

Course Outline

Course Code	RSM 435 H1F	
Course Name	Futures and Options Markets	
Term, Year	Fall, 2024	
Course Meets	burse Meets L0101 – Wednesday 9:10-11am, RT	
	L0201 – Wednesday 1:10-3pm, RT	
	L5101 – Thursday 5:10-7pm, RT	
Web page URL	https://q.utoronto.ca	

Instructor Details

Name	Alexandra MacKay, RT 453		
Email	alexandra.mackay@rotman.utoronto.ca		
Phone	416-978-0740		
Office Hours & Virtual	Thursday, 3-4pm (beginning Sep 12)		
Office Hours Links			
	Not Oct 31		
	Zoom: https://utoronto.zoom.us/j/81139734439		
	Please check Quercus regularly: If it becomes necessary to		
	reschedule office hours, notice will be posted there.		

Course Description

RSM435 – Futures and Options Markets – as its name suggests, concerns itself with the analysis of financial derivative securities such as forwards, futures, swaps and options. You will become well informed regarding how these contracts work, how they are used and how they are priced.

You will develop skills to communicate your knowledge of financial derivatives. This will include contributing to discussion in class, producing video answers to questions and writing clearly. Arguably, the ability to communicate knowledge may be as essential as the knowledge itself.

Learning Outcomes

By the end of this course, students will be able to:

- **Explain and Apply Pricing Principles**: Explain the fundamental principles underlying the pricing of financial derivative securities, and use that knowledge to calculate prices, identify mispricing and consider strategies that leverage any mispricing.
- **Evaluate Market Variables**: Analyze the impact of market variables (e.g. interest rates, volatility) on the pricing of financial derivative securities.
- Utilize Financial Derivative Securities: Illustrate how financial derivative securities
 may be used to achieve specific financial objectives, differentiating among the various
 securities with a critical eye to the limitations and/or advantages of different possible
 approaches.

- **Develop and Assess Hedging Strategies**: Analyze hedging strategies that use financial derivatives and explain their effectiveness.
- Integrate Generative AI in Decision Making: Use generative AI tools to assist with financial decision making while maintaining critical oversight to ensure comprehension of the concepts.

Course Prerequisites

Prerequisite: ECO204Y1/ECO206Y1 and RSM332H1

Exclusion: ACT370H1

Course Materials

Required Readings

Hull, John C., Options, Futures, and Other Derivatives, 11th Edition, Pearson-Prentice Hall, 2022.

Evaluation and Grades

Grades are a measure of the knowledge and skills developed by a student within individual courses. Each student will receive a grade on the basis of how well they have command of the course materials, skills and learning objectives of the course.

Work	Percentage of Grade	Due Date
Personal Code of Al Use & Its Revision	5%	Sep 19, Nov 29
In-Class Quizzes – start of class	15%	Every class
		except Sep 4/5 and Oct 24/25
Futures Hedge and Marking-to-Market	3%	Sep 19, Oct 7
Video Quizzes	10%	Sep 24, Oct 15, Nov 19
Midterm Examination	27%	Oct 24
Final Examination	40%	TBD

Course Format and Expectations

Use of Generative Artificial Intelligence / ChatGPT

You are actively encouraged to learn more about the responsible use of generative artificial intelligence, particularly in the context of you as a student at the University of Toronto. See here for further information.

Microsoft Copilot is available to all U of T students. This is an enterprise version of an Alpowered chatbot and search engine that better protects the privacy and security of end users (when users are signed into their U of T account). Copilot, like other generative Al tools, may provide information that is not correct ('hallucinations') and it is up to each individual user to determine if the results are acceptable. For information and instructions on accessing the enterprise edition, please read and adhere to the Microsoft Copilot guidelines for use.

In this course:

- You may use generative AI for your Personal Code of AI Use (and its revision). If you do
 so, you must indicate that you did so and how you did, and you must provide the
 transcript (prompts etc.) of that interaction as an appendix to your submission of that
 deliverable.
- You may choose to use generative AI as a 'study buddy'. If you do so, always be mindful
 of the possibility of 'hallucinations'.

- You may not use generative AI for any other deliverables in the course. This includes the in-class quizzes, the video quizzes, and the futures hedging exercise and its marking-tomarket.
- You may not use generative AI for the midterm examination or the final examination at all in any way.

Video Quizzes

The video quizzes are intended to help you develop your oral communication skills. How clearly and how compellingly you communicate your ideas will be considered in the evaluation of your submission. Sources should always be correctly attributed.

