Capital University of Economics and Business
Overseas Chinese College
Course Syllabus

Year and Semester	Fall (Sophomore)
Course Name	Computer Networking
Course Code	MIS225
Course Type	General Education (Required) ☐ General Education (Elective) ☐ Basic Disciplinary Course ☐ √ Professional Course (Required) Professional Course (Elective) ☐ Professional Course (Expanded) ☐
Course Credits	3
Course Hours	48
Prerequisites	MIS111 Introduction to computer Technology
Instructor	Xin Zhang
Contact Information	Office: C217 Tele: (010)83951082 Email: zhangxin@cueb.edu.cn
Office Hour	M: 8:00—10:00; T: 13:30—17:30
Learning Centre	T: 18:00—20:00; TH: 10:00—12:00
Grade/Section	2020IT & 2020CFA
Course Time/Place	M: 10:10-12:00/B212; 13:30-15:20/B307 TH: 8:00-8:50/B212; 9:00-9:50/B307

Textbook

Kurose & Ross, Computer Networking A top-down approach, 7th edition; ISBN: 9780134312804

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. The subject places emphasis on the improvement of Students' creativity and sense of serving the people.

Student Learning Outcomes

After learning this course, the students will be able to:

Knowledge:

- Explain the network terminology (protocol stack, host, delay, packet, route, DNS, ISP, Dos)
- Identify five layers in internet protocol stack
- Understand the popular protocols and working principles in each layer
- Analyze the packets data information which cached by Wireshark

Capability:

- Recommend a security plan to protect computer networking from attacking
- Develop an allocation plan according enterprise's requirements (number of departments, number

of employees in each department, subnets, hosts)

- Conduct effective professional communication skills in computer networking area

Mindset:

- Establish the objectivity in computer networking workplace
- Develop systematical and logical mind through learning protocol stack
- Apply critical thinking in the process of capturing and analyzing packets

Website Source

https://wps.pearsoned.com/ecs_kurose_compnetw_6/216/55463/14198700.cw/index.html

Teaching Methods

This course contains lectures, group discussions, group work (Wireshark Labs), 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 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 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 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%
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: November 1-5, 2021

Final Exam: January 5-14, 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 refused and the score will be zero.

☞ ***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.

Course Outline

Week	Date	Topics	Homework
1	Sep. 6	● Course Introduction and Syllabus ● Chapter 1 1.1 What Is the Internet? 1.2 The Network Edge	——
	Sep. 9	1.3 The Network Core	——
2	Sep. 13	1.4 Delay, Loss, and Throughput in Packet-Switched Networks 1.5 Protocol Layers and Their Service Models	——
	Sep. 16	1.6 Networks Under Attack ● EXE	——
3	Sep. 20	● Chapter 2 2.1 Principles of Network Applications 2.2 The Web and HTTP	——
	Sep. 23	2.3 Electronic Mail in the Internet	——
4	Sep. 27	2.4 DNS- The Internet's Directory Service	——
	Sep. 30	● EXE& LAB	——
5	Oct. 4	● National Day	——
	Oct. 7	● Quiz	——
6	Oct. 11	● Chapter 3 3.1 Introduction and Transport-Layer Services 3.2 Multiplexing and Demultiplexing 3.3 Connectionless Transport: UDP	——
	Oct. 14	3.4 Principles of Reliable Data Transfer	——
7	Oct. 18	3.5 Connection-Oriented Transport: TCP 3.6 Principles of Congestion Control	——
	Oct. 21	3.7 TCP Congestion Control ● EXE	——
8	Oct. 25	● LAB	——
	Oct. 28	● Chapter 4 4.1 Overview of Network Layer 4.2 What's Inside a Router?	——
9	Nov. 1	4.3 The Internet Protocol (IP): IPv4, Addressing, IPv6, and More	——
	Nov. 4	4.3 The Internet Protocol (IP): IPv4, Addressing, IPv6, and More	——
10	Nov. 8	● EXE ● MID	——
	Nov. 11	● Chapter 5 5.1 Introduction 5.2 Routing Algorithms	——
11	Nov. 15	5.3 Intra-AS Routing in the Internet: OSPF 5.6 ICMP: The Internet Control Message Protocol	——
	Nov. 18	● EXE	——
12	Nov. 22	● Chapter 6 6.1 Introduction to the Link Layer 6.2 Error-Detection and -Correction Techniques	——
	Nov. 25	6.3 Multiple Access Links and Protocols	——
13	Nov. 29	6.4 Switched Local Area Networks	——
	Dec. 2	● EXE	——
14	Dec. 6	● Quiz	——
	Dec. 9	Presentation	——
15	Dec. 13	Presentation	——
	Dec. 16	Presentation	——

16	Dec. 20	Final Review	——
	Dec. 23	Final Review	——
17	Dec. 27	Final Review	——
	Dec. 30	Final Review	
19-20	Jan. 5-14	Final Exam	

Note: *Some chapters or sections may leave for self-study, they may also be included in the quizzes or exams*

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

Sep.5	Registration (Sophomores，Juniors and Seniors)
Sep.6	Classes Begin (Sophomores，Juniors and Seniors)
Sep.10	Last Day to Drop or Add a Course (Sophomores，Juniors and Seniors)
Sep.18	Registration（Freshmen）
Sep.20-24	Entrance Education（Freshmen）
Sep.21	Mid-Autumn Festival
Sep.27	Classes Begin（Freshmen）
Oct.1	National Day
Nov.1–5	Midterm Test (tentative)
Jan.1, 2022	New Year's Day
Jan.1-4	Revision (Sophomores, Juniors and Seniors)
Jan.5-14	Final Exam Period (Sophomores, Juniors and Seniors)
Jan.10-14	Final Exam Period（Freshmen）

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 **Department Head: JingningLi**