Syllabus
CS670 –Computer Networks – Spring 2008
Tech Hall N308, T, Th 2:20-3:40

Instructor:	Dr. Glenn Cox	**Email**: gcox@cs.uah.edu	
Office:	N341 / 824-6433	**Class page**: www.cs.uah.edu/~gcox/	
Office Hours:	TBA		

Description: Detailed analysis of the organization and operation of computer networks, focusing on algorithms and organizations for the Network and Data Link layer protocols of wired and wireless systems.

Text: Varghese, <u>Network Algorithmics</u>, 2005.

Class Prereqs: CS470 or 570 or equivalent

Grading:

Midterm exams (2)..................................25% each	A	90-100
Final Exam...35%	B	80-89
Homework 15%	C	70-79
Unexcused late homework, 50% off per day	D	60-69
	F	<60

Lecture Plan (subject to change):

	Topic	Reading
Jan 8	Class overview, non-IP networks	
Jan 10	Non-IP networks	
Jan 15	IP network management	
Jan 17	Tuning TCP	
Jan 22	""	
Jan 24	Implementation considerations for routing algorithms	
Jan 29	""	
Jan 31	""	
Feb 5	""	
Feb 7	Midterm 1	
Feb 12	Intro to network performance improvement	Ch1, App A
Feb 14	Implementation models	Ch2
Feb 19	""	
Feb 21	Design principals and Examples	Ch3 and Ch4
Feb 26	""	
Feb 28	""	
Mar 4	Efficient end node data processing	Ch 5
Mar 6	""	
Mar 11	""	
Mar 13	Midterm 2	
Mar 18	Spring Break	
Mar 20	Spring Break	
Mar 25	Routing – exact match algorithms	Ch 10
Mar 27	Routing – refix-based	Ch 11
Apr 1	""	
Apr 3	""	
Apr 8	Honors Day	
Apr 10	**Packet Classification**	Ch 12
Apr 15	""	
Apr 17	""	
Apr 22	Review	
Apr 24	Final Exam 3:00-5:30	

UAH COMPUTER SCIENCE DEPARTMENT POLICIES AND PROCEDURES

1. Responsibilities of the teacher
- Provide a detailed syllabus. This syllabus should list office hours, course objectives, textbooks, references, prerequisites, and grading policy/method of assessment.
- Come to class well prepared, on time, and make full use of the class time.
- Provide timely and adequate feedback on grades. Return graded material promptly.
- Conduct final exam at the time designated in the class schedule. Never post grades.
- Not assign **new** work (i.e. not listed on syllabus) that is due in last two weeks of classes.
- Avoid leaving the examination room without a proctor. Provide paper for exams.
- Make reasonable use of the assigned textbook.
- Check students have proper prerequisites. Instructor does not waive assigned prerequisites.
- **Report all incidences of academic misconduct to the Department and VP for Student Affairs**

2. Responsibilities of the student (see also, Student Handbook Article II)
1) Come to class with proper prerequisites, well prepared, on time, and make full use of class time.
2) Provide adequate notice of anticipated absences and take full responsibility for finding out about missed work, announcements, and assignments.
3) Submit assessment material on time and submit **only your own work**. (see integrity)
4) Do not allow other students to copy your work.
5) Read and understand the syllabus and follow announced policies.

3. Integrity
We expect CS instructors and students to conduct themselves in a professional manner. Students are subject to all the provisions in the UAH Code of Student Conduct, which is available free from the Office of Admissions and Records. Information on plagiarism and other forms of misconduct is presented in the **Student Handbook Article III**. *Departments are obliged to report all student misconduct to the Office of Student Affairs.*

4. Complaint Procedure
If you have difficulties or complaints related to this course, your first action should be to discuss them with your instructor. If such a discussion would be uncomfortable for you or fails to resolve your difficulties, you should ask for a meeting with the Chair of the Computer Science Department in Technology Hall N-300, info@cs.uah.edu, telephone 824-6088. If you are still unsatisfied, you should discuss the matter with Dr. Dan Rochowiak, Associate Dean of the College of Science.

5. Students with disabilities
Your instructor would like to hear from anyone who has a disability that may require a modification of seating, testing, or other class procedures. Please see instructor after class or during office hours to discuss appropriate modifications. You should also contact Student Development Services in UC 113 (Ph. 824 6203) for further assistance.

6. Student computer account
Students enrolled in any CS course are entitled to an account on the departmental computer network. Use of such an account is subject to departmental and university policies. To apply for an account, and see the current policies, go to the departmental web site at *http://www.cs.uah.edu/account/*

7. Examination policy
In response to past student complaints about problems during examinations, the Computer Science Department has developed the following guidelines for in-class examinations in all courses.
1. Come to the exam prepared to complete it without a break. If you think you will need a break, please inform the proctor before the exam if possible.
2. Do not communicate with other students. Talk only to the instructor.
3. Whenever you leave the exam room turn in your exam.
4. Use only the paper provided by the instructor for all writing.
5. If assigned a specific seat, remain in that seat.
6. Unless specifically permitted by the instructor, use no books or other reference materials. Do not bring calculators, computers, pocket-organizers, cell phones, pagers, or other electronic devices to the exam.

