ECO358: Financial Economics I

L0101: Tuesdays, 3-5pm, UC 179 (see below for exceptions!).
L5101: Tuesdays 6-8pm, LM 161 (see below for exceptions!)
Professor Katya Malinova
GE211
Tue 2-3pm in GE 313 (Michael Brolley)
Tue 5:10pm -6pm in LM161 (GE 211 on Dec 04) (Professor Malinova)
No regular office hours: Sept 11, Oct 30, Nov 06, Nov 13.
Additional hours will be scheduled before the midterm and the final.
416 - 978 - 5283
katya.malinova@utoronto.ca
Blackboard (portal.utoronto.ca).
Sept 11 (3 hrs), Oct 23 (midterm), Oct 30 (3hrs), Dec 04 (no class)
see below for details.

Course Description and Objectives: ECO358 is an introduction to asset pricing and portfolio theory. Students will learn the basic ideas and tools in financial economics, such as the time value of money, the role of financial markets, investment and security valuation, financial risk, the Capital Asset Pricing Model, Arbitrage Pricing Theory, basic derivatives, term structure of interest rates, and market efficiency. Students are expected to keep up with current events.

Prerequisites: ECO200Y1/ECO204Y1/ECO206Y1, ECO220Y1/ECO227Y1/(STA247H1,STA248H1) / (STA250H1,STA255H1)/(STA257H1,STA261H1). Prerequisites are checked and strictly enforced by the Department of Economics; they must be completed before taking a course.

Textbook: *Investments*, 7th Canadian Edition, by Bodie, Kane, Marcus, Perrakis, and Ryan, 2011, McGraw-Hill. ISBN: 0-07-007170-5 (hereafter: *Bodie*). If you use a different edition, be aware that you will be responsible for reconciling the differences. If you prefer, the book is also available in a publisher-endorsed digital format on coursesmart.com; see the Blackboard website for the appropriate link. Additional literature (not required for the course) is in Appendix B.

Assessment and Grade Composition

There will be one midterm test and a final, both 3 hour long. The midterm will take place on October 30, 2012, during class but **not** in your regular classroom. Location details will be posted on Blackboard. Your course-grade is composed as follows

 $\begin{array}{l} 30\%\times {\rm midterm}+60\%\times {\rm final}\\ + \ 10\%\times {\rm max}\{{\rm final,\,midterm.}\}^* \end{array}$

In words: your midterm counts for at least 30% and your final counts for at least 60%. The remaining 10% are allocated in your favor — if your score on the final is higher, then to the final, otherwise to your midterm. (The idea is to provide you with the opportunity to have your final count for more than 60%, if your performance improves over the term).

* The max rule applies to regular and make-up midterm tests. However, in the event a student misses the midterm test *and* does *not* write the make-up test, the max rule will not apply: the midterm will be assigned a score of 0% and will count for 40%, the final will count for 60%.

Basis for Grading: Tests and exams are cumulative in nature. [The only exception is that due to the postponement of the midterm date, the last lecture before the midterm is not covered on the midterm.] Tests and exams may consist of true/false, multiple choice, short answer, quantitative questions and/or essay questions. Responses are graded based on accuracy, not on effort. Non-programmable/non-financial calculators and a formula sheet (details are in Appendix C) are permitted during tests/exams. Tests/exams are based on the topics covered in class, assignments, discussions, assigned readings, and your knowledge of current finance-related events. Students should be prepared to answer questions that are conceptual, quantitative, and/or descriptive.

Missing the Midterm: Missing a midterm requires a legitimate excuse and you must follow a specific protocol to be granted a make-up test; details of the protocol and the make-up procedure are outlined in Appendix A of this syllabus. Failure to follow the protocol will result in a score of 0% on your midterm. The make-up test will take place on December 04, during your regular class time.

Academic misconduct: Students should note that copying, plagiarizing, or other forms of academic misconduct will not be tolerated. Any student caught engaging in such activities will be subject to academic discipline ranging from a mark of zero on the assignment, test or examination to dismissal from the university as outlined in the academic handbook. Any student abetting or otherwise assisting in such misconduct will also be subject to academic penalties. Please note that using an unauthorized aid (for example, a formula sheet or a calculator that do not meet the course requirement) constitutes an academic offence.

Students agree that by taking this course that all required papers may be subject to submission for textual similarity review to Turnitin.com for the detection of plagiarism. All submitted papers will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. The terms that apply to the University's use of the Turnitin.com service are described on the Turnitin.com web site.

Appeals. If you appeal to re-grade one of the exam questions, we will re-grade the *entire* exam. Note that this may lead to a lower overall grade. Your complaint has to be in writing, it must be submitted within ten (10) days from the day that graded midterms become available for pick-up, and it must explain why you believe grading to be incorrect.

