Capital University of Economics and Business
Overseas Chinese College
Course Syllabus

Year and Semester	2021 Spring (March 1, 2021 - June 18, 2021)
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	MIS111 Introduction to computer Technology MIS224 Database systems
Instructor	Xin Zhang (Helen Zhang)
Contact Information	Office: C217 Tele: (010)83951082 Email: zhangxin@cueb.edu.cn
Office Hour	M: 15:30—17:30; W: 11:00—12:00; 13:30—14:30; TH: 8:00—10:00
Learning Centre	M: 18:00—20:00; W: 14:30—16:30
Grade/Section	2019CFA/Y02
Course Time/Place	W: 8:00—9:50; F: 8:00—8:50 / B212

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 Objectives

After completing this course, students will be able to:

- 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.

Website Source

https://daxuepc.com/index

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 test paper may be mainly composed of multiple-choice questions and short answer questions. 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%	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: April 26-30, 2021;
Final Exam: June 21-25, 2021

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.

☞ ***Presentation***

Requirements and Scoring criteria (Total 10 marks)	Marks
The presentation time for each group is limited to 15 minutes and every member of the team must be involved in the presentation	1
Good and Fluent English expression	1
Do not read the PPT directly	1
PPT and demo attract people	1
Knowledge points are clear and correct and to answer the questions raised by the teacher and others correctly	2
The presentation must be including: • (1mark) Information gathering (such as interview, JAD, questionnaires) • (1mark) Process analyze (such as Use case, DFD diagram) • (1mark) Input and output design (such as the website, mockplus prototype)	3
Submit the related document (report and PPT) before the presentation on time • Each group only needs to submit one complete report and PPT. In the document, you must indicate the part of everyone's work.	1

Topical Course Outline

Week	Date	Topics	Homework
1	Mar. 3	● Introduction of course (Syllabus, Structure and Learning method) ● Chapter 1 • Need for systems analysis and design • Roles of a systems analyst • The systems development life cycle • The agile approach	Understand the group project requirements
	Mar. 5	• Object-oriented systems analysis and design • Choosing which systems development method to use • Developing open-source software • Discuss and Exercises	——
2	Mar. 10	● Chapter 2 • Organizations as systems • Depicting systems graphically • Use case modeling • Levels of management • Organizational culture • Discuss and Exercises	——
	Mar. 12	● Chapter 4 • Interviewing • Listening to stories • Joint application design	——
3	Mar. 17	• Using questionnaires • Discuss and Exercises ● Chapter 5 • Sampling	Create and PR Group project questionnaires

		• Analyzing quantitative document • Analyzing qualitative document • Using text analytics	
	Mar. 19	• Observing a decision maker's behavior • Observing the physical environment • Discuss and Exercises	——
4	Mar. 24	● Chapter 6 • Prototyping • Agile modeling • Scrum • Comparing agile modeling and structured methods • Discuss and Exercises	——
	Mar. 26	**• Quiz1**	Check Questionnaires result
5	Mar. 31	● Chapter 7 • The data Flow approach to human requirements determination • Developing data Flow diagrams • Logical and physical data Flow diagrams	Create Group project DFD
	April. 2	• A data Flow diagram example • Partitioning websites	——
6	April. 7	• Communicating using data flow diagrams • Discuss and Exercises	——
	April. 9	● Chapter 8 • The data dictionary • The data repository • Creating a data dictionary	——
7	April. 14	• Using a data dictionary • Discuss and Exercises ● Chapter 9 • Overview of process Specifications • Decision tables	——
	April. 16	● Spring Sports	1、Self-study Structured English 2、Check Group project DFD
8	April. 21	• Decision trees • Choosing a Structured decision analysis technique • Discuss and Exercises ● Chapter 10 • Object-oriented concepts • CRC cards and object think • Unified modeling language (UML) concepts and diagrams • Use case modeling	Create Group project Use Case
	April. 23	• Activity diagrams • Sequence and communication diagrams • Class diagrams • Enhancing Sequence diagrams • Enhancing class diagrams	——
9	April. 28	• Statechart diagrams • Packages and other UML artifacts • Putting UML to work • The Importance of using UML for modeling	——

		• Discuss and Exercises	
	April. 30	● **Midterm Test**	Check Group project Use Case
10	May. 5	● Chapter 11 • Output design objectives • Relating output content to output method • Realizing how output bias affects users • Designing printed output • Designing output for displays • Designing a website • Web 2.0 technologies and Social media design • Social media design • Designing apps for Smartphones and tablets • Output production and xml	——
	May. 7	• Mockplus • Discuss and Exercises	Create Group project input and output
11	May. 12	● Chapter 12 • Good Form design • Good display and web Forms design • Website design • Discuss and Exercises	——
	May. 14	● Chapter 14 • Understanding human–computer Interaction • Usability • Types of user Interface • UX design	——
12	May. 19	• 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 • Discuss and Exercises	——
	May. 21	● Chapter 15 • Effective coding • Effective and efficient data capture • Ensuring data quality through Input validation	——
13	May. 26	• Data accuracy advantages in ecommerce environments • Discuss and Exercises ● Project consulting	Check Group project input and output
	May. 28	● Project consulting	Check Group project input and output
14	June. 2	Presentation	——
	June. 4	Presentation	——
15	June. 9	**• Quiz2**	——
	June. 11	Final Review	——
16	June. 16	Final Review	——
	June. 18	Final Review	——

17	June. 21-25	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

Spring Semester, 2021	**Feb 28, 2021— July 18, 2021**
Feb. 28	Registration
Mar. 1	Classes Begin
Apr.4	Qing Ming Festival
Apr.16	Spring Sports
Apr.26 -30	Midterm Test (tentative)
May 1	Labor Day
June 14	Dragon-Boat Festival
June 21-25	Final Exams for Sophomores and Juniors
June 28-July18	Social Practice for Sophomores and Juniors (tentative)
July 3-11	Revision (Freshmen)
July 12-16	Final Exam Period (Freshmen)
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: Xin Zhang **Department Head: Jingning Li**