Commerce 4FG3
FINANCIAL THEORY
Winter 2023 Course Outline

Finance and Business Economics
DeGroote School of Business
McMaster University

INSTRUCTOR AND CONTACT INFORMATION

Section 1: Tues 2:30 – 5:30
Prof. Imran Abdool
Instructor
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Office: virtual (Zoom)
Office Hours: by appointment
Class Location: BSB117

Student TA
Junayed Tahmid Anto
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COURSE OVERVIEW

This course explores the theoretical and conceptual foundations of finance. Among the theories, upon which modern finance is founded are (1) utility theory, (2) state-preference theory, (3) mean-variance portfolio theory, (4) non-rational choice theory, (5) the capital asset pricing model, (6) the arbitrage pricing theory, and (7) the Modigliani-Miller and information theories of capital structure. A common theme is "How do individuals and society allocate scarce resources through a price system based on the valuation of risky assets?" Utility theory provides the foundations of rational decision making when deciding on risky alternatives. "How do people make choices?" State-preference theory, mean-variance portfolio theory, and arbitrage pricing provide descriptions of the objects of choice. Combining these objects of choice with the theory of choice determines how risky alternatives are valued. In turn, appropriately determined asset prices provide signals to the economy for necessary resource allocation. More recently, non- rational decision-making theories have been offered. These are based on ideas coming from prospect theory, bounded rationality and psychology. Finally, the Modigliani-Miller and information theories of capital structure asks the question "Does the method of financing have any effect on the value of assets, including the firm? Theories of agency cost and signalling contribute to answering this question. Furthermore, this has important implications for the firm's debt-to-equity mix and dividend policy.

As well, the course examines the theory of risk sharing and its impact on the design of insurance contracts.

The course also includes quantitative methods for testing some basic propositions in finance such as the introduction of regression based quantitative methods for testing some basic propositions in finance, such as the capital asset pricing model, the arbitrage pricing theory and the Fama- French model.

LEARNING OBJECTIVES

Upon successful completion of this course, students will be able to:

(i)   understand the theoretical and conceptual foundations of finance
(ii)   have the analytical skills to evaluate new and emerging theories of finance
(iii)   evaluate various financial tools from the perspective of logical theoretical consistency
(iv)   quantitatively rank risky financial investments based on expected utility theory, state preference theory, stochastic dominance theory and selected behavioral theories
(v)   estimate through regression analysis various pricing models
(vi)   conduct capital budgeting under uncertainty
(vii)   understand the role of information in developing insurance contracts and affecting the capital structure of the firm
(viii) understand the role of signaling and agency costs in affecting capital structure

PREREQUISITE

Commerce 3FA3 and registration in any Commerce or Engineering and Management program; or Economics 2I03 and Economics 3G03.

COURSE ELEMENTS

Credit Value:	3	Team skills:	Yes	IT skills:	Yes	Global:	No
A2L:	Yes	Verbal skills:	Yes	Numeracy:	Yes	Group Work:	Yes
Participation:	No	Written skills:	Yes	Innovation:	Yes	Experiential:	No
Evidence-based:	Yes	Leadership:	No	Ethics:	Yes		

REQUIRED TEXT

- Financial Theory and Corporate Policy by T.E. Copeland, J.F. Weston, and K. Shastri, 4th ed., 2005, Pearson Addison Wesley.

SUPPLEMENTARY TEXT

- Economics Organization and Management by P. Milgrom and J. Roberts, 1992, Prentice-Hall.

EVALUATION

Test 1 (Jan 31st)	20 points
Test 2 (March 7th)	20 points
Test 3 (March 28th)	20 points
Exam (TBA)	40 points

These Test are written *synchronously online* during their designated class period and are for 2-hours, i.e., 2.30pm-4.30pm. You access the test through our A2L course site. The test cover only *incremental material*, i.e., the material since the last test and up to and including the current test. The test can be composed of problem-solving, short-answer and short essay questions.

The final exam is cumulative and will be primarily essay-based. It will be written online synchronously as well during our designated exam time as set by the Registrar's Office.

Missed tests/exams will receive a grade of zero unless the student has submitted and been approved for a Notification of Absence or MSAF. There are ***no make-up tests***, if a test has been missed and its relief successfully granted, the weight will be moved to the final exam.

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	LETTER GRADE	PERCENT
A+	90 - 100	C+	67 - 69
A	85 - 89	C	63 - 66
A-	80 - 84	C-	60 - 62
B+	77 - 79	D+	57 - 59
B	73 - 76	D	53 - 56
B-	70 - 72	D-	50 - 52
		F	00 – 49

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 Area Administrative Assistants.

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

REQUESTING RELIEF FOR MISSED ACADEMIC WORK

Students may request relief from a regularly scheduled midterm, test, assignment or other course components. Please refer to the policy and procedure on the DeGroote website at the link below;

http://ug.degroote.mcmaster.ca/forms-and-resources/missed-course-work-policy/

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 Faculty Office normally within 10 days of the beginning of term 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.

POTENTIAL MODIFICATIONS 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.

ADDITIONAL INFORMATION

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

http://www.mcmaster.ca/policy/Students-AcademicStudies/UGCourseMgmt.pdf, page 15

ACKNOWLEDGEMENT OF COURSE POLICIES

Your enrolment in Commerce 4FG3 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 4FG3
Financial Theory
Winter 2022 Course Schedule

This course outline is tentative and could be subject to change as the course progresses.

Unless otherwise indicated, all references are made to the Copeland, Weston and Shastri text. In addition, course material may deviate in places from the material covered in the textbooks. Therefore, class notes are very important for this course.

WEEK	DATE	TOPIC

1	Jan 10th	Consumption and Investment (Chapters 1 and 2)
		    a. Without capital markets
		    b. With capital markets
		    c. Fisher separation theorem

2	Jan 17th	Utility Theory: Given Uncertainty (Chapter 3)
		    a. Underpinnings
		    b. Marginal utility and risk aversion
		    c. Measurement of risk aversion

3	Jan 24th	Stochastic Dominance (Chapter 3)
4	Jan 31st	Test 1 (Chapters 1-3)

5	Feb 7th	Mean-Variance Framework (Chapter 5)
		    Motivation
		    Efficient frontier characterization

6	Feb 14th	State-Preference Theory (Chapter 4)
		    Underpinnings
		    Optimal portfolio decision
		    Fisher valuation, Fisher separation and optimal investment

7	Feb 21st	No classes; Reading Week
8	Feb 28th	Capital Asset Pricing Model (Chapter 6) (i) Empirical estimation, implementation, and hypotheses testing
9	March 7th	Test 2 (Chapters: 4-6)
10	March 14th	Arbitrage Pricing and Fama-French Models (Chapter 6)

		- The law of one price - Comparison of CAPM and APT - Empirical estimation, implementation and hypotheses testing
11	March 21ˢᵗ	Non-Rational Behavior (Readings on A2L) a. Bounded rationality b. Prospect theory c. Behavioral theory
12	March 28ᵗʰ	Test 3 (Chp 6 + A2L Reading)

13	April 4ᵗʰ	The Value of Information and Moral Hazards (Chapter 6 of Milgrom and Roberts)
		a. Efficiency effects
		b. Controlling moral hazard
		   i. monitoring
		   ii. designing incentive contracts
		   iii. bonding
		   iv. ownership changes

14	April 11ᵗʰ	Capital Structure and the Cost of Capital (Chapters 12, 14 and 15) a. Value of firm with personal and corporate taxes b. Synthesis of M-M and CAPM c. WACC and investment d. Signaling and financial structure e. Agency costs and capital structure