These conditions do not apply to clerical errors (i.e. adding your scores incorrectly); if a clerical error occurs, please notify me as soon as possible.

TA Support

We have two teaching assistants for the course: Michael Brolley (michael.brolley@utoronto.ca) and Dao Wu (dao.wu@mail.utoronto.ca). Michael is a PhD student in financial economics, Dao is a Master of Financial Economics student. The allocation of TA hours is differs between Michael and Dao, as a consequence, so does the allocation of their duties. Please be respectful of this and follow instructions in this syllabus and on Blackboard when choosing to contact one or another.

Class conduct

Punctuality. You are expected to arrive for class in time: Late-coming is rude towards other students because it disrupts the class and negatively affects people's concentration.

Laptop, tablet, and smartphone policy. It is expected that students will use technology responsibly, with consideration for their fellow students and other members of the University community. Laptops and smartphones are not to be used during class for email, instant messaging, web browsing, or any other activity that is disruptive to other students, the instructor, or the class-room environment. Violation of this technology policy may lead to a prohibition on all electronic equipment use for all students to ensure a productive classroom environment for everyone.

Email Communication. Please read this section of the course outline prior to contacting the instructor by email.

- I will use Blackboard to send out messages and it is your responsibility that your account is set up to receive messages from the UofT portal.
- Please direct your e-mail queries regarding the course (lecture materials, practice questions, test and exam matters) to michael.brolley@utoronto.ca and cc your e-mail to me (katya.malinova@utoronto.ca). I will only respond to e-mail queries that cannot be resolved between you and Michael. Please make sure that the subject of your e-mail contains "ECO358".
- Please be sensitive to the fact that it can take considerable time for me to respond with the due care that each query deserves. With 243 registered students, if each student emails me once a week, I will need over 20 hours a week to spend on email alone (I spend at least 5 minutes reading the message, thinking about an answer, and replying). With a 40-hour work week, which must be split between my teaching, research, and administrative duties, allocating 20 hours to course e-mails is not feasible. We will thus only reply to legitimate e-mail inquiries (e.g., if an answer to your question can be found on Blackboard, your e-mail will not be answered). Please note also that e-mail is not a mechanism to receive private tutorials or to explain material that was covered in lectures you missed.
- After reading the above guidelines, if you do need to send email, to help prevent your message from being labelled as spam, be sure you indicate ECO358 in the subject line, and be sure you do not include attachments.
- Michael (and/or I) will reply to legitimate email inquiries from students within two working days. If you do not receive a reply within this period, please resubmit your question(s).

We will only answer e-mails during the work day (9:00-17:00), we will not answer emails over the weekend (Friday 17:00 - Monday 9:00), and we will not answer emails in the last 36 hours before a test or an exam.

• You should expect that we will ask you to come to our office hour for questions that require lengthy answers.

Exceptions to Class Times.

Your lecture will be 3 hour long on September 11 (first lecture) and on November 06 (the first lecture after the midterm). Due to these 2 extra hours, there will be no lecture on December 04 (instead, the make-up midterm test will take place on that date). The midterm will take place on October 30, and it will be 3 hour long. Please make sure to check Blackboard for the location of the midterm – it will **not** be in your regular classroom.

Weekly Office Hours.

Michael Brolley and I will hold weekly office hours, through December 04, with the exception of September 11 (the first day of class), October 30 (the midterm date), November 06 (3 hour lecture, post-midterm week), and November 13 (fall break). Please note that my December 04 office hours will take place in GE 211. Michael, Dao, and I will hold additional office hours before your midterm test and your final exam. Details will be announced in class and on Blackboard.

Course Structure

Note: The references to chapters in Bodie et al. will be updated on Blackboard as the term progresses. Several lectures will be based solely on lecture notes with little or no textbook reference.

Week 1 (3 hrs) Basics of financial markets.

Week 2 Project valuation under certainty: Net Present Value, Internal Rate of Return.

Week 3 Bond pricing; the term structure of interest rates.

Week 4 Choice under Uncertainty, Portfolio Theory I.

Week 5 Portfolio Theory II.

Week 6 CAPM.

- Week 7 Basics of General Equilibrium Theory, No-arbitrage, the Law of One Price [Note: The material covered in this lecture will not be tested on the midterm].
- Week 8 (3 hrs) Midterm.
- Week 9 (3hrs) Single and Multi-Factor Models. Arbitrage Pricing Theory.

Week 10 Empirical evidence of market returns. Market efficiency.

- Week 11 Basics of Option Pricing.
- Week 12 Make-up Midterm/ No Lecture.

