Computer Science 4760 - Computer Networks

SYLLABUS

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<th>Semester</th>
<th>Fall 2017</th>
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| Meeting      | •Time: M-W-F 9:00 - 9:50 AM  
              •Place: EN 3070 |
| Instructor   | Dr. Kim Buckner |
| Office       | EN 4089 |
| Office Hours | •Monday and Wednesday, 10:00-12:00  
              •Tuesday and Thursday, 1:00–2:00  
              •Other times are available by appointment |
| Contact      | •Email: kbuckner@uwyo.edu  
              •Office Phone: 307-766-5182 |

Course Description: Examines TCP/IP network protocols and implementation in depth, from the perspective of the link, network, transport, and application layers. Discusses problems and current solutions regarding the efficient use of network resources in the global, multi-media Internet.

Prerequisites: COSC 2030

Objectives: Students who complete this course should be able to:

- Discuss the Internet service model and how it applies to the networking environment.
- Demonstrate a basic understanding of link, network, transport, and application layers.
- Demonstrate a general understanding of high level operation of circuit switched and packet switched networks.
- Demonstrate a general understanding of peer-to-peer communication.
- Demonstrate a basic understanding of wireless communication.
Course Policies:

- Grading:
  - A 90% - 100%
  - B 80% - 89%
  - C 70% - 79%
  - D 60% - 69%
  - F Below 60%

- Percent of Grade:
  - Attendance and class participation: 10%
  - Homework/assignments: 50%
  - Exams: 30%
  - Final Exam: 10%

Homework/assignments: Each homework/assignment will have a due date and time assigned. Any late homework will be assessed a 10% (ten percent) per day late penalty up to 3 days. The "days" are 24 hour periods starting immediately after the assigned due date and time. If the homework is turned in within the first 24 hours, it will be 1 day late and so on. No homework will be accepted more than 3 days late and will be given a 0 (zero) grade. Assignments will posted/managed on WyoCourses. The method of submitting assignments will be specified when assigned. Failure to comply with the assigned submission method will result in a 0 (zero) grade for the assignment.

Academic Honesty: Assignments are intended to be completed independently unless otherwise specified by the instructor. UW Regulation 6-802 defines academic dishonesty and specifies the penalties (see Office of the General Counsel’s webpage and select Current Regulations and Presidential Directives for the content of all the University regulations)

Collaboration and discussion are acceptable, but you MUST do your own work. The grade you receive must represent your effort and achievement not that of others. Anything else is unfair to you and to your fellow students.

Attendance: Attendance at the lecture is highly recommended as not all material will come from the texts. (see further UW Regulation 6-713)
Students with disabilities: If you have a physical, sensory, or psychological disability and require accommodations, please let me know as soon as possible. You will need to register with, and possibly provide documentation of your disability to, Disability Support Services (DSS), room 109 Knight Hall. You may also contact DSS at (307) 766-3073 or udss@uwyo.edu. Visit their website for more information: www.uwyo.edu/udss.

Other Information: The use of cell phones, pagers, and other devices that beep, ring, etc. is prohibited in class. They must be turned off or set to "silent". Text messaging is extremely distracting to the instructor so please wait until after class to reply to or check your messages.

WyoCourses will be an integral part of the class. You are free to customize your notifications but please check whatever regularly. Course information may be distributed by email and you will be held responsible for any such information. It may also be distributed by WyoCourses announcement. The course site will maintain the most current copy of this syllabus, the homework assignments and projects, and a gradebook. The gradebook will only have the grades for assignments, exams, and attendance.

Basic Course Schedule: The academic calendar that can be accessed from WyoWeb, shows ‘important’ dates. The ones that most concern us are:

- August 30, First day of classes
- October 25, Midterm Grades due
- November 22-24, Thanksgiving break
- December 11, Last day of classes
- December 15, Final Exam, 8:00 AM – 10:00 AM
- December 15-16, Commencement

Topics to be covered:

- General overview of networking
- Application layer: functions and implementation basics
- Transport layer: protocols and reasoning behind them
- Network layer: routing protocols
- Link layer: Ethernet
- Wireless communication: 802.11, Bluetooth, wireless phones
† Multimedia
† Security
† Management

Notes:

• The exams for this course will be "comprehensive" in that you will be responsible for all of the course material assigned, discussed, or covered in any way from the first day of the course up until the start of the exam. Any change in the schedule for an exam will be announced at least two (2) class periods in advance.

• Exam questions will normally be of the short answer or essay type and may include some *simple* mathematics. If you have any question about what that means in terms how you should answer, please ask me.

• Office hours are kept for the benefit of the students. They are intended to be set times when the instructor is known to be available in his office to answer questions, discuss course material and provide help. If I will not be available for office hours, you will be notified as much in advance as possible. There are times when this may be a sticky note on my door. I am normally here at the University from 0800 to 1430 Monday through Friday. I do have other classes. If you wish to come by outside of scheduled hours, please feel free. I will not guarantee that I can talk to you but we can make arrangements for some other time when I am available. You can also phone or email.

• I do not often read email in the evenings or on weekends. I do have my machine on all the time I am in the office and unless I get absorbed in something, I read and answer my email all day. But, do not plan on an immediate answer. I will read and answer as fast as I can but there are no guarantees I even remember what time it is let alone when the last time I checked my email was.

This Syllabus: This document is subject to change. Any changes will be communicated to the students in a timely manner. No changes involving grading will affect assignments already given at the time of the change. No changes in assignment due dates will affect current assignments if such change causes the assignment to be due earlier than originally indicated.

Last Update: August 18, 2017