UNIVERSITY *of*
NEW ORLEANS

DEPARTMENT OF COMPUTER SCIENCE

CSCI 4311: Computer Networks and Telecommunications

Tue/Thu 8^{00}-9^{15}am

Fall 2009

Syllabus

Instructor: ***Dr. Vassil Roussev***

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Office: MATH 312C
Phone: 504-280-2405 (**no** voicemail)
Office Hours: Tue 9^{15}-10^{30}am, 5^{00}-6^{00}pm
Thu 9^{15}-10^{30}am, 5^{00}-6^{00}pm

Prerequisites:

- CSCI 2125, CSCI 2450, *Java* programming experience—required
- CSCI 4401—strongly recommended

Textbook(s):

- Required: ***Computer Networking*** *A Top-Down Approach*, 5th Ed. by *Kurose & Ross*. ISBN: 0321497708.
- Recommended: ***Computer Networks***, 4th Ed. by *Tanenbaum*. ISBN: 0-13-066102-3
- Helpful: ***Computer Networking with Internet Protocols and Technology***, 1st Ed. by Stallings. ISBN: 0-13-141098-9
- Reference: ***Internetworking with TCP/IP: Principles, Protocols, and Architectures***, vol.1, 4th Ed. by *Comer*. ISBN: 0-13-018380-6
- Reference: ***TCP/IP Illustrated***, vol. 1-2, by *Stevens*.

Objectives

The primary goal of the course is to introduce students to computer networking concepts as they exist on the Internet. Also, students will learn basic network programming using sockets and will gain first-hand experience in the implementation of public networking protocols.

Overview:

- The primary source of information for the class will be the course website http://roussev.net/4311. All class materials (slides, lectures, homework, and tests) will be published through the web page.
- The above email alias is the primary means of communication and has the explicit purpose of preventing student emails being misclassified as 'junk'. All messages to the 4311 alias are forwarded to multiple accounts and placed in dedicated folders. Along the same lines, use meaningful subject lines to avoid misclassification. While effort will be made to make sure that

student emails are answered daily (on weekdays), you should not delay important questions until the last minute. The latter is particularly relevant to tests, programming assignments, and written homework.

- *Course projects* are an integral part of the course. It is assumed that you have a computer with *Java* installed. If you do not have that, contact the instructor—it may be possible to arrange for remote shell access but you **will** need an Internet connection, preferable a broadband one.
- *Office hours* will be held at the instructor's office (you can phone in during those dedicated times).

Topics: The class will cover chapters 1-5 and select topics from 6 and 7. The basic approach will be a top-down one—we will start with the practical use of the network API and will gradually explain the underlying design and implementation concepts.

Grading: All work will be graded based on 100 pt scale and will count towards your final grade with the following weights:

Midterm Exam	➔	25%
Final Exam	➔	25% (comprehensive)
Programming Assignments	➔	35%
Written Homeworks	➔	15%
Bonus Factor	➔	5% (class participation etc.)

Grading scale: A = 90+, B = 80-89, C = 70-79, D = 60-69, F = 0-59.

In order to get a passing grade in the class you must get a passing grade on the exam part (midterms and final).

The "bonus factor" will be applied to determine border cases but only in student's favor (e.g., you will *not* fail with a total of 60 but you may get an A with a score of 89).

Additional requirements will be placed on programming assignments for graduate students.

Graduate credit:

As an extra requirement, graduate student must complete at least 20% in extra points on the programming project. In other words, a perfect ***A*** score for the project is 100 for undergrads and 120 for graduate students.

Tests: Bring a few pens/pencils, calculator (optional) and a fresh brain ***only***—you will need nothing else and you will be allowed to use nothing else. Everything is closed book/notes.

Attendance:

As per university policy, all students are expected to attend all class meetings. Experience & statistics show a strong correlation between high grades and regular attendance. (However, regular attendance by itself does not automatically mean a high grade.)

Assignments:

Expect to be busy with assignments—most of the time there will be an outstanding assignment of some kind so plan accordingly. You will have 1-3 weeks to complete each assignment and (save for hurricanes & other emergencies) you should consider the due date to be a ***hard deadline***.

No late assignments will be accepted. If you believe that you have some extenuating circumstances talk to me early and as much in advance *before* a deadline as possible – last minute requests are strongly discouraged.

Programming assignment submissions must **strictly** adhere to the requirements of the assignment. Those that do not, will not be graded.

Cheating:

Don't do it! If you get caught the consequences are very unpleasant. Make sure you understand everything that you have submitted because you may be asked to explain it in case there are similarities that look less than accidental.

Cheating is:

- Copying, in whole or in part, the solutions of former students, current students, or any other human being, alive or dead. "Copying" includes transmission through email, the Web, smoke signals, or any other means.
- Obtaining solutions from the Internet or other archival sources.
- You are not allowed to even *look* at a solution.

Discussing assignments at a high level for clarification, discussing problems concerning the computing equipment, and studying in groups for examinations is not cheating, but every word you type for programming and written assignments must be your own!

If you have any questions about acceptable teamwork - ask.

Special cases:

If you have any special circumstances (disabilities, active/reserve member of the armed forces, sports team member, family matters etc.) come and talk to me privately ***this week***. If circumstances arise during the semester inform me ASAP.

Privacy: The general university policy is that, your grades and personal information are confidential—I will discuss them with you ***only*** in person.

If you are asking for make up test or late submission due to a medical condition you should get a note from a doctor. The note does **not** need to give the exact diagnosis but only state how it affects your ability to participate in the course.

How to succeed in this class:

- Read the assigned topic from the book *before and after* the class. This is a requirement and your response to questions will affect the "bonus factor" of your grade.
- Take advantage of the PDF slides to save effort in taking notes.
- Pay attention and participate in the class discussions. If you plan on snoozing in class you should consider taking rest in bed instead.
- If you don't understand something get help ***early***.
- Start work on assignments/homeworks ***early***.
- Come to office hours prepared with ***specific*** questions.
- Be honest with yourself and study at home – the university expects you to put in about **9 hours** of preparation per week for this class for a **C** grade.
- Start work on assignments/homeworks ***early***.