

# Capital University of Economics and Business Overseas Chinese College Course Syllabus

Year and Semester	2021 Spring (Feb 28, 2021—July 18, 2021)	
Course Name	Derivative and Alternative Investments	
<b>Course Code</b>	FIM420	
<b>Course Type</b>	General Education (Required)	□ General Education (Elective)
	□ Professional Course (Required)	☑ Professional Course (Elective)
	Basic Disciplinary Course	
<b>Course Credits</b>	3	
<b>Course Hours</b>	48	
<u>Prerequisites</u>	Equity & fixed income securities	
<b>Instructor</b>	Manqiu Wei (Eunice Wei)	
<b>Contact Information</b>	Office: C203	
	Tele: (010)83951085	
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<b>Office Hour</b>	TBA	
<u>Learning Centre</u>	TBA	
Grade/Section	2018CFA/Y01	
<b>Course Time/Place</b>	M: 13:30—15:20 / BX109	
	W: 9:00—9:50 / BX208	

# **Textbook**

SchweserNotes 2019 Level I CFA Book 5: *Derivative and Alternative Investments*, Kaplan Inc. USA, ISBN: 978-1-4754-6105-3

# **Reference Books**

- CFA Institute, Derivative and Alternative Investments, CFA Program Curriculum, Volume 5, 2019, Wiley Press, USA, ISBN: 978-1-944250-42-3
- 2. Zvi Bodie. Investmenst, 10th Edition, China Machine Press, Beijing, ISBN: 978-7-111-58160-4

## **Course Description**

This course entails derivatives and alternative investment. Derivative instruments (forward, futures, swap and option) are presented along with introduction of derivatives pricing and valuation. Another important topic is alternative investment, which includes hedge funds, private equity, real estate, commodities and other alternative investments instruments.

## **Student Learning Objectives**

After completing this course, students should be able to:

- > Identify the definitions and basic characteristics of different types of derivatives;
- Explain the pricing and valuation of derivatives based on no-arbitrage condition;
- > Demonstrate the application of derivatives in risk management;
- Discuss the basics of alternative investments vehicles.



# **Website Source**

- 1 https://www.cfainstitute.org/
- 2. <u>http://www.cffex.com.cn/ China Financial Futures Exchange</u>
- 3. http://www.shfe.com.cn/ Shanghai Futures Exchange
- 4. http://www.czce.com.cn/ Zhengzhou Commodity Exchange
- 5. <u>https://www.cmegroup.com/</u>

# **Teaching Methods**

This course contains lectures, class discussions, homework, quizzes, presentation and exams. Textbook content will be introduced first. Then real case and 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
		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
Final Exam	20%	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.
		A cumulative midterm test will be given based on all of the contents that
Mid Tama Taat	200/	have been taught in class. The test paper may be mainly composed of
Mid-Term Test	20%	multiple-choice questions and it should be completed within 50 minutes
		in class.
	15%	Most of the assigned homework is taken from the Exercises in the
Homework		textbook. Assignments will be collected at the clearly stated date. Late
Homework		assignments will not be accepted. The graded assignments will be kept
		by the tutor for reference and won't be returned to students.
		There will be at least 2 quizzes during the semester. Quizzes may or may
Onizac	15%	not be announced in advance. It may also be used as a way to check the
Quizzes		attendance. Quizzes will test your knowledge of both concepts and the
		application of those concepts.
		The students will be divided into several groups to prepare a presentation.
	10%	Each student is required to be involved in the presentation. The topics
Presentation		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.
		Individuals will be asked to participate individually in a question and
Participation	10%	answer at least 5 times during the semester. The performances should be
		counted in their participation.
Attendance	10%	Refer to attendance policy listed below
Total	100%	



#### **Detailed Grade Computation**

	Before Midterm	After Midterm
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	С 70-74	C- 67–69	D+ 63-66	D 62-60	F 0- 59

