

# **Course Outline**

#### **RSM 435H1F**

# Futures and Options Markets Fall 2016

Wednesdays L0101 9am-11am, WO 35 Wednesdays L0201 11am-1pm, WO 35 Thursdays L0301 11am-1pm, RT 142

Instructor: Alexandra MacKay

E-Mail: amackay@rotman.utoronto.ca

Phone: 416.978.0740

Office: 453, 105 St. George Street

Office Hours: Tuesdays, 1-2:30pm (except Tuesday September 20<sup>th</sup> which will be 12:30-2pm)

Pre-exam office hours will be announced separately.

# **Teaching Assistant Support for the Course:**

Teaching assistants will hold tutorials in advance of the midterm examination and the final examination. Times and room locations will be announced.

Teaching assistants will be responsible for grading the weekly questions, the RPM Project submissions and the midterm examination. If you have follow-up questions or are concerned with the way in which a deliverable or the midterm was graded, please follow these steps:

- Review the solution key carefully (if one is available for that deliverable).
- Write an explanation indicating which question(s) you would like re-graded and the rationale for the request.
- Submit the written explanation and the original graded piece of work to the TA <u>within two</u> weeks of the return date of the deliverable / midterm.
- If you are unsatisfied with the response from the TA, follow up with the instructor.
- Please note: If the deliverable/midterm was written in pencil, it cannot be re-submitted for regrading consideration.

#### **Course Scope and Mission**

This course covers the analysis of derivative instruments such as forwards, futures, swaps and options. By the end of the course, students will have good knowledge of how these contracts work, how they are used and how they are priced.

# **Course Prerequisites**

Prerequisite: ECO204Y1/ECO206Y1, RSM332H1

Exclusion: ACT370H1

#### **Required Readings**

Hull, John C., <u>Options, Futures, and Other Derivatives, 9<sup>th</sup> Edition</u>, Pearson-Prentice Hall, 2015. Hull, John C., <u>Student Solutions Manual for Options, Futures, and Other Derivatives, 9<sup>th</sup> Edition</u>, Pearson-Prentice Hall, 2015.

#### **Evaluation and Grades**

(Note: The RPM project submissions may be submitted to the Commerce Office or in class.)

(Note: Please attach a cover page to your course work submission.)

Grades are a measure of the performance of a student in individual courses. Each student shall be judged on the basis of how well s/he has command of the course materials.

<u>Work</u>		<u>Due Date</u>		
RPM/CBOE Tutorial Attendance &				
RPM Account Creation	4%	by 5pm September 23 <sup>rd</sup> , 2016		
Weekly Question	16%	ongoing		
RPM Project	10%	9am October 20 <sup>th</sup> and 9am December 1 <sup>st</sup>		
Midterm Examination	25%	7pm October 26 <sup>th</sup>		
Final Examination	45%	During the Faculty of Arts & Science Final		
		Examination period, December 9 <sup>th</sup> –20 <sup>th</sup>		

The midterm and final examinations will not be open book. You will be permitted to bring in a calculator and an 8.5"×11" one-sided "aid sheet" with notes and/or formulae to the midterm examination, and a calculator and an 8.5"×11" two-sided "aid sheet" with notes and/or formulae to the final examination. Working in groups can be an excellent way to learn concepts. Please note that you must always write up your own work and submit your own original work.

# **Weekly Question:**

Beginning with the second class, each week in class except the week of the midterm and the week following the midterm, at the beginning of class, you will be given the opportunity to provide a written answer to questions based on material from the previous week's class and assigned readings for that day's class. There are nine such opportunities. Each weekly submission will receive one of four possible grades: 2/2 for a perfect answer, 1.5/2 for an answer that is mostly correct, 1/2 for an answer that is not good but some minimal effort was made, or 0/2 if no serious effort was made. You will receive a grade of 0/2 if you did not submit anything that week. Your top eight weekly submissions will each be worth up to 2% of your final grade, for a total of a possible 16% of the final grade in the course.

#### The BMO Financial Group – Finance Research and Trading Lab

The Finance Lab is located on the 2<sup>nd</sup> Floor of the Rotman building, 105 St George St. You may access the Finance Lab during regular business hours, provided it is not booked for a class. Please check the schedule for the Finance Lab to confirm its availability.

