COURSE DESCRIPTION

Data communication technologies have a central role in the economic and social structures of the society. They have the impact on business processes, organizational structures, and the ways people do business, work, and communicate with each other. The data communications landscape is a full of co-evolving technologies. Some describe it as "The Land of Confusion." It is challenging to make sense of this landscape because uncertainty, dynamism, and rapid change are some of the inherent characteristics of this world. Yet, those who know how to operate under such circumstances can exploit these characteristics for gaining competitive advantages.

This course is an introduction to the fundamentals of data communications technologies and to the business opportunities and challenges presented by these technologies. The course covers a balanced mix of data communications fundamentals, emerging data communications technologies, and business and IT management concepts. The course aims to develop a coherent understanding of the fundamental data communications concepts and technologies. Homework assignments and laboratory exercises are designed to expose students to practical applications of these concepts and technologies.

COURSE MATERIALS


CLASS ORGANIZATION & ADMINISTRATION

Attendance: Regular attendance is compulsory. You are not allowed to check your emails, access Web sites not related to the course or work on something that is beyond the scope of this course during the class time.

Assignments: You may have discussions with your class members, but you have to submit your own work. Please be sure to keep a copy of the assignment by yourself in case that there is any problem with your hand-in or you have to use it later this semester. Assignments have to be submitted before the beginning of the class on the specified due day. No late submissions will be accepted. For assignments and project reports, you are encouraged to type your work.

Exams: There will be no make-up exams. You are required to present a written proof for situations such as going on to an emergency room due to unexpected and serious illness. Chatting during the exam is not allowed. Email communication during the exam will be considered cheating. No collaboration between class members will be allowed during any exam. There will be no extra-credit project.
Students are responsible for reviewing the specified chapters covered by the lecture. Please note that you are responsible for the ENTIRE contents of each chapter plus any additional handouts, unless otherwise notified. You are not allowed to possess, look at, use, or in any other way derive advantage from the solutions prepared in prior years, whether these solutions are former students’ work or copies of solutions that were made available by instructors.

**Helpful Comments:** To get full benefit out of the class you have to work regularly. Read the textbook regularly and start working on the assignments soon after they are handed out. Plan to spend at least 10 hrs. a week on this class doing assignments or reading.

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**FINAL GRADE ASSIGNMENT**

**Grading Policy:**
- Attendance (including in-class work) 20%
- Assignments 20%
- Projects 20%
- Exam I 20%
- Exam II 20%

*Note that the final letter grade is based on a curve.*

Management Science and Information System (29:623:375)

**COURSE SCHEDULE**

- Module 1: Computer Networks and the Internet
- Module 2: Application Layer
- Module 3: Transport Layer
- Module 4: The Network Layer
- Module 5: The Link Layer
- Module 6: Wireless and Mobile Networks
- Module 7: Multimedia Networking
- Module 8: Security in Computer Networks
- Module 9: Network Management

**Scholastic Dishonesty Policy**
The University defines academic dishonesty as cheating, plagiarism, unauthorized collaboration, falsifying academic records, and any act designed to avoid participating honestly in the learning process. Scholastic dishonesty also includes, but not limited to, providing false or misleading information to receive a postponement or an extension on assignments, and submission of essentially the same written
assignment for two different courses without the permission of faculty members. The purpose of assignments is to provide individual feedback as well to get you thinking. Interaction for the purpose of understanding a problem is not considered cheating and will be encouraged. However, the actual solution to problems must be one's own.