

**Commerce 3FH3  
Alternative Investments and Portfolio Management  
Fall 2023 Course Outline**

**Finance and Business Economics Area  
DeGroot School of Business  
McMaster University**

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***INSTRUCTOR AND CONTACT INFORMATION***

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**Section 1/2/3: TH/WE/TU**

**11:30AM – 2:20PM**

**DSB B105**

**Dr. Qian Yang**

Instructor

[yangq109@mcmaster.ca](mailto:yangq109@mcmaster.ca)

Office: DSB 212

Office Hours: after class or by appointment

Tel: (905) 525-9140 x28605

**Student TA**

Skylar (Xinyu) Wang

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Office Hours: TBA

**Student TA**

Korede Olakunle Ologun

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Office: DSB

Office Hours: TBA

**Course website:** <https://avenue.cllmcmaster.ca/d2l/home/553485>

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***COURSE ELEMENTS***

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Credit Value: 3

A2L: Yes

Participation: Yes

Leadership: Yes

Ethics: No

Innovation: Yes

IT skills: Yes

Numeracy: Yes

Group work: Yes

Global view: Yes

Written skills: Yes

Oral skills: Yes

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## ***COURSE OVERVIEW AND OBJECTIVE***

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The class describes some of the main strategies used by hedge funds and proprietary traders and provides a methodology to analyze them. In class and through exercises, the strategies are illustrated using real data and students learn to use “backtesting” to evaluate a strategy. The class also covers institutional issues related to how trading works, liquidity, margin requirements, risk management, and performance measurement.

The class discusses the main strategies used by hedge funds in individual equity markets (discretionary equity investing, short selling, quantitative equity strategies), in tactical asset allocation of equity indices, currencies, fixed-income, and commodities (global macro, managed futures), and in relative-value arbitrage strategies (fixed income arbitrage).

To analyze these active investment strategies, the class applies tools for performance measurement, backtesting, regression analysis, managing transaction costs, market liquidity risk, funding a strategy, margin requirements, risk management, drawdown control, and portfolio construction. Also, the class discusses the economics underlying these strategies, why certain strategies might work and why others might not.

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## ***CODING***

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From time to time, we shall use Excel/Python to illustrate the hedge fund strategies. You can use either in your assignments, as long as they are clear and serve the purpose.

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## ***IMPORTANT LINKS***

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- [Mosaic](#)
- [Avenue to Learn](#)
- [Student Accessibility Services - Accommodations](#)
- [McMaster University Library](#)

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## ***REQUIRED MATERIALS AND TEXTS***

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**Required:** *Efficiently Inefficient: How Smart Money Invests and Market Prices Are Determined*, Lasse H. Pedersen

Textbook Listing: <https://textbooks.mcmaster.ca>

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### ***COURSE EVALUATION***

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GRADE COMPONENT	WEIGHT	DESCRIPTION
Participation	10%	Attendance
Problem Sets	30%	2 problem sets, 15% each
Midterm	15%	Take-home, submitted via A2L
Final Exam	20%	Take-home, submitted via A2L
Group Report	25%	Hedge fund strategy report, submitted via A2L

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### ***COURSE DELIVERABLES***

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#### ***Problem Sets***

There are 2 problem sets that will be assigned on A2L. You will be required to submit your work to A2L. This assignment is worth **30%** of your final grade and will be marked individually.

#### ***Midterm Exam and Final Exam***

The midterm and final exams will be hosted online on A2L, and are open-book but timed, containing exclusively multiple-choice problems. You will be allowed a second attempt should the first attempt be unsatisfactory. Midterm exam is worth **15%** of your final grade, while Final exam is worth **20%** of your final grade.

#### ***Group Report – Hedge Fund Strategy***

You will form a group of 5 during the first week of the class. The group shall pick a hedge fund strategy, use real-world data to analyze the strategy, and write a report due on the last week of the class on A2L. The report is worth **25%** of your final grade.

#### ***Participation***

Name cards and class pictures are used to help give credit for your participation. You must have a name card, with your **full first and last name** clearly written and displayed for every class. Participation is worth **10%** of your final grade.