You will be using the Rotman Portfolio Management (RPM) software during this course. It is mandatory that you attend a session that will (re)introduce you to the RPM software and to the CBOE. This will permit you to get a good start on your RPM term project. These sessions will be offered outside of class time, as follows:

- 4pm-5pm, Tuesday Sept 20th
- 12pm-1pm, Thursday, Sept 22nd
- 2pm-3pm, Friday Sept 23rd
- 4pm-5pm, Friday, Sept 23<sup>rd</sup>

Please sign up for one of these sessions by going to this URL and following the instructions there: <a href="https://docs.google.com/spreadsheets/d/1dC27oQyqi5tZP-">https://docs.google.com/spreadsheets/d/1dC27oQyqi5tZP-</a>
RKClblppH5qar5xvZNWHR wsSEvis/edit?usp=sharing

You will be awarded 4% of your final grade if you attend one of these four sessions AND create your RPM account as instructed by 5pm on Friday September 23<sup>rd</sup>, 2016.

Please note: we reserve the right to cancel one of these tutorials if the number of people signed up is very small. This will be communicated on the portal.

# The RPM Project:

You will be trading derivatives throughout this course using the RPM software. Further details for this project will be provided at the beginning of the course.

# **Weekly Schedule**

Session	Торіс	Readings		
#1 – September 14/15	Introduction, Mechanics of Futures Markets, Hedging Strategies Using Futures	Chapters 1, 2 and 3		
#2 – September 21/22	1 <sup>st</sup> weekly question Interest Rates	Chapter 4		
#3 – September 28/29	2 <sup>nd</sup> weekly question Determination of Forward and Futures Prices	Chapter 5		
#4 – October 5/6	3 <sup>rd</sup> weekly question Interest Rate Futures	Chapter 6		
#5 – October 12/13	4 <sup>th</sup> weekly question Swaps	Chapter 7		
Due Date: 9am Thursday October 20 <sup>th</sup> (or before) – First RPM Project Submission				
#6 – October 19/20	5 <sup>th</sup> weekly question Mechanics of Options Markets; Properties of Stock Options	Chapters 10 and 11		
#7 – October 26/27	Midterm Examination Wednesday October 26 <sup>th</sup> , 7pm ALL SECTIONS			
#8 – November 2/3	Trading Strategies Involving Options	Chapter 12		
Monday November 7 <sup>th</sup> , 2016 - Last Day to Withdraw  November Break (No Classes) (Monday, November 7 <sup>th</sup> to Tuesday, November 8 <sup>th</sup> )				
#9 – November 9/10	6 <sup>th</sup> weekly question Binomial Option Pricing Model	Chapter 13 and Section 18.6		
#10 – November 16/17	7 <sup>th</sup> weekly question The Black-Scholes-Merton Model Options on Stock Indicies and Currencies Futures Options	Read chapter 14 Chapters 15 (omit section 15.6), 17 and 18		
#11 – November 23/24	8 <sup>th</sup> weekly question The Greeks	Chapter 19		
#12 – November 30/December 1	9 <sup>th</sup> weekly question Securitization and the Credit Crisis of 2007; OIS Discounting, Credit Issues & Funding Costs	Chapters 8 and 9		
Pre-exam tutorials will be announced – see portal for dates/times/locations  Due Date: 9am Thursday December 1 <sup>st</sup> (or before) – Final RPM Project Submission				
FINAL EXAM (TBA - Exam Period - December 12 <sup>th</sup> to 20 <sup>th</sup> )				

#### **POLICY AND PROCEDURE**

#### Missed Tests and Deliverables (including the midterm examination)

Students who miss a test or deliverable for reasons entirely beyond their control (e.g. illness) may submit a request for special consideration. Provided that notification and documentation are supplied in a timely manner, and that the request is subsequently approved, no academic penalty will be applied.

In such cases, students must notify Rotman Commerce on the date of the missed test (or due date in the case of course work) and submit supporting documentation (e.g. <u>Verification of Student Illness or Injury form</u>) to the Rotman Commerce Program Office within **48 hours** of the originally scheduled test or due date. Students who do not provide Rotman Commerce or the instructor with appropriate or sufficient supporting documentation will be given a grade of 0 (zero) for the missed test or course deliverable.

Note that the physician's report must establish that the patient was examined and diagnosed at the time of illness, not after the fact. Rotman Commerce will not accept a statement that merely confirms a report of illness made by the student and documented by the physician.

If you are only able to do fewer than eight weekly questions, your grade for the weekly questions will be based on those you were able to do provided you supply documentation to the Commerce Office as outlined above. For a missed first deliverable in the RPM Project, if an extension is not or cannot be granted, the weight will be shifted to the final deliverable in the RPM project. For a missed final deliverable in the RPM project, if an extension is not or cannot be granted, the weight will be shifted to the final examination. For missed midterm examination, the weight will be shifted to the final examination.

