



Syllabus: INF SYS 6836

Fall 2013

Telecommunications Management

Instructor: Jeff Robertson
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Office Hours: By appointment only
Term Dates: Aug 19 – Dec 14, 2013
Class Meeting: Thursdays 6:55 PM – 9:35 PM
Location: Social Science & Business
Building Room 204

Text:

Stallings, W. and Case T. *Business Data Communications: Infrastructure, Networking and Security. Seventh Edition* Boston, MA Pearson/Prentice Hall, 2013

Additional readings may be assigned by the instructor.

Supplemental Resources:

Companion web site for the text: <http://www.williamstallings.com/BusinessDataComm/>

Prerequisites:

[IS 6800](#) Management Information Systems (may be taken concurrently)

Course Description:

The technical and managerial aspects of telecommunications as they apply to the business environment are discussed. Issues include: communications components and services, local area network architecture, managerial implementations, organizational issues, and cost/benefits analyses.

Class Objectives:

1. Describe the importance of the Internet and wireless communications in business planning.
2. Explain the need for a communications network for voice and data communications.
3. Explain the various ways in which audio, data, image and video can be transmitted.
4. Understand the central role of standards in data communications and networking.
5. Explain why system response time is a critical factor in user productivity.
6. Explain internet domains, domain names and the operation of the Domain Name System.
7. Discuss the operation of switches and routers to provide internetworking.
8. Discuss the functionality of different internet based applications such as e-mail and HTTP.
9. Define Local Area Networks and Wide Area Networks and contrast them.
10. Describe the various approaches to wireless local networking.
11. Discuss various types of intruders and malicious software and the techniques used by intruders to access computer systems.
12. Understand the basic principles and techniques of intrusion detection systems and approaches for defending against various types of malicious software.

Other Useful Websites:

UMSL Home Page	http://www.umsi.edu
IS Home Page	http://mis.umsi.edu
Acceptable Usage Policy	http://www.umsi.edu/technology/policy/acceptable.html
Student Technology Guide	http://www.umsi.edu/technology/publications/stutechguide/
Student Conduct Code	http://www.umsi.edu/studentlife/dsa/student_planner/policies/conductcode.html
Disability Access Services	http://www.umsi.edu/services/disability/
Campus Safety	http://safety.umsi.edu/police/safety.index.html

My Expectations:

- I assume you are here to learn about telecommunications and network systems in preparation for your ultimate career. To accomplish that:
 - Your attendance and participation each week is essential to your understanding of the course material and your success in this class.
 - Although there will be some lecture, you are expected to read the material for each week.
 - You must come to class prepared; you must *read and think* about the material before you get here.
 - You must demonstrate critical thinking skills.
 - You must participate in class discussions and class activities.
 - You must participate fully in the class project. This means that you will think about your project, go to group meetings, participate in the data collection and analysis. Each person must accept the responsibility for the project.
- It is your responsibility to ask questions in class or office hours when you are confused.
- Notes from any missed class must be obtained from someone other than the instructor.
- I expect you to be courteous and respectful to me and your classmates, and professional to class visitors and to your clients.
- Please speak with me before recording any class activity. It is a violation of University of Missouri policy to distribute such recordings without my authorization and the permission of others who are recorded.
- While I will not monitor your use of the computers during class, I expect you to be respectful in your use of the computer and I expect you to pay attention regardless of what you are doing with the computer.

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- Make-up tests must be taken within a week. Arrangements will be made with the Campus Testing Center to administer the test.
- If you expect to miss class, please communicate with me as soon as possible beforehand. If you miss class to participate in a university-sanctioned activity, be sure to submit a Student Absence Form early in the semester so that we can discuss your responsibilities and make plans to fulfill the requirement of the classes you will miss.
- If you expect to miss class due to a religious observance, please submit a Request for Accommodations for Religious Observance so that we can discuss your responsibilities and make plans to fulfill the requirement of the classes you will miss.
- Your success in this course is important to me. When I believe that the programs offered at Student Retention Services (SRS) will help you academically, I will send a referral via the *Academic Alert System* to assist you in succeeding in class if the situation arises. To learn more about the Academic Alert System go to:
<http://www.umsl.edu/~umslsrs/Academic%20Intervention%20Programs/alert.html>

Please make an appointment to discuss with me any requests for exceptions to these policies.

Classroom Courtesy:

I realize that I should not have to tell you these things, and I apologize to those of you for whom this is unnecessary, but in the past few years I have noticed a significant increase in bad classroom manners and inconsiderate behavior. So please adhere to the following rules. Repeated violations of these will be grounds for reducing your course grade.

- Adherence to the [Student Conduct Code](#) is expected.
- Adherence to the [Acceptable Use of Computing Code](#) is expected.
- I commit to create a climate for learning characterized by intellectual diversity and a respect for each other and the contributions each person makes to class. I expect you to make a similar commitment.
- I am committed to insuring a positive learning environment by respecting that University policy. I expect you to make a similar commitment. In particular, I refer you to the [University's Collected Rules 200.015](#), which says, "Information about student views, beliefs, and political associations that fellow students acquire in the context of course discussions should be handled responsibly. Students are encouraged to be sensitive to the potential that dissemination of information about fellow students derived from course discussions may be perceived as defamatory and/or may subject them to ridicule, harassment or reprisal from those who do not agree with the views, beliefs or political associations expressed in the course."
- Turn off your phones and pagers before entering class; do not talk on the phone
- Come to class on time. In those rare cases where being late is unavoidable, please enter the classroom quietly and take a seat as close to the door as possible. If the class period is more

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than half done, do not bother to come to the class. Once in class, do not get up and leave unless it is truly an emergency.

