AMS516 (Fall 2011) Statistical Methods in Finance

Meeting time: MW, 2:20-3:40pm

Classroom: Staller Center 113

Instructor: Haipeng Xing (xing@ams.sunysb.edu)

Office: Math Tower 1-102

Grading policy: 5 homework (30%), two midterms (30%), project report (20%) and presentation (20%).

Main reference for the course:

1. Lai, T.L. and Xing, H. (2008). Statistical Models and Methods for Financial Markets. Springer, New York.
2. Papers from open access journals.

Tentative syllabus:

We will focus on three topics in finance

(A) Portfolio management and investment theory

This topic mainly covers chapters 2-4 in the textbook

(B) Option pricing and hedging with transaction cost

This topic mainly covers chapter 8 and recent work of option pricing and hedging with transaction cost

(C) Market microstructure and behavior of high frequency trading

This topic mainly covers chapter 11 and recent development on modeling of the role of informed trading

The following is a tentative agenda for homework, midterms, projects and presentation (the schedule is subject to change).

	M	W	
	August		
1	29	31	HW1

	September		
2		7	
3	12	14	HW2
4	19	21	
5	26		
	October		
6	3	5	HW3, exam1
7	10	12	
8	17	19	HW4
9	24	26	
10	31		
	November		
		2	HW5
11	7	9	
12	14	16	exam 2
13	21		
14	28	30	
	December		
15	5	7	
16	12		