

CNT 4007C Computer Networks Fundamentals, Fall 2011

Goals/Objectives: This course teaches principles of design and analysis of computer networks. The Internet is used as a case study to showcase the fundamental principles. Most of the course is devoted to protocols at the higher level (application), transport, network and medium access layers. Topics discussed include (but are not limited to) overall Internet architectural design, principles of networking protocols, peer-to-peer networks, congestion control (e.g., TCP), routing protocols (unicast and multicast), and MAC protocols for wired and wireless networks.

Prerequisites: COP 3530 (data structures and algorithms), CDA 3101 (introduction to computer organization) and COP 4600 (operating systems). Students should be familiar with elementary graph theory and basic probability. Students should have the ability to write simple programs in Java and C.

Required Textbook: “Computer Networking: A Top-Down Approach Featuring the Internet”, by J. Kurose and K. Ross, Fifth Edition, Addison Wesley, 2010.

Cell Phone Policy: Cell phones should be turned off during the lecture hours to provide a quiet learning environment for every student in the classroom.

Exams and Assignments:

- One Final Exam (36% of the final grade): Dec. 14, 7:30-9:30am.
- One Midterm Exam (25% of the final grade): Week 8 (Oct. 13th, estimated).
- ~6 Assignments: ~4 Homeworks, ~2 Programming Assignments (39% of the final grade)

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.

Instructor: Dr. Ahmed Helmy, CSE 426, E-mail: helmy@cise.ufl.edu, www.cise.ufl.edu/~helmy

Office Hours: 10:30am-11:30am on Tuesdays, Wednesdays. [Subject to change. Changes will be posted on the class website].

Teaching Assistant: Udayan Kumar (ukumar@cise.ufl.edu), Regular office hours: Tues and Thursday 7th period (1:55pm-2:45pm) in E309 (TA room).

Lectures on Tuesdays (8:30am-10:25am), Thursdays (9:35am-10:25am) in E221.

General topics covered:

- o Introduction

- o The Application Layer

- o The Transport Layer

- o The Network Layer

- o The Data Link Layer

Notes:

- For undergraduate level 1000-4000: “A C- will not be a qualifying grade for critical tracking courses. In order to graduate, students must have an overall GPA and an upper-division GPA of 2.0 or better (C or better). Note: a C- average is equivalent to a GPA of 1.67, and therefore, it does not satisfy this graduation requirement. 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.