- If you eat during class, please do so quietly. Clean up afterwards; wipe up spills and throw away trash.
- Keep talking with your neighbor to a minimum. If you are confused about something in class, please ask me - that is my job.
- When using laptop computers, do so quietly.
- When we have guest speakers, I expect that you will pay attention and will not be improperly using the computer or talking to neighbors.
- I am not going to supervise your attention in class. However, you are responsible for all the material covered in class -- if you do not pay attention and miss important material, it will not be repeated.

Academic Honesty:

According to the University Standard of Conduct, Section 6.0101,

The Board of Curators recognizes that academic honesty is essential for the intellectual life of the University. Faculty members have a special obligation to expect high standards of academic honesty in all student work. Students have a special obligation to adhere to such standards.

Furthermore, note that the University's Collected Rules 200.010 B.1 REQUIRE faculty to notify Academic Affairs of suspected cases of dishonesty. It states, "In all cases of academic dishonesty, the instructor shall make an academic judgment about the student's grade on that work and in that course. The instructor shall report the alleged academic dishonesty to the Primary Administrative Officer."

For the purposes of this class, cheating will include: plagiarism (using the writings of another without proper citation), copying of another (either current or past student's work), working with another on individually assigned work or exams, unauthorized marking on a graded paper or exam, or in any other way presenting as one's own work that which is not entirely one's own work. It is unacceptable to seek the help of another (whether in the class or not) for help on an exam; this is considered academic dishonesty. Further definitions and clarifications can be found in the University guidelines.

Any student who is caught cheating on any assignment or exam will receive a grade of zero (0) for that assignment or exam. Further, a recommendation will be made to the appropriate university officials that additional disciplinary action be taken.

Access/Disability:

Students requiring special accommodations should meet with me during office hours so that we can discuss how to meet your needs this semester. Prior to our meeting be sure you have met with someone in Disability Access Services (MSC 144).



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Drop Policy:

For the purposes of this policy, the "effective drop date" is the date which I am informed of the drop or the actual date of the drop, whichever is later. Students can and may inform me by leaving me a note in my mailbox, leaving me a message (on voice mail or e-mail) or by speaking to me in person or over the telephone.

A student may drop this class until *November 10, 2013* with a passing grade. (Note the University policy states that you may drop until September 17 without receiving a grade; this policy is simply an extension of the University policy.) Between *September 17 and November 10*, a student will receive either a passing grade (excused) or a failing grade (F) depending upon his or her performance (current grade) in the course. A student may withdraw after *November 11* only with and solely with the approval of the dean of his or her division.

Campus Safety:

The University of Missouri-St Louis is committed to creating and maintaining a safe environment for all members of the campus community (faculty, staff, students and visitors). Please familiarize yourself with campus emergency procedures by reviewing the UMSL Police Department web page at: <http://safety.umsl.edu/police/safety/index.html> . These pages highlight possible safety concerns and alert you to procedures to follow should there be an emergency on campus. The site also includes a link to the campus plan for disaster preparedness. If a person's safety is ever at risk, **call the Campus Police at 314-516-5155 immediately.**

Assignments and Items that are Graded:

Will be posted in the Docs & Assignments section in MyGateway.

Exams:

There will be one in-term exam and the final exam.

- In-term Exam: 10/10/2013
- Final Exam: 12/12/2013

Make-up exams will be provided only for those students who have spoken with the instructor prior to the exam and who have a justifiable reason for missing the exam. In ALL other cases, the student will receive a grade of zero (0) on the exam. NO late exams (if it is a take home exam) will be accepted.

Grading Policy:

The following proportions will be used for grading.

Class Participation	10%
Papers	20%
Project	30%
In-term Exam	20%



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Final Exam	20%
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Approximate letter grades will be assigned when exams and projects are returned. Students should remember, however, that the term average is a weighted average of the numerical grades, not an average of the approximate letter grades. So, to compute your grade, you will take the grades (as described in the previous sections) and substitute them into this equation:

$$\text{Grade} = .10 * (\text{Class Participation}) + .20 * (\text{Papers}) + .30 * (\text{Project}) + .20 * (\text{In-term}) + .20 * (\text{Final Exam})$$

Late assignments *will not be accepted* without prior written approval of the instructor.

Class Outline:

****Outline subject to change****

Week	Date	Topic	Reading	Assignment
1	22-Aug	Introductions, review of syllabus, Introduction chapter	1	
2	29-Aug	OSI Model/Data Transmission	4	
3	5-Sep	Data Link Control /Multiplexing	6	
4	12-Sep	Structure of the Internet	7	Paper 1 due
5	19-Sep	TCP/IP	8	
6	26-Sep	Data Encoding/Transmission	5	
7	3-Oct	LAN Architecture	12	
8	10-Oct	IN-TERM-EXAM	None	
9	17-Oct	Wireless LANs	14	
10	24-Oct	WAN Technologies	15	
11	31-Oct	Internet Operation	11	
12	7-Nov	Internet Based Applications	10	Paper 2 due
13	14-Nov	Security Threats	18	
14	21-Nov	Security Techniques	19	
15	5-Dec	Network Management	20 (online)	PROJECT DUE
16	12-Dec	FINAL EXAM	None	

Technology Requirements:

You are expected to have access to the internet and MyGateway for submission of assignments and/or projects. If you have computing problems, it is your responsibility to address these, or come to campus to use the student computing labs. Problems with your computer or other technology issues are not an excuse for any delays in meeting expectations and deadlines for the course. So, if you have a problem, get help in solving it immediately. At a minimum, you will need the following software/hardware to participate in this course:



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1. Computer with an updated operating system (e.g. Windows, Mac, Linux) and to an Internet browser (e.g. Mozilla Firefox, Internet Explorer)
2. Ability to navigate MyGateway (Blackboard Learning Management System)
3. Word processing software (Microsoft Word compatible)