# UNIVERSITY OF NORTH CAROLINA AT CHARLOTTE DEPARTMENT OF MATHEMATICS AND STATISTICS MATHEMATICAL FINANCE PROGRAM MATH-6203 STOCHASTIC CALCULUS FOR FINANCE

## SYLLABUS -- FALL 2011

Professor: Dr. Jaya Bishwal E-mail: J.Bishwal@uncc.edu Phone: 704-687-2566 Office: FRETWELL 345B Class Location: Fretwell 306

Class Time: Mon, Wed 11:00am -12:15pm

Office Hours: Mon, Wed 5:00-6:30 pm or by appointment

Webpage: http://math.uncc.edu/~jpbishwa

Click Teaching button on my webpage to see syllabus and homework assignments.

TEXTBOOK: Stochastic Calculus for Finance I & II by Steven Shreve, Springer-Verlag, 2004.

Vol I: ISBN 0-387-40100-8, Vol II: ISBN 0-387-40101-6

These books are available in UNCC bookstore.

References: Stochastic Differential Equations, Berndt Oksendal, Springer-Verlag, 2003. Arbitrage Theory in Continuous Time, Thomas Bjork, Oxford University Press, 1998. Mathematical Methods of Financial Markets, Monique Jeanblanc, Marc Yor, Marc Chesney, Springer-Verlag, 2009.

### CONTENTS

Vol I Chapters: 1, 2, 3 Vol II Chapters: 3, 4, 5, 7, 8, 10

### **HOMEWORK**

Homework assignments will be posted on my webpage.

# **COURSE REQUIREMENTS**

Your class grade will consist of a set of homework assignments, two tests and one final exam. There is no curve. The final grade will consist of the following:

Homework	20%	Homework assignments will be assigned every week. You have to see my webpage for homework assignments.
Test I (Oct 3, 11 am-12:15 pm)	25%	Test I will be based on the material covered up to the week before Test I.
Test II (Nov 16, 11am-12:15 pm)	25%	Test II will be based on the material covered up to the week before Test II.
Final (Dec 12, 11am-1:30 pm)	30%	The final examination will be on the material covered in the entire course.

### **TEST SCORES**

I will return the tests in the class following the examination. If you fail to collect your paper at this time, please collect it from me during my office hours.

### **GRADING** There is no curve.

90%-100%: A, 80%-90%: B, 70%-80%: C, 0%-70%: F.