Capital University of Economics and Business
Overseas Chinese College
Course Syllabus

Year and Semester	2026 Spring					
Course Name	Quantitative Method					
Course Code	CFA202					
Course Type	☐ General Education (Required) ☐ General Education (Elective) ☐ Basic Disciplinary Course ☐ Professional Course (Required) ☐Professional Course (Elective) ☐Professional Course (Expanded) ☑Professional Course (Advanced)					
Course Credits	2					
Course Hours	Total Class Hours	32	Lecture Hours	32	Experiment (Computer) Hours	0
Applicable object	☐ Freshman ☑ Sophomore ☐ Junior ☐Senior					
	☑ Information Management and Information Systems (Finance) ☐ Business Administration (Accounting)					
Prerequisites	None					
Instructor	Lemon Li					
Contact Information	Office: C217					
	Tele: (010)83951082					
	Email: occ_limeng@cueb.edu.cn					
Office Hour	TBA					
Learning Centre	TBA					
Grade/Section	24CFA					
Course Time/Place	F 8:00-9:35 B307					
Textbook	CFA Quantitative Method SchweserNotes 2025					

Reference Book

CFA Quantitative Method 2025 Handbook & Notes

Course Description

This course covers Quantitative Methods for CFA Level I, including time value of money, statistics, probability, regression, hypothesis testing, risk measurement, and basic forecasting models. It equips students with essential quantitative tools for financial analysis, investment evaluation, and risk management in line with international professional standards.

The course systematically integrates Xi Jinping Economic Thought, and Xi Jinping's Thought on the Rule of Law into teaching and practice. It highlights high-quality development, green finance, ecological value quantification, data compliance, and risk governance. With real-world cases focusing on China's financial practices, sustainable investment, and green project valuation, the course strengthens students' ability to apply quantitative methods professionally and ethically. It aims to cultivate interdisciplinary financial talents with solid professional skills, correct values, global vision, and a strong sense of social and ecological responsibility.

Student Learning Objectives

On successful completion of this exam, candidates should be able to:

Knowledge	1. Master core knowledge points of CFA Level I Quantitative Methods, align precisely with CFA Level I exam focus, and lay a solid foundation in quantitative expertise. 2. Acquire integrated knowledge including high-quality development data measurement; clarify the application logic of quantitative tools in economic, ecological, and rule-of-law fields. 3. Grasp knowledge related to localized quantitative applications, become familiar with the Chinese market, and understand the multi-dimensional considerations of economic benefits, ecological protection, and legal compliance in quantitative methods.
Capability	1. Develop basic abilities to apply CFA Level I quantitative tools to solve practical problems. 2. Cultivate cross-domain integrated application capabilities, enabling the integration of Xi Jinping Economic Thought, and Xi Jinping Thought on the Rule of Law into quantitative analysis practices. 3. Foster data verification and compliance analysis capabilities; judge the authenticity and compliance of quantitative data guided by Xi Jinping Thought on the Rule of Law, and identify compliance risks and ecological risks in quantitative models.
Mindset	1. Establish a quantitative mindset oriented toward high-quality development, abandoning the one-sided pursuit of short-term financial returns. 2. Shape a rule-of-law mindset of law-abiding compliance, rigor, and objectivity; follow Xi Jinping Thought on the Rule of Law, and strengthen awareness of responsibility and rules.

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
Final Exam	20%	A cumulative final examination will be given based on all the contents of the class. The exam paper may be composed of multiple-choice questions, short answer questions, essay questions. Students should rely primarily on homework assignments and class exercise as reference for exams.
Mid-Term Test	20%	A cumulative midterm test will be given based on all the contents that have been taught in class. The content shows the results of the intermediate nodes of the project. It should be completed within 50 minutes in class.
Homework	10%	Most of the assigned homework is taken from the Exercises in the textbook. Assignments will be collected at the clearly stated date.
Quizzes	10%	There will be at least 2 quizzes during the semester. It may also be used to check the attendance. Quizzes will test your theoretical knowledge and application ability.
Presentation	20%	The students will be divided into several groups to prepare a presentation. Each student is required to be involved in the presentation. Each member of the group will receive the group grade with certain weight of his/her contribution. Each group need to finish a code or report of the project， 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 question and answer at least 10 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%	5%
Quizzes	5%	5%
Presentation		20%
Mid-Term Test	20%	
Final exam		20%
Total	40%	60%

