

UNIVERSITY OF CENTRAL FLORIDA  
COLLEGE OF ENGINEERING AND COMPUTER SCIENCES  
SCHOOL OF COMPUTER SCIENCES

CGS 3285 –Spring 2006  
Syllabus (tentative)

**Instructor:** Robert Koeneke

**Teaching Assistant:** Mr. Anirban Bag (PhD student).

**Class schedule:** Monday and Wednesday 12:00 pm 1:15 pm.

**Room:** ENGR 0327

**Office hours:** Monday and Wednesday 2:00 pm to 4:00 pm.

**Course Description:** Network media, protocol, current and evolving standards for local, metropolitan, wide area and wireless networks.

**Objectives:**

This course provides an introduction to the topic of computer networks. The goal of the course is to provide students with a foundation allowing them to identify, analyze, and perhaps solve basic computer network-related problems. The course examines the network architecture as conceptual framework for specifying a computer network, and the network protocols as the set of rules and procedures that mediate the exchange of information between two communicating processes. As outcome the student will be able to:

- Understand some basic concept of data communication and computer networking
- Be able to describe various aspects of data communications networks and equipment
- Understand layers within the Internet model and be able to place network components (protocols, hardware, programs , etc.) with the appropriate network
- Understand TCP/IP model, internetworking with TCP/IP and internet application services.

**Pre-requisites:** CGS 1060C (or equivalent)

**Textbook:**

Data Communications and Networking, 3rd Edition, Behrouz A. Forouzan, McGraw-Hill, 2004. ISBN: 0072515848.

**Lab Manual:**

Computer Networking: Internet Protocols in Action, Mathews Jeanna, John Wiley and Sons, 2005. ISBN: 0-471-66186-4.

**References:**

Computer Networks, Andrew S. Tanenbaum, Prentice Hall, 4th Edition, August 2002. ISBN: 0130661023.

Computer Networks: A Systems Approach, 3rd Edition by Larry L. Peterson and Bruce S. Davie. Morgan Kaufmann. ISBN: 1-55860-832-X

**Grading Policy:**

Homework/Quizzes	20%
First Exam	25%
Second Exam	25%
Final Exam (Comprehensive)	30%

**WebCT:**

We will be using WebCT extensively in this class:

- Use of WebCt Mail as the preferred mean of communication between students and instructor.
- All announcements and news about the class will be posted on WebCt.
- Also the use of WebCt discussion board is highly encouraged. Limit the use of the discussion board strictly to class issues.

**General Policy:**

- UCF policies on academic integrity will be followed strictly.
- Exams, quizzes and homework (unless explicitly allowed) are individual.
- All assignments are due at the beginning of the class on the due date.
- The use of the protocol analyzer, Ethereal, is restricted to traces provided in the CD. It is essential that you have permission of the network administrator and network users before capturing packets in promiscuous mode.

Tentative schedule:

Sched	CHP	SUBJECT	EXPERIMENT (DEADLINES)
01/09	a	Administrivia: Syllabus, Introduction	
01/11	b	Introduction to Ethereal	
01/16		Martin Luther King Jr. Day No class	
01/18	2	Network models	
01/23	20.1	Introduction to TCP/IP formats	
01/25	11	Data link layer control and protocols	
01/30	11	Data link layer control and protocols	1.1/1.2/1.3
02/01	12	Point to point protocols	
02/06	13	Multiple access	
02/08	13	Multiple access	
02/13	14	Local Area Networks	
02/15	14	Local Area Networks	
02/20		1 <sup>st</sup> exam	
02/22	19	Host to Host Delivery: Internetworking, Addressing part 1	5.1
02/27	19	Addressing part 2	5.2
03/01	20	Network Layer Protocol	
03/06	20	Network Layer Protocol	
03/08	22	Network Layer Protocol	
03/13		Spring Brake – No Class	
03/15		Spring Brake – No Class	
03/20	22	Process-to-process delivery	4.1/4.2
03/22	22	Process-to-process delivery	
03/27		2 <sup>nd</sup> Exam	
03/29	24	Client –Server model	3.1/3.2/3.3
04/03	25	Domain Name System	
04/05	26	Domain Name System	
04/10	26	Electronic Mail	
04/12	26	Electronic Mail/FTP	
04/17	27	HTTP and WWW	2.3/2.4
04/19	27	HTTP and WWW	2.1/2.2
TBA		FINAL	