

NYU Tandon School of Engineering
Department of Finance and Risk Engineering
FRE-GY 7043 – Capstone Project (3.0 Credits)
Adjunct Professor Ronald T. Slivka, Ph.D.

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Office hours: At an agreed classroom location one hour prior to the start of Tuesday classes, or by appointment and otherwise at most times by phone / email.

Course Pre-requisites

Prerequisite: Students must have already completed two semesters of study prior to registering for this course. It is helpful but not mandatory to have completed FRE 6073 (Introduction to Derivatives) or otherwise to have a solid working knowledge of basic derivatives.

Course Description

This course is offered in the fall and spring semesters. Topics cover a range of theoretical and practical subjects in quantitative finance. Examples of topics and completed former studies can be found at <http://ssrn.com/author=1530815>.

A Capstone Project must be guided by a faculty advisor. Together they jointly submit a project proposal for FRE Department approval. Such a proposal outlines the project objectives, the work to be done, the resources required, the potential value of the study and a timeline for completion. The primary deliverable for successful completion of this course is a written Research Report summarizing the project and its findings. Significant elements of data and data analysis are typically supplied in Excel spreadsheet format. Computer programs written for analysis accompany the Report, normally in an Appendix.

Course Objectives

By the end of the course students should have a clear understanding of how to

- Research literature for relevant references to the Project topic
- Acquire suitable data and clean it properly prior to analysis
- Use statistical analysis to test and confirm hypotheses about time series behavior
- Develop algorithms to achieve Project objectives
- Present analytical findings in suitable tables and graphs
- Write a proper summary of research findings

Course Structure

Students will meet weekly with the faculty advisor according to an agreed schedule of days and times. Additional communication by phone, email or Skype will be required from time to time. Weekly objectives are set and expected to be met.

Grading

- 50% ...will be based on meeting regularly with the faculty advisor and completing weekly objectives
- 50% ...will be based on completed Research Report with accompanying documentation
- Available on NYUClasses

Letter Grade Points	
A	4.00
A-	3.67
B+	3.33
B	3.00
B-	2.67
C+	2.33
C	2.00
F	0.00

Resources

- **Databases, journal articles, and more** : [Bern Dibner Library](http://library.nyu.edu) (library.nyu.edu)
- [NYU Virtual Business Library](http://guides.nyu.edu/vbl) (guides.nyu.edu/vbl)
- **Obtain 24/7 technology assistance:** Tandon IT Help Desk (soehelpdesk@nyu.edu , 646.997.3123)
- NYU IT Service Desk (AskIT@nyu.edu , 212-998-3333)

Policies**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. Duplicating 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.

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>

And you can access my recent papers on SSRN at: <http://ssrn.com/author=1530815>