Support is available through the RC Centre for Professional Skills (CPS) for students who would like help or feedback on their writing or speaking (presentations). CPS offers both individual and group appointments with trained writing instructors and presentation coaches who are familiar with the RC program and common types of business assignments. You can also access your college Writing Centres for help with written assignments.

You can book an appointment with a writing or presentation coach through the RC Centre for Professional Skills Writing Centre. For more information about writing centres, student supports, and study resources, see the Writing and Presentation Coaching academic support page.

Midterm Examination

The midterm examination will be held on Thursday October 24th from 5-7pm. Please see below for information on how to manage if you have a conflict with this date/time. The location for the midterm examination will be announced on the course webpage.

You will be permitted one single-sided letter-sized (8.5" x 11") page of notes to support you in the midterm examination. You may use a hand-held calculator that does not connect to the internet.

If you are unable to write the midterm examination due to illness or emergency, please contact Rotman Commerce Academic Services to submit the required documentation and to gain approval to write an alternative midterm. (Please see below for Missed Tests and Assignments.)

Final Examination

The final examination will be held during the formal Arts & Science December examination period. This is from 6 December to 21 December, 2024. The precise date and time of the examination will be announced by the Faculty of Arts & Science later in the fall term.

The final examination is cumulative – it covers the entire course content. The examination will be two hours in duration. You will be allowed one double-sided letter-size (8.5" x 11") page of notes in the examination. You may use a hand-held calculator that does not connect to the internet.

Missed Tests and Assignments

Students who miss a term test or assignment for reasons entirely beyond their control (e.g. illness) may request special consideration **within 2 business days** of the missed midterm/test/assignment due date.

In such cases, students must:

1. Complete the Request for Special Consideration form: https://uoft.me/RSMConsideration

Provide documentation to support the request, eg. Absence Declaration from <u>ACORN</u>, medical note etc.

Please note: As of September 2023, students may use the Absence Declaration on ACORN *one time per term* to report an absence and request consideration. Any subsequent absence will require a <u>Verification of Illness form</u> or other similar relevant documentation.

Students who do not submit their requests and documentation within 2 days may receive a grade of 0 (zero) on the missed course deliverable.

In-Class Start-of-Class Quizzes: There will be no opportunities to 'make up' for missed inclass quizzes. There will be 10 quizzes during the course. The best 6 will count toward your final grade, i.e. 2.5% each. If you miss 4 or fewer quizzes, you will still have completed at least 6 quizzes and the top 6 grades will count. If you miss more than 4 quizzes and have demonstrated acceptable rationale (as per Request for Special Consideration above), I will either re-weight the quizzes that you have completed or shift the weight of the missed quiz(zes) to the midterm or final examination.

Video Quizzes: There will be no opportunities to 'make up' for missed video quizzes. There are 3 video quizzes. The best 2 will count toward your final grade, i.e. 5% each. If you miss one, you will still have completed 2. If you miss more than one and have demonstrated acceptable rationale (as per Request for Special Consideration above), I will either re-weight the video quiz you did complete or shift the weight of the missed guiz to the midterm or final examination.

Midterm Examination Conflict: If you have a legitimate conflict with the date/time of the Midterm Examination (Thursday October 24th, 5-7pm), please email me by September 20th. Put "RSM435H1F Midterm Conflict" as the subject of your email. Include in the email supporting documentation of the conflict. An example of a legitimate conflict is that you have a regularly scheduled class on Thursdays from 5-7pm.

Final Examination: If you miss the final examination in this course for a legitimate reason (illness, etc) you will need to contact your College Registrar to file a petition for a deferred exam. This deferred exam will be written at a later date as established by the Faculty of Arts & Science. Instructions can be found here: https://www.artsci.utoronto.ca/current/faculty-registrar/petitions-appeals/preparing-petition

Late Assignments

Late assignments are not accepted and will be awarded a grade of 0.

Statement on Equity, Diversity and Inclusion

The University of Toronto is committed to equity, human rights and respect for diversity. All members of the learning environment in this course should strive to create an atmosphere of mutual respect where all members of our community can express themselves, engage with each other, and respect one another's differences. U of T does not condone discrimination or harassment against any persons or communities.

Commitment to Accessibility

The University is committed to inclusivity and accessibility, and strives to provide support for, and facilitate the accommodation of, individuals with disabilities so that all may share the same level of access to opportunities and activities offered at the University.

If you require accommodations for a temporary or ongoing disability or health concern, or have any accessibility concerns about the course, the classroom or course materials, please <a href="mailto:emailto:

Academic Integrity

Academic Integrity is a fundamental value essential to the pursuit of learning and scholarship at the University of Toronto. Participating honestly, respectfully, 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.

