Course Syllabus
CFRM 504: Options & Derivatives
Autumn 2017

General Info: Textbooks: See below
Lecture Time: MW 10:30-11:45 (note: we do not go until 12:20)
Location: Loew 216
Web Site: https://canvas.uw.edu (Navigate to CFRM 504)

Course Prerequisites
If you lack permission to sign up, please speak with me. It is HIGHLY recommended that you have taken courses in multivariate calculus, probability, and statistics.

Course Description
This is an introductory course on derivatives markets and option pricing.

Textbooks
I will lecture mostly from my course notes. However, it is a good idea, though not required to purchase a copy of Options, Futures and Other Derivatives, by Hull (any Edition is fine – they all have the same information).

Attendance
I encourage you to attend lecture if you are an on-campus student. Attending class helps me get to know you and it gives you the chance to ask me questions.

Rough outline of the course
• Introduction and Review of Probability
• Introduction to Derivatives, Forward contracts and Options
• Binomial model
• Fundamental Theorems of Asset pricing and incomplete markets
• Introduction to Stochastic processes and modeling stocks in continuous time
• Black-Scholes 101
• Greeks
• Variance contracts and Exotic Options
• Dupire’s Local Volatility
• Stochastic Volatility

Grading
Numerical course grades will be based on the following components:
• Homework 30%
• Midterm Exam 30%
• Final Exam 40%

Your final grade will depend on how well you do relative to other students in this and previous courses – not your absolute score (i.e., I will use a grading curve).

Expectations, late homework, re-grades and missing exams

**Expectations:** To receive full credit on a homework or exam problem, you must (i) have the correct and complete answer in the specified form (ii) clearly show all of the work necessary to arrive at your answer. A complete answer generally will make use of all of the information given in the problem. For example, if the answer involves taking an expectation, and you can evaluate the expectation explicitly, you should do so. When in doubt, imagine that you are an employee at a company, that your boss has asked you to answer a question and that your answer will determine your end-of-the-year bonus. If another employee (i.e., student) provides a more complete answer than you, this employee will get a higher bonus (i.e., grade).

**Late Homework policy:** I make sure to always cover the material needed to complete a HW set before I assign it. And I always give you at least one full week to complete the assignments. As such, *late homework will not be accepted under any circumstances.* Please do not send me or the TA e-mails asking for additional HW extensions. If you have a true medical or family emergency (e.g., death in the family), then contact the CFRM Graduate Program Adviser, Laurie Feldman (lf23@uw.edu). She will talk with me and your other professors.

**Re-grades:** If you ask the TA or me to re-grade your homework we will take off additional points unless we find that there has been a grading error. Additionally, if we find further mistakes on your homework, we may take of points for this as well. Thus, you should only ask for a re-grade if you are 100% certain that your answer is correct and that they have shown sufficient work to receive full credit.

**Missing the midterm:** If you miss the midterm, the final will be worth 70% of your grade. You will not have a chance to make up the midterm if you miss it.

**Missing the final:** If you miss the final exam you will fail the course unless you have a true medical or family emergency. In this case, you should contact the CFRM Graduate Program Adviser, Laurie Feldman (lf23@uw.edu). She will talk with me and your other professors. You will receive an incomplete until you have taken a make-up final. Generally, the make-up final will be *more difficult* than the regular final, due to the increased time available for studying.

**Office hours**

For on-line students, office hours are held via Zoom (links on the course web-pages). If you are an on-campus student, office hours are in Lewis Hall (locations above).

**Exams dates**

Midterm exam is *tentatively* scheduled for **Monday, November 6** in the regular meeting time and location. Though this may change.

The final exam is scheduled for **Wednesday, December 6** in the regular meeting time and location.

On-line students should take the mid-term and final within 48 hours of the scheduled exam times.
Homework Questions
If you have a question about the homework, please do not email me or teaching assistant with your question. Rather, please post your question on the Canvas website under the “Discussions” tab. I, the TA or another student will respond.

If you see a question posted on the discussion forum and you know the answer, please respond. At the end of the quarter, I will raise the final grade of any student who has made a strong effort to answer questions posted on Canvas.

Students with Disabilities
In compliance with University of Washington policy and equal access laws, I am available to discuss appropriate academic accommodations that you may require as a student with a disability. Request for academic accommodations need to be made during the first week of the quarter, except for unusual circumstances, so arrangements can be made. Students are encouraged to register with the Disability Services Office for disability verification and for determination of reasonable academic accommodations.

For more information, visit: http://www.washington.edu/admin/dso/