

## Fall 2015: MTH 9875 The Volatility Surface, Course Policy

**Instructor:**

Jim Gatheral, VC 6-235, (646) 312-4134, jim.gatheral@baruch.cuny.edu.

**Office hours:**

Thursdays 2–4 p.m. and by appointment.

**Teaching assistant:**

Prof. Tai-Ho Wang, VC 6-253, (646) 312-4130, tai-ho.wang@baruch.cuny.edu.

**Time and location:**

Thursday 6:05–9:00 p.m., VC 9-130.

**Prerequisites:**

MTH 9831: Real Analysis and Probability.

**Textbook:**

- “The Volatility Surface: A Practitioner’s Guide”,  
by Jim Gatheral.  
Publisher: Wiley, 2006.

**Recommended books:**

- “The Mathematics of Financial Derivatives: A Student Introduction”,  
by Paul Wilmott, Sam Howison, and Jeff Dewynne.  
Publisher: Cambridge University Press, 1995.
- “Theory of Financial Risk and Derivative Pricing: From Statistical Physics to Risk Management”,  
by Jean-Philippe Bouchaud and Marc Potters.  
Publisher: Cambridge University Press, 2009.
- “Statistical Analysis of Financial Data in R”,  
by René Carmona.  
Publisher: Springer, 2014.

## **Organization**

Students are expected to arrive on time for the beginning of each class. In accordance with the policy of Baruch College, anybody who is absent more than 4 times will receive a grade of WU, which is equivalent to a grade of F.

Homework will be assigned each Thursday and will be posted on the Baruch MFE course page at [mfeapp.baruch.cuny.edu/forum/forums/mth-9875.20](http://mfeapp.baruch.cuny.edu/forum/forums/mth-9875.20). Typically, homework will be due in two weeks from the date of assignment. You are encouraged to use my office hours to get help with the homework and may also email me or Tai-Ho with short questions. Unless prior arrangements have been made, late homeworks will not be accepted. There will be no makeup if the final examination is missed.

The use of cell phones, beepers, and pagers is strictly prohibited during class. Please switch them off before entering the classroom.

## **Study groups**

You are encouraged to discuss homework problems with other students in your class. Yet there will be no homework groups; you should write solutions on your own without consulting others' work (see Academic Honesty section below).

## **Academic Honesty**

I fully support Baruch College's policy on Academic Honesty, which states, in part:

Academic dishonesty is unacceptable and will not be tolerated. Cheating, forgery, plagiarism and collusion in dishonest acts undermine the college's educational mission and the students' personal and intellectual growth. Baruch students are expected to bear individual responsibility for their work, to learn the rules and definitions that underlie the practice of academic integrity, and to uphold its ideals. Ignorance of the rules is not an acceptable excuse for disobeying them. Any student who attempts to compromise or devalue the academic process will be sanctioned.

You are encouraged to discuss the course material and homework assignments with your fellow students. Each assignment must, however, be written and completed by each individual on his or her own; should two homework submissions be found to be close to identical, both submissions will receive a score of zero. Plagiarism and related forms of unreferenced "borrowing" of written material will not be tolerated. Finally, textbooks, notes, and any other written materials should not be used during the exams unless otherwise noted.

## **Grading**

There will be roughly weekly homework assignments and a final examination. 2/3 of your final grade will be from the homework assignments and 1/3 from the final examination.

## **Exam schedule**

The final examination is tentatively scheduled for Thursday December 17, 2015 from 6:00–8:00 p.m., VC 9-130.