

APPLIED MATHEMATICS 481
"INTRODUCTION TO MATHEMATICAL FINANCE"

Calendar Description: H(3-1T)

Introduction to financial markets and derivatives, asset price random walks, Black-Scholes option pricing model, American options and other generalizations.

Prerequisite: Mathematics 323 and one of 353 or 381.

Syllabus

<u>Topics</u>	<u>Number of Hours</u>
Introduction to financial markets: forwards, futures, options, bonds, other derivatives.	2
Asset price random walks	8
Hedging and arbitrage	4
Black-Scholes equation and its solution	8
Generalizations of Black-Scholes	8
American options	6
TOTAL HOURS	36
