CSCI 462 - Course Syllabus

I. Course Description: Data Communication

II. Instructor: Dr. Troy Kammerdiener
   Office: Hanna 225
   Office Phone: 342-1856
   Email Address: tkammerd@cs.ulm.edu
   World Wide Web: http://www.cs.ulm.edu/~tkammerd/
   Office Hours: 10:00 a.m. – 11:00 a.m. Monday through Thursday, 2:00 p.m – 3:30 p.m. Tuesdays and Thursdays, and by appointment. I’ll also be holding office hours during a “Hacking Session” Thursday nights from 9:00 p.m. – 12:00 midnight in the major’s lab. You are also welcome to just drop by during the day. If I’m here and I’m not on a deadline, I’d be happy to take some time with you.

III. Goals and Objectives:
   • To learn the basic terminology and vocabulary of data communications and networking.
   • To gain a basic understanding of how the hardware works that supports data communications. This includes transmission media, RS-232, and modems.
   • To understand concepts associated with packet switching, including network topologies, hardware addressing, bridges, routing, and protocols.
   • To become conversant with internetworking concepts, including the Internet Protocol (IP), ARP, and TCP.
   • Time permitting, to learn about the client-server model, domain name service, firewalls, and sockets.

VI. Course Requirements:
   A. Required Text and other materials:
      Text: Computer Networks and Internets, by Douglas E. Comer
   B. Class Schedule and Place: Monday and Wednesday afternoons, 2:00 p.m. - 3:15 p.m. in Hanna 212.
   C. Probable Test Dates:
      Test #1  Wednesday, February 21, 2001.
      Final Exam  Tuesday, May 4, 2001, from 3:00 p.m. - 4:50 p.m.
      Note: These are only estimated test dates. The actual dates will be dictated by convenient closure of topics, and should be very close to those listed, but this cannot be guaranteed. Any deviation from this schedule however, will be announced at least one week prior to the actual test date. The last test will be given during the scheduled final exam time given above.
   D. Assignments: There will be several assignments, to be announced later. Each assignment will include its due date.
   E. Required Reading: There is far too much detail in this course to cover explicitly during class time. Therefore it is important that you keep up with the required reading, indicated in the course outline. The reading should be done prior to the class indicated -- not after, and you may occasionally be asked to demonstrate that you have done it (through quizzes, questions, etc.) You will also be responsible for the reading on exams. Unless you are told otherwise, read the entire chapter. The topics mentioned in the schedule are points of special interest -- not a limitation on the reading.
   F. Attendance Policy: Attendance will be taken each day, as required by the University Regulations. This policy may be found in the Undergraduate Catalog, and you should make yourself familiar with it. In particular, note that excessive unexcused absences are considered 10% of the total classes, which for this semester and class is three (3) classes. According to the University
Regulations, this can result in a failing grade, but even if it does not your attendance will be used to assist in assigning the participation portion of your grade. Every student is responsible for anything covered in class, even if it is not in the text. This includes announcements of assignments or test dates, so if forced to miss class, be sure to contact the instructor to be informed of that day's content.

G. Cancellations: If you suspect a class cancellation due to weather or any other reason, call my office number at 342-1856. If there is a cancellation, my voice mail will reflect that fact within 2 hours of class time (sooner if possible). If no message, assume that class will be held. I will also try to put a notice on the class web page. I will normally be in class on time. If I am not, you should wait at least 15 minutes before leaving, and someone should check my office to make sure I am not there. If I am unavoidably detained, I will normally call and have the class instructed to either wait, or go home.

H. Changes in Requirements: Due date changes, test postponements, etc. will be announced in class. In case of emergencies, I may attempt to contact you by phone, so please make sure that I have your phone number, and let me know if it changes. Notices may also be given by email, or on the class World Wide Web page. This syllabus will be posted on the class World Wide Web page, and that copy will always be the official copy, not the paper one received at the beginning of the semester.

