

MFIN712
Financial Risk Management
Fall 2019 Course Outline

Finance & Business Economics Area
DeGroote School of Business
McMaster University

COURSE OBJECTIVE

The objective of the course is to provide an introduction as well as an in-depth understanding of issues in financial risk management from the perspective of non-financial corporations. The focus is on the measurement of risk and the usage of related instruments to hedge the risk.

INSTRUCTOR AND CONTACT INFORMATION

Section 1: Wed 14:30 – 17:20, MDCL 1010

Section 2: Thur 8:30 – 11:20, TBC

Instructor: Alicia Damley, CFA, CPA, CA

damleya@mcmaster.ca

Office Hours: By appointment only

Class Location:

Student TA

TBC

@mcmaster.ca

Office:

Office Hours: TBC

Course Website: Please visit Avenue to Learn at <http://avenue.mcmaster.ca>

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

The course begins with a few preliminary risk management and financial engineering concepts that underpin much of the material of the course. The coverage includes a brief historical review of the risks that banks face and of the risk regulations in the banking sector.

The course then covers an overview of various market risk analytical techniques, including sensitivity analysis and stress testing. A fair amount of focus is placed on “internal models approaches” for capital adequacy and the use of “Value at risk” (VaR) as a metric for regulatory reporting. The pros and cons of various VaR approaches are described.

The focus of the course then shifts for a couple of lectures to counterparty credit risk (CCR) analytics and the emergence of a range of valuation adjustments (xVA's) when pricing over the counter derivatives.

The credit risk crisis of 2007 serves as a turning point for risk management, representing a shift in regulatory philosophy from an objective of converging regulatory capital with economic capital to one of a divergence. The background behind this shift in focus and the implications for risk management will be discussed in detail for the remaining sections of the course.

As such, the course then turns to some of the risk categories that were underappreciated prior to the crisis, primarily focusing on liquidity risk and model risk. The course concludes with a discussion of economic capital.

LEARNING OUTCOMES

Upon completion of this course, students will be able to complete the following key tasks:

- Learn and compare the advantages and disadvantages of several methodologies for the measurement of various types of risk, including market, interest rate, credit, operational, liquidity and model risk
- Integrate the methodologies into an overall framework for enterprise risk management

REQUIRED COURSE MATERIALS AND READINGS

Avenue registration for course content, readings and case materials

- <http://avenue.mcmaster.ca>
- **Risk Management and Financial Institutions 5th Edition**, John Hull, 2018

The textbook is available for purchase at McMaster's bookstore. Other assigned and articles can be accessed electronically, for registered students, from McMaster's library website.

EVALUATION

Learning in this course results primarily from in-class discussion and participation, assignments and group projects members will share the same grade adjusted by peer evaluation.

Components and Weights

Case Studies (2)	30%
Mid-Term Exam	25%
Final Exam (cumulative)	45%
Total	100%

NOTE: The use of a McMaster standard calculator is allowed during examinations in this course. See McMaster calculator policy at the following URL:

www.mcmaster.ca/policy/Students-AcademicStudies/UndergraduateExaminationsPolicy.pdf

Grade Conversion

At the end of the course your overall percentage grade will be converted to your letter grade in accordance with the following conversion scheme:

LETTER GRADE	PERCENT	POINTS
A+	90-100	12
A	85-89	11
A-	80-84	10
B+	75-79	9
B	70-74	8
B-	60-69	7
F	00-59	0

Communication and Feedback

Students that are uncomfortable in directly approaching an instructor regarding a course concern may send a confidential and anonymous email to the respective Area Chair or Associate Dean.

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 Administrative Assistant.

Instructors are encouraged to conduct an informal course review with students by Week #4 to allow time for modifications in curriculum delivery. Instructors should provide evaluation feedback for at least 10% of the final grade to students prior to Week #8 in the term.

Case Studies (2)

Each case study will be completed in groups of up to 5 students.

Mid-Term & Final Exam

The mid-term and final exam will consist of multiple choice and written answers.

ACADEMIC DISHONESTY

You are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. 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 behaviour can result in serious consequences, e.g. the 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 other credit has been obtained.
2. Improper collaboration in group work.
3. Copying or using unauthorized aids in tests and examinations

In this course we will be using a web-based service (Turnitin.com) to reveal plagiarism. Students will be expected to submit their work electronically to Turnitin.com and in hard copy so that it can be checked for academic dishonesty. Students who do not wish to submit their work to Turnitin.com must still submit a copy to the instructor. No penalty will be assigned to a student who does not submit work to Turnitin.com. All submitted work is subject to normal verification that standards of academic integrity have been upheld (e.g., on-line search, etc.). To see the Turnitin.com Policy, please go to;

<http://www.mcmaster.ca/academicintegrity/turnitin/students/>

MISSED ACADEMIC WORK

Missed Mid-Term Examinations / Tests / Class Participation

Where students miss a regularly scheduled mid-term or class participation for legitimate reasons as determined by the Student Experience – Academic (MFIN) office, the weight for that test/participation will be distributed across other evaluative components of the course at the discretion of the instructor. Documentation explaining such an absence must be provided to the Student Experience – Academic (MFIN) office within five (5) working days upon returning to school.

To document absences for health-related reasons, please provide to Student Experience – Academic (MFIN) office which can be found on the DeGroot website. Please do not use the online McMaster Student Absence Form as this is for Undergraduate students only. University policy states that a student may submit a maximum of three (3) medical certificates per year after which the student must meet with the Director of the program.

