NYU Tandon School of Engineering
Department of Finance and Risk Engineering
Course Outline FRE-GY 7821 – Modern Risk Management Using Derivatives
Adjunct Professor Ronald T. Slivka, Ph.D.
Tuesdays, at assigned times and classroom locations

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Office hours: At classroom location one hour prior to the start of any class or by appointment. Available otherwise by phone / email

Course Pre-requisites
Prerequisite: Graduate Standing; FRE 6073 (Introduction to Derivatives) or a solid working knowledge of basic derivatives (futures, forwards, swaps, options).

Course Description
Each week in this elective course we study we undertake a detailed study of an actual historical usage of derivatives to manage risks occurring in corporate and financial institutions. In-class discussions of these case studies and independent readings are used to draw lessons relevant to current industry risk management applications arising in investing, hedging, trading, and issuing. Weekly background case readings and Excel exercises prepare the way for class discussions and analysis. Students are expected to participate vigorously and lead discussions. A final project replaces a final exam.

Readings
Weekly Case Study Guides will be used to structure the lecture and class discussions. These Guides will contain a list of required readings, a few exercises and questions to consider prior to meeting in class. Following the Guides will prepare students for vigorous in-class discussion.

Course requirements
Throughout the course students will be expected to actively participate and at times lead discussions. A final project replaces a final exam. To benefit the most, students should have a satisfactory knowledge of fundamental derivatives (futures, forwards, swaps, options).

Grading
- 55% ...will be based on classroom participation in discussions
- 45% ...will be based on completed assignments and the final project
- A = 90+; B = 80 – 89.99; C = 70 – 79.99

Weekly Case Study Examples
Gold Hedging at American Barrick
This firm’s management asked its quantitative staff whether or how to hedge its annual gold mining production. By following the path of analysis, types of risk are identified, classified and evaluated across multiple potential strategies.

Barings Bank Collapse
Futures strategies used in Japanese market arbitrage are studied along with important risk management mistakes in this famous case. Fourteen types of risk and methods for their control are discussed.

Jet Fuel Hedging at Southwest Air
The motivation for hedging jet fuel is outlined. Separate creative strategies and risk controls are designed and evaluated.
GM Liability Management
GM’s practical use of derivatives to implement the firm’s liability management policy is reviewed. Derivative risks using swaps, caps, swaptions and interest rate options are examined in detail before choosing a best strategy.

London Whale
Students analyze this relatively recent Case Study by developing their own critical exercises and questions regarding derivatives risk management and solutions. Senior management risk control mistakes are identified.

Metro do Porto
Students analyze this famous using their knowledge of previous cases to design a comprehensive enterprise risk management structure. It is within such a modern structure that today’s organizations identify and control the many types of risks encountered in this course.

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Disability Disclosure Statement

Academic accommodations are available for students with disabilities. Please contact the Moses Center for Students with Disabilities (212-998-4980 or mosescsd@nyu.edu) for further information. Students who are requesting academic accommodations are advised to reach out to the Moses Center as early as possible in the semester for assistance.

Ronald T. Slivka, Ph.D. is an Adjunct Professor in the Finance and Risk Engineering Department at NYU Tandon School of Engineering. With over 35 years of practical Wall Street experience, Dr. Slivka has held equity derivative sales and management positions at Salomon Brothers, J.P. Morgan and ABN AMRO. He has written over 40 articles and book chapters on a broad range of derivative topics and holds a Ph.D. in Physics from the University of Pennsylvania. Ron presently serves on the Editorial Board of the Indian Journal of Finance and reviews for the International Journal of Emerging Markets and Journals of Investing and Index Investing (RTslivka@msn.com).

Find me on LinkedIn at http://www.linkedin.com/pub/ronald-t-slivka/21/275/316
Access my recent papers on SSRN at: http://ssrn.com/author=1530815

University Grade Change Policy - 3 July 2013

"Grades on file with the Registrar at the end of the semester, with the exception of incomplete (I) and temporary grades (S or U), are considered final unless an error in calculating or recording the grade is discovered. No correctly reported final grade may be changed based upon re-taking an examination or completion of additional work. Incomplete (I) grades are handled according to the policies described under Incomplete Grades. Temporary grades (S or U), used for continuing projects, thesis or dissertation, will be converted to standard letter grades upon completion of the project, thesis or dissertation. Once recorded with the Registrar, these grades are treated as all other final grades. If an error in calculating or reporting a grade is discovered, the instructor will submit the change of grade request to the Department Head. Upon approval of the Department Head, the request will be submitted to the appropriate Associate Provost for approval. Any incorrectly assigned grade must be corrected within one semester."

Iraj Kalkhoran
Walter Zurawsky
NYU School of Engineering Policies and Procedures on Academic Misconduct

A. Introduction: The School of Engineering encourages academic excellence in an environment that promotes honesty, integrity, and fairness, and students at the School of Engineering are expected to exhibit those qualities in their academic work. It is through the process of submitting their own work and receiving honest feedback on that work that students may progress academically. Any act of academic dishonesty is seen as an attack upon the School and will not be tolerated. Furthermore, those who breach the School’s rules on academic integrity will be sanctioned under this Policy. Students are responsible for familiarizing themselves with the School’s Policy on Academic Misconduct.

B. Definition: Academic dishonesty may include misrepresentation, deception, dishonesty, or any act of falsification committed by a student to influence a grade or other academic evaluation. Academic dishonesty also includes intentionally damaging the academic work of others or assisting other students in acts of dishonesty. Common examples of academically dishonest behavior include, but are not limited to, the following:

1. Cheating: intentionally using or attempting to use unauthorized notes, books, electronic media, or electronic communications in an exam; talking with fellow students or looking at another person’s work during an exam; submitting work prepared in advance for an in-class examination; having someone take an exam for you or taking an exam for someone else; violating other rules governing the administration of examinations.
2. Fabrication: including but not limited to, falsifying experimental data and/or citations.
3. Plagiarism: intentionally or knowingly representing the words or ideas of another as one’s own in any academic exercise; failure to attribute direct quotations, paraphrases, or borrowed facts or information.
4. Unauthorized collaboration: working together on work that was meant to be done individually.
5. Duplication work: presenting for grading the same work for more than one project or in more than one class, unless express and prior permission has been received from the course instructor(s) or research adviser involved.
6. Forgery: altering any academic document, including, but not limited to, academic records, admissions materials, or medical excuses.

Inclusivity Statement

The NYU Tandon School values an inclusive and equitable environment for all our students. I hope to foster a sense of community in this class and consider it a place where individuals of all backgrounds, beliefs, ethnicities, national origins, gender identities, sexual orientations, religious and political affiliations, and abilities will be treated with respect. It is my intent that all students’ learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength and benefit. If this standard is not being upheld, please feel free to speak with me.