Instructor:
Professor Ioannis Lambadaris, Room 4442 ME, 520-2600 ext.1974, Email: ioannis@sce.carleton.ca, http://www.sce.carleton.ca/faculty/lambadaris.html

Course Web Page: You may check the course web page at http://www.sce.carleton.ca/courses/index.shtml

Please allow some time till the web page is up and running! Use the following login information:
Login: sysc-5201, password: iel2011

Course Objectives:
To provide an introduction to telecommunication networks and computer communications. Emphasis will be given on principles of operation and advanced issues related to performance analysis. Some emerging technologies will be introduced and discussed time permitting.

Lectures: Monday-Wednesday, 6:00pm - 7:30pm, Patterson Hall 236

Office Hours: Monday-Wednesday, 5:00 pm – 6:00pm

Textbooks:

(Highly) Recommended Reference:

Additional References:
Carleton University
Department of Systems and Computer Engineering
SYSC5201
Introduction to Computer Communications
Fall 2011

Course Outline


Prerequisites:
Undergraduate preparation in probability theory, elementary stochastic processes and statistics.

Exams, Assignments and Marking:
We will have three exams for this course. The contribution towards the final grade and the dates of the exams are as follows:

First Exam 20% (Monday Oct. 3rd, 30-45 minute exam in the form of a quiz)
Second Exam 40% (Monday Oct. 31st, during normal class hours)
Third Exam 40% (Monday Dec. 5th, last day of classes, during normal class hours)

3-4 assignments that will not be graded with solutions will be provided over the web.

- PLEASE check the web regularly!!!!!!!
- The purpose of assignments is to help you learn the material and prepare for examinations. It is essential that you fully understand all the assignments. If you perform badly on some questions, ensure that you find out afterwards what you should have done.

Week by week outline:
Week #

1. Introduction to communication networks.
2. Overview of traditional and broadband networks.
3. Layered protocol architectures and related issues.
4. Queuing theory primer and math review.
5. Data Link protocols
6. Data Link Protocols (cont.) / Multiple Access techniques
Course Outline

7. Multiple access techniques and networks (IEEE 802.x standards).
8. Network Layer: Routing and Routing Algorithms
10. Transport Layer: Scheduling/Congestion and flow control.
11. Transport Layer: An Introduction to TCP
12. Special topics: Quality of service for broadband networks
13. Special topics: Introduction to optical networks (time permitting)

Students with Disabilities:
Students with disabilities requiring academic accommodations in this course must register with the Paul Menton Centre for Students with Disabilities for a formal evaluation of disability-related needs. Registered PMC students are required to contact the Centre, 613-520-6608, every term to ensure that I receive your Letter of Accommodation, no later than two weeks before the first assignment is due or the first in-class test/midterm requiring accommodations. If you require accommodation for your formally scheduled exam(s) in this course, please submit your request for accommodation to PMC by November 11th 2011 for Fall term (December exams).

Plagiarism:
Plagiarism (copying and handing in for credit someone else's work) is a serious instructional offense that will not be tolerated. Please refer to the section on instructional offenses in the Undergraduate Calendar for additional information.

Health and Safety:
Every student should have a copy of our Health and Safety Manual. An electronic version of the manual can be found at http://www.sce.carleton.ca/courses/health-and-safety.pdf