

Capital University of Economics and Business

Overseas Chinese College

Course Syllabus

Year and Semester	2023 Fall					
Course Name	Database Systems					
Course Code	MIS227					
Course Type	<input type="checkbox"/> General Education (Required) <input type="checkbox"/> General Education (Elective) <input type="checkbox"/> Basic Disciplinary Course <input checked="" type="checkbox"/> Professional Course (Required) <input type="checkbox"/> Professional Course (Elective) <input type="checkbox"/> Professional Course (Expanded) <input type="checkbox"/> Professional Course (Advanced)					
Course Credits	4					
Course Hours	Total Class Hours	64	Lecture Hours	32	Experiment (Computer) Hours	32
Applicable object	<input type="checkbox"/> Freshman <input checked="" type="checkbox"/> Sophomore <input type="checkbox"/> Junior <input type="checkbox"/> Senior					
	<input type="checkbox"/> Business Administration (Accounting)					
	<input checked="" type="checkbox"/> Information Management and Information Systems (Finance)					
Prerequisites	MIS110/MIS112					
Instructor	Prof. Xin Zhang Prof. Amy Ru					
Contact Information	Office: C217					
	Tele: (010)83951082					
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Office Hour	T: 8:00—9:35, TH: 8:00—9:35, F: 8:00—9:35 Tue. & Wed.: 8:50-9:35, Fri.: 9:55-11:30					
Learning Centre	W: 9:55—11:30, TH: 18:00—20:00 (online) Mon.: 18:00-20:00, Tue.: 13:30-15:30					
Grade/Section	2022CFA, 2022 IT					
Course Time/Place	2022 CFA:W: 8:00-9:35; F: 9:55-11:30/B212 2022 IT: Tue.: 15:25-17:00; Fri.: 8:00-9:35 /B211					
Textbook	Database Systems Concept, 6th Edition					

Reference Book

Database Processing – Fundamentals, Design, and Implementation, ISBN 978-7-04-019245-2

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 SQL for data definitions and queries. The course will also involve a multi-part project using SQL Server. Students undertake a semester project that includes the query design using SQL Server.

Student Learning Objectives

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

Knowledge	<ul style="list-style-type: none"> ◆ Explain the relational data models ◆ Describe relational query operations ◆ Identify constraints of tables ◆ Illustrate the process of database design and application
Capability	<ul style="list-style-type: none"> ◆ Use a new perspective on storing data ◆ Apply E-R diagram to simulated projects and dissertation ◆ Analyze the database requirements according to business scenario ◆ Operate Access software tool ◆ Design and implement a database suitable for an information system ◆ Develop effective professional communication skills in team
Mindset	<ul style="list-style-type: none"> ◆ Map the integrity and objectivity in database management workplace ◆ Formulate systematical and logical mind ◆ Develop consistent and accurate way to design database ◆ Apply critical thinking in designing database

Website Source

1. <https://www.icourse163.org/course/RUC-488001>
2. <https://www.icourse163.org/course/RUC-1001655006>

Teaching Methods

This course contains lectures, hands-on operations, group discussions, brainstorming, case studies, role play, group 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 class.

Grade Criterion

Component	Weight	Description
Final Exam	20%	A cumulative final examination will be given based on all of 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 to give them a sense of what they may see for material on exams.
Mid-Term Test	20%	A cumulative midterm test will be given based on all of the contents that have been taught in class. The test paper may be mainly composed of multiple-choice questions and it should be completed within 60 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. The graded assignments will be kept by the tutor for reference and won't be returned to students.
Quizzes	10%	There will be at least 2 quizzes during the semester. Quizzes may or may not be announced in advance. It may also be used as a way to check the attendance. Quizzes will test your knowledge of both concepts and the

		application of those concepts.
Presentation	20%	<ol style="list-style-type: none"> 1. 25%: Contents (relevance, depth, quality, ideological and political element, practical business value) 2. 25%: Presentation Skill (logical, expressive, appealing, degree of reading from manuscripts or slides, preparation and attitude) 3. 10%: Time management and Teamwork 4. 10%: participation (make notes & comments for all groups) 5. 10%: PPT making skill (Visually helpful) 6. 10%: English fluency
Participation	10%	Individuals will be asked to participate individually in a 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%	5%
Quizzes	5%	5%
Presentation		20%
Mid-Term Test	20% (5% of critical thinking)	
Final exam		20% (5% of critical thinking)
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	<ul style="list-style-type: none"> ● Course Introduction and Syllabus ● Chapter 1 <ul style="list-style-type: none"> 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 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 	Classroom & Xuexitong	Homework for CH1
2	<ul style="list-style-type: none"> ● Chapter 2 <ul style="list-style-type: none"> 2.1 Structure of Relational Databases 2.2 Database Schema 2.3 Keys 2.4 Schema Diagrams 2.5 Relational Query Languages 2.6 Relational Operations ● EXE 	Classroom & Xuexitong	Homework for CH2
3	<ul style="list-style-type: none"> ● Chapter 3 <ul style="list-style-type: none"> 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 	Classroom & Xuexitong	Homework for CH3

	3.6 Null Values 3.7 Aggregate Functions 3.8 Nested Subqueries 3.9 Modification of the Database ● EXE		
4	● Chapter 4 4.1 Join Expressions 4.2 Views 4.3 Transactions 4.4 Integrity Constraints 4.5 SQL Data Types and Schemas 4.6 Authorization ● EXE	Classroom & Xuexitong	Homework for CH4
5	● National Day	Classroom & Xuexitong	
6	● 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 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
7	● 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 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
8	● Quiz & Install Access 2019	Classroom & Xuexitong	
9	● Mid-Term Test	Classroom & Xuexitong	
10	● Access 2019 Part 1 Access Building Block ● LAB	Classroom & Xuexitong	Homework for P1
11	● Access 2019 Part 2 Understanding Access Tables ● LAB	Classroom & Xuexitong	Homework for P2
12	● Access 2019 Part 2 Understanding Access Tables ● LAB	Classroom & Xuexitong	Homework for P3
13	● Access 2019 Part 3 Using Access Query ● LAB	Classroom & Xuexitong	Homework for P4

14	<ul style="list-style-type: none"> ● Access 2019 Part 4 Analyzing data in Access ● LAB 	Classroom & Xuexitong	Homework for P5
15	<ul style="list-style-type: none"> ● Access 2019 Part 5 Using Access Forms and Reports ● LAB 	Classroom & Xuexitong	Homework for P6
16	<ul style="list-style-type: none"> ● Presentation 	Classroom & Xuexitong	—
17	<ul style="list-style-type: none"> ● Presentation & Final Review 	Classroom & Xuexitong	—

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
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: Jingning Li

