

**PLEASE NOTE THAT CHANGES COULD BE MADE TO THIS COURSE OUTLINE  
UP TO SEPTEMBER 22, 2021**

**Carleton University  
Department of Economics  
ECON 5051 F –Asset Pricing**

**Fall 2021**

**Professor M. Demers**  
**Office: B-855 Loeb**  
**Phone: 613-520-2600 ext. 3772**  
**E-mail: michel.demers@carleton.ca**  
**Office Hours: TBA**

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**Lecture Time: Monday 11:35 p.m. – 2:25 p.m.**

**Place: On line via Big Blue Button**

**Course Objectives:**

1. To survey the literature on some of the most important issues in portfolio choice theory, and to learn the main approaches to the valuation and pricing of financial assets.
2. To initiate students to work with models in financial economics at the theoretical and quantitative level.

**Course delivery during Fall 2021**

This course will be delivered entirely ON-LINE. **Lectures will be recorded live on BigBlueButton. The recording of each lecture will also be available on Brightspace and will be accessible anytime at anyone's convenience.** Students are strongly encouraged to attend the live lecture in order to fully participate and be able to ask questions during the lecture through the CHAT BOX option on BigBlueButton (BBB). Webcams are not needed for online lectures and tutorials but needless to say a working microphone is desirable.

In addition, students will be able to ask questions by e-mailing me or during office hours through BBB. Informal tutorials will also be organized on BBB to review answers to assigned problems. Details will be announced.

**Reference Texts:**

Jean-Pierre Danthine and John B. Donaldson. (2014) *Intermediate Financial Theory*, 3<sup>rd</sup> edition, Elsevier, (or 2<sup>nd</sup> ed., 2005). (Referred to as DD) Required textbook.

Jonathan Berk, Peter DeMarzo and David Stangeland (2018) *Corporate Finance* (Fourth Canadian Edition), Pearson Addison-Wesley. (Referred to as BDS)

John C. Hull, *Options, Futures, and Other Derivatives*. 10<sup>th</sup> edition, Pearson Prentice-Hall 2018.

Thomas E. Copeland, J. Fred Weston, and Kuldeep Shastri (2005), *Financial Theory and Corporate Policy*, Pearson Addison-Wesley. (Referred to as CWS)

**Other Recommended Texts:**

Simon Benninga, *Financial Modeling* Third Edition, MIT Press, 2008.

Kerry E. Back. *Asset Pricing and Portfolio Choice Theory*, Oxford University Press, 2010.

G.M. Constandinides, M. Harris and R. Stulz, eds, *Handbook of the Economics of Finance*, 2003. Referred to as HEF.

Jaksa Cvitanic and Fernando Zapatero, *Introduction to the Economics and Mathematics of Financial Markets*, MIT Press, 2004.

Chi-fu Huang and Robert H. Litzenberger. *Foundations for Financial Economics*, Prentice-Hall, 1988.

Jonathan E. Ingersoll Jr. *Theory of Financial Decision-making*. Totowa N.J. Rowman and Littlefield, 1987.

Andrei Shleifer. *Inefficient Markets an Introduction to Behavioral Finance*. Oxford University Press, 2000.

*Additional readings may be given in class.*

### READING LIST

Required readings are indicated with a star (\*). The coverage of some topics will depend on time availability.

#### 1. Introduction to asset pricing: time, risk, efficient markets and valuation of cash flows

- \* Lecture Notes
- \* DD (3<sup>rd</sup> ed.): Chapters 1 and 2; (2<sup>nd</sup> ed.): Chapters 1 and 2
- \* CWS, Chapters 1 and 2
- BDS, Chapter 4

#### 2. Expected utility theory, measuring risk and risk aversion, investment decisions

- \* Lecture Notes
- \* Luce and Raiffa, *Games and Decisions*, Chapter 2.
- \* DD (3<sup>rd</sup> ed.): Chapters 3 and 4; (2<sup>nd</sup> ed.): Chapters 3 and 4.
- \* CWS, ch 3.