Since student participation is an essential component of this course, official McMaster student ID photographs will be used to ensure that each student is assessed accurately. The instructor will use the photograph to ensure the accuracy of participation marks, group work, and for identifying students for grading purposes.

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### ***REQUESTING RELIEF FOR MISSED ACADEMIC WORK***

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In the event of an absence for medical or other reasons, students should review and follow the Academic Regulation in the Undergraduate Calendar [“Requests for Relief for Missed Academic Term Work”](#) and the link below;

<http://ug.degroot.mcmaster.ca/forms-and-resources/missed-course-work-policy/>

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### ***COURSE MODIFICATION***

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From time to time there may be a need to remove/add topics or to change the schedule or the delivery format. If these are necessary, you will be given as much advance notice as possible.

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### ***GENERATIVE AI***

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Students may use generative AI for [editing/translating/outlining/brainstorming/revising/etc] 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/etc] 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.

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### ***ACADEMIC INTEGRITY***

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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. **It is your responsibility to understand what constitutes academic dishonesty.**

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. For information on the various types of academic dishonesty please refer to the [Academic Integrity Policy](#).

The following illustrates only three forms of academic dishonesty:

- plagiarism, e.g. the submission of work that is not one’s own or for which other credit has been obtained.
- improper collaboration in group work.
- copying or using unauthorized aids in tests and examinations.

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### ***CONDUCT EXPECTATIONS***

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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 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.

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### ***ACADEMIC ACCOMMODATION OF STUDENTS WITH DISABILITIES***

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

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

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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 their

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

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### ***COPYRIGHT AND RECORDING***

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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.

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### ***EXTREME CIRCUMSTANCES***

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The University reserves the right to change the dates and deadlines for any or all courses in extreme circumstances (e.g., severe weather, labour disruptions, etc.). Changes will be communicated through regular McMaster communication channels, such as McMaster Daily News, Avenue to Learn and/or McMaster email.

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### ***ACKNOWLEDGEMENT OF COURSE POLICIES***

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Your enrolment in Commerce 3FH3 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**

**Commerce 3FH3  
Alternative Investments and Portfolio Management  
Fall 2023 Course Schedule**

WEEK	DATE	TOPIC	READING	ASSIGNMENTS
1	Sept. 5/6/7	Discuss: Class Outline, Schedule, Participation, Courseware Discuss: Selecting team members Lecture: Efficiently inefficient markets; trading strategies; understanding hedge funds and other smart money	Introduction Chapter 1	
2	Sept. 12/13/14	<b>Active Investment:</b> Performance measures; finding and backtesting strategies; portfolio construction; risk management	Chapters 2-4	PS1 Assigned
3	Sept. 19/20/21	<b>Active Investment:</b> Trading and financing a strategy	Chapter 5	
4	Sept. 26/27/28	<b>Equity strategies:</b> Equity valuation; discretionary equity investing	Chapter 6-7	PS1 Due
5	Oct. 3/4/5	<b>Midterm Exam (No Class, Time TBA)</b>	First 4 Weeks	
-	Oct. 9-15	<b>Midterm Recess (No Class)</b>		

6	Oct. 17/18/19	<b>Equity strategies:</b> Short bias, quant equity	Chapters 8-9	
7	Oct. 24/25/26	<b>Equity strategies:</b> Quant equity, continued	Chapters 9	PS2 Assigned
8	Oct. 31/Nov. 1/2	<b>Macro strategies:</b> Asset allocation and global macro investing	Chapters 10-11	
9	Nov. 7/8/9	<b>Macro strategies:</b> Managed futures investing	Chapter 12	PS2 Due
10	Nov. 14/15/16	<b>Arbitrage strategies:</b> Fixed income arbitrage	Chapter 14	
11	Nov. 21/22/23	<b>Final Exam (No Class, Time TBA)</b>	Week 6-10	
12	Nov. 28/29/30	<b>Crypto:</b> Blockchain, Bitcoin/Etherium, Group Report Review	TBA	
13	Dec. 5	<b>Group Report Due</b>		