

**FINANCE 703
Derivatives
Course Outline**

**Master of Finance
DeGroote School of Business
McMaster University**

COURSE OBJECTIVE

The goal of this course is to provide you with a good understanding of derivative securities. These include forward contracts, futures contracts, options, swaps and structured products. Emphases will be placed on three aspects of derivatives – the nature of their payoffs, how they are priced, and how they can be used for hedging and speculative purposes.

INSTRUCTOR AND CONTACT INFORMATION

**C01: Fri 1130 – 1420 Location: KTH B124
C02: Fri 1430 – 1720 Location: KTH 104**

Alicia Damley, CFA, CPA, CA
Instructor
damleya@mcmaster.ca
Office Hours: by appointment

Korede Ologun
TA
ologuno@mcmaster.ca
Office Address: TBA
Office Hours: TBA

Course website: Avenue 2 Learn

We are here to help you succeed!

Both our course TA and I are here to help you navigate this course successfully!

Outside of class, it is easiest to connect via email. We can address a question quickly via email or setup a time to speak directly. I endeavor to respond to emails within 48 hours. For our mutual benefit and protection, please send all emails from your Mac id. If I have not responded to your inquiry within 48 hours, please re-send it in case it has been lost between our in-boxes or I have missed it!

Please always remember to:

- be courteous and respectful in all communication
- not send emails within 48 hours of a mid-term, exam or assignment due date. We are all busy. And it is important to plan accordingly!

COURSE ELEMENTS

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

COURSE DESCRIPTION

This course provides students with an understanding of derivative securities and their markets. In particular, the course will cover the models and methods used to value those securities. The course integrates theory and practice, discussing the implementation of various models.

LEARNING OUTCOMES

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

- Have a good understanding of derivative securities
- Select the appropriate derivative securities for hedging or speculative purposes
- Use the basic models or methods to price derivative securities
- Be able to explore more complex derivative securities.

COURSE MATERIALS AND READINGS

Required:

Options, Futures and Other Derivatives, 11th edition, John Hull, Pearson.

Bookstore link: <https://campusstore.mcmaster.ca/Course/campus>

Further reading materials may be suggested by the instructor during the lectures.

EVALUATION

Learning in this course results primarily from in-class discussion and participation of comprehensive business cases as well as out-of-class analysis. The balance of the learning results from the lectures on strategic concepts, from related readings, and from researching your case, bank project and presentations. Work will be evaluated on an individual and group basis as shown below. For group work, all group members will share the same grade. It is important to develop skills to work with different people and work styles.

Missed tests/exams not approved by the MFIN Program Office will receive a grade of zero. Late assignments will be penalized 15% for each day they are late. Your final grade will be calculated as follows:

Components and Weights

Assignments (2)	Groups of up to 5	55%
Mid-Term		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

Course Deliverables

Assignments (2)

Each assignment is worth 10% of your final grade. Students are encouraged to work in groups of up to 5 students.

Case Report and Presentation

See Case Assignment / Selection document for details.

Mid-Term Exam

Further details on the mid-term exam will be provided during the lecture. The use of a non-programmable calculator is allowed.

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 Administrative Assistant.

Students who have concerns about the course content, evaluation methods, or delivery should first reach out to the course instructor. If your concern remains unresolved after speaking with the instructor, you may then reach out to the relevant Area Chair for further consideration.

ACADEMIC INTEGRITY

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

Students are responsible for being aware of and demonstrating behaviour that is honest and ethical in their academic work. Such behaviour includes:

- following the expectations articulated by instructors for referencing sources of information and for group work;
- asking for clarification of expectations as necessary;
- identifying testing situations that may allow copying;
- preventing their work from being used by others (e.g., protecting access to computer files); and
- adhering to the principles of academic integrity when conducting and reporting research.

AUTHENTICITY/PLAGIARISM DETECTION

Some courses may use a web-based service (Turnitin.com) to reveal authenticity and ownership of student submitted work. For courses using such software, students will be expected to submit their work electronically either directly to Turnitin.com or via an online learning platform (e.g. A2L, etc.) using plagiarism detection (a service supported by Turnitin.com) so it can be checked for academic dishonesty.

Students who do not wish their work to be submitted through the plagiarism detection software must inform the Instructor before the assignment is due. No penalty will be assigned to a student who does not submit work to the plagiarism detection software.

All submitted work is subject to normal verification that standards of academic integrity have been upheld (e.g., on-line search, other software, etc.). For more details about McMaster's use of Turnitin.com please go to www.mcmaster.ca/academicintegrity.

COURSES WITH AN ONLINE ELEMENT

All courses use some online elements (e.g. e-mail, Avenue to Learn (A2L), LearnLink, web pages, capa, Moodle, ThinkingCap, etc.). Students should be aware that, when they access the electronic components of a course using these elements, private information such as first and last names, user names for the McMaster e-mail accounts, and program affiliation may become apparent to all other students in the same course.

Students may be required to use the Respondus LockDown Browser and Respondus Monitor. The Respondus LockDown Browser is a downloadable program that allows a student to take an Avenue to Learn quiz in a secure environment. Quizzes can be set to use LockDown Browser or LockDown Browser.