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	Platform	Homework
1	Syllabus Introduction to Quantitative Method	Classroom & Chaoxing	
	Discuss & Exercises	Classroom & Chaoxing	

2	Rate and Returns	Classroom & Chaoxing	
	Discuss & Exercises	Classroom & Chaoxing	
3	Rate and Returns (continued)	Classroom & Chaoxing	Portfolio Construction: Investors allocate ween: Asset A (government bonds: 4% return, 2% volatility) Asset B (private corporate bonds: 8% return, 10% volatility) Minimum acceptable return (RL) = 5% Calculate Safety-First Ratio (SFRatio) Reference Xi Jinping's emphasis on "unwavering support for both public and private sectors" to discuss how quantitative models align financial institutions' risk management with inclusive finance policies, avoiding indiscriminate credit tightening.
	Discuss & Exercises	Classroom & Chaoxing	
4	Time Value of Money	Classroom & Chaoxing	Scenario Simulation: A tech firm needs to raise ¥100 million in 10 years for R&D. Assume a current risk-free rate of 2% and a risk premium of 3% (due to industry volatility).find PV。 Analyze how monetary policy influences corporate investment decisions through interest rate transmission mechanisms, aligning with Xi Jinping's economic thought on "upholding and improving the socialist basic economic system" and "promoting high-quality development."
	Discuss & Exercises	Classroom & Chaoxing	
5	Statistical Measure of Asset Returns	Classroom & Chaoxing	◦ Descriptive statistics: Use mean, median, and standard deviation to analyze ESG ratings, green bond spreads, and regional eco-economic indicators, and understand the quantitative characteristics of China's green development.
	Discuss & Exercises	Classroom & Chaoxing	

6	Probability Tree and Conditional Expectations	Classroom & Chaoxing	Data Simulation: Assume a bank's daily large-value transactions follow a normal distribution (mean μ=50, standard deviation σ=10). Regulatory rules mandate manual review for transactions exceeding 70. Calculate trigger probability (Z-score method) Integrate Xi Jinping's thought on "upholding comprehensive rule of law" and "balancing development and security" to evaluate how quantitative tools help regulators maintain stability without stifling markets.
7	Midterm Test	Classroom & Chaoxing	
8	Portfolio Mathematics	Classroom & Chaoxing	
	Discuss & Exercises	Classroom & Chaoxing	
9	Simulation Method	Classroom & Chaoxing	◦ Sampling: Compare traditional financial data sampling with ecological and environmental data sampling (e.g., carbon emissions, air quality), emphasizing data authenticity, integrity and compliance.
	Discuss & Exercises	Classroom & Chaoxing	
10	*Estimation and Inference*		
11	Hypothesis Testing	Classroom & Chaoxing	Test whether green investment brings excess returns
	Discuss & Exercises	Classroom & Chaoxing	
12	Hypothesis Testing (2)		
	Discuss & Exercises	Classroom & Chaoxing	
13	Test of Independence Parametric and Nonparametric		

	Discuss & Exercises	Classroom & Chaoxing	
14	Simple Linear Regression		◦ Univariate regression: Carbon intensity → corporate financial performance (verify the quantitative relationship of "lucid waters and lush mountains are invaluable assets").
15	Introduction to Big data techniques		
16	Final Exam		

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

Midterm Test	Week 9 or 10
Final Exam	Week 17 or 18（Refer to the notice of the Academic Affairs Office）

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: Meng Li　　Department Head: Jingning Li