<u>The University of Toronto's Code of Behaviour on Academic Matters</u> 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 test and exams

- 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 procedures outlined in the <u>Code of Behaviour on Academic Matters</u>. If you have any questions about what is or is not 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 U of T or RC resources such as the RC Centre for Professional Skills, the 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 U of T 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 ACORN. For more information visit the Information Commons Help Desk.

Forwarding your utoronto.ca email to a Gmail or other type of email account is not advisable. In some cases, messages from utoronto.ca addresses sent to Gmail 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.

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. Students who have been previously granted permission to record lectures as an accommodation for a disability are excepted. This includes tape recording, filming, photographing PowerPoint slides, Quercus materials, etc.

If permission for recording is granted by the instructor (or via Accessibility Services), it is intended for the individual student's own study purposes and does not include permission to "publish" them in any way. It is forbidden for a student to publish an instructor's notes to a website or sell them in any other form without formal permission.



Weekly Schedule

Session	Date	Topic	Readings			
1	Sep 4/5	Introduction Futures Markets and Central Counterparties Hedging Strategies Using Futures	Chapter 1 Chapter 2 Chapter 3			
2	Sep 11/12	Interest Rates Determination of Forward and Futures Prices	Chapter 4 Chapter 5			
	Due Date Alert: Personal Code of Al Use – September 19 th					
Due Date Alert: Your Futures Hedge – September 19 th						
3	Sep 18/19	Determination of Forward and Futures Prices	Chapter 5 (continued)			
Due Date Alert: Video Quiz #1 – September 24 th						
4	Sep 25/26	Interest Rate Futures	Chapter 6			
5	Oct 2/3	Interest Rate Futures Swaps	Chapter 6 (continued) Chapter 7			
	Due Date Alert: Marking-to-Market of Your Futures Hedge – October 7 th					
6	Oct 9/10	Swaps	Chapter 7 (continued)			
	Due Date Alert: Video Quiz #2 – October 15 th					
7	Oct 17/18	Mechanics of Options Markets Properties of Stock Options Trading Strategies Involving Options	Chapter 10 Chapter 11 Chapter 12			
	L0101 & L0201: No Class on Wednesday October 24th					
Midterm Examination: Thursday October 24th, 5-7pm – ALL SECTIONS						
		Reading Week: No Classes October 30/31				
8	Nov 7/8	Binomial Trees	Chapter 13			
9	Nov 14/15	Binomial Trees Black-Scholes-Merton Model	Chapter 13, Section 18.6 of Chapter 18; Chapter 15 (omit Section 15.6)			
	Due Date Alert: Video Quiz #3 – November 19 th					
10	Nov 21/22	The Greek Letters	Chapter 19			
Due Date Alert: Revision(s) to Personal Code of Al Use – November 29 th						
11	Nov 28/29	Options on Stock Indices, Currencies and Futures Review and Wrap Up	Chapters 17 and 18			

Please note that the last day you can drop this course without academic penalty is November 4, 2024.



Other Useful Links

- Become a volunteer note taker
- Accessibility Services Note Taking Support
- Credit / No-Credit in RSM courses
- Rotman Commerce Academic Support
- Where to find teaching assistant opportunities

URL links for print

- ACORN: http://www.acorn.utoronto.ca/
- Email Accessibility Services: accessibility.services@utoronto.ca
- Accessibility Services website: http://studentlife.utoronto.ca/as
- University's Plagiarism Detection Tool FAQ: https://uoft.me/pdt-faq
- The University of Toronto's Code of Behaviour on Academic Matters: http://www.governingcouncil.utoronto.ca/policies/behaveac.htm
- Information Commons Help Desk: http://help.ic.utoronto.ca/category/3/utmail.html
- Become a volunteer note taker: https://studentlife.utoronto.ca/program/volunteer-note-taking/
- Accessibility Services Note Taking Support: https://studentlife.utoronto.ca/service/note-taking-support/
- Credit / No-Credit in RSM courses: https://rotmancommerce.utoronto.ca/current-students/degree-requirements/credit-no-credit-option/
- Rotman Commerce Academic Support: https://rotmancommerce.utoronto.ca/current-students/academic-support/
- Book an appointment with a writing or presentation coach: http://uoft.me/writingcentres
- Writing and Presentation Coaching academic support page: https://rotmancommerce.utoronto.ca/current-students/academic-support/writing-and-presentation-coaching/
- Centre for Professional Skills Teamwork Resources page: https://rotmancommerce.utoronto.ca/teamwork-resources
- Book an appointment with a Teamwork Mentor: http://uoft.me/writingcentres