## Exam Schedule

Final Exam: Week 17, June 21-25

## 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	Date	Topics	Homework
	Mar.1	<ul> <li>Syllabus</li> <li>Reading 01 Derivative Markets And Instruments         <ul> <li>a: Define a derivative and distinguish between exchange-traded and over the-counter derivatives.</li> </ul> </li> </ul>	
1	Mar.3	<ul> <li>b: Contrast forward commitments with contingent claims.</li> <li>c: Define forward contracts, futures contracts, options (calls and puts), swaps, and credit derivatives and compare their basic characteristics.</li> </ul>	
2	Mar.8	d: Describe purposes of, and controversies related to, derivative markets.	
2	Mar.10	e: Explain arbitrage and the role it plays in determining prices and promoting market efficiency.	Reading End Concept Checkers
3	Mar.15	Reading revision Comprehensive Exercises	
	Mar.17	Comprehensive Exercises and explanations	
4	Mar.22	<ul> <li>Reading 02 Basics of Derivative Pricing And Valuation <ul> <li>a: Explain how the concepts of arbitrage, replication, and risk neutrality are used in pricing derivatives.</li> <li>b: Distinguish between value and price of forward and futures contracts.</li> <li>c: Explain how the value and price of a forward contract are determined at expiration, during the life of the contract, and at initiation.</li> <li>d: Describe monetary and nonmonetary benefits and costs associated with holding the underlying asset and explain how they affect the value and price of a forward contract.</li> </ul> </li> </ul>	
	Mar.24	e: Define a forward rate agreement and describe its uses. f: Explain why forward and futures prices differ.	
5	Mar. 29	<ul> <li>g: Explain how swap contracts are similar to but different from a series of forward contracts.</li> <li>h: Distinguish between the value and price of swaps.</li> <li>i: Explain how the value of a European option is determined at expiration.</li> <li>j: Explain the exercise value, time value, and moneyness of an option.</li> <li>k: Identify the factors that determine the value of an option and explain how each factor affects the value of an option.</li> </ul>	
	Mar. 31	l: Explain put-call parity for European options.	
6	Apr.5	m: Explain put-call-forward parity for European options.	Reading End



		n: Explain how the value of an option is determined using a one-period and two-period binomial model	Concept Checkers
		o: Explain under which circumstances the values of European and American options differ.	
	Apr.7	Reading revision, Q&A, practice	
7	Apr.12	<ul> <li>Comprehensive Exercises and explanations</li> </ul>	
/	Apr.14	QUIZ	
8	Apr.19	<ul> <li>Reading 03 Risk Management Application of Option Strategies         <ul> <li>a Determine the value at expiration, maximum profit, maximum             loss, breakeven underlying price, and payoff graph of             strategies of buying and selling puts and calls, and determine             potential outcomes for investors using these strategies.</li>             b Covered call and protective put strategies.</ul></li> </ul>	Reading End Concept Checkers
	Apr.21	c others option strategies Reading revision, Q&A, practice,	
<u> </u>	Apr.26	•Comprehensive Exercises and explanations	
9	Apr.28	● Midterm Test	
	May3	•Comprehensive Exercises and explanations for reading 03	
10	May.5	<ul> <li>Reading 04 Introduction To Alternative Investments</li> <li>a: Compare alternative investments with traditional investments.</li> <li>b: Describe categories of alternative investments.</li> <li>c: Describe potential benefits of alternative investments in the context of portfolio management.</li> </ul>	
	May.10	d1: Describe hedge funds, private equity, including, as applicable, strategies, sub-categories, potential benefits and risks, fee structures, and due diligence.	
11	May.12	d2: Describe real estate, commodities, infrastructure, and other alternative investments, including, as applicable, strategies, sub-categories, potential benefits and risks, fee structures, and due diligence.	
12	May.17	e: Describe, calculate, and interpret management and incentive fees and net of-fees returns to hedge funds.	
12	May.19	f1: Describe issues in valuing and calculating returns on hedge funds, private equity, real estate, commodities, and infrastructure.	
13	May.24	<ul><li>f2: Describe issues in valuing and calculating returns on hedge funds, private equity, real estate, commodities, and infrastructure.</li><li>g: Describe risk management of alternative investments.</li></ul>	Reading End Concept Checkers
	May.26	• Reading revision, Q&A, practice	
14	May.31	• Comprehensive Exercises and explanation	
14	June.2	• Revision	
15	June.7	• Presentation	
15	June.9	• Presentation	
16	June.14	Comprehensive Exercises	
16	June.16	• Revision	

Note: I In the first three weeks, Yunbanke, Tencent Meeting and Wechat group will be used as main teaching methods. Wechat group will be mainly used to inform students of daily study activities and tasks. Yunbanke and Tencetn Meeting will be used as main platform to organize study activities.

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".

Spring Semester, 2021	Feb 28, 2021— July 18, 2021
Feb. 28	Registration
Mar. 1	Classes Begin
Apr.4	Qing Ming Festival
Apr.16	Spring Sports
Apr.26 -30	Midterm Test (tentative)
May 1	Labor Day
June 14	Dragon-Boat Festival
June 21-25	Final Exams for Sophomores and Juniors
June 28-July18	Social Practice for Sophomores and Juniors (tentative)
July 19	Summer Vacation Begins

*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: <u>Manqiu Wei</u> Department Head: \_\_\_\_\_