

F771
Financial Economics I
Winter 2025 Course Outline

Finance and Business Economics Area
DeGroote School of Business
McMaster University

COURSE OBJECTIVE

This course is a first Ph.D.-level course in asset pricing and modern portfolio theory. The goal of this course is to provide you with an overview of major theories, empirical approaches and results, and fundamental understanding in these areas in a discrete-time setting.

INSTRUCTOR AND CONTACT INFORMATION

Dr. Ron Balvers
Professor
balvers@mcmaster.ca
DSB A105
Office Hours by appointment

Class Time and Location: Wednesday 11:30 am – 2:30 pm, Room TBA

COURSE ELEMENTS

Credit Value:	3	Leadership:	No	IT skills:	Yes	Global view:	Yes
A2L:	Yes	Ethics:	No	Numeracy:	Yes	Written skills:	Yes
Participation:	Yes	Innovation:	No	Groupwork:	No	Oral skills:	No
Evidence based:	Yes	Experiential:	No	Final:	Yes	Guest speaker:	No

COURSE DESCRIPTION

This course deals with the issues of Asset Pricing and Portfolio Theory. It focuses on the factors determining the risk of individual financial and non-financial assets, the measurement of these risk factors, and the related portfolio choices. The risk factors are of course central arguments in the determination of the prices of the financial assets. Emphasis is on a solid theoretical foundation in deriving the risk determinants, which is based on general economic principles and specific general equilibrium models as used in the economics literature. The method is one of discrete-time dynamics which allows presentation of standard finance results, typically derived in continuous time, but with a minimum of mathematical ballast.

LEARNING OUTCOMES

At the end of the course, students are expected to:

1. be familiar with the asset pricing and portfolio choice literature in general;
2. have an in-depth understanding of modern theories of asset pricing and portfolio choice;
3. have the skills and understanding to apply and adapt standard asset pricing models to conduct independent research.

COURSE MATERIALS AND READINGS

[Required] Class Notes. These are available electronically. An older version is on my home page at <https://profs.degroot.mcmaster.ca/ads/balvers/>, but please remind me to send you the updated version.

[Optional] Bali, Turan G., Robert F. Engle, and Scott Murray. *Empirical Asset Pricing: The Cross Section of Stock Returns*, Hoboken, NJ: John Wiley & Sons, 2016

[Optional] John H. Cochrane. *Asset Pricing*, Princeton, NJ: Princeton University Press, first edition, 2001 or updated edition, 2004.

[Optional] Campbell, John Y., Andrew W. Lo, and A. Craig MacKinlay. *The Econometrics of Financial Markets*, Princeton, NJ: Princeton University Press, 1997.

[Optional] Back, Kerry E. *Asset Pricing and Portfolio Choice Theory*, Toronto, ON: Oxford University Press, 2010.

EVALUATION

Learning in this course results primarily from in-class discussion and out-of-class analysis and study. Your learning will be tested by means of two exams, a term paper, and homework assignments. The assignments involve use of MATLAB and apply asset pricing models to actual data.

Your final grade will be calculated as follows: A midterm and a final exam, each counting for 30% of the grade; a term paper counting for 30% of the grade; and four to seven homework assignments, together counting for 10% of the grade.

There will be a straight grading scale based on the percentage earned (with the aforementioned weights) of the maximum score.

Attendance is expected but will not be factored into the grades. Make-ups or a grade of Incomplete will not be given unless a satisfactory excuse is provided.

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

Grade	Points	Equivalent Percentages
A+	12	90 – 100
A	11	85 – 89
A-	10	80 – 84
B+	9	77 – 79
B	8	73 – 76
B-	7	70 – 72
F	0	69 and under

Please review the Graduate Examinations Policy (if applicable):

<http://www.mcmaster.ca/policy/Students-AcademicStudies/GradExamsPolicy.pdf>

THE TERM PAPER

Students are required to turn in one term paper of around fifteen typed, double-spaced pages. In the paper you may present and process an original idea. Alternatively, you may try to reproduce the empirical results of a previously published paper in the area of financial economics; this is a minimum requirement: a good term paper might also try ways to improve on the existing work by extending the sample period, including different variables, using different econometric methods, or, generally, checking the robustness of the results.