#### **Late RPM Project Deliverable**

The first RPM deliverable will be due 9am on Thursday October 20<sup>th</sup> and will be submitted to the Commerce Office. The final RPM deliverable will be due 9am on Thursday December 1<sup>st</sup> and will also be submitted to the Commerce Office. Late submissions will not be accepted. Students who, for reasons beyond their control, are unable to submit by the posted deadline must obtain approval from the instructor for an extension. Supporting documentation will be required as per the policy on missed tests and assignments/deliverables.

#### **Accessibility Needs**

The University of Toronto is committed to accessibility. If you require accommodations for a disability, or have any accessibility concerns about the course, the classroom or course materials, please contact Accessibility Services as soon as possible: <a href="mailto:accessibility.services@utoronto.ca">accessibility.services@utoronto.ca</a> or <a href="http://www.accessibility.utoronto.ca/">http://www.accessibility.utoronto.ca/</a>.

#### **Academic Integrity**

Academic Integrity is a fundamental value essential to the pursuit of learning and scholarships at the University of Toronto. Participating honestly, respectively, responsibly, and fairly in this academic community ensures that the U of T degree that you earn will continue to be valued and respected as a true signifier of a student's individual work and academic achievement. As a result, the University treats cases of academic misconduct very seriously.

The University of Toronto's Code of Behaviour on Academic Matters
<a href="http://www.governingcouncil.utoronto.ca/policies/behaveac.htm">http://www.governingcouncil.utoronto.ca/policies/behaveac.htm</a> outlines the behaviours that constitute academic misconduct, the process for addressing academic offences, and the penalties that may be

imposed. You are expected to be familiar with the contents of this document. Potential offences include, but are not limited to:

# In papers and assignments:

- Using someone else's ideas or words without appropriate acknowledgement.
- Submitting your own work in more than one course without the permission of the instructor.
- Making up sources or facts.
- Obtaining or providing unauthorized assistance on any assignment (this includes collaborating with others on assignments that are supposed to be completed individually).

#### On tests and examinations:

- Using or possessing any unauthorized aid, including a cell phone.
- Looking at someone else's answers.
- Misrepresenting your identity.
- Submitting an altered test for re-grading.

#### Misrepresentation:

- Falsifying institutional documents or grades.
- Falsifying or altering any documentation required by the University, including (but not limited to), medical notes.

All suspected cases of academic dishonesty will be investigated by the following procedures outlined in the *Code of Behaviour on Academic Matters*. If you have any question about what is or not is permitted in the course, please do not hesitate to contact the course instructor. If you have any questions about appropriate research and citation methods, you are expected to seek out additional information from the instructor or other UofT resources such as College Writing Centres or the Academic Success Centre.

#### **Email**

At times, the course instructor may decide to communicate important course information by email. As such, all UofT students are required to have a valid UTmail+ email address. You are responsible for ensuring that your UTmail+ email address is set up AND properly entered on the ROSI system. For more information please visit http://help.ic.utoronto.ca/category/3/utmail.html

Forwarding your utoronto.ca email to a Hotmail, Gmail, Yahoo or other type of email account is not advisable. In some cases, messages from utoronto.ca addresses sent to Hotmail, Gmail or Yahoo accounts are filtered as junk mail, which means that important messages from your course instructor may end up in your spam or junk mail folder.

# **Blackboard and the Course Page**

The online course page for this course is accessed through Blackboard. To access the course page, go to the UofT Portal login at <a href="https://portal.utoronto.ca/">https://portal.utoronto.ca/</a> and log in using your UTORid and password. Once you have logged in, look for the My Courses module where you'll find the link to all your course websites. If you don't see the course listed here but you are properly registered for the course in ROSI, wait 48 hours. If the course does not appear, go to the Information Commons Help Desk in Robarts Library, 1st floor, for help, or explore the Portal Information and Help at

http://www.portalinfo.utoronto.ca/content/information-students and review the Frequently Asked Questions.

# **Recording Lectures**

Lectures and course materials prepared by the instructor are considered by the University to be an instructor's intellectual property covered by the Canadian Copyright Act. Students wishing to record a lecture or other course material in any way are required to ask the instructor's explicit permission, and may not do so unless permission is granted (note: students who have been previously granted permission to record lectures as an accommodation for a disability are, of course, excepted). This includes tape recording, filming, photographing PowerPoint slides, Blackboard materials, etc.