To document absences for reasons other than health related, please provide Student Experience – Academic (MFIN) with required documentation supporting the reason for the absence.

Students unable to write a mid-term at the posted exam time due to the following reasons: religious; work-related (for part-time students only); representing university at an academic or varsity athletic event; conflicts between two overlapping scheduled mid-term exams; or other extenuating circumstances, have the option of applying for special exam arrangements. Such requests must be made to the Student Experience – Academic (MFIN) office at least ten (10) working days before the scheduled exam along with acceptable documentation. Instructors cannot themselves allow students to unofficially write make-up exams/tests. Adjudication of the request must be handled by Student Experience – Academic (MFIN).

If a mid-term exam is missed without a valid reason, students will receive a grade of zero (0) for that component.

Missed Final Examinations

A student who misses a final examination without good reason will receive a mark of 0 on the examination.

All applications for deferred and special examination arrangements must be made to the Student Experience – Academic (MFIN) office. Failure to meet the stated deadlines may result in the denial of these arrangements. Deferred examination privileges, if granted, must be satisfied during the examination period at the end of the following term. There will be one common sitting for all deferred exams.

Failure to write an approved deferred examination at the pre-scheduled time will result in a failure for that examination, except in the case of exceptional circumstances where documentation has been provided and approved. Upon approval, no credit will be given for the course, and the notation N.C. (no credit) will be placed on the student's transcript. Students receiving no credit for a required course must repeat the course. Optional or elective courses for which no credit is given may be repeated or replaced with another course of equal credit value.

Requests for a second deferral or rescheduling of a deferred examination will not be considered.

Any student who is unable to write a final examination because of illness is required to submit the required documentation found on the DeGroot website and a statement from a doctor certifying illness on the date of the examination. Please do not use the online McMaster Student Absence Form as this is for Undergraduate students only. Students who write examinations while ill will not be given special consideration after the fact.

In such cases, the request for a deferred examination privilege must be made in writing to the Student Experience – Academic (MFIN) office within five business days of the missed examination.

Special examination arrangements may be made for students unable to write at the posted exam time due to compelling reasons (for example religious, or for part-time students only, work-related reasons):

- Students who have religious obligations which make it impossible to write examinations at the times posted are required to produce a letter from their religious leader stating that they are unable to be present owing to a religious obligation.
- Part-time students who have business commitments which make it impossible to write examinations at the times posted are required to produce a letter on company letterhead from the student's immediate supervisor stating that they are unable to be present owing to a specific job commitment.

In such cases, applications must be made in writing to the Student Experience – Academic (MFIN) office at least ten business days before the scheduled examination date and acceptable documentation must be supplied.

If a student is representing the University at an academic or athletic event and is available at an overlapping scheduled time of the test/examination, the student may write the test/examination at an approved location with an approved invigilator, as determined by the Student Experience – Academic (MFIN) office.

In such cases, the request for a deferred examination privilege must be made in writing to the Student Experience – Academic (MFIN) office within ten business days of the end of the examination period.

Note: A fee of \$50 will be charged for a deferred exam written on campus and a fee of \$100 for deferred exams written elsewhere. In cases where the student's standing is in doubt, the Graduate Admissions and Study Committee may require that the student with one or more deferred examination privileges refrain from re-registering until the examination(s) have been cleared.

STUDENT ACCESSIBILITY SERVICES

Student Accessibility Services (SAS) offers various support services for students with disabilities. Students are required to inform SAS of accommodation needs for course work at the outset of term. Students must forward a copy of such SAS accommodation to the instructor normally, within the first three (3) weeks of classes by setting up an appointment with the instructor. If a student with a disability chooses NOT to take advantage of an SAS accommodation and chooses to sit for a regular exam, a petition for relief may not be filed after the examination is complete. The SAS website is:

<http://sas.mcmaster.ca>

POTENTIAL MODIFICATION 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 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.

ACKNOWLEDGEMENT OF COURSE POLICIES

Your registration and continuous participation (e.g. on A2L, in the classroom, etc.) to the various learning activities of MFIN712 will be considered to be an implicit acknowledgement 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, to familiarize yourself with the course policies and to 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.

COURSE SCHEDULE

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WEEK	WEEK OF	TOPIC	TEXTBOOK
1	Sep 3	Class Outline, Schedule, Participation, Group selection Introduction and Preliminary concepts	1, 5
2	Sept 9	Market Risk Overview; Basel regulatory framework Class on Thur, Sep 12 re-scheduled to Sat, Sep 21 @830 – 1120, Room DSB B105	1, 7, 15
3	Sept 16	How Traders Mangle their Risks; Interest Rate Risk	8, 9
4	Sep 23	Scenario Analysis and Stress Testing	22
5	Sep 30	Value at Risk; Historical Simulation	12, 13
6	Oct 7	Value at Risk; Model-Building Approach	14
7	Oct 14	Mid-Term – Date & Time TBA	
8	Oct 21	Counterparty Credit Risk Case #1 due @8pm via Avenue	20
9	Oct 28	CVA and other valuation adjustments (xVA)	20
10	Nov 4	The Credit Crisis of 2007	6
11	Nov 11	Post GFC Basel regulations	16, 17
12	Nov 18	Liquidity Risk	24

WEEK	WEEK OF	TOPIC	TEXTBOOK
13	Nov 25	Model Risk	25
14	Dec 2	Economic Capital Case #2 due @8pm via Avenue	26