**Course Syllabus**

**Semester Spring 2022-2023**

**Dr. Bader Alhashel**

**FIN 426 – Options and Futures**

**Lecture Time and Location:**

**FIN 426 / 1A** :MW TIME 3:30 – 4:45 Room #

**Contact Information:**

**Location** : Department of Finance & Financial Institutions – 4th floor

**Email** : bader.alhashel@ku.edu.kw

**Phone #**  : 24988495‬

**Office Hours** : After Class or by appointment

**Social Media** : MS Teams

**Teaching Assistant:**

**Name** : Wadha Alateeqi

**Location** : Department of Finance & Financial Institutions – 4th Floor

**Email** : TBA

**Office Hours** : TBA

**Tutorial** : TBA

**Course Description:**

This course will provide a solid foundation in financial derivatives. The material study will provide a balance of institutional details necessary to understand the structure of these markets and the theoretical development necessary to apply the contracts to various uses. The course is very much focused on the use of futures, options and swaps to manage price risk.

**Course Learning Outcomes:**

The learning outcomes for this course, listed below, relate to the learning goals of the College of Business Administration Undergraduate Program, which can be found in the appendix at the end of this syllabus. The numbers in parenthesis indicate to which specific learning goal the outcome relates.

Upon successful completion of the course, students will:

1. Be able to analyze and solve financial problems. (LG5)
2. Understand the key features and operations of the derivatives markets. (LG5)
3. Understand the major types of derivatives, how they work, and their features. (LG5)
4. Be able to price and evaluate options, futures, forwards and swaps. (LG2, LG5)
5. Understand how derivatives are used for hedging and managing risk. (LG2, LG5)
6. Understand trading strategies for derivatives. ( LG5)
7. Be able to use Excel to solve real-life problems on topics covered in this course. (LG3)
8. Understand the ethical problems that may occur in financial decision-making. (LG1)

**Required Material:**

**Textbook** : Chance, D. M., & Brooks, R. E. (2013). *An Introduction to Derivatives and Risk Management*. (9th ed.) Australia: South- Western Cengage Learning.

**Additional Material** : Other material, including course PPT Slides are available on MS Teams.

**E-Learning System** : MS Teams

**Course Requirements and Policies:**

**Participation:** Participation is an important component of this course. Reading the assigned material and coming prepared to class will enable you to effectively contribute to the discussions.

**Assignments:** There will be multiple assignments throughout the semester covering various topics. These assignments will require that you use Excel to apply what you have learned in class. The purpose of the assignments is to help you understand the material, tie the concepts, and expose you to real-world problems and situations.

**Exams:** There are a total of 5 quizes. Students will be notified of the exam dates at the beginning of the semester; however, the instructor retains the right to change the dates.

**Attendance:** Attendance is not mandatory. However, there is a bonus of 3 points for attendance. If you plan to attend you should arrive before class starts. No student will be allowed in after the class has started.

**Cheating and Plagiarism:** Every student in this course must abide by the Kuwait University Policy on Cheating and Plagiarism (published in the Student Guide, Chapter 3, Section 2). A copy of the student guide can be accessed online on:

<http://www.kuniv.edu/cs/groups/ku/documents/ku_content/kuw055940.pdf>

Please carefully note all sources and assistance when you turn in your work. Under no circumstances should you take credit for work that is not yours. You should neither receive nor give any unauthorized assistance on any deliverable. If you have any questions about what constitutes “unauthorized assistance” please email me before the deliverable is submitted.

**Writing Style:** Students must refer to APA writing style for their assignments and report writing. Refer to the English Language Center for help.

