

# Capital University of Economics and Business

## Overseas Chinese College

### Course Syllabus

<b><u>Year and Semester</u></b>	2018 Fall (September 3, 2018 - January 4, 2019)
<b><u>Course Name</u></b>	Fixed Income Investment
<b><u>Course Code</u></b>	CFA302
<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>	4
<b><u>Course Hours</u></b>	64
<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>	W: 9:00—10:00, 12:30-13:30;    TH: 9:00—10:00; 13:00-14:00 F: 13:00—14:30, 15:30—16:00
<b><u>Learning Centre</u></b>	M: 18:00—20:00;      T: 10:00—12:00
<b><u>Grade/Section</u></b>	2016CFA/Y01
<b><u>Course Time/Place</u></b>	W: 10:10—12:00 / Boxue210 F: 10:10—12:00 / Boxue210

#### **Textbook**

Schwesernotes 2018 Level I CFA Book 5: *Equity and Fixed Income*, Kaplan Inc. USA, ISBN: 978-1-4754-6105-3

#### **Reference Books**

1. CFA Institute, *Fixed Income, CFA Program Curriculum, Volume5*, 2018, Wiley Press, USA, ISBN: 978-1-944250-42-3
2. Frank J. Fabozzi. *Bond markets, analysis, and strategies, 9th Edition*, China Renmin University Press, Beijing, ISBN: 978-7-300-25225-4

#### **Course Description**

This course covers the fundamentals of fixed income investments. Key areas include introduction to defining elements of fixed-income securities, fixed income markets, fixed income valuation, introduction to asset-backed securities, fixed income risk and return, fundamentals of credit analysis for fixed income securities. The course aims to equip students with the essential knowledge of fixed income securities analysis and valuation.

#### **Student Learning Objectives**

After completing this course, students should be able to:

- Understand characteristics of fixed income securities, issuers, sectors and types of bonds;

- Understand Issuance, trading, and funding of fixed income markets
- Understand factors that determine the value of debt securities and various yield measures
- Calculate prices of fixed-income securities;
- Calculate and interpret the sources of return from investing in a bond;
- Define, calculate, and interpret durations and convexity,
- Describe term structure of yield volatility and interest rate risk of a bond;
- Understand benefits, legal structure, and characteristics of asset-backed securities, especially mortgage-backed securities and collateralized debt obligations.

### **Website Source**

- 1 <https://www.cfainstitute.org/>
2. <http://www.szse.cn/>
3. <http://www.sse.com.cn/>
4. <http://www.csrc.gov.cn/pub/newsite/>
5. <http://www.nyse.com/>

### **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**

<b>Component</b>	<b>Weight</b>	<b>Description</b>
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>	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	C 70-74	C- 67-69	D+ 63-66	D 62-60	F 0-59

### Exam Schedule

Midterm Test: November 5-9, 2018;

Final Exam: January 2-11, 2019

### 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
1	Sep. 5	<ul style="list-style-type: none"> <li>● Syllabus</li> <li>● <b>Reading 50 Fixed –income securities: defining elements</b></li> <li>50.a: Describe basic features of a fixed-income security</li> <li>50.b: Describe content of a bond indenture.</li> <li>50.c: Compare affirmative and negative covenants and identify examples of each.</li> </ul>	
	Sep. 7	50.d: Describe how legal, regulatory, and tax considerations affect the issuance and trading of fixed-income securities.	
2	Sep. 12	50.e: Describe how cash flows of fixed-income securities are structured. <ul style="list-style-type: none"> <li>• Principal repayment structure</li> <li>• Coupon payment structure</li> </ul>	
	Sep. 14	50.f: Describe contingency provisions affecting the timing and/or nature of cash flows of fixed-income securities and identify whether such provisions benefit the borrower or the lender	Reading End Concept Checkers: All Questions
3	Sep. 19	<ul style="list-style-type: none"> <li>● <b>Reading 51 Fixed-income markets</b></li> <li>51.a: Describe classifications of global fixed-income markets.</li> <li>51.b: Describe the use of interbank offered rates as reference rates in floating rate debt.</li> <li>51.c: Describe mechanisms available for issuing bonds in primary markets.</li> <li>51.d: Describe secondary markets for bonds.</li> <li>51.e: Describe securities issued by sovereign governments.</li> </ul>	

		51.f: Describe securities issued by non-sovereign governments, quasigovernment entities, and supranational agencies. 51.g: Describe types of debt issued by corporations.	
	Sep. 21	51.h: Describe structured financial instruments. 51.i: Describe short-term funding alternatives available to banks. 51.j: Describe repurchase agreements (repos) and the risks associated with them. Summary Exercises Q&A	Reading End Concept Checkers: All Questions
4	Sep. 26	<p>● <b>Reading 52 Introduction to fixed-income valuation</b></p> 52.a: Calculate a bond's price given a market discount rate. 52.b: Identify the relationships among a bond's price, coupon rate, maturity, and market discount rate (yield-to-maturity). 52.c: Define spot rates and calculate the price of a bond using spot rates.	—
	Sep. 28	52.d: Describe and calculate the flat price, accrued interest, and the full price of a bond. 52.e: Describe matrix pricing. 52.f: Calculate and interpret yield measures for fixed-rate bonds, floating-rate notes, and money market instruments.	—
5	Oct. 3	— (National Day Holiday)	—
	Oct. 5	— (National Day Holiday)	—
6	Oct. 10	52.g: Define and compare the spot curve, yield curve on coupon bonds, par curve, and forward curve. 52.h: Define forward rates and calculate spot rates from forward rates, forward rates from spot rates, and the price of a bond using forward rates.	—
	Oct. 12	52.i: Compare, calculate, and interpret yield spread measures. Summary Exercises Q&A	Reading End Concept Checkers: All Questions
7	Oct. 17	<p><b>Reading 53 Introduction to asset-backed securities</b></p> 53.a: Explain benefits of securitization for economies and financial markets 53.b: Describe securitization, including the parties involved in the process and the roles they play. 53.c: Describe typical structures of securitizations, including credit tranching and time tranching.	—
	Oct. 19	53.d: Describe types and characteristics of residential mortgage loans that are typically securitized. 53.e: Describe types and characteristics of residential mortgage-backed securities, including mortgage pass-through securities and collateralized mortgage obligations, and explain the cash flows and risks for each type. 53.f: Define prepayment risk and describe the prepayment risk of mortgage backed securities.	
8	Oct. 24	53.g: Describe characteristics and risks of commercial mortgage-backed securities. 53.h: Describe types and characteristics of non-mortgage asset-backed securities, including the cash flows and risks	—