The time table for the paper is as follows. First, on *Wednesday January 22* you must get approval from me for the paper you choose to reproduce and you must explain to me how you will get the relevant data. Second, on *Wednesday March 12* you are required to submit and discuss in class your initial regression results (or theoretical results as the case may be). Third, the complete paper is due in our class of *Wednesday April 2*. Note that submission of your paper to me later than April 2 will result in a grade of 0 on the paper, unless a university-approved excuse can be provided for the delay. It is therefore very important that you start work on your paper early and that you have your data in hand well before the midterm.

While I will be happy to provide you with suggestions on how to proceed on your paper during the semester, the version of the paper you hand in to me on April 2 will be final and your term paper grade will be based on this version. My criteria for evaluating your paper are the following: (1) accuracy: correctness of your interpretation of the paper to be replicated and thoroughness in conducting the replication (or correct derivation of your theoretical results as the case may be); (2) writing: organization and clarity, especially as related to exposition and comparison of your results to the original study (or other work as the case may be); (3) degree of difficulty of the project; (4) originality: the extent to which you contribute or suggest additions to the original study (or other work as the case may be).

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

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

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.

MISSED ACADEMIC WORK

Missed Tests / Assignments/ Class Participation

Please do not use the online McMaster Student Absence Form (MSAF) as this is for Undergraduate students only. The PhD program will not accept an MSAF.

For scheduled courses where the end date is known and aligns to sessional dates, a grade must be supplied by the end of the course. Under exceptional circumstances a course instructor may approve an extension for the student for the completion of work in a course but must assign an Incomplete grade (INC) at the end of the course. Normally this extension is in the range of a few weeks. A student who receives an incomplete grade must complete the work as soon as possible, and in any case early enough to allow the instructor to report the grade by the sessional deadline noted as 'Final Date to Submit Results of Incomplete Grades'. If the INC grade is not cleared by the deadline, normally an F grade will be entered. If a student is approved for an extension, they and instructors should make arrangements and submit an Incomplete (INC) Grade Memo to busphd@mcmaster.ca. If the student is not able to complete their course requirements by the INC deadline, they should submit a [Request for Extension](#) and be specific regarding the new deadline.

Missing Grade Memo is required if instructors are unable to submit any grades via Mosaic.

The instructor must submit a Missing Grade Memo to busphd@mcmaster.ca.

Reasons for Incomplete course work can include:

- Health-related or extenuating circumstances
- Representing the University at an academic or varsity event
- Religious obligations
- Conflicts between two (or more) overlapping scheduled assignments.

Failing a Course

Failure a course is reviewed by the appropriate Faculty Committee on Graduate Admissions and Study or the Associate Dean Graduate Studies in the Faculty. The Faculty Committee on Graduate Admissions and Study or the Associate Dean Graduate Studies requests a departmental recommendation regarding the student, and this recommendation is given considerable weight. In the absence of a departmental recommendation to allow the student

to continue, the student will be required to withdraw. Those allowed to remain in the program must either repeat or replace the failed course or milestone, per the decision of the Faculty Committee on Graduate Admissions and Study. A failing grade in a Certificate, Diploma, Master's or Doctoral course remains on the transcript. Students who fail a second course or milestone will not normally be allowed to continue in the program.

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>

Process for Students

- Students must activate their accommodation(s) (e.g., extra-time, memory aid, etc.) for each upcoming test, assignment, or exam, at least two weeks in advance. Students can do this by emailing their Instructor and the PhD Program Administrator (busphd@mcmaster.ca). If a student cannot meet this deadline, they should contact to discuss alternative arrangements. The program is committed to exploring flexibilities where possible to support students.
- Students will leverage the accommodation (e.g., extra-time, memory aid, etc.), in a designated testing room. Rooms will be booked according to the student's SAS accommodation. Unless the accommodation states otherwise, students should expect that they will be writing in a room with other students. One or more invigilators will always be in the room. Students may also take their tests/exams at the SAS test centre on main campus.
- Following the request to activate the accommodation(s), busphd@mcmaster.ca will reach out to the student with their test, assignment, or exam details, including the date, time, and room number.

