BMI 542/642 Computer Networks, Spring 2015

Instructor

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Text

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Overview

A continued intensive introduction to computer science, focusing on computer networks, communications protocols, client-server architecture, Internet, and computer security.

Prerequisites

Enrollment in the Biomedical Informatics program.

Grading

The class will require completion of eight homework assignments, two quizzes, a final examination and a term paper/project. The final grade will be determined with an approximate weighting of: homework and labs 25%, quizzes 30%, class participation 5%, final examination 20% and term paper or project 20%.

Class participation is graded each week on a 5 point scale. You are expected to participate in each discussion topic as you would an open discussion in class. Make your points, comment on other's posts, and support your points during the week. You should participate during the week, not just make a statement and never return. Posting earlier in the week is recommended; it allows your points to be central to the discussion during the week.

Late assignments will be penalized at 10% per day.

The final course assignment consists of either a paper or a network programming project with proposals due by week 5. For this project, create a network application related to medical informatics or write a 7-10 page single-spaced paper on computer networking and its ramifications in your area of interest.

For possible examples, consider a Java application to retrieve citations from the National Library of Medicine or a paper on the requirements and impacts of adding wireless access to an existing CPOE system.

Papers are expected to be of publication quality with supporting references.
Graduate Studies in the OHSU School of Medicine is committed to providing grades to students in a timely manner. Course instructors will provide students with information in writing at the beginning of each course that describes the grading policies and procedures including but not limited to evaluation criteria, expected time needed to grade individual student examinations and type of feedback they will provide.

Class grades are due to the Registrar by the Friday following the week of finals. However, on those occasions when a grade has not been submitted by the deadline, the following procedure shall be followed:

1) The Department\(^1\) /Program Coordinator\(^2\) will immediately contact the Instructor requesting the missing grade, with a copy to the Program Director and Registrar.

2) If the grade is still overdue by the end of next week, the Department\(^1\) /Program Coordinator\(^2\) will email the Department Chair directly, with a copy to the Instructor and Program Director requesting resolution of the missing grade.

3) If, after an additional week the grade is still outstanding, the student or Department\(^1\) /Program Coordinator\(^2\) may petition the Office of Graduate students for final resolution.

\(^1\) For courses that are run by a specific department.
\(^2\) For the conjoined courses (course number is preceded by CON_ that are run by Graduate Studies.

**Academic Honesty**

Academic honesty is required in order to pass this course. Students are encouraged to help each other understand the material; however homework assignments, papers, projects and examinations must be the work of the individual student. It is acceptable and even encouraged to discuss general networking issues and computer science concepts; however, there should be no sharing of actual answers for the homework exercises. The Professional Conduct Policy of the Graduate Studies Program is available from on campus at [http://ozone.ohsu.edu/som/faculty/docs/graduatecouncil/profconductpolicy.pdf](http://ozone.ohsu.edu/som/faculty/docs/graduatecouncil/profconductpolicy.pdf) or on the departmental web site.

**Copyright Information**

Every reasonable effort has been made to protect the copyright requirements of materials used in this course. Class participants are warned not to copy, audio, or videotape in violation of copyright laws. Journal articles will be kept on reserve at the library or online for student access. Copyright law does allow for making one personal copy of each article from the original article. This limit also applies to electronic sources.

To comply with the fair use fair use doctrine of the US copyright law, Sakai course sites close three weeks after grades are posted with the Registrar. Please be sure to download all course material you wish to keep before this time as you will have no further access to your courses.
DMICE Communication Policy

1. If the syllabus directs the student to contact the TA before contacting the instructor, the student should do so. Otherwise, the student should contact the instructor and allow 2 business days (not including weekends) for a response.

2. If the student does not receive a response from the instructor within 2 business days, s/he should contact the TA (if there is one). When contacting the TA s/he should cc the instructor and Diane Doctor at doctord@ohsu.edu.