		of each type.	
	Oct. 26	53.i: Describe collateralized debt obligations, including their cash flows and risks. Summary Q&A	Reading End Concept Checkers: All Questions
9	Oct. 31	Comprehensive Exercises and explanations for reading 50-53	Handouts
	Nov. 2	Comprehensive Exercises and explanations for reading 50-53	Handouts
10	Nov. 7	<ul style="list-style-type: none"> <li>● <b>Midterm Test</b></li> <li>● Explanation of Solutions to midterm test questions</li> </ul>	—
	Nov. 9	<ul style="list-style-type: none"> <li>● <b>Reading 54 Understanding fixed-income risk and return</b></li> <li>54.a: Calculate and interpret the sources of return from investing in a fixed-rate bond.</li> <li>54.b: Define, calculate, and interpret Macaulay, modified, and effective durations.</li> </ul>	—
11	Nov. 14	<ul style="list-style-type: none"> <li>54.c: Explain why effective duration is the most appropriate measure of interest rate risk for bonds with embedded options.</li> <li>54.d: Define key rate duration and describe the use of key rate durations in measuring the sensitivity of bonds to changes in the shape of the benchmark yield curve.</li> <li>54.e: Explain how a bond's maturity, coupon, and yield level affect its interest rate risk.</li> <li>54.f: Calculate the duration of a portfolio and explain the limitations of portfolio duration.</li> </ul>	—
	Nov. 16	<ul style="list-style-type: none"> <li>54.g: Calculate and interpret the money duration of a bond and price value of a basis point (PVBP).</li> <li>54.h: Calculate and interpret approximate convexity and distinguish between approximate and effective convexity.</li> <li>54.i: Estimate the percentage price change of a bond for a specified change in yield, given the bond's approximate duration and convexity.</li> </ul>	
12	Nov. 21	<ul style="list-style-type: none"> <li>54.j: Describe how the term structure of yield volatility affects the interest rate risk of a bond.</li> <li>54.k: Describe the relationships among a bond's holding period return, its duration, and the investment horizon.</li> <li>54.l: Explain how changes in credit spread and liquidity affect yield-to-maturity of a bond and how duration and convexity can be used to estimate the price effect of the changes.</li> </ul>	Reading End Concept Checkers: All Questions
	Nov. 23	Summary Exercises Q&A	Handouts
13	Nov. 28	<ul style="list-style-type: none"> <li>● <b>Reading 55 Fundamentals of credit analysis</b></li> <li>55.a: Describe credit risk and credit-related risks affecting corporate bonds.</li> <li>55.b: Describe default probability and its severity as components of credit risk.</li> <li>55.c: Describe seniority rankings of corporate debt and explain the potential violation of the priority of claims in a bankruptcy proceeding.</li> <li>55.d: Distinguish between corporate issuer credit ratings and issue credit ratings and describe the rating agency practice of "notching".</li> </ul>	—

		55.e: Explain risks in relying on ratings from credit rating agencies. 55.f: Explain the four Cs (Capacity, Collateral, Covenants, and Character) of traditional credit analysis.	
	Nov. 30	55.g: Calculate and interpret financial ratios used in credit analysis. 55.h: Evaluate the credit quality of a corporate bond issuer and a bond of that issuer, given key financial ratios of the issuer and the industry. 55.i: Describe factors that influence the level and volatility of yield spreads. 55.j: Explain special considerations when evaluating the credit of high yield, sovereign, and non-sovereign government debt issuers and issues.	Reading End Concept Checkers: All Questions
14	Dec. 5	● Comprehensive Exercises and explanation for reading 54-55	Handouts
	Dec. 7	● Comprehensive Exercises and explanation for reading 54-55	Handouts
15	Dec. 12	● Introduction to China bond market	—
	Dec. 14	● Introduction to US bond market 2007-08 financial crisis inquiry report	—
16	Dec. 19	● Comprehensive Exercises and explanations	Handouts
	Dec. 21	● Comprehensive Exercises and explanations	Handouts
17	Dec. 26	Presentation	—
	Dec. 28	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>Fall Semester, 2018</b>	<b>August 31, 2018— January 13, 2019</b>
Aug. 31	Registration
Sep.3	Classes Begin
Sep.7 - 20	Freshmen's Military Training
Sep.24	Classes Begin (Freshmen)

Sep.24	Mid-Autumn Festival (tentative)
Oct.1 - 5	National Day Holiday (tentative)
Oct. 29 - Nov. 2	Mid-term Test
Jan.1, 2019	New Year's Day Holiday (tentative)
Jan.2-11	Final Exam Period
Jan.14	Winter 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:** Eunice Wei

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

