Information Networks
ITS 625 A01, Fall 2010/2011, Call #04366

Class Meetings: MW 1-3pm (CTCL 403), F 10-11am (CTCL 403)
Final Exam Time: Monday, November 22, at 12:20 p.m. (2 hours)
Textbook: <none>
Class Web Sites: http://www.its.ohiou.edu/kruse/its625
Blackboard (www.ohio.edu/blackboard)

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Office Hours: See http://www.its.ohiou.edu/kruse

This syllabus outlines the structure and rules for this class. For specific information on the content of the class, assignments, and assignment dates, please consult the web site.

Exams
This class contains two exams – a 1-hour midterm, and a 2-hour final.

Readings
We don’t have a textbook. Readings are posted on the web site, and are accessed electronically.

E-Mail and Class Web Site
I will frequently send important announcements, assignment updates and corrections via electronic mail. To simplify mail list management, all email will go through your OU email account. Please get into the habit of checking your OU email regularly, even if you use a different e-mail account for non-class use.

All content information, assignments, class notes, etc., will be posted on the class web site or Blackboard. Check the web sites often for new resources.

Learning Outcomes
At the end of this class you will have a working knowledge of the structure of wide-area communications networks, including the equipment, technology, and protocols used in these networks. You will study these topics in sufficient depth to be able to enter both ITS policy and technical elective classes.

Specifically, you will review the general structure of communication networks, learn to distinguish circuit and packet switching, and analyze the characteristics of these switching methods. You will be able to compare the properties of various communication media and describe various methods for encoding information onto the transmission path. You will examine the components of a voice communication systems and compare TDM and VoIP based approaches. You will distinguish variations of voice communication systems deployed for different purposes. You will classify various multiplexing techniques based on the role they play in the network. You will explore the provisioning, numbering, and signaling systems used in today's networks, and project their evolution under future technology changes. You will review Internet protocols and applications. You will apply capacity planning concepts to common network systems and learn to compute performance metrics. You will examine both terrestrial and space-based wireless communication systems.

Along the way you will learn how to research new topics, and formulate accurate summaries from the information you gathered.

Initial assessment and the “By-Pass” Option
This class is designed to serve students with very different preparations in the Telecommunication field. Almost everyone should attend the general lectures. If you are in “catching up” mode, the optional Friday sessions are for you. To help assess your status, you will take an on-line quiz in the first week. If a student is exceptionally well prepared, he or she may be invited to use the bypass option. A student selecting to use this option writes an expanded term paper, but does not complete the homework assignments or the midterm exam. Class attendance is optional. Everyone takes the final exam. Note that you cannot request the bypass option, you need to be invited by the instructor. You can accept the invitation, or elect to participate the the regular class.
Homework Assignments
Each week, a few broad questions related to the week's readings will be posted. You must prepare a 1-page essay answering one of these questions every week. These essays are due by noon on Mondays; they may be submitted via e-mail. You may receive other assignments; those will always be posted on the main web site, with due dates. Assignments turned in one day late will receive 50% credit, assignments that are two days late will receive 25% credit. Assignments that are more than two days late will not be accepted.

Term Paper Assignment
After the midterm, a list of term paper topics will be posted, from which you will select one. All topics require the compilation of resources and the organization of these resources into an original paper organized according to accepted rules for technical papers. Term Papers are submitted in two stages. A draft will be due roughly at the end of the 8th week. The draft is graded, but you will have the opportunity to revise the draft based on the comments you receive. A final version of the paper is due at the last class meeting.

Question and Answer Sessions
Most Friday meetings will be used for optional, informal sessions where you can ask questions about the topic of the current week, or the readings for the next week.

Attendance Requirements
I expect students to attend each class and will hold them responsible for all material discussed. Although the notes from the classes will be on-line, we will often discuss issues and details that will not be found in the outside reading. It will be your responsibility to locate any information that you miss by being absent.

Grading Basis (Total available points: up to 335)

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<tr>
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<th>Midterm</th>
<th>Final</th>
<th>Total Available</th>
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<tr>
<td>Term Paper</td>
<td>75 points</td>
<td>Final</td>
<td>Other Homework</td>
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<tr>
<td></td>
<td>Midterm</td>
<td>Final</td>
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<tr>
<td>Midterm</td>
<td>60 points</td>
<td>Final</td>
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<tr>
<td>Final</td>
<td>100 points</td>
<td>Other Homework</td>
<td>Up to 100 points</td>
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Grade Determination

<table>
<thead>
<tr>
<th>Grade</th>
<th>Minimum points required (+)</th>
<th>(-)</th>
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<tbody>
<tr>
<td>A</td>
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<td>90%</td>
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<tr>
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<td>83%</td>
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<td>C</td>
<td>77%</td>
<td>73%</td>
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<tr>
<td>D</td>
<td>67%</td>
<td>63%</td>
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Any score below 60% will result in a failing grade (F). I reserve the right to “curve” these cutoffs down at the end of the course.

Academic Misconduct
The published policies of Ohio University prohibit any form of academic misconduct and dishonesty, including cheating on examinations, submitting work of others as your own, or plagiarism in any form. These policies fully apply to this course, and it is assumed that every student is familiar with them. Violations of the academic misconduct prohibitions will result in a reduction of the student’s grade and/or other penalties as indicated in the policies, including loss of credit for an assignment or the course, or expulsion from the University.

If you have any doubts about the definition of plagiarism, or the proper way to cite and/or quote material, review the library tutorial on this subject at http://www.library.ohiou.edu/bolt/mod6/index.html.

Storage of Records and Materials
All materials turned in to me as part of the assignments in this course will be returned to you once they are graded. Any records (grades, attendance, etc.) and materials which have not been picked up will be discarded after one year.