Capital University of Economics and Business
Overseas Chinese College
Course Syllabus

Year and Semester	2024 Fall					
Course Name	Database systems					
Course Code	MIS227					
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	4					
Course Hours	Total Class Hours	64	Lecture Hours	32	Experiment (Computer) Hours	32
Applicable object	☐ Freshman ☑ Sophomore ☐ Junior ☐Senior					
Prerequisites	MIS110					
Instructor	Xin Zhang, Changjun Ru					
Contact Information	Office: Office: C217					
	Tele: (010)83951082					
	Email: zhangxin@cueb.edu.cn Email: Ruchangjun@cueb.edu.cn					
Office Hour	Zhangxin T: 9:55—12:20, F: 13:30—16:10 Ruchangjun: M, T, W: 8:00-9:35					
Learning Centre	Zhangxin:W: 8:00—9:35, TH: 18:00—20:00 (online) Ruchangjun: M: 13:30-15:05,18:00-20:00 (online)					
Grade/Section	2023IT&CFA					
Course Time/Place	2023IT T: 8:00-9:35/B308 F: 8:00-9:35/B308 2023CFA T: 15:25-17:00; TH:8:00-9:35 (B212)					
Textbook	Database Systems Concept, Sixth Edition by Abraham Silberschatz , Henry F Korth and S, Sudarshan; ISBN: 9780073523323					

Reference Book

Course Description

This course is for students to obtain principles of database systems. We will focus mainly on relational data models and relational query operations, together with Microsoft Access database for data definitions and queries. The course will also involve a multi-part project using Microsoft Access by Students.

Student Learning Objectives

On successful completion of this course, candidates should be able to:

Knowledge	♦ Explain the major objectives of database technology ♦ Understand the relational model for databases and competing models ♦ Analyze the database retrieval and manipulation language
Capability	♦ Design and implement a database suitable for an information system
Mindset	♦ Be logical, methodical, consistent and accurate ♦ Apply 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 and practice problems. 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 Xuexitong 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 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%
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	● Course Introduction and Syllabus ● Chapter 1 1.1 Database-System Applications 1.2 Purpose of Database Systems 1.3 View of Data 1.4 Database Languages 1.5 Relational Databases 1.6 Database Design ● EXE	Tencent Meeting & Xuexitong	
2	● Chapter 1 1.7 Data Storage and Querying 1.8 Transaction Management 1.9 Database Architecture 1.10 Data Mining and Information Retrieval 1.11 Specialty Databases 1.12 Database Users and Administrators ● EXE	Tencent Meeting & Xuexitong	Homework for CH1
3	● Chapter 2 2.1 Structure of Relational Databases 2.2 Database Schema 2.3 Keys 2.4 Schema Diagrams ● EXE	Tencent Meeting & Xuexitong	
4	● Chapter 2 2.5 Relational Query Languages 2.6 Relational Operations ● EXE ● Quiz1	Classroom & Xuexitong	Homework for CH2
5	National Day	Classroom & Xuexitong	
6	● Chapter 3 3.1 Overview of the SQL Query Language 3.2 SQL Data Definition 3.3 Basic Structure of SQL Queries 3.4 Additional Basic Operations 3.5 Set Operations ● EXE	Classroom & Xuexitong	
7	● Chapter 3 3.6 Null Values	Classroom & Xuexitong	Homework for CH3

	3.7 Aggregate Functions 3.8 Nested Subqueries 3.9 Modification of the Database ● EXE		
8	● Chapter 4 4.1 Join Expressions 4.2 Views 4.3 Transactions ● EXE	Classroom & Xuexitong	
9	● Chapter 4 4.4 Integrity Constraints 4.5 SQL Data Types and Schemas 4.6 Authorization ● EXE ● Mid-Term Test	Classroom & Xuexitong	Homework for CH4
10	● Chapter6 6.1 The Relational Algebra 6.2 The Tuple Relational Calculus 6.3 The Domain Relational Calculus ● EXE	Classroom & Xuexitong	Homework for CH6
11	● Chapter 7 7.1 Overview of the Design Process 7.2 The Entity-Relationship Model Form 7.3 Constraints 7.4 Removing Redundant Attributes in Entity Sets 7.5 Entity-Relationship Diagrams ● EXE	Classroom & Xuexitong	
12	● Chapter 7 7.6 Reduction to Relational Schemas 7.7 Entity-Relationship Design Issues 7.8 Extended E-R Features 7.9 Alternative Notations for Modeling Data 7.10 Other Aspects of Database Design ● EXE	Classroom & Xuexitong	Homework for CH7
13	● Chapter 8 8.1 Features of Good Relational Designs 8.2 Atomic Domains and First Normal Form 8.3 Decomposition Using Functional Dependencies 8.4 Functional-Dependency Theory 8.5 Algorithms for Decomposition ● EXE	Classroom & Xuexitong	
14	● Chapter 8 8.6 Decomposition Using Multivalued Dependencies 8.7 More Normal Forms 8.8 Database-Design Process 8.9 Modeling Temporal Data ● EXE	Classroom & Xuexitong	Homework for CH8
15	● Database LAB (MySQL, SQL Server, ACCESS)	Classroom & Xuexitong	
16	● Presentation	Classroom & Xuexitong	
17	● Final Review & Quiz2	Classroom & Xuexitong	
18-19	● 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 18 or 19（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: XinZhang, Changjun Ru **Department Head:** JingningLi