

Capital University of Economics and Business

Overseas Chinese College

Course Syllabus

<u>Year and Semester</u>	2022 Spring (February 28, 2022 – July 17, 2022)
<u>Course Name</u>	考研数学 II
<u>Course Code</u>	GEE 115
<u>Course Type</u>	<input type="checkbox"/> General Education (Required) <input checked="" type="checkbox"/> General Education (Elective) <input type="checkbox"/> Professional Course (Required) <input type="checkbox"/> Professional Course (Elective) <input type="checkbox"/> Basic Disciplinary Course
<u>Course Credits</u>	2
<u>Course Hours</u>	32
<u>Prerequisites</u>	MAT111, MAT112, MAT221
<u>Instructor</u>	Jianming Huang
<u>Contact Information</u>	Office: C217 Tel: 010-83961082 Email: huangjianming@cueb.edu.cn
<u>Office Hour</u>	TBA
<u>Learning Centre</u>	TBA
<u>Grade/Section</u>	
<u>Course Time/Place</u>	W: 15:25-17:00/A105
<u>Textbook</u>	考研数学三历年真题

Reference Book

我院使用的线代、概率与统计教材

线代：同济版教材(第六版)

概率论：浙大版教材(第四版)

Course Description

This course emphasizes a multi-representational approach to linear algebra, probability and statistics with concepts, results, and problems being expressed graphically, numerically, analytically, and verbally. It is designed for students intending to major in business, economics, or natural and social sciences. After learning this course, students will extend their knowledge with techniques from linear algebra, probability and statistics. This course also develops students' understanding of the concepts of linear algebra, probability and statistics and provides experience with methods and applications.

Student Learning Objectives

After completing this course, students will be able to:

Knowledge:

- ♦ Master the applications of linear algebra
- ♦ Master the applications of probability and statistics

Capability:

- ♦ Develop skills and work on problems involving linear algebra
- ♦ Develop skills and work on problems involving probability and statistics

Mindset:

- ♦ Foster the interest in higher mathematics
- ♦ Develop their logical thinking ability and creative thinking ability
- ♦ Cultivate the spirit of cooperation and team work
- ♦ Get the awareness of connecting between knowledge and life experiences
- ♦ Develop their patriotic emotion

Website Source

1. <https://www.khanacademy.org>
2. <https://www.geogebra.org>

Teaching Methods

This course consists of lectures, discussions and student presentations. Students will be divided into small groups with a group leader helping others in the group. Students must be prepared to finish some small questions and small quizzes during the 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. A minimum of 25% of the exam (5 of the 20%) will consist of questions utilizing the application of critical thinking.
Mid-Term Test	20%	A cumulative midterm examination will be given based on all of the contents of the first half of the class. A minimum of 25% of the exam (5 of the 20%) will consist of questions utilizing the application of critical thinking.
Homework	15%	Homework problems will be assigned throughout the term, including but not limited to: terminologies, research project, and reading assignments.
Quizzes	15%	There will be at least 2 quizzes during the semester. The purpose of the quizzes is to ensure that students keep up with the readings. 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. Each group need to finish a PPT related to the topic which is given and hand in the related resources to the teacher before the presentation. The percentage is : content50%+organization10%+language15%+performance25%

Participation	10%	Individuals will be asked to participate individually in questions during the semester. Students are required to meet with their teachers every week. Their 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	C 70-74	C- 67-69	D+ 63-66	D 62-60	F 0-59

Exam Schedule

Midterm Exam: 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	Date	Topics	Homework
1	Feb.28-Mar.4	LINEAR ALGEBRA PART I	—
2	Mar.7-Mar.11	LINEAR ALGEBRA PART II	—
3	Mar.14-Mar.18	LINEAR ALGEBRA PART III	—
4	Mar.21-Mar.25	LINEAR ALGEBRA PART IV	—
5	Mar.28-Apr.1	LINEAR ALGEBRA PART V	—
6	Apr.4-Apr.8	LINEAR ALGEBRA PART VI	—
7	Apr.11-Apr.15	LINEAR ALGEBRA PART VII	—
8	Apr.18-Apr.22	LINEAR ALGEBRA PART VIII	—
9	Apr.25-Apr.29	PROBABILITY AND STATISTICS I	—
10	May.2-May.6	PROBABILITY AND STATISTICS II	—
11	May.9-May.13	PROBABILITY AND STATISTICS III	—
12	May.16-May.20	PROBABILITY AND STATISTICS IV	—
13	May.23-May.27	PROBABILITY AND STATISTICS V	—
14	May.30-June.3	PROBABILITY AND STATISTICS VI	—
15	Jun.6-Jun.10	PROBABILITY AND STATISTICS VII	—
16	Jun.13-Jun.17	PROBABILITY AND STATISTICS VIII	—
17	Jun.20-Jun.24	General Review	—

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

Spring Semester, 2022	February 28, 2022— July 17, 2022
February.28	Classes Begin
April.5	Qing Ming Holiday (tentative)
April.22	Spring Sports
April.25-April.29	Midterm Test (tentative)
May.1	National Labor's Holiday (tentative)
June.3	Duan Wu Holiday (tentative)
June.20-June.24	Final Exam Period (Sophomores and Juniors)
June.27-July.17	Social Practice for Sophomores and Juniors
July.11-July.15	Final Exam Period (Freshman)
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: Jianming Huang

Department Head: Jingning Li