#### 3. Optimal portfolio choice in the expected utility model

- \* Lecture Notes
- \* DD (3<sup>rd</sup> ed.): Chapter 5; (2<sup>nd</sup> ed.): Chapter 5

#### 4. Mean-variance portfolio choice

- \* Lecture Notes
- \* DD (3<sup>rd</sup> ed.): Chapters 6 and 7; (2<sup>nd</sup> ed.): Chapter 6
- \* CWS, Chapter 5
- BDS, Chapter 11
- Huang and Litzenberger, Chapter 3

#### 5. The efficient portfolio frontier, the zero-covariance portfolio and other properties of optimal portfolios

- \* Lecture Notes
- \* DD (3<sup>rd</sup> ed.): Chapters 6, 7 and 8; (2<sup>nd</sup> ed.): Chapters 6 and 7.
- Huang and Litzenberger, Chapter 3

## 6. The capital asset-pricing model (CAPM)

- \* Lecture Notes
- \* DD (3<sup>rd</sup> ed.): Chapter 8, (2<sup>nd</sup> ed.): Chapter 7
- \* CWS, Chapter 6
- BDS, Chapter 12

## 7. The arbitrage pricing theory (APT)

- \* Handout
- \* DD (3<sup>rd</sup> ed.): Chapter 14, DD (2<sup>nd</sup> ed.): Chapter 13
- \* CWS, Chapter 6
- BDS, Chapter 13
- Eugene Fama and Kenneth French (1993) "Common risk factors in the returns on stocks and bonds" *Journal of Financial Economics*, 33, 3-56.
- Eugene Fama and Kenneth French (2012) "Size, Value and Momentum in international stock returns" *Journal of Financial Economics*, 33, 3-56.
- Eugene Fama and Kenneth French (2015) "A Five Factor Asset Pricing Model" *Journal of Financial Economics*, 116, 1-22.
- Eugene Fama and Kenneth French (2017) "International Tests of a Five Factor Asset Pricing Model" *Journal of Financial Economics*, 123, 441-63.

## 8. Arrow-Debreu pricing, market completeness and complex securities

- \* Lecture Notes
- \* DD, (3<sup>rd</sup> ed.): Chapters 9 and 11, (2<sup>nd</sup> ed.): Chapters 8 and 10

## 9. Consumption CAPM (CCAPM)

- \* Lecture Notes
- \* DD (3<sup>rd</sup> ed.): Chapter 10, (2<sup>nd</sup> ed.): Chapter 9

## 10. Options, risk neutral valuation and continuous time finance

- \* Lecture Notes
- \* DD, (3<sup>rd</sup> ed.): Chapters 11, 12 and 13, (2<sup>nd</sup> ed.): Chapters 10, 11, and 12
- BDS, Chapters 20 and 21.

## 11. Efficient markets and market volatility

- \* Lecture Notes
- \* CWS, ch 10 and 11
- Aswath Damodaran, "Market Efficiency: Definition and Tests," <http://people.stern.nyu.edu/adamodar/pdfiles/invphiloh/mktefficiency.pdf>
- G. William Schwert, (2003) "Anomalies and Market Efficiency," in HEF.
- Nicholas Barberis and Richard Thaler (2003), "A Survey of Behavioral Finance", in HEF.
- N. Jegadeesh, and S. Titman, (1993) "Returns to Buying Winners and Selling Losers: Implications for Stock Market Efficiency, *Journal of Finance*, 48, 65–91.
- Alan Timmerman and Clive Granger (2004) "Efficient Market Hypothesis and Forecasting," *International Journal of Forecasting*, 15-27.
- Jonathan Lewellen and Jay Shanken (2002) "Learning, Asset-Pricing Tests" *Journal of Finance*, 1113-45.

Pedro Barroso and Pedro Santa-Clara (2015) “Momentum has its Moments” *Journal of Financial Economics*, 116, 111-20.

Kent Daniel and T. Moskowitz (2016) “Momentum Crashes” *Journal of Financial Economics*, 122, 221-47.

Jonathan Berk and Jules van Binsbergen (2015) “Measuring Skill in the Mutual Fund Industry” *Journal of Financial Economics*, 118, 1-20.

### **Evaluation:**

The basis for determining your final grade in this course is as follows:

Midterm take-home assignment(s) 50%    Date: TBA

Final take-home examination        50%    Date: Formally scheduled during the examination period

The details of these evaluations will be announced in class and on Brightspace.

Students who miss the midterm take-home assignment(s) for a valid reason (documented appropriately) will have the associated weight added to that of the final exam. Should the final exam be missed for any reason, a grade of F will be assigned, and the student must arrange for the possibility of a deferred examination through the Registrar’s Office within 3 working days of the exam. If granted by the Registrar’s Office, this exam will take place during the time designated in the Calendar. Special final exams (or mid-terms) will not be given.

