate respectful and dignified interactions within all of our living, learning, and working communities. These expectations are described in the <u>Code of Student Rights & Responsibilities</u> (the "Code"). All students share the responsibility of maintaining a positive environment for the academic and personal growth of all McMaster community members, whether in person or online.

Students must be mindful of their interactions online, as the Code remains in effect in virtual learning environments. The Code applies to any interactions that adversely affect, disrupt, or interfere with reasonable participation in university activities. Student disruptions or behaviors that interfere with university functions on online platforms (e.g. use of Avenue 2 Learn, WebEx, or Zoom for delivery), will be taken very seriously and will be investigated. Outcomes may include restriction or removal of the involved students' access to these platforms.

ACKNOWLEDGMENT OF THE COURSE POLICIES

Your enrolment in Commerce 4FD3 will be considered to be an implicit acknowledgment of the course policies outlined above, or of any other, that may be announced during lecture and/or on A2L. It is your responsibility to read this course outline, familiarize yourself with the course policies, and act accordingly. Lack of awareness of the course policies cannot be invoked at any point during this course for failure to meet them. It is your responsibility to ask for clarification on any policies that you do not understand.

POTENTIAL MODIFICATIONS TO THE COURSE

The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with an explanation and the opportunity to comment on changes. It is the responsibility of the student to check their McMaster email and course websites weekly during the term and to note any changes.



Commerce 4FD3 Financial Institutions Fall 2022 Course Schedule

Below is a **tentative** course schedule. As we progress in the course, the contents of some of the topics listed below may be modified, if required.

| Date | Topics | Chapters |
|-------------|---|--|
| Sept. 7 | Syllabus Review, Central bank, commercial banks, interest rate, and financial markets, A Review | Lecture notes 2 Ch: 2, Appendix2A&2B |
| Sept. 14 | Interest rate risk – I: Central bank and interest rate Gap analysis, repricing, and duration model | 8 |
| Sept. 21 | Interest rate risk – II: Central bank and interest rate Gap analysis, repricing, and duration model | 9 |
| Sept. 28 | Credit risk – I: Individual loans | 10 |
| Oct. 5 | Credit risk – II: Loan portfolio and concentration risk | 11 |
| Oct. 12 | Assignment #1 due <u>Midterm Recess – NO Class</u> | |
| Oct. 19 | Midterm Exam (Readings: Lecture Notes 2, Chapters 2, 8 – 11) | |
| Oct. 26 | Liquidity risk: Causes of liquidity Risk at Depository and other Financial Institutions | 12 |
| Nov. 2 | Foreign exchange (FX) risk: FI foreign asset and liability position, the interaction of interest rates, inflation, and exchange rate | 13 |
| Nov. 9 | Futures and Forward contracts: FI use of forward and futures contracts to manage interest, FX, and credit risk | 22 |
| Nov. 16 | Futures and Forward contracts: FI use of forward and futures contracts to manage interest, FX, and credit risk | 22 |
| Nov. 23 | Options and Floors – I: FI use of options in hedging FX and credit risk | 23 |
| Nov. 30 | Options and Floors – II: FI use of options in hedging FX and credit risk | 23 |
| Dec. 7 | Assignment #2 due Swaps: FI credit risk concerns related to interest, currency, and credits swaps | 24 |
| Dec. 9 - 22 | Final Exam – Scheduled by Registrar Office | |