

Department:	Economics and Finance
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Course Name:	Derivatives	Course No.:	FIN 637
Prerequisite:	N/a	Credit Hours:	3

Brief Description:

This course covers derivative markets and contracts including options, forward contracts, futures contracts, and swaps. By the end of this course the student will have a good knowledge of the markets where these contracts are traded and how these contracts work, how they are used, and how they are priced.

Course Objectives:

Upon successful completion of the requirements for this course, students are expected to be able to:

- Describe the workings of derivative markets and the derivative instruments industry
- Identify key distinctive features of the most common derivatives (i.e., futures, forwards, options and swaps)
- Define Arbitrage and explain the role it plays in determining the prices of derivative contracts and promoting market efficiency.
- Understanding the motives, reasons and explanations for use of derivative instruments for hedging, speculation and arbitrage.
- Analyse payoffs and strategies involved in trading derivative instruments and combinations of derivatives
- Use the pricing models for individual and combinations of derivative instruments
- Collect and synthesise information and materials from a variety of different sources to support an argument.

Course Topics:

- The mechanics of derivatives markets
- Types of common derivatives investments and their key features
- Hedging Strategies Using Futures
- Interest Rates futures
- Trading Strategies
- Binomial Trees and Pricing of Stock Options using the Black-Scholes-Merton pricing model

Text Book:

Hull, J. (2014). *Options, futures & other derivatives*. Upper Saddle River, NJ: Prentice Hall.

Additional References:**Books:**

Johnson, RS. (2017). *Derivatives markets and analysis*. (Bloomberg Financial) 1st Edition.

Case Studies:

will be distributed.

Online Resources:

- Bloomberg terminal
- Academic databases available through the University's Library website.

Measurement & Assessment Tools:

Objectives			Obj 1.1 &1.2	Obj 2.2	Obj 3.1
Assessment tools	Grade	Week (Time period)	1	2	3
Midterm test	20	11 th	✗		
Case study memorandum	20	12 th			✗
Project	20	15 th		✗	
Final exam	40	As Dated	✗		
Total	100				
Extra credit					
Bloomberg Market Concepts (BMC): BMC is an 8-hour e-learning course that provides introduction to financial markets. This course consists of four modules – Economics, Currencies, Fixed Income and Equities. The BMC course utilizes Bloomberg data, news analytics and serves as a good introduction to Bloomberg. Here is the online link to the course (https://www.bloomberg.com/professional/product/bloomberg-market-concepts/). After creating a student account using your university email address, you can access the course—use code: (GJ8MXRZCYH). This course is free if taken from the	5	15 th	✗		

Bloomberg terminal. Should you elect to take the course online, a student rate of \$149 USD does apply. If you want to apply for exemption from the fees, please send me an email. You required to complete the course and answer all questions by the end of week 15. Upon the completion of the course, you will be able to access your certificate of completion under the BMC homepage. You can also cite your participation on your CV via LinkedIn.					
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Tentative Course Outline:			
Week	Hours	Topics	Readings
1	3	Introduction and mechanics of futures Markets	Ch 1 and 2
2	3	Hedging Strategies Using Futures	Ch 3
3	3	Interest Rates	Ch 4
4	3	Determination of Forward and Futures Prices	Ch 5
5	3	Midterm	
6	3	Interest Rate Futures	Ch 6
7	3	Swaps	Ch 7
8	3	Mechanics of option markets	Ch10
9	3	Properties of Options	Ch 11
10	3	Trading Strategies	Ch 12
11	3	Binomial Trees	Ch 13
12	3	The Black-Scholes-Merton model	Ch 15
13	3	Employee stock options	Ch16
14	3	Options on stock indices, currencies and futures	Ch 17 and 18
15	3	The Greeks	Ch 19
16	3	Revision	

**Approved by Dept.
Chair:**

Dr Fahad Al Mohaimeed

Date of Approval:

Extra Information: *(Updated every semester and filled by course instructor)*

Course Instructor:	Dr Nassar S. Al-Nassar
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