

Capital University of Economics and Business

Overseas Chinese College

Course Syllabus

<u>Year and Semester</u>	2020 Spring (March 2, 2020 - July 12, 2020)
<u>Course Name</u>	Systems Analysis and Design
<u>Course Code</u>	MIS226
<u>Course Type</u>	<input type="checkbox"/> General Education (Required) <input type="checkbox"/> General Education (Elective) <input checked="" type="checkbox"/> Professional Course (Required) <input type="checkbox"/> Professional Course (Elective) <input type="checkbox"/> Basic Disciplinary Course
<u>Course Credits</u>	3
<u>Course Hours</u>	48
<u>Prerequisites</u>	MIS111 Introduction to computer Technology MIS224 Database systems MIS302 Information System Project Management
<u>Instructor</u>	Xin Zhang (Helen Zhang)
<u>Contact Information</u>	Office: C217 Tele: (010)83951082 Email: zhangxin@cueb.edu.cn
<u>Office Hour</u>	TBA
<u>Learning Centre</u>	TBA
<u>Grade/Section</u>	2018IT/Y01
<u>Course Time/Place</u>	TH: 10:10—12:00 / B307; F: 9:00—9:50 / B307

Textbook

Kenneth E.Kendall, Julie E.Kendall. *Systems Analysis & Design, 9th edition*. Pearson Edition Press, NJ, ISBN 978-0-13-302344-2.

Course Description

This Course is a core course of information and management major. It explains fundamental knowledge of System Development Life Cycle (SDLC), system structure and components, popular analysis and design CASE tools. The aim of this course is to guide students in analyzing and designing information systems, managing the process and total quality of the project. During the lectures, it involves in a lot of practical cases that tailored for each knowledge area and it also explores structured modeling methods to solve assignments. By effectively conducting need analysis, system modeling analysis and design, HCI input and output design, it enables students to complete a feasible design plan of Information Systems and generate system design report. This course lays a solid foundation for students to analyze and design information systems.

Student Learning Objectives

After completing this course, students will be able to:

- ◆ Understand and articulate the roles of the system analyst in modern organizations and how the SA functions in each phase of the Systems Development Life Cycle (SDLC).

- ♦ Understand the three main methodologies of the SDLC, agile approaches, and object-oriented analysis with UML, along with reasons and situations for when to use them.
- ♦ Use systematic and structured methodologies for performing information requirements analysis to ensure that they are addressing the correct problem before designing a system. Such as JAD, sampling and investigating, etc.
- ♦ Analysis and design system process by using structured methods competently and effectively. Such as data flows structured, structured and semi-structured decisions, database, data dictionaries and UML, etc.
- ♦ Design system Input and Output for varied platform and device. Particular attention is paid to the Human-computer interaction (HCI).
- ♦ Demonstrate the ability to Project management and total Quality approach to make sure completing project successfully, and improving software design, maintenance.
- ♦ Demonstrate the ability to use all above skills and knowledge to complete a feasible design plan of Information Systems and generate system design report.
- ♦ Demonstrate the ability to communicate effectively, orally and in writing, individually and in teams.

Website Source

1. <https://www.icourse163.org/>

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 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 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%	The assigned homework is taken from Projects. Assignments will be collected at the clearly stated date. Late assignments will not be accepted. In general, each assignment should be prepared in Office software as appropriate.
Quizzes	15%	There will be at least 2 quizzes during the semester. Quizzes may or may not be announced in advance. It may also be used 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. Each member of the group will receive the group grade with certain weight of his/her contribution. The topics can be selected from the textbook or lectures. Each group need to finish a PPT or report related to the topic and hand in the related resources to the teacher before the presentation.
Participation	10%	Individuals will be asked to participate in the question and answer at least 5 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 20 – April 24, 2020;

Final Exam: June 15 –June 19, 2020

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	Mar. 5	<ul style="list-style-type: none"> ● Syllabus and Course Introduction (中文) ● Chapter 1 System, Roles, and Development Methodologies <ul style="list-style-type: none"> • 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 • Developing open Source Software 	Assignment Start
	Mar. 6	<ul style="list-style-type: none"> ● X-mind & Exercises, Q&A 	—
2	Mar. 12	<ul style="list-style-type: none"> ● Chapter 2 Understanding and Modeling Organizational Systems <ul style="list-style-type: none"> • Organizations as Systems • Levels of management • Organizational culture • Depicting Systems graphically • Use case modeling ● X-mind 	—
	Mar. 13	<ul style="list-style-type: none"> ● Exercises, Q&A 	Assignment check
3	Mar. 19	<ul style="list-style-type: none"> ● Chapter 3 * Project Management ● Chapter 4 Information Gathering: Interactive Methods <ul style="list-style-type: none"> • Interviewing • Listening to Stories • Joint application design 	—