**Grading:**

The scores in this course will be the weighted average of the following items:

|  |  |
| --- | --- |
| **Weight** | **Description** |
| 10 | Participation |
| 50 + 5 | 5 Quizzes + bonus |
| 5 | Assignments |
| 40 | Final  *Note: If your grade in the Final Exam is higher than that of Your quizes, I will assign your Final Exam grade in its place by reducing the weight of quizes and assigning more weight to the final exam.* |
| 3 | Attendance Bonus |
| 113 | TOTAL |

**Grade Distribution:**

|  |  |
| --- | --- |
| **Grade** | **Range** |
| A | ≥ 95 |
| A- | ≥ 90 and < 95 |
| B+ | ≥ 87 and < 90 |
| B | ≥ 83 and < 87 |
| B- | ≥ 80 and < 83 |
| C+ | ≥ 77 and < 80 |
| C | ≥ 73 and < 77 |
| C- | ≥ 70 and < 73 |
| D+ | ≥ 65 and < 70 |
| D | ≥ 60 and < 65 |
| F | < 60 |

**Course Outline:**

|  |  |
| --- | --- |
| **Title** | **Topics** |
| Introduction  ***(CFA TOPIC)*** | Derivative Markets and Instruments • The Underlying Asset • Important Concepts • Spot and Derivative Markets • Criticisms and Misuses • Derivatives and Ethics |
| Principles of Options Pricing ***(CFA TOPIC)*** | Basic Notation and Terminology • Call Option Pricing • Put Option Pricing |
| Option Pricing Models: The Binomial Model ***(CFA TOPIC)*** | One-Period Binomial Model • Two-Period Binomial Model • Extensions of the Binomial Model |
| Option Pricing Models: The Black-Scholes-Merton Model ***(CFA TOPIC)*** | Origins • B-S-M as a Limit of the Binomial Model • Assumptions • A Nobel Formula • Variables • Dividend-Paying Stocks • American Call Options • Put Options • Managing Risk • Software Demonstrations |
| Basic Option Strategies ***(CFA TOPIC)*** | Terminology and Notation • Stock Transactions • Call Option Transactions • Put Option Transactions • The Covered Call • The Protective Put • Synthetic Puts and Calls |
| Principles of Pricing Forwards, Futures, and Options on Futures ***(CFA TOPIC)*** | Generic Carry Arbitrage • Carry Arbitrage When Underlying Asset Generates Cash Flows • Pricing Models and Risk Premiums • Pricing Options on Futures |
| Forward and Futures Hedging, Spread, and Target Strategies  ***(CFA TOPIC)*** | Why Hedge? • Hedging Concepts • Determination of the Hedge Ratio • Hedging Strategies • Spread Strategies • Target Strategies |
| Swaps ***(CFA TOPIC)*** | Interest Rate Swaps • Currency Swaps • Equity Swaps |

**Important Dates**

|  |  |
| --- | --- |
| **Date** | **Event** |
| 16/3/2023 | Last day to drop a course |
| 3/5/2023 | Last day of classes |
| 9/5/2023 11 am-1 pm | Final Exam |

**Tentative Course Schedule:**

|  |  |  |
| --- | --- | --- |
| **Week** | **Topic & Chapter** | **Assignments** |
| 1 | Ch. 1: Introduction |  |
| 2 | Ch. 1: Introduction  Ch. 3: Principles of Option Pricing |  |
| 3 | Ch. 3: Principles of Option Pricing  Ch. 4: Option Pricing Models: The Binomial Model |  |
| 4 | Holiday | **1st Quiz – 1/3** |
| 5 | Ch. 4: Option Pricing Models: The Binomial Model |  |
| 6 | Ch. 5: Option Pricing Models: The Black-Scholes-Merton Model | **2nd Quiz – 15/3** |
| 7 | Ch. 5: Option Pricing Models: The Black-Scholes-Merton Model |  |
| 8 | Ch. 5: Option Pricing Models: The Black-Scholes-Merton Model  Ch. 6: Basic Option Strategies |  |
| 9 | Ch. 6: Basic Option Strategies | **3rd Quiz – 3/4** |
| 10 | Ch. 7: Advanced Option Strategies |  |
| 11 | Ch. 7: Advanced Option Strategies  Ch. 9: Principles of Pricing Forwards, Futures, & Options on Futures | **4th Quiz – 19/4** |
| 12 | Holiday | **5th Quiz – 26/4** |
| 13 | Ch. 9: Principles of Pricing Forwards, Futures, & Options on Futures |  |