F771
Financial Economics I
Winter 2022 Course Outline

Department
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 in these areas in a discrete time setting.

INSTRUCTOR AND CONTACT INFORMATION

Dr. Ron Balvers
Title: Professor
Email: balvers@mcmaster.ca
Office: DSB A105
Office Hours: by appointment
Class Time: Tuesday 2:30 pm – 5:30 pm, DSB321

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.degroote.mcmaster.ca/ads/balvers/, but please remind me to send you the updated version.

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

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

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

[Recommended] 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 *Tuesday January 25* 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 *Tuesday March 8* 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 *Tuesday April 5*. Note that submission of your paper to me later than April 5 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 5 will be final and your term paper grade will be based on this version. My criteria for judging 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

MISSED ACADEMIC WORK

Late assignments will not be accepted. No extensions are available except under extraordinary circumstances. Please discuss any extenuating situation with your instructor at the earliest possible opportunity.

STUDENT ACCESSIBILITY SERVICES

Students who require academic accommodation must contact Student Accessibility Services (SAS) to make arrangements with a Program Coordinator. Academic accommodations must be arranged for each term of study. Student Accessibility Services can be contacted by phone 905-525-9140 ext. 28652 or e-mail sas@mcmaster.ca.

For further information, consult McMaster University's Policy for Academic Accommodation of Students with Disabilities:

http://www.mcmaster.ca/policy/Students-AcademicStudies/AcademicAccommodation-StudentsWithDisabilities.pdf

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.

POTENTIAL MODIFICATION TO THE COURSE

The instructor reserves the right to modify elements of the course during the term. There may be changes to 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.

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, A2L and/or McMaster email.

COURSE SCHEDULE

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WEEK	DATE	TOPICS AND ASSIGNMENTS
1	Tue. Jan 11	Preliminaries on Risk and Time Preference. Valuation Approaches and Asset Pricing.
2	Tue. Jan 18	Continuation of Preliminaries Discussion Review of Mean-Variance Analysis and Portfolio Choice.
3	Tue. Jan 25	Choose and get approval for your term paper topic. The CAPM: Sharpe-Lintner Model, Zero-Beta CAPM. Homework set #1 due.
4	Tue. Feb 1	The CAPM: Empirical Specification, Roll Critique. Homework set #2 due.
5	Tue. Feb 8	Other static asset pricing models: Non-Tradable Assets and Human Capital, Durable Consumption Goods, The International CAPM.
6	Tue. Feb 15	Other static asset pricing models: Arbitrage Pricing. Homework set #3 due.
7	Tue. Mar 1	Empirical approaches to Arbitrage Pricing. The Fama-French three-factor and five-factor Models.
8	Tue. Mar 8	Midterm. All material covered to date.

9	Tue. Mar 15	Asymmetric Information: Market Efficiency, Grossman-Stiglitz Model, Adverse Selection, Insider Trading. Discuss initial regression results for your term paper.
10	Tue. Mar 22	Liquidity and Asset Pricing: Amihud and Mendelson model, Acharya and Pedersen model. Homework set #4 due.
11	Tue. Mar 29	General issues in Asset Pricing: Complete Markets, Pricing Kernels, Conditional Asset Pricing and Predictability, Derivatives Pricing.
12	Tue. Apr 5	Dynamic Asset Pricing: Dynamics and the CAPM, the Merton Model, the Consumption CAPM. Term paper due.
13	Tue. Apr 12	Dynamic Asset Pricing: Production-Based Asset Pricing. Homework set #5 due.

Note: The above schedule is subject to change.
Final Exam: between April 14 and April 29