Capital University of Economics and Business
Overseas Chinese College
Course Syllabus

Year and Semester	2022 Spring (February 28, 2022 - July 17, 2022)
Course Name	Systems Analysis and Design
Course Code	MIS226
Course Type	☑ General Education (Required) ☐ General Education (Elective) ☐ Professional Course (Required) ☐ Professional Course (Elective) ☐ Basic Disciplinary Course
Course Credits	3
Course Hours	48
Prerequisites	MIS110 Introduction to computer Technology
Instructor	Xin Zhang (Helen)
Contact Information	Office: C217 Tele: (010)83951082 Email: zhangxin@cueb.edu.cn
Office Hour	M: 8:30—9:30; 13:30—17:30; W: 8:30—9:30
Learning Centre	M: 18:00—20:00; TH: 8:30—9:30; F: 8:30—9:30
Grade/Section	2020CFA
Course Time/Place	F: 9:55—12:20/ B211

Textbook

Kenneth E.Kendall, Julie E.Kendall. Systems Analysis & Design, 10th edition. Pearson Edition Press, NJ, ISBN 978-7-111-66328-7.

Course Description

This Course is a core course of IT major. It explains three types of system development methods (SDLC, O-O, Agile), system structure and components. This course will guide students complete the whole process of system analysis and design by effectively need analysis, system data and logic design (DFD diagram), HCI input and output design. Finally, Students can use their creativity and knowledge to complete a practical system in groups.

Student Learning Outcomes

After learning this course, the students will be able to:

Knowledge:

- Methods and processes of system software development
- Method of system requirement analysis
- Method of system process analysis
- Design method of system interface

Capability

- Describe the content and characteristics of SDLC, agile and object-oriented development methods.
- Choose the appropriate development methods and implementation methods (information gathering, process analysis and interface design methods) for system analysis and design.
- Evaluate the advantages and disadvantages of the existing system and learn from other's strong points to

make up one's deficiencies.

- Design their own original and practical system through the knowledge they have learned.

Mindset

- Understand the importance and necessity of teamwork.
- Demonstrate Students' pride in their country and nation.
- Apply logic and critical thinking in the process of decision making.

Teaching Methods

The course adopts face-to-face lectures，which will guide students to analyze and design a complete system step by step and organize mutual evaluation among groups. In addition，we will test the students' theoretical knowledge and application ability by quiz. Finally，students need to give a presentation on their group system project.

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	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. In general, each assignment should be complete in appropriate software and submit by Yunbanke(云班课) App. The graded will be published on the app.
Quizzes	15%	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	10%	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 PPT 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%
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: Apr.28, 2022

Final Exam: January July 11 - 15, 2022

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 refused and the score will be zero.

☞ ***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.

Course Outline

Week	Date	Topics	Homework
1	Mar. 3	• **Syllabus** • **Chapter 1&2: System Analysis Fundamentals** ◆ Need for systems analysis and design ◆ Roles of a systems analyst ◆ The systems development life cycle ◆ The agile approach ◆ Object-oriented systems analysis and design ◆ Choosing which systems development method to use ◆ Organizations as systems ◆ Organizational culture	
2	Mar. 10	• **Chapter 4: Information Gathering: Interactive Methods** ◆ Interviewing ◆ Listening to stories ◆ Joint application design ◆ Using questionnaires ◆ Discuss and Exercises	
3	Mar. 17	• **Chapter 5: Information Gathering: Unobtrusive Methods** ◆ Sampling ◆ Analyzing quantitative document ◆ Analyzing qualitative document ◆ Using text analytics ◆ Observing a decision maker's behavior ◆ Observing the physical environment ◆ Discuss and Exercises	
4	Mar. 24	• **Chapter 6: Agile Modeling** ◆ Prototyping ◆ Agile modeling ◆ Scrum ◆ Comparing agile modeling and structured methods ◆ Discuss and Exercises	
5	Mar. 31	• **Quiz1**	Check Questionnaires result
6	Apr. 7	• **Chapter 7: Data Flow Diagram** ◆ The data Flow approach to human requirements determination ◆ Developing data Flow diagrams	

		◆ Logical and physical data Flow diagrams ◆ A data Flow diagram example ◆ Partitioning websites ◆ Communicating using data flow diagrams ◆ Discuss and Exercises	
7	Apr. 14	• **Chapter 8: Data Dictionaries** ◆ The data dictionary ◆ The data repository ◆ Creating a data dictionary ◆ Using a data dictionary ◆ Discuss and Exercises	
8	Apr. 21	• **Project Consultation**	
9	Apr. 28	• **Midterm Test**	Check Group project
10	May 5	• **Chapter 9: Process Specification and Structure Decisions** ◆ Overview of process Specifications ◆ Decision tables ◆ Decision trees ◆ Choosing a Structured decision analysis technique ◆ Discuss and Exercises	
11	May 12	• **Chapter 10: O-O System Analysis and UML** ◆ Object-oriented concepts ◆ CRC cards and object think ◆ Unified modeling language (UML) concepts and diagrams ◆ Packages and other UML artifacts ◆ Putting UML to work ◆ The Importance of using UML for modeling ◆ Discuss and Exercises	
12	May 19	• **Chapter 11&12: Design Effective Input and Output** ◆ Output design objectives ◆ Relating output content to output method ◆ Realizing how output bias affects users ◆ Designing output for displays ◆ Designing a website ◆ Social media design ◆ Designing apps for Smartphones and tablets ◆ Good display and web Forms design ◆ Mockplus ◆ Discuss and Exercises	
13	May 26	• **Chapter 14&15: HCI and UX and Quality Assurance** ◆ Understanding human–computer Interaction ◆ Usability ◆ Types of user Interface ◆ UX design ◆ Designing Interfaces for Smartphones and tablets ◆ Design for intelligent personal assistants ◆ Designing for virtual reality and augmented reality ◆ Guidelines For dialog design ◆ Feedback for users ◆ Special design considerations for ecommerce ◆ Mashups	

		◆ Designing queries ◆ Effective coding ◆ Effective and efficient data capture ◆ Ensuring data quality through Input validation ◆ Discuss and Exercises	
14	Jun. 2	• **Project Consultation**	
15	Jun. 9	• **Quiz2 & Review**	
16	Jun. 16	• **Presentation**	
17	Jun. 20-24	• **Final Exam**	

Note: *Some chapters or sections may leave for self-study, they may also be included in the quizzes or exams*

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, 2021	**Feb 28, 2021— July 18, 2021**
Feb. 27	Registration
Feb. 28	Classes Begin
Mar.4	Last Day to Drop or Add a Course
Apr.5	Qing Ming Festival
Apr.22	Spring Sports
Apr.25-29	Midterm Test (tentative)
May 1	Labor Day
June 3	Dragon-Boat Festival
June 20-24	Sophomore and Junior students' Final Exam
June 27-July17	Sophomore and Junior students' Social Practice
July 11-15	Revision and Final Exam Period
July 18	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: Xin Zhang **Department Head:** Jingning Li