		<ul style="list-style-type: none"> • Using questionnaires ● X-mind 	
	Mar. 20	● Exercises, Q&A	Assignment check
4	Mar. 26	<ul style="list-style-type: none"> ● Chapter 5 Information Gathering: Unobtrusive Methods • Sampling • Investigation • Observing a decision maker's behavior • Observing the physical environment ● X-mind 	—
	Mar. 27	● Exercises, Q&A	Assignment check
5	Apr. 2	<ul style="list-style-type: none"> ● Chapter 6 Agile Modeling and Prototyping • Prototyping • Developing a prototype • Agile modeling • Comparing agile modeling and Structured methods ● X-mind 	—
	Apr. 3	● Exercises, Q&A	Assignment check
6	Apr. 9	<ul style="list-style-type: none"> ● Chapter 7 Using 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 	—
	Apr. 10	● X-mind & Exercises, Q&A	—
7	Apr. 16	<ul style="list-style-type: none"> ● Chapter 8 Analyzing Systems Using Data Dictionaries • The data dictionary • The data repository • Creating a data dictionary • Using a data dictionary ● X-mind 	—
	Apr. 17	● Exercises, Q&A	Assignment check
8	Apr. 23	<ul style="list-style-type: none"> ● <u>Quiz</u> ● <u>Midterm Test (Presentation Assignment)</u> 	—
	Apr. 24	● <u>Midterm Test (Presentation Assignment)</u>	—
9	Apr. 30	<ul style="list-style-type: none"> ● Chapter 9 Process Specifications and Structured Decisions • Overview of process Specifications • Structured English • Decision tables • Decision trees • Choosing a Structured decision analysis technique ● Exercises, Q&A 	—
	May. 1	● Labor Day	X-mind
10	May. 7	● Chapter 10 O-O Systems Analysis and Design Using UML	—

		<ul style="list-style-type: none"> • Object-oriented concepts • CRC cards and object think • Unified modeling language (UML) concepts and diagrams • Use case modeling • Activity diagrams • Sequence and communication diagrams • Class diagrams • Enhancing Sequence diagrams • Enhancing class diagrams • State chart diagrams • Packages and other UML artifacts • Putting UML to work • The Importance of using UML for modeling 	
	May. 8	● X-mind & Exercises, Q&A	—
11	May. 14	<ul style="list-style-type: none"> ● Chapter 11 Designing Effective Output <ul style="list-style-type: none"> • Output design objectives • Relating output content to output method • Realizing how output bias affects users • Designing output for displays • Designing a website • Web 2.0 technologies and Social media design • Designing apps for Smartphones and tablets • Output production and xml ● X-mind 	—
	May. 15	● Exercises, Q&A	Assignment check
12	May. 21	<ul style="list-style-type: none"> ● Chapter 12 Designing Effective Input <ul style="list-style-type: none"> • Good Form design • Good display and web Forms design • Website design ● X-mind 	—
	May. 22	● Exercises, Q&A	Assignment check
13	May. 28	<ul style="list-style-type: none"> ● Chapter 13* Designing Databases ● Chapter 14 Human-Computer Interaction <ul style="list-style-type: none"> • Understanding human-computer Interaction • Usability • Types of user Interface • Designing Interfaces for Smartphones and tablets • Guidelines For dialog design • Feedback for users • Special design considerations for ecommerce • Mashups • Designing queries ● X-mind 	—
	May. 29	● Exercises, Q&A	Assignment check
14	Jun. 4	<ul style="list-style-type: none"> ● Chapter 15 Designing Accurate Data Entry Procedures <ul style="list-style-type: none"> • Effective coding • Effective and efficient data capture • Ensuring data quality through Input validation • Data accuracy advantages in ecommerce environments ● Chapter 16 * Quality Assurance and Implementation 	—

		● X-mind & Exercises	
	Jun. 5	● <u>Quiz</u> ● Q&A	—
15	Jun. 11	● Presentation	—
	Jun. 12	● Presentation ● Final Review (中文)	—
16	Jun. 15-19	● 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 (Mark with *).*

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, 2020	Feb 23, 2020— July 12, 2020
Feb.23	Registration
Feb.28	Last Day to Drop or Add a Course
Mar.2	Classes Begin
Apr.4	Qing Ming Festival
Apr.17	Spring Sports
Apr.20 -24	Midterm Test (tentative)
May 1	Labor Day
May 11-15	Summer School Registration (tentative)
June 15-19	Sophomore and Junior students' Final Exam
June 22-July12	Sophomore and Junior students' Social Practice , Summer School
June 25	Dragon-Boat Festival
June 27- July10	Revision and Final Exam Period
July 13	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

