

FINN 6212-U90
Advanced Derivatives
Spring 2020

Professor: Dr. Steven P. Clark
Office: 346B, Friday Building
Phone: (704) 687-7689
Office Hours: Mondays and Tuesdays 4:30 pm – 5:30 pm CCB room 713 or by appointment
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Required Textbook:

Hilpish, Yves. *Derivatives Analytics with Python: Data Analysis, Models, Simulation, Calibration and Hedging*, Wiley, 2015

Students are expected to have access to a standard textbook on derivatives. Some examples include:

Jarrow, Robert A., and Arkadev Chatterjea, *Derivative Securities, Financial Markets, and Risk Management, Second Edition*, World Scientific, 2019.

Hull, John C. *Options, Futures and Other Derivatives, 10th Edition*, Pearson, 2018

There will also be additional course materials including relevant research papers posted on Canvas.

About this Class

This course provides students with the opportunity for an in-depth study of advanced derivatives pricing models. Topics include option pricing using Fourier transforms, valuation of American options by simulation, Levy process models of asset prices, stochastic volatility models, and dynamic hedging. The course also provides an opportunity for students to learn to use the computer language Python in computational finance.

Academic Integrity

All students are required to read and abide by the Code of Student Academic Integrity. Violations of the Code of Student Academic Integrity, including plagiarism, will result in disciplinary action as provided in the Code. Definitions and examples of plagiarism are set forth in the Code. The Code is available from the Dean of Students Office or online at <https://legal.uncc.edu/policies/up-407>

Course Schedule

This course meets from 5:30 pm until 8:15 pm at the Center City Building room 906 on all Tuesdays from January 14, 2020 through April 28, 2020, on which the university is open.

Electronic Communications

All students at UNC-Charlotte are assigned a student email account, which is the official means of communication between the University and the student. Although I will certainly respond to you if you use another email system, you should be aware that any class-wide announcements that I send through email will be sent through the Canvas system.

Grading Policies

There will be one midterm exam and a final project. The midterm will count for 20% of your final grade, and the final project will count for 40% of your final grade. I will also assign homework periodically, most of which will involve Python programming exercises. These assignments will be graded and your average score on these will account for the remaining 40% of your grade. Each student will submit a final paper summarizing their project and give a 10-15 minute presentation of their results to the class. These presentations will take place during the regularly scheduled final exam period for the course which is on Tuesday, May 5, 2019, 5:30 pm – 8:15 pm.

Grading Scale

The lower bounds for final grades of A, B, C will be no higher than 90, 80, and 70 percent of the total available points, respectively. Grades will be curved if necessary.

Missed Tests

Make up exams will only be administered if your absence is unavoidable. You must make me aware of any such unavoidable absences as soon as possible after you learn of them so that an alternative exam time can be set.

Statement on Diversity

The Belk College of Business strives to create an inclusive academic climate in which the dignity of all individuals is respected and maintained. Therefore, we celebrate diversity that includes, but is not limited to ability/disability, age, culture, ethnicity, gender, language, race, religion, sexual orientation, and socio-economic status.

Statement on Disability Accommodations

UNC Charlotte is committed to access to education. If you have a disability and need academic accommodations, please provide a letter of accommodation from Disability Services early in the semester. For more information on accommodations, contact the Office of Disability Services at 704-687-0040 or visit their office in Fretwell 230.