Capital University of Economics and Business
Overseas Chinese College
Course Syllabus

Year and Semester	2024 Spring					
Course Name	Systems Analysis and Design					
Course Code	MIS226					
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	3					
Course Hours	Total Class Hours	48	Lecture Hours	48	Experiment (Computer) Hours	0
Applicable object	☐ Freshman ☑ Sophomore ☐ Junior ☐Senior					
	☐ Information Management and Information Systems (Finance)					
Prerequisites						
Instructor	Xin Zhang					
Contact Information	Office: C217					
	Tele: (010)83951082					
	Email: zhangxin@cueb.edu.cn					
Office Hour	M: 11:30—12:20; T: 13:30—15:05; TH: 11:30—12:20; F: 8:00—9:35					
Learning Centre	TH: 9:55—11:30; M: 18:00—20:00 (online)					
Grade/Section	2022IT&CFA					
Course Time/Place	2022IT F: 9:55—12:20/ B308 2022CFA T: 9:55—12:20/ B208					
Textbook	Kenneth E.Kendall, Julie E.Kendall. Systems Analysis & Design, 10th edition. Pearson Edition Press, NJ, ISBN 978-7-111-66328-7.					

Reference Book

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 Objectives

On successful completion of this exam, candidates should 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. ◆ Present the final result of the system.
Mindset	◆ Understand the importance and necessity of teamwork. ◆ Demonstrate Students' pride in their country and nation. ◆ Realize the loyal purpose of serving the people ◆ Apply logic and critical thinking in the process of decision making.

Website Source

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. Late assignments will not be accepted. In general, each assignment should be complete in appropriate software and submit by Xuexitong(学习通) App. The graded will be published on the app.
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（original）

Week	Topics	Platform	Homework
1	● **Syllabus** ● **Chapter 1&2: System Analysis Fundamentals** • Need for systems analysis and design • Roles of a systems analyst • The systems development life cycle	Classroom & Chaoxing	
	● **Chapter 1&2: System Analysis Fundamentals** • The agile approach • Object-oriented systems analysis and design • Choosing which systems development method to use • Organizations as systems • Organizational culture	Classroom & Chaoxing	
	● **Discuss & Exercises**	Classroom & Chaoxing	System Topic
2	● **Chapter 4: Information Gathering: Interactive Methods** • Interviewing • Listening to stories	Classroom & Chaoxing	
	● **Chapter 4: Information Gathering: Interactive Methods** • Joint application design • Using questionnaires	Classroom & Chaoxing	
	● **Discuss & Exercises**	Classroom & Chaoxing	Design Information Gathering
3	● **Chapter 5: Information Gathering: Unobtrusive Methods** • Sampling • Analyzing quantitative document • Analyzing qualitative document	Classroom & Chaoxing	

	● **Chapter 5: Information Gathering: Unobtrusive Methods** • Observing a decision maker's behavior • Observing the physical environment	Classroom & Chaoxing	
	● **Discuss & Exercises**	Classroom & Chaoxing	
4	● **Chapter 6: Agile Modeling** • Prototyping • Agile modeling • Scrum & Kanban	Classroom & Chaoxing	
	● **Chapter 6: Agile Modeling** • Comparing agile modeling and structured methods	Classroom & Chaoxing	
	● **Discuss & Exercises**	Classroom & Chaoxing	Information Gathering result
5	● **Chapter 7: Data Flow Diagram** • The data Flow approach to human requirements determination • Developing data Flow diagrams	Classroom & Chaoxing	
	● **Chapter 7: Data Flow Diagram** • Developing data Flow diagrams	Classroom & Chaoxing	
	● **Discuss & Exercises**	Classroom & Chaoxing	DFD
6	● **Qing Ming Festival** ● **Chapter 7: Data Flow Diagram** • DFD Example & Exercises	Classroom & Chaoxing	
7	● **Midterm Test**	Classroom & Chaoxing	Demo
8	● **Chapter 8: Data Dictionaries** • The data dictionary • Creating a data dictionary	Classroom & Chaoxing	
	● **Chapter 8: Data Dictionaries** • Creating a data dictionary • Using a data dictionary	Classroom & Chaoxing	
	● **Discuss & Exercises**	Classroom & Chaoxing	Data Dictionaries
9	● **Chapter 9: Process Specification and Structure Decisions** • Overview of process Specifications Form • Structure English	Classroom & Chaoxing	
	● **Chapter 9: Process Specification and Structure Decisions** • Decision tables • Decision trees • Choosing a Structured decision analysis technique	Classroom & Chaoxing	
	● **Discuss & Exercises**	Classroom & Chaoxing	Process Specification
10	● **Labor Day**		
11	● **Chapter 10: O-O System Analysis and UML**	Classroom & Chaoxing	

	• Object-oriented concepts • CRC cards and object think • Unified modeling language (UML) concepts and diagrams		
	• **Chapter 10: O-O System Analysis and UML** • Unified modeling language (UML) concepts and diagrams • The Importance of using UML for modeling	Classroom & Chaoxing	
	● **Discuss & Exercises**	Classroom & Chaoxing	Prototype
12	● **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	Classroom & Chaoxing	
	● **Chapter 11&12 &: Design Effective Input and Output** • Designing a website • Designing apps for Smartphones and tablets • Mockplus	Classroom & Chaoxing	
	● **Discuss & Exercises**	Classroom & Chaoxing	Prototype
13	● **Chapter 14&15: HCI and UX and Quality Assurance** • Understanding human–computer Interaction • 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	Classroom & Chaoxing	
	● **Chapter 14&15: HCI and UX and Quality Assurance** • Special design considerations for ecommerce • Mashups • Effective coding • Effective and efficient data capture • Ensuring data quality through Input validation	Classroom & Chaoxing	
	● **Discuss & Exercises**	Classroom & Chaoxing	Prototype
14	**Presentation**		
15	**Presentation/ Final Review**		
16	**Final Exam**		

Note: *In the first three weeks, Tencent Meeting, Mosoteach and the Wechat group will be used as themain teaching methods. The Wechat group will be mainly used to inform thestudents daily study activities and tasks Tencent Meeting and Mosoteach will be used as the main studyplatform to teach and organize the study activities When classes change back to school, Tencent Meeting will be stopped to use. Mosoteach will be mainly used to upload PPTS and release some learningmaterials.*

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 20（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: Xin Zhang **Department Head: Jingning Li**