

# Capital University of Economics and Business

## Overseas Chinese College

### Course Syllabus

<b><u>Year and Semester</u></b>	2023 Spring
<b><u>Course Name</u></b>	Financial Derivative Instruments
<b><u>Course Code</u></b>	FI305
<b><u>Course Type</u></b>	<input type="checkbox"/> General Education (Required) <input type="checkbox"/> General Education (Elective) <input type="checkbox"/> Professional Course (Required) <input checked="" type="checkbox"/> Professional Course (Elective) <input type="checkbox"/> Basic Disciplinary Course
<b><u>Course Credits</u></b>	3
<b><u>Course Hours</u></b>	3*16=48
<b><u>Prerequisites</u></b>	Finance
<b><u>Instructor</u></b>	Manqiu Wei (Eunice Wei)
<b><u>Contact Information</u></b>	Office: C203 Tele: (010)83951085 Email:eunicewei2013@163.com
<b><u>Office Hour</u></b>	T 15:25-17:00, W 11:35-12:20, F 9:55-12:20
<b><u>Learning Centre</u></b>	M 13:30—15:05, W 18-20
<b><u>Grade/Section</u></b>	2020BA/Y01
<b><u>Course Time/Place</u></b>	T: 9:55—12:20 / BX111
<b><u>Textbook</u></b>	John C. Hull, <i>Options, Futures, and other Derivatives</i> , 10th Edition, China Machine Press, Beijing, ISBN: 978-7-111-60276-7

#### **Reference Books**

Don M. Chance, *A Financial Derivatives and Risk Management*, 10th Edition,  
China Renmin University Press, Beijing, ISBN: 9787300276922

#### **Course Description**

Financial derivatives are important means of risk management, and the trading of derivatives is playing an increasingly important role in the financial market. This course aims to provide students with essential knowledge of major derivative instruments, including forward, futures, option and swap, and the logic of constructing derivative strategies. This course mainly explains the characteristics, valuation, risk and return analysis of derivative instruments. It emphasizes the understanding of financial derivatives and to prepare students for further study in the finance field.

#### **Student Learning Objectives**

After completing this course, students should be able to:

##### **Knowledge:**

- ◆ Describe Mechanics of different types of derivative markets;
- ◆ Explain Convergence of futures price to spot price;
- ◆ Explain determination of forward and futures prices

### Capability

- ◆ Compare and contrast different types of derivative instruments;
- ◆ Recognize Market quotes for derivative products;
- ◆ Illustrate the operation of margin accounts for futures trading;
- ◆ Demonstrate hedging strategies using futures and options;
- ◆ Discuss the mechanics of interest rate swaps.

### Mindset:

- ◆ Act with integrity, respect, and in an ethical manner in the finance field;
- ◆ Be independent and diligent;
- ◆ Strive to improve professional knowledge and competence;
- ◆ Apply critical thinking in the process of decision making;

### Website Source

1. <http://www.cffex.com.cn/> China Financial Futures Exchange
2. <http://www.shfe.com.cn/> Shanghai Futures Exchange
3. <https://www.cmegroup.com/> Chicago Mercantile Exchange
4. <https://www.lme.com/> London Metal Exchange
5. <http://www.dce.com.cn/> Dalian Commodity Exchange
6. [http:// www.sse.com.cn](http://www.sse.com.cn) Shanghai Stock Exchange
7. <https://finance.sina.com.cn/>  新浪财经

### Teaching Methods

This course contains lectures, class discussions, homework, quizzes, presentation and exams. Textbook content will be introduced first. Then practice questions will be delivered to students as a way to test their understanding of the knowledge. This will require individual or group assignment in or after class.

### Grade Criterion

Component	Weight	Description
Final Exam	20%	A cumulative final examination will be given based on all of the contents of the class. The exam paper may be composed of multiple-choice questions, short answer questions, essay questions, problems. Students should rely primarily on homework assignments to give them a sense of what they may see for material on exams.
Mid-Term Test	20%	A cumulative midterm test will be given based on all of the contents that have been taught in class. The test paper may be mainly composed of multiple-choice questions and it should be completed within 50 minutes in class.
Homework	15%	Most of the assigned homework is taken from the Exercises in the textbook. Assignments will be collected at the clearly stated date. Late assignments will not be accepted. The graded assignments will be kept by the tutor for reference and won't be returned to students.
Quizzes	15%	There will be at least 2 quizzes during the semester. Quizzes may or may not be announced in advance. It may also be used as a way to check the attendance. Quizzes will test your knowledge of both concepts and the

		application of those concepts.
Presentation	10%	The students will be divided into several groups to prepare a presentation. Each student is required to be involved in the presentation. The topics can be selected from the textbook or lectures or course related materials. Each group needs to finish a PPT related to the topic which is given, and hand in the related resources to the teacher before the presentation.
Participation	10%	Individuals will be asked to participate individually in a question and answer at least 5 times during the semester. The performances should be counted in their participation.
Attendance	10%	Refer to attendance policy listed below
<b>Total</b>	<b>100%</b>	

### **Detailed Grade Computation**

	<b>Before Midterm</b>	<b>After Midterm</b>
Attendance	5%	5%
Participation	5%	5%
Homework	5%	10%
Quizzes	5%	10%
Presentation		10%
Midterm test	20%	
Final exam		20%
Total	40%	60%

### **Grading Policy**

A+ 97-100	A 93-96	A- 90-92	B+ 87-89	B 83-86	B- 80-82
C+ 75-79	C 70-74	C- 67-69	D+ 63-66	D 62-60	F 0- 59

### **Exam Schedule**

Midterm Test: TBA

Final Exam: TBA

### **Assessment of Student Performance**

#### ***☞ Self-Study and Reading ability Practice***

Instructor will give out the chapters or the reference books to read and use class hours to have discussion; students should be able to show a proactive attitude and ability for self-study and reading. Knowledge and oral English will be elements of homework or presentation score.

