

Syllabus for COMP352, Computer Networks

Spring 2009
Dickinson College
Instructor: John MacCormick

Goals

- Understand the main components of the Internet and how they work
- Understand some elements of computer networks other than the Internet
- Learn how to write computer programs that transmit and receive data over computer networks, including multi-threaded programs
- Enhance general programming skills
- Have fun while programming and analyzing network traffic

Teaching methods

- lectures and class discussions covering computer networking concepts
- background reading from the textbook to supplement class sessions
- labs to analyze network traffic (both homework and in-class)
- programming projects (both homework and in-class)
- student presentations explaining the content of a published research paper

When and where

- Classes: Tuesday and Thursday 9am-10:15am, Tome 231
- Office hours: see the instructor's webpage

Book

- Computer Networking, a top-down approach. 4th edition, by James Kurose and Keith Ross. Abbreviated to “K&R” in other course materials.

Assessment and grading

- Final grade will comprise:

in-class exams (3 x 10% each)	30%
Wireshark labs	20%
programming assignments	40%
final presentation	10%

- All exams will be open book. You may use any printed or written materials you wish during the exams, but you may not use computers, calculators or electronic materials unless authorized by the instructor.
- **In-class exams:** There will be 3 in-class exams, on February 19, March 26, and April 23.
- **Final presentation:** There will be no final exam, but the slot for the final exam (Monday, May 4 at 2 p.m.) will be used for student presentations.
- **Wireshark labs:** There will be approximately four Wireshark labs, due on the dates specified in the course schedule. Solutions are due at the start of class on the indicated date, and must be submitted on paper. Lab solutions must be typed when it is reasonable to do so; diagrams and the like may be drawn by hand. Labs will be graded largely on completeness, but some fraction of answers will be graded on correctness.
- **Programming assignments:** There will be approximately five programming assignments, due on the dates specified in the course schedule. Solutions are due at 12:01a.m. on the indicated date (i.e. the midnight before class on the due date), and must be submitted electronically to the Web-cat server unless separate instructions are issued. Programming assignments will be graded on some combination of completeness, correctness, and programming style; you may be required to demonstrate the functioning of your program in class. All programs should be written in a clear style with appropriate comments, and absolutely clear attribution of code copied (whether or not you have subsequently altered it) from the permitted sources. Note that code may only be copied from the permitted sources, which are listed in section on plagiarism below.
- **Teamwork:** A single class *activity* is defined to be any single programming assignment, Wireshark lab, or the final presentation. Each activity may be done by a student working individually, or by two students working as a team. However, any given pair of students may work together on a maximum of four activities. For example, students A and B might choose to work as a team on two programming assignments, one Wireshark lab, and the final presentation, but would need to either find different partners or work individually on the remaining activities.

Responsible computer use

In learning about computer networks, you will gain knowledge that could theoretically be used for abusive activities. Such activities include but are not limited to: forging email messages, sniffing passwords, and snooping on the transmissions of other users. Any abusive activity on college networks is prohibited, and will result in disciplinary action.

Amount of work

College policy recommends approximately 3 hours of independent work for every hour of class time. Our class meets for 2.5 hours per week. Therefore, you should expect to spend 7-9 hours per week (outside of class time) on this course.

Plagiarism, copying, and collaborating

The College's standard policy on plagiarism applies and you should be familiar with it, but here are some key points that apply particularly to this course:

- All work must be your own.
- Never copy work from someone else or allow your own work to be copied.
- If you use exact words taken from the textbook or any other source, you must use quotation marks and cite the source.
- Students are encouraged to help each other understand concepts, including concepts that apply to labs and programming assignments. However, all work must still be your own. So if you discuss a problem with someone, you must destroy any written or electronic material that results from the discussion, and re-create it later on your own.
- Be especially careful not to copy computer code from another student, or from the Internet (excluding the two exceptions given in the next bullet point). Sharing or copying a computer code is easy and often tempting, but it is not permitted and will suffer the same penalties as any other form of cheating.
- In this course, you are permitted to copy snippets of code from three sources: (i) the official resources on the textbook website, (ii) the Java tutorials and documentation on sun.com, and (iii) the course webpages, and any additional sources specifically permitted for a given assignment as listed on those webpages. However, you must clearly attribute any code copied from any source, whether or not you subsequently alter it.
- When two students are working as a team a particular activity, they may share and copy work between themselves.

Accommodations

The instructor will follow college policy on accommodations for students who need them.

Late Work Policy

Each student is permitted a total of three no-penalty days of lateness over the entire semester; every subsequent day of lateness incurs up to a 25% penalty for the late assignment. Late days can be used only in whole day units.