Appendix A: Policy on Missing the Midterm

- 1. A student who does not feel able to write a test should (1), unless the circumstances make this impossible, contact Professor Malinova **before** the test, by e-mail at katya.malinova@utoronto.ca, and (2) follow the protocol below to request accommodation (i.e., an opportunity to write a make-up test) for the missed midterm. If the student fails to contact the instructor before the test but, in the opinion of the instructor, could have, or if the student fails to provide adequate proof, then his or her request for the accommodation for the missed midterm will be denied.
- 2. If your documentation is approved by the instructor, you will be granted an opportunity to make-up for the missed midterm. The make-up test will take place in class, on December 04, 2012. (Please note that there is no regular lecture on December 04). As with all tests and exams, the make-up test will be cumulative. There will be no make-up opportunities for the missed make-up test.
- 3. If you miss the make-up test or if your request for accommodation for the missed midterm is denied, you will be assigned a score of 0% on your midterm. Furthermore, the max rule from the grading scheme will not apply, your midterm will be worth 40% and your final will be worth 60%.
- 4. **Irrespective of the reason**, you must provide Professor Malinova with a written (typeset) and signed letter from youself that provides
 - (a) the reason for the missed test and an explanation for how your problem/issue affected your ability to write the test (e.g., describe the nature of your health problem),
 - (b) the list of courses that you are currently taking, with the names of your professors and their contact information,
 - (c) the list of any tests/assignments with due dates in the 4 days before and the 4 days after your test in those courses (please provide due dates and their weights), and a statement on whether you were able to complete those assignments and when,
 - (d) a statement on whether you were able to attend any classes on the day of your test.

The last sentence of your letter must be: "I understand that it is a punishable academic offence to present false information in support of my request for accommodation for missed term work."

5. If you are ill, you must **additionally** provide a fully completed University of Toronto Medical Certificate, completed by a qualified medical doctor (e.g., not an acupuncturist, chiropractor, or other health care professional). This certificate **must** (*i*) state that you were unable to write the test and (*ii*) state the medical condition that prevented you from writing the test. Documentation citing non-essential, preplanned medical procedures will not be acceptable.

The doctor's OHIP registration number must be provided and the doctor must indicate a phone number at which I can reach him or her. By submitting a medical certificate you also authorize me to contact your physician and discuss your case with him or her.

6. The accompanying documentation must be in original (not scanned, copied, or emailed) or a certified copy.

7. Your letter and your documentation must be presented in person with a valid U of T student card during the week of the missed test (i.e., on or before Friday, October 26) at the Department of Economics' reception at 150 St. George Street (and you must e-mail me to confirm that you have submitted the note). Beyond the week of the test, further documentation will be required (e.g., confirming the continuing illness).

Appendix B: Literature

McGraw-Hill updates most (successful) textbook editions every other year. For some of the content, you can use older versions, but understand that you do so at your own risk and you are responsible for absorbing any discrepancies. I will refer to the latest version, and I will not accommodate users of older versions.

Note that I will not follow the book chapter-by-chapter as the book covers much more than what we will be able to cover in the short term. Moreover, for some parts of the course, I may require a higher level of analytical understanding than Bodie et al.

For those of you who intend to pursue further studies in financial economics, there are other, nice undergraduate finance books available (these are **not** required for the course):

- Thomes Copeland and Fred Weston: *Financial Theory and Corporate Policy*, Addison-Wesley. A classic text. The first choice to get further information on concepts covered in less depth in Bodie.
- Elton, Gruber, Brown, Goetzmann: *Modern Portfolio Theory and Investment Analysis*, Wiley. A really nice, slightly advanced text that has plenty of examples and detail.

If you would like to have a look at more advanced, graduate level, texts, here is a small collection of outstanding (graduate) textbooks. None of these, however, are required for the course.

- John Cochrane: Asset Pricing, 2001, Princeton University Press. A very nicely written book which also covers a great deal of empirical methods.
- Campbell, Lo and MacKinley: *The Econometrics of Financial Markets*, 1998, Princeton University Press. Focusses mainly on empirics; sets up theoretical concepts so that they can be tested; comprehensive, but advanced.

There are also a number of movies that anyone interested in finance must have seen: start with "Wall Street" (skip the 2009 version, it's horrible), then "Boiler Room" and "Margin Call".

Appendix C: Specifications for the Formula Sheet

Your formula sheet must have the following format: one page, single-sided for the midterm and double-sided for the final, hand-written (i.e., not type-set), not photocopied, letter-sized paper containing formulae or simple expressions, but not full paragraphs of text, derivations of formulae, or solutions to past questions. The purpose of the formula sheet is to remind you of formulae that you need for computations, and it should be the result of extensive studying.