SYLLABUS FOR MATH 514 (STAT 522), SECTION 001, FINANCIAL MATH I

Instructor, Phone, E-mail. Daniel Dix, 777-4320, dix@math.sc.edu

Office Hours. MWF 10:00-11:00 am. Please feel free to contact me about making an appointment if these office hours do not work for you.

Class Time and Room. TTh 11:00-12:15, LeConte 303B

Course Web Page. http://www.math.sc.edu/~dix/teach/514.f08.html

Prerequisites. C or better in Math 241 or Math 250.

Text. *An Elementary Introduction to Mathematical Finace*, 2nd edition, Sheldon M. Ross, Cambridge University Press, 2006.

Material Covered, Learning Outcomes. Chapters 1-7 of the text. Students will master concepts and solve problems based upon the following topics: probability spaces, random variables, mean and variance, geometric Brownian motion and stock price dynamics, interest rates and present value analysis, pricing via arbitrage arguments, options pricing and the Black-Scholes formula.

Exams. The will be three one hour exams held in class (during the usual class time) on the following dates:

(1) Thursday, Sept. 18 (the drop date is Thursday, Oct. 2).
(2) Tuesday, Oct. 21.
(3) Tuesday, Nov. 25.

Homework. Homework problems will be assigned regularly. Some sets will be due in class one week after they are assigned. Some problems may be due the next class. Late solutions will not be accepted. These will be graded and returned as soon as possible.

Graduate Student Requirements. Students enrolled in this course for graduate credit will be required to solve extra homework problems, and write the solutions in a notebook to be turned in at the end of the semester.

Final Exam. A comprehensive two hour final exam will be given on Friday Dec. 12, at 9:00 am in the classroom.

Grading System. The various components of the course will be weighted as follows to determine the grade:

(1) Homework 20%.

(2) 3 Exams 20% each.
(3) Final Exam 20%.