3. If a student does not receive a response from the TA within 1 business day (not including weekends), s/he should contact Diane Doctor at doctord@ohsu.edu and cc the instructor and the TA.

4. If Diane does not reply within 1 business day (not including weekends), the student should contact Andrea Ilg at ilgan@ohsu.edu.

5. Students having difficulties with Sakai should contact the Sakai Help Desk at sakai@ohsu.edu or at (877) 972-5249. Sakai help is available M-F from 8am to 10-pm and weekends from Noon to 5pm. Do not contact the instructor.

Student Access

OHSU is committed to providing equal access to qualified students with disabilities. Student Access determines and facilitates reasonable accommodations, including academic adjustments and auxiliary aids, for students with documented disabilities. A qualified student with a disability is a person who meets the academic and technical standards requisite to admission or participation in a particular program of study. As defined by the Americans with Disability Act (ADA), a person with a disability has a physical or mental impairment that substantially limits one or more major life activities of the individual. This may include, but is not limited to, physical conditions, chronic health issues, sensory impairments, mental health conditions, learning disabilities and ADHD. Student Access works with students with disabilities from all of OHSU's educational programs and at each campus.

Each school has an assigned Program Accommodation Liaison (PAL), who acts as an “in-house” resource for students and faculty concerning access issues for students with disabilities. The PAL works in collaboration with Student Access to implement recommended accommodations for students with disabilities.

It is recommended that you contact Student Access to consult about possible accommodations if you a) received disability accommodations in the past, b) begin experiencing academic difficulties, and/or c) are given a new diagnosis from your healthcare provider.

Learn more about Student Access:
Phone: 503 494-0082
Email: studentaccess@ohsu.edu
Website: www.ohsu.edu/student-access

Use Of Sakai
This course will have an online component, which can be accessed through Sakai, OHSU’s online course management system. For any technical questions or if you need help logging in, please contact the Sakai Help Desk.

Hours: Sakai Help Desk is available Mon – Fri, 8 am – 9 pm and weekends 12 pm – 5 pm.
Contact Information:
(Toll-free) 877-972-5249
(Web) http://atech.ohsu.edu/help
(Email) sakai@ohsu.edu

**Tentative Schedule of Topics and Assignments**

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Lecture topics</th>
<th>Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3/30</td>
<td>Introduction to networking and the internet</td>
<td></td>
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<td></td>
<td></td>
<td>Internet structure and protocols</td>
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<td>2</td>
<td>4/6</td>
<td>Application layer</td>
<td>Assignment 1 due</td>
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<tr>
<td>3</td>
<td>4/13</td>
<td>Lab #1 – Programming</td>
<td>Assignment 2 due</td>
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<td></td>
<td>Quiz #1</td>
<td></td>
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<tr>
<td>4</td>
<td>4/20</td>
<td>Transport layer</td>
<td>Term paper/project proposal due</td>
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<td></td>
<td>Network layer</td>
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<tr>
<td>5</td>
<td>4/27</td>
<td>Routing</td>
<td>Assignment 3 due</td>
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<td></td>
<td></td>
<td>Data link layer</td>
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<tr>
<td>6</td>
<td>5/4</td>
<td>Multimedia/Wireless</td>
<td>Assignment 4 due</td>
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<tr>
<td>7</td>
<td>5/11</td>
<td>Lab #2 – Hands-on Routing</td>
<td>Assignment 5 due</td>
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<td>8</td>
<td>5/18</td>
<td>Security</td>
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<td>9</td>
<td>5/25</td>
<td>Network Management</td>
<td>Assignment 6 due</td>
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<td>Internet Standards</td>
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<td>10</td>
<td>6/1</td>
<td>Lab #3 – Understanding Protocols</td>
<td>Assignment 7 due</td>
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<td>Network Specifications</td>
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<td>Final</td>
<td>6/10</td>
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<td>Term paper/project due</td>
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