#### ***☞ Homework***

Students should finish their homework by themselves. Copying from others will be treated as cheating and the homework scores will be lowered. Students should hand in all assignments on time. Late assignments will be accepted at the discretion of the instructor (i.e., when the student was ill or had an excused absence). Late assignments without reasonable proof will be reduced in score by 50%.

#### ***☞ Attendance***

Because the course covers a great deal of material, attending every class session is very important for performing well.

- ◆ Being late for 15 minutes or more is considered an absence.
- ◆ Five hours or above of unexcused absences will result in the lower level of the final grade by one grade band (e.g. from C – to D +). Any excused absence must be discussed directly with the teacher.
- ◆ Absence which is more than 1/3 of the total teaching hours will cause an F (a failing grade) directly.

But students are welcome to continue attending classes.

- ◆ An incomplete grade (I) will be considered in case of medical or family emergencies.

### *☞ Participation*

- ◆ Students should participate in classes actively. Half of participation grade is determined by their presentation in class. They are encouraged to ask questions relevant to the subject and express their own opinions. Every student should respect the ideas, opinions, and questions of their classmates.
- ◆ Students should also use office hours to ask questions or talk with the instructor for good communication and effective learning.
- ◆ Frequent visiting the instructor and chatting in English during office hours is highly recommended.
- ◆ Any misbehavior and non-class related activities in class will result in the lower level of the participation grade, including ringing cell phones.
- ◆ All above behaviors will be solely evaluated by the instructor for scoring.

### *☞ Textbook*

Students must bring the textbook to class.

## **Topical Course Outline**

Week	Topics	
1	<ul style="list-style-type: none"> <li>● <b>Syllabus</b></li> <li>● Course introduction</li> <li>● <b>Chapter 1 Introduction</b></li> <li>1.1 Futures contracts</li> <li>1.2 The Over-the-counter markets</li> <li>1.3 Forward contracts</li> <li>1.4 Options</li> <li>1.5 Types of trader</li> <li>1.6 Hedgers/ Speculators/ Arbitrageurs</li> </ul>	
2		
3		
4	<ul style="list-style-type: none"> <li>● <b>Chapter 2 Mechanics of futures markets</b></li> <li>2.1 Background</li> <li>2.2 Specification of a futures contract</li> <li>2.3 Convergence of futures price to spot price</li> <li>2.4 The operation of margin accounts</li> <li>2.5 OTC markets</li> </ul>	

	2.6 Market quotes 2.7 Delivery 2.8 Types of traders and types of orders 2.11 Forward vs. futures contracts	
5	<b>● Chapter 3 Hedging strategies using futures</b> 3.1 Basic principles 3.2 Arguments for and against hedging 3.3 Basis risk 3.5 Stock index futures	
6	Comprehensive exercise	
7	<b>● Chapter 5 Determination of forward and futures prices</b> 5.1 Investment assets vs. consumption assets 5.3 Assumptions and notation 5.4 Forward price for an investment asset 5.7 Valuing forward contracts	
8	5.8 Are forward prices and futures prices equal? 5.9 Futures prices of stock indices	
9	Midterm Test	
10	<b>● Chapter 7 Swaps</b> 7.1 Mechanics of interest rate swaps 7.4 The comparative-advantage argument 7.12 Currency swaps	
11	<b>● Chapter 9 Mechanics of options markets</b> 9.1 Types of options 9.2 Option positions 9.3 Underlying assets 9.4 Specification of stock options	
12	<b>● Chapter 10 Properties of stock options</b> 10.4 Put–call parity 10.1 Factors affecting option prices	
13	Presentation	
14	Presentation	
15	Presentation	
16	Revision	

*Note: Some chapters or sections may leave for self-study, this is the students' duty to learn and understand, they may also be included in the quizzes or exams.*

*A review in Chinese may be held during L.C. and O.H. in the semester.*

### **Teacher's Office Hour**

- ◆ The instructor's office hour is shown in the front of the office door.
- ◆ Students are suggested to use the instructor's office hour and learning center to ask questions or talk with the instructor once at least per week for good communication and effective learning, which is recorded in the students' participation.
- ◆ The time can be scheduled by instructors or students, or both.

### **Cheating and Plagiarism**

Cheating is not tolerated. Any student caught cheating on a quiz; test or exam will be given a mark of zero (0) for the particular work. At the beginning of the semester the definition of plagiarism will be carefully explained, when any thoughts or writings of another person are used, they must be clearly identified (usually one uses quotation marks) and the source notes. **If any student is caught cheating on any homework assignment, the highest score the student can earn in that course is a "C".**

### Important Dates

<b>Spring Semester, 2023</b>	
Feb. 11-12	Registration
Feb. 13	Classes Begin
Apr.5	Qing Ming Festival
April 7	Spring Sports
May 1	Labor Day
June 22	Dragon-Boat Festival

*Note: This syllabus is tentative and may be changed or modified throughout the semester. All students will be notified and a new syllabus will be given.*

**Instructor:** Manqiu Wei

**Department Head:** \_\_\_\_\_