For more details about McMaster's use of Respondus Lockdown Browser please go to <https://avenuehelp.mcmaster.ca/exec/respondus-lockdown-browser-and-respondus-monitor/>

The available information is dependent on the technology used. Continuation in a course that uses online elements will be deemed consent to this disclosure. If you have any questions or concerns about such disclosure, please discuss this with the course instructor.

ONLINE PROCTORING

Some courses may use online proctoring software for tests and exams. This software may require students to turn on their video camera, present identification, monitor and record their computer activities, and/or lock/restrict their browser or other applications/software during tests or exams. This software may be required to be installed before the test/exam begins.

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 [Code of Student Rights & Responsibilities](#) (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**.

It is essential that students 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 behaviours that interfere with university functions on online platforms (e.g. use of Avenue 2 Learn, WebEx, Teams, 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.

ATTENDANCE

Arriving late or missing class disrupts the learning experience for both you and your peers. Punctuality and attendance are crucial to maintaining a respectful, professional and productive environment for everyone, including our faculty.

Instructors may use Top Hat in their course in a variety of ways, including to capture attendance in their classes. Attendance is recorded by submitting a unique 4-digit code displayed in your physical classroom using your personal device.

MISSED ACADEMIC WORK

Missed Examinations / Tests / Class Participation

Students can apply for relief from missed term work if they have or are going to miss an evaluated portion of their course. Please contact the Program Administrator for more information.

Reasons for missing course work can include:

- Health-related or extenuating circumstances
- Work-related commitments (for part-time students only)
- Representing the University at an academic or varsity event
- Religious obligations
- Conflicts between two (or more) overlapping scheduled mid-term exams.

Requesting Relief for Missed Term Work

When students miss regularly scheduled term work which contributes 10% or less to the final grade, the activity necessary to compensate for the missed work will be determined by the course instructor. The compensatory activities assigned will vary with the nature of the course and the missed requirement. They include, but are not restricted to, an alternative assignment, a rescheduled midterm exam, or re-weighting the marks for the missed component to other mark components. For missed work which exceeds 10% of the course grade, [Petition For Relief For MFin Missed Term Work](#) and [McMaster University Student Health Certificate](#) or other supporting documentation must be submitted to the Program Administrator at mfin@mcmaster.ca within five (5) business days of missing the work or mid-term exam.

Missed Final Examinations

Students must be available for the duration of the posted exam period regardless of their personal exam schedule. This is to ensure student availability throughout the entire exam period in the event that an exam must be rescheduled due to unforeseen circumstances (university closure, power outage, storm policy, etc.). A student who misses a final examination without valid reason will receive a mark of 0 on the examination.

Students who have missed a final exam for a valid reason can apply to the Program Office to write a deferred examination by submitting an [Application for Deferring a Final Exam](#) and [McMaster University Student Health Certificate](#) or other supporting documentation. The application must be made within five days of the scheduled exam.

Deferred examination privileges, if granted, are normally satisfied during the examination period at the end of the following semester. In select cases, the deferred examination may be written at a time facilitated by the Program Office and agreed to by the course instructor.

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

ACADEMIC ACCOMMODATION FOR STUDENTS WITH DISABILITIES

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>

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 [RISO](#) policy. Students should submit their request to the Program Office **normally within 10 working days** of the beginning of term in which they anticipate a need for accommodation. 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 the purpose of authorized distribution, or by a student for the purpose of personal study. Students should be aware that their voice and/or image may be recorded by others during the class. Please speak with the instructor if this is a concern for you.

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 **FIN600** 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.

ARTIFICIAL INTELLIGENCE

Students may use generative AI for editing/translating/outlining/brainstorming/revising their work throughout the course so long as the use of generative AI is referenced and cited following citation instructions given in the syllabus. Use of generative AI outside the stated use of editing/translating/outlining/brainstorming/revising without citation will constitute academic dishonesty. It is the student's responsibility to be clear on the limitations for use and to be clear on the expectations for citation and reference and to do so appropriately.

COURSE SCHEDULE

**FIN 703 – Derivatives
Winter 2025 Course Schedule**

Week	Date	Topic & Chapter(s)
1	Jan 10	Introduction (Chp 1) Futures Markets and Central Counterparties (Chp 2)
2	Jan 17	Hedging Strategies Using Futures (Chp 3)
3	Jan 24	Interest Rates (Chp 4)
4	Jan 31	Determination of Forward and Futures Prices (Chp 5)
5	Feb 7	Interest Rate Futures (Chp 6) Swaps (Chp 7)
6	Feb 14	Winter Recess - No Class
7	Feb 21	Securitization (Chp 8) The Credit Crisis and xVAs (Chp 9) Assignment #1 due at start of lecture via Avenue
8	Feb 28	Mechanics of Option Markets (Chp 10) Properties of Options (Chp 11)
9	Mar 7	Trading Strategies Involving Options (Chp 12) Binomial Trees (Chp 13)
10	Mar 14	The Black-Scholes-Merton Model (Chp 15 excl 15.6)
11	Mar 21	The Greeks (Chp 19)
12	Mar 28	Employee Stock Options (Chp 16) Options on Stock Indices and Currencies (Chp 17) Futures Options and Black's Model (Chp 18) Assignment #2 due at start of lecture via Avenue

13	Apr 4	Mid-Term Examination: In-class Details TBA
14	Apr 11	Make-up lecture if required