530. Mathematics of Finance  

*Spring 2012 Syllabus*

**Professor:** Robert Strain (strain at math.upenn.edu)  
**Course Web Page:** [http://www.math.upenn.edu/~strain/12ma530/](http://www.math.upenn.edu/~strain/12ma530/)

**Class schedule:** TH @ 10:30AM-Noon in DRL 4C6, attendance is *expected*.

**First class, last class:** January 12, April 24.

**Brief course description:** This course presents the basic mathematical tools to model financial markets and to make calculations about financial products, especially financial derivatives. Mathematical topics covered: stochastic processes, partial differential equations and their relationship. No background in finance is assumed.

*Pre-reqs:* Math 240, Stat 430.

**Homework:** Weekly, posted on the course blackboard website. Collaboration between students is encouraged, but you must write your own solutions, understand them and give credit to your collaborators. (In other words, put a list of the students with whom you collaborated on your homework.)

*Late homework will not be accepted.*  
*The two lowest homework scores will be dropped.*

**Grader:** Jonathan Kariv (jkariv at math.upenn.edu)

**Exams:** There will be two in class exams. Exam attendance is *mandatory.*

*The first exam is on March 1.*  
*The second exam is on April 24 (which is the last day of classes).*

**Evaluation:** Your final grade is based on your level of participation in class (10%), the homework (30%), as well as the in class exams (30% and 30%).


Wilmott, Howison, Dewynne. “The Mathematics of Financial Derivatives; A student introduction.” *This text will also be on reserve at the Math/Physics/Astronomy Library in DRL.*