Plagiarism Policy

Plagiarism Defined
Plagiarism is passing off another person's words, programs, artwork, or thoughts as your own. Plagiarism is <u>theft</u> and is ethically wrong.

The most blatant type of plagiarism involves copying another person's work without giving credit. For example, if you write a paper and include a sentence from another paper without referencing the other paper, you are plagiarizing. This applies to any sort of intellectual product including words, computer programs, and artwork and graphics.

Even if you change or paraphrase the words, but still use someone's *ideas* without giving them credit, you are plagiarizing. Obviously, this doesn't apply to ideas that "everybody knows." But if someone else has had a distinctive idea, it is wrong to act as if it is your original thought. When in doubt, give credit.

See http://www.english.udel.edu/wc/oldsite/plagiarism.html for some examples of types of plag-iarism in technical reports. Some common questions about citing references are answered in http://www.utoronto.ca/writing/plagsep.html.

"Since computer programs are often what we are involved with in this department, I will clarify what constitutes plagiarism in a computer program. Here are some examples: downloading a program from the Internet and turning it in as your own work is plagiarism. Copying a program from someone else in this course, this term, and turning it in as your own work is plagiarism. Copying a program from someone else who took this course or any other course at this university or any other university this term or any other term, and turning it in as your own work is plagiarism. Having someone else write the program for you is plagiarism. Copying an algorithm or code from a textbook or anywhere else and turning it in as your own work is plagiarism, unless it has been specifically allowed by the instructor. If this is specifically allowed by the instructor, then full credit has to be given to the textbook in a comment header at the top of your program." [1]

Avoiding Plagiarism
The best way to avoid plagiarism is to be extremely careful to cite the sources of your information. It's much better to cite too much than it is to cite too little -- no one ever lost points in one of my classes for having too many citations.

When you write a paper, there are two general things you must do.

> (1) Your list of references must include the source of the information.

> (2) You must cite the reference at each place it is used in the text.

In addition, anytime you quote verbatim from a source, you must enclose the quote in quote marks (for long quotes, you can indent the text instead of using quote marks).

If you have questions about the correct way to incorporate references, see the information on the IEEE citation style at http://www.ecf.utoronto.ca/~writing/handbook-docum1b.html

Penalties
The LIGHTEST penalty I give for plagiarism is a zero on the assignment in which you plagiarized. Serious offenses earn much more serious penalties (see Article III of the UAH Student Handbook and the "Integrity" section of the CS department Policies and Procedures). Note that UAH maintains a central database of students caught cheating so that serial plagiarizing can be identified. Also note that UAH subscribes to services that automatically check student papers against a national database of previous papers (see note).

Some Frequently Asked Questions about Plagiarism

"Can Dr. Cox find out if I plagiarize?"
Yep. I've been doing research in the computer field for nearly 30 years. Believe it or not, I know how to use the Internet, the Library, the hundred or so reference texts on my bookshelves, and two file cabinets full of old papers. If you can find a source to copy, I can find it too. Assume you will be caught if I try.

"OK, then. Will Dr. Cox TRY TO find out if I plagiarize?"
Bet on it. I hate plagiarism. Hate it. I want you to learn to think for yourself. When you plagiarize, you're not thinking – you're just imitating. Another reason that I will not tolerate plagiarism is that it is grossly unfair to the majority of students who struggle and work honestly. I check every submission for plagiarism as a matter of course.

"It sounds like you're saying it's OK to copy extensively from a source as long as I cite it properly"
Don't be silly. It's true that if your paper is one long properly-cited quote, I probably won't give you a zero for plagiarism; I'll give you a zero for not putting any effort into it. Remember, you're supposed to be thinking, not merely copying.

"If I include the source in my list of references, do I really need to put all of the citations in the text?"
Yes, it's the only approved form. And it makes sense. What happens if a reader sees a fact in your paper that she wants to learn more about? How will she know where to look if there's no citation with the fact? Do you expect her to go line-by-line through every one of your references to find it?

"What about code that I reuse from another program?"
It's just the same. Except when it is prohibited, code reuse is legitimate as long as you give the original author credit in the comments or other documentation. If you don't give credit, it's plagiarism. I will tell you when code re-use is permitted in class assignments. If I don't explicitly permit code re-use, the assigned program is expected to be your own, new work.

"English isn't my native language and I can't express my thoughts in it. If I don't copy someone else's words, I'll lose points for grammar."
That's true. Normally, I'll count off between 1% and 5% for bad grammar. I count off 100% for plagiarism. You do the math.

REFERENCE
[1] L. Etzkorn, Private Communication, August 2002.

NOTE
UAH is committed to the fundamental values of preserving academic honesty as defined in the Student Handbook (7.III.A). The instructor reserves the right to utilize electronic means to help prevent plagiarism. Students agree that by taking this course all assignments are subject to submission for textual similarity review to Turnitin.com.

Assignments submitted to Turnitin.com will be included as source documents in Turnitin.com's restricted access database solely for the purpose of detecting plagiarism in such documents. The terms that apply to the University's use of the Turnitin.com service, as well as additional information about the company, are described at www.uah.edu/library/turnitin.