IV. Course Outline and Reading Assignments: Provided Separately.

V. Course Methodology:
- This course will consist primarily of interactive lectures with periodic assignments to reinforce major points of discussion. Not all assignments will involve programming. Any programming will be done in Java. You may use any development platform that you like on your own computer, but your final submission must compile without error and run on shaman.cs.ulm.edu using the most recent version of the JDK installed there.
- The Internet is used extensively as a communications tool in this class. Announcements, copies of assignments, a copy of this syllabus, and various examples and data files will be available on the class page on the World Wide Web. Announcements of a time critical nature may be emailed to class members. Class discussions and questions may be pursued on the web-based discussion forum.
- There will be 3 tests to assess individual understanding of the material presented. These tests will be spaced evenly throughout the semester, with the last test functioning as the final exam. All tests will have equal weight, and the final exam is not cumulative (although any test may require understanding of previous concepts, simply because of the dependence of one topic upon another).
- Reading assignments are indicated in the course outline. Students should be aware that they will be tested over the contents of their reading, as well as lecture topics. Some things will be in the text but not in the lecture, others will be in the lecture but not in the book. Both parts are necessary for success in this class.

VII. Evaluation Procedure
A. Make-up Tests: You are expected to arrange your schedule around the dates indicated in this syllabus as much as is possible. Make-up tests arranged at least one full week prior to the test date can be obtained:
- to avoid direct conflict with participation in an unavoidable official school-sponsored activity, such as playing in an intercollegiate sporting event (documentation from the sponsor is required)
- in the event that a test occurs on a day other than those given in this syllabus, for an unavoidable personal conflict (this is at my discretion, but I try to be reasonable)

Make-up tests will be arranged after the test date only:
- in the event of an unexpected and professionally documented medical condition which prevented attendance. If you are experiencing a long term illness, please keep me informed each week of your status.
- in the event of a personal tragedy (I may need for you to provide some documentation)
B. **Late Assignments:** Unless specified otherwise, assignments are due at the beginning of class on the date due. Late penalties are 10% per day (including weekends and holidays), with a maximum penalty of 50% off. Assignments turned in more than 7 days late will not be graded. Assignments will be submitted through the electronic submission system, and that timestamp will be used for determining appropriate penalties. Physical portions of late assignments must be given directly to me, or to the CS Department front desk worker or secretary for timestamping, and the timestamp should be within one school day of the electronic timestamp. Do not just slip them under or in the door, or in my departmental mailbox. No assignments of any sort will be accepted after 2:00 p.m. on the last official day of classes, even if this would result in a failing grade.

C. **Grade Calculation:** Your grade will calculated according to the following point distribution:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>48%</td>
<td>Tests (16% each)</td>
</tr>
<tr>
<td>42%</td>
<td>Assignments</td>
</tr>
<tr>
<td>10%</td>
<td>Participation (based upon attendance, and possibly quizzes)</td>
</tr>
</tbody>
</table>

Letter grades will probably be assigned by the following chart:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>A</td>
<td>90-100</td>
</tr>
<tr>
<td>B</td>
<td>80-89</td>
</tr>
<tr>
<td>C</td>
<td>70-79</td>
</tr>
<tr>
<td>D</td>
<td>60-69</td>
</tr>
<tr>
<td>F</td>
<td>0-59</td>
</tr>
</tbody>
</table>

Some grades might be improved above that given in the chart if I feel that an anomalous statistical grouping requires it, but your letter grade will never be worse than that indicated by the chart.

VIII. **Academic Honesty:**

Learning is a social experience, and I wouldn't dream of trying to change that. Studying with friends, and talking among yourselves about how to attack a problem is important to success in this class. But if you don't do your own thinking -- if you only take from these discussions, and never give -- then you won't understand well enough to perform on tests. That's enough to trash your grade in this class. Make sure that your work is your own, because you might have to pass a quiz over the content of your assignment to receive credit. If a project is supposed to be done by a group, it will be specifically announced that way. And if you need further help, please come see me. I try to be as accessible as I know how. If you can't make my office hours, drop by anyway -- if I'm not covered up with something, I'll be glad to work with you. And if we need to, we can make a special appointment. And remember that you can always leave me a phone message or use email.

This statement is intended to conform to policy level C of the Computer Science Departmental Policy for Dealing with Academic Dishonesty. You should familiarize yourself with this policy, and conform to it unless specifically instructed otherwise (in writing) by the instructor. A copy should be attached to this syllabus for your convenience.