Arab Academy for Science, Technology, and Maritime Transport

College of Computing and Information Technology

IS711 Networking Applications

Fall 2013
3 Credit Hours
Lectures: Sunday 6 – 9 PM

Instructor: Dr. Ayman Abdel-Hamid
Office: College of Computing and Information Technology, room 310
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Office hours: by appointment.

Course Objectives

The course is an introduction to networking applications commonly encountered on the Internet and required support services. In addition, new trends (hot topics) in networking applications will be explored. Moreover, some of the related research literature will be presented when appropriate. Upon successful completion of the course, the student should be proficient in the design, operation, and management of such networking applications. Furthermore, the student should be able to identify open research issues within the domain of Networking Applications.

Key Text

No Required Textbook. The instructor will provide presentation notes and lecture slides were appropriate. Some lectures will be based on research papers published in scholarly journals/conferences.

Reference Texts

1. James Kurose and Keith Ross, "Computer Networking: A Top-Down Approach", 5th Edition, Addison Wesley, 2010
   - 5th Edition Web Site
2. Andrew Tanenbaum, "*Computer Networks*", 4th Edition, Prentice Hall, 2003
3. Douglas E. Comer, *Internetworking with TCP/IP Volume I: Principles, Protocols, and Architecture*, 5th edition, Prentice Hall, 2005.

Course Workload

One lecture is scheduled per week.

Course material will be introduced in lectures. Course material will be supplemented through reading material (conference/journal papers). A midterm and comprehensive

final exams are scheduled. Furthermore, exercises/questions will be assigned as homework. Moreover, a group research project (and/or group research seminar) will be assigned during the course of the semester.

Topics

Tentatively, the topics that will be covered include:

- Domain Name System
- File Transfer Protocol
- Email architecture and services
- World Wide Web, HTTP, Wireless Web, and Web services
- Multimedia networking and streaming
- Mobile Computing
- Pervasive Computing
- Network Management
- Client server programming

Grading

Homework	20%
Mid-Term	20%
Comprehensive final exam	30%
Project(s)	30%

The instructor reserves the right to change the grading scheme or add assignments/projects/exams.

Policies

- Homework/Assignments are due at the beginning of the class on the due date.
- Late submission will be penalized by 20% off for each late day.
- Attendance is crucial to your success in this course. You have the responsibility to cover any missed material.

Academic Honesty

The honor code applies to all homework/assignments and examinations. The instructor's academic honesty policy is very strict; instances of academic dishonesty will be penalized, ordinarily by failure of the course (in addition to any University penalties). *All work submitted must be the student's own work!*
It is unprofessional and dishonest to submit someone else's work as your own.