Standing in a course is determined by the course instructor subject to the approval of the Faculty Dean. This means that grades submitted by the instructor may be subject to revision. No grades are final until they have been approved by the Dean. Application to write a deferred final examination must be made at the Registrar’s Office.

### **Brightspace and e-mail:**

**This course will make use of Brightspace.**

Lecture notes, review questions, problems, references to additional readings and any other material will be posted on Brightspace. Class announcements will be sent by e-mail using Brightspace.

**It is each student’s responsibility to check this website for posted material as well as the Carleton University email system for correspondence.** If you do not have a Brightspace account, visit <https://carleton.ca/brightspace/>

### **Re-marking:**

Any request for the remarking of exams or assignments must be submitted in writing within two weeks of that assignment or exam first being returned to the class. The request should contain a detailed explanation of why you feel you should receive a higher mark. Please note that remarking will apply to the entire assignment or exam, and not just to the contentious question. As a result, the revised mark may be higher than, lower than or the same as the original mark.

### **Plagiarism:**

Please be aware that plagiarism is a serious offence at Carleton and should be recognized and avoided. For further information on how to do so, please see “Pammett on Plagiarism and Paraphrasing” at :

[www.carleton.ca/economics/courses/writing-preliminaries](http://www.carleton.ca/economics/courses/writing-preliminaries).

The University Senate defines plagiarism as “presenting, whether intentionally or not, the ideas, expression of ideas or work of others as one’s own.” This can include:

- reproducing or paraphrasing portions of someone else's published or unpublished material, regardless of the source, and presenting these as one's own without proper citation or reference to the original source;
- submitting a take-home examination, essay, laboratory report or other assignment written, in whole or in part, by someone else;
- using ideas or direct, verbatim quotations, or paraphrased material, concepts, or ideas without appropriate acknowledgment in any academic assignment;
- using another's data or research findings;
- failing to acknowledge sources through the use of proper citations when using another's works and/or failing to use quotation marks;
- handing in "substantially the same piece of work for academic credit more than once without prior written permission of the course instructor in which the submission occurs."

Plagiarism is a serious offence that cannot be resolved directly by the course's instructor. The Associate Dean of the Faculty conducts a rigorous investigation, including an interview with the student, when an instructor suspects a piece of work has been plagiarized. Penalties are not trivial. They can include a final grade of "F" for the course.

### **Intellectual Property Rights Regarding Course Material:**

Please note: "Classroom teaching and learning activities, including lectures, discussions, presentations, etc., by both instructors and students, are copy protected and remain the intellectual property of their respective author(s). All course materials, including PowerPoint presentations, outlines, and other materials, are also protected by copyright and remain the intellectual property of their respective author(s). Students registered in the course may take notes and make copies of course materials for their own educational use only. Students are not permitted to reproduce or distribute lecture notes and course materials publicly for commercial or non-commercial purposes without express written consent from the copyright holder(s)." (See <https://carleton.ca/provost/2015/calendar-dates-and-course-materials-sharing-website/>)

### **Requests for Academic Accommodation:**

You may need special arrangements to meet your academic obligations during the term. For an accommodation request, the processes are as follows:

#### **Pregnancy obligation:**

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the Equity Services website: [carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf](https://carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf)

#### **Religious obligation:**

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the Equity Services website: [carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf](https://carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf)

### **Academic Accommodations for Students with Disabilities:**

If you have a documented disability requiring academic accommodations in this course, please contact the Paul Menton Centre for Students with Disabilities (PMC) at 613-520-6608 or [pmc@carleton.ca](mailto:pmc@carleton.ca) for a formal evaluation or contact your PMC coordinator to send your instructor your Letter of Accommodation at the beginning of the term. You must also contact the PMC no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with your instructor as soon as possible to ensure accommodation arrangements are made. For more details, visit the Paul Menton Centre website [carleton.ca/pmc](https://carleton.ca/pmc)

**Survivors of Sexual Violence:**

As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and its survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit: [carleton.ca/sexual-violence-support](http://carleton.ca/sexual-violence-support)

**Accommodation for Student Activities:**

Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation must be provided to students who compete or perform at the national or international level. Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, see [the policy](#).