All policies and procedures, including restroom access, how extra-time is allocated for assessments under Universal Design, and the submission of memory aids in advance, are consistent with those of SAS on Main Campus. The only variance in procedure is communication around, and physical location of, assessment. There is not a dedicated testing space at RJC or DSB. Existing classrooms and lecture halls will be used for most testing. All SAS-approved accommodations will be honoured by our staff; however, core

testing elements are not eliminated in alternative testing formats. Students should expect and plan for invigilation, incidental noise, and other potential distractions.

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 requiring a RISO accommodation should submit their request, including the dates/times needing to be accommodated and the courses which will be impacted, to their Program Office normally within 10 days of the beginning of term. 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 PhD F771 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

This course encourages the thoughtful and ethical use of AI tools to support your academic work. You are permitted to use AI tools (e.g., ChatGPT, Grammarly, or similar technologies) for activities such as brainstorming, proofreading, generating ideas, or summarizing complex topics. However, any use of AI must be explicitly acknowledged, and the nature of its contribution must be clearly documented.

For example:

- If you use an AI tool to help draft a section of a paper, you should include a statement in your submission such as: *"Portions of this work were drafted using ChatGPT for initial brainstorming and organization of ideas. Final revisions and analysis were completed by the author."*
- If an AI tool is used to proofread or enhance the clarity of your writing, you might state: *"Grammarly was used to proofread and improve sentence structure in this document."*

Failure to appropriately cite the use of AI tools will be considered a breach of academic integrity. When in doubt, consult with me about acceptable uses of AI in your coursework.

Remember, while AI can be a valuable resource, it should complement your learning and not replace critical thinking, original analysis, or your voice in academic writing.

Note that this statement on the use of Artificial Intelligence in this course was created with the help of ChatGPT

The following page includes additional information and guidelines: [Generative Artificial Intelligence - Academic Excellence - Office of the Provost \(mcmaster.ca\)](https://www.mcmaster.ca/office-of-the-provost/academic-excellence/generative-artificial-intelligence)

COURSE SCHEDULE

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WEEK	DATE	TOPICS AND ASSIGNMENTS
1	Wed. Jan 8	Preliminaries on Risk and Time Preference. Valuation Approaches and Asset Pricing.
2	Wed. Jan 15	Continuation of Preliminaries Discussion Review of Mean-Variance Analysis and Portfolio Choice.
3	Wed. Jan 22	Choose and get approval for your term paper topic. The CAPM: Sharpe-Lintner Model, Zero-Beta CAPM. <i>Term paper topic due</i>
4	Wed. Jan 29	The CAPM: Empirical Specification, Roll Critique. Homework set #1 and 2 due.
5	Wed. Feb 5	Other static asset pricing models: Non-Tradable Assets and Human Capital, Durable Consumption Goods, The International CAPM.
6	Wed. Feb 12	Other static asset pricing models: Arbitrage Pricing. Homework set #3 due.

7	Wed. Feb 19	Recess
8	Wed. Feb 26	Midterm. All material covered to date.
9	Wed. Mar 5	Asymmetric Information: Market Efficiency, Grossman-Stiglitz Model, Adverse Selection, Insider Trading. <i>Discuss initial regression results for your term paper.</i>
10	Mon. Mar 12	Liquidity and Asset Pricing: Amihud and Mendelson model, Acharya and Pedersen model. Homework set #5 due. Present progress report on term paper.
11	Wed. Mar 19	General issues in Asset Pricing: Complete Markets, Pricing Kernels, Conditional Asset Pricing and Predictability, Derivatives Pricing.
12	Wed. Mar 26	Dynamic Asset Pricing: Dynamics and the CAPM, the Merton Model, the Consumption CAPM. Term paper due.
13	Wed. Apr 2	Dynamic Asset Pricing: Production-Based Asset Pricing. Homework set #6 due. Term Paper due

Note: The above schedule is subject to change.

Final Exam: between April 12 and April 26