Course Description
CNT 5106C: Computer Networks (graduate level course)
Fall 2012

Course Title: Computer Networks

Website: http://www.cise.ufl.edu/~helmy (check the quick links and the teaching links)

Instructor: Prof. Ahmed Helmy (http://www.cise.ufl.edu/~helmy)

Office: CSE 426
Instructor office hours: TBD.
[Note: office hours subject to change due to travel, faculty meetings, etc. Updates will be posted on the class/Prof. website reflect such change.]

Class/Lecture meeting time/place: NEB201: Tuesday 1:55-2:45, Thursday 1:55-3:50

TA: TBA
TA office hours: TBA

Goals/Objectives:
(Course Description) This course provides an in-depth discussion and analysis of the global Internet, with focus on the design principles, layering and protocol design and analysis. Topics covered include the Internet structure and architecture, Protocol layering, network congestion and its origins, Transport and congestion control protocols (e.g., TCP, ATM ABR), network layer and routing protocols (unicast and multicast), link layer and MAC protocols, wireless and mobile networks, and brief introduction to ad hoc, sensor and delay tolerant networks. Various technologies will be studied, but focus will be given to the design principles and careful analysis and performance of computer networks.

Prerequisites: Familiarity is expected of the following subjects: data structures and algorithms, computer organization, and operating systems. At the undergraduate level this is equivalent to COP 3530 (data structures and algorithms), CDA 3101 (introduction to computer organization) and COP 4600 (operating systems). Students should also be familiar with elementary graph theory and basic probability. Students should have the ability to write simple programs in Java and C. Note that having an undergraduate level computer networks course(s) is a plus, but does not replace this graduate level course.

Required Textbook: Computer Networking: A Top-Down Approach, by James F. Kurose, and Keith W. Ross, Addisson Wesley, (6th edition).

Exams and Assignments:
Workload:
Four homeworks will be assigned throughout the semester covering all topics. Two exams will be provided (the first covering the first half of the topics and the 2nd covering

the 2nd half). Students will also engage in simple experiments using networked wireless mobile devices to relate studied concepts to real world and future networking directions.

Students are expected to attend, take notes, and participate in discussions by asking questions and providing answers/arguments.

Grading:
22% homeworks, 8% experiments, 30% midterm, 40% final exam.

Exam Schedule:
The final exam will be according to the schedule posted on the university website.
The midterm will be around the mid point of the semester (7th or 8th week according to the lecture progress). To be announced at a later point.

More information and details will be posted in time on the website for class.

Assignments and project are due at the beginning of class or during TA office hours on the specified submission date. No late assignments or makeup exams are permitted once the solution is posted. Cheating on any assignment or exam will result in "F" on your final letter grade. Grading disputes should be resolved within two weeks after the assignments and exams are returned to the students.
The expected letter-grade distribution is as follows:

Final Total Score (out of 100)	Letter Grade
92 and above	A
88 - 91	A-
85 - 88	B+
80 - 84	B
77 - 79	B-
74 - 76	C+
70 - 73	C
67 - 69	C-
64 - 66	D+
60 - 63	D
55 - 59	D-
below 55	F

* Bonus/extra points (during assignments and/or exams) will be used to help those scoring on the boundaries of letter grades.

Note:
- Starting summer 09 UFL has introduced the '-' in the letter grades (A-, B-, C-, D-) in addition to the previous ones. Please visit the following website for more information:
http://www.registrar.ufl.edu/catalog/policies/regulationgrades.html

- For more information on grades and grading policies, please visit:
 "https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx"

- Honesty Policy – All students admitted to the University of Florida have signed a statement of academic honesty committing themselves to be honest in all academic work and understanding that failure to comply with this commitment will result in disciplinary action. This statement is a reminder to uphold your obligation as a UF student and to be honest in all work submitted and exams taken in this course and all others.

- Accommodation for Students with Disabilities – Students Requesting classroom accommodation must first register with the Dean of Students Office. That office will provide the student with documentation that he/she must provide to the course instructor when requesting accommodation.

- UF Counseling Services –Resources are available on-campus for students having personal problems or lacking clear career and academic goals. The resources include:
  · UF Counseling & Wellness Center, 3190 Radio Rd, 392-1575, psychological and psychiatric services.
  · Career Resource Center, Reitz Union, 392-1601, career and job search services.

- Software Use – All faculty, staff and student of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.