

**George Mason University**  
**Math 557**  
**Course Syllabus**

Date Spring 2019  
Title Financial Derivatives  
Course Math 557  
Location Innovation Hall 330  
Time Tue 7:20PM  
Professor: Dr Eckley  
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mobile # 571 277 7927  
office # 703 993 1682  
office hours Tue and Thu 2pm - 6pm

**Description**

This course satisfies the coursework requirement relating to the MFE exam in the Society of Actuaries examination sequence.

The book is Derivatives Markets (Third Edition), 2013, by McDonald, R.L., Pearson Education, ISBN: 978-0-32154-308-0

**Procedures**

The class will consist mostly of a series of lectures.

Grading will be on a 100-point scale (90/80/70/60) divided as follows:

Homework	20
Test #1	20
Test #2	20
Final exam	40

The particular homework problems will be decided as we progress through the term.

## Calendar

<u>Date</u>	<u>Topic</u>	<u>Reference to Book</u>
22-Jan	Binomial Pricing	Ch 10 - 11
29-Jan	Option Concepts	Ch 9
05-Feb	Black-Scholes	Ch 12
12-Feb	Hedging	Ch 13
19-Feb	Exotics	Ch 14
26-Feb	Test #1	
05-Mar	Visit from Boat USA Actuarial Dept	
12-Mar	Spring Break	
19-Mar	Lognormal Distribution	Ch 18
26-Mar	Monte Carlo	Ch 19
02-Apr	Brownian Motion	Ch 20
09-Apr	Black-Scholes -Merton	Ch 21
16-Apr	Volatility	Ch 24
23-Apr	Bond derivatives	Ch 25
30-Apr	Test #2	
07-May	Review or Reading Day	
14-May	Final Exam	