

**Networks and Telecommunications in Business**  
**ACIS & MSCI 4554 CRN 90156/93662**  
**Fall 2001**  
Instructor: **Dr. Bélanger**

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**Class Hours:** 8:00 – 9:15 T-TH Pamplin 32

**Office Hours:** T-TH 9:30 - 10:30

Also by appointment. Students are encouraged to use electronic mail.

**Required Texts:**

White, Curt M., Data Communications and Computer Networks, Course Technology: Cambridge ,MA, 2001. ISBN: 0-619-01529-2

**Note:** This book is listed under the ACIS department at the bookstore.

**Course Objective:**

This course provides an introduction to the fundamentals of telecommunications and computer networks in business. It is designed to meet two key objectives: 1) to provide a conceptual foundation and technical background for the study of data communications allowing the student to understand, research and explore leading edge distributed applications, products, or services that are being used in today's business and home environments; and 2) to explore the costs, benefits and risks associated with telecommunication technologies. Both technical and managerial aspects of data communications will be covered. The first half of the course will emphasize technical concepts and technologies, while in the second half, emphasis shifts towards managerial issues.

**Course Approach:**

In order to meet the course objectives, an integrative teaching format will be used consisting of in-class lectures and discussions, and individual and group projects of varied scope. **You are expected to attend class and participate in discussions, and to ask questions.** You will obtain substantive information from the assigned textbook, readings, and class lectures. There will be some overlap, but some material is not from the textbook. **You are responsible for all the material covered, and you are expected to integrate the material.** Some learning will be done on your own as part of your projects. If time and schedule permit, guest speakers with substantial data communications background will be invited to speak to the class. In such cases, scheduled lecture material will be altered.

Hands-on experience will be provided through a series of projects and assignments. These will allow the students to experience software assimilation, problem analysis, and enhance their communication skills, both written and oral.

**Honor Code:**

All university policies regarding cheating, plagiarism, falsification, nonattendance, and illnesses will be strictly applied. Please read your catalog regarding these policies. **The Honor Code will be strictly enforced in this course.**

**Disability:**

If you suffer from a disability and would like to make arrangements for exams, assignments, or projects, please contact the instructor as soon as possible.

## Grading Policy:

The course grade will be based on the following components:

1. Test 1	80 pts
2. Test 2	80 pts
3. Test 3	80 pts
4. Semester project	75 pts
5. Assignments	55 pts
6. Participation	20 pts
7. Quiz	10 pts
Total Points for Semester:	400 pts

*Grades:* Grades will be assigned as follows:

A ( $\geq 93\%$ ), A- ( $\geq 90\%$ ), B+ ( $\geq 87\%$ ), B ( $\geq 83\%$ ), B- ( $\geq 80\%$ ), C+ ( $\geq 77\%$ ), C ( $\geq 73\%$ ), C- ( $\geq 70\%$ ), D+ ( $\geq 67\%$ ), D- ( $\geq 63\%$ ), D ( $\geq 60\%$ ), and F ( $< 60\%$ ).

*Tests:* Tests will consist of multiple choice and essay questions. They will cover class discussions, assigned readings, and any supplemental material. You are responsible for all the material covered in class or assigned for reading, and you are expected to integrate the material. Makeup exams will not be given, unless a documented physician approved medical condition occurs (not a visit to the Health Center!). **Job interviews are not considered acceptable reasons for not attending the exam the day it is scheduled.** Make arrangements with companies you are interviewing with.

*Group Project:* The technology report involves researching state-of-the-art distributed applications, products, or services. Your group will collect relevant articles, prepare a report and present their findings to the class. More details will be handed out later in the semester.

*Assignments:* There will be several assignments during this semester. These assignments will give you hands-on practice on some of the topics covered in class.

*Participation:* At the end of the semester, the instructor will assign a participation grade to each student in the class. This grade will be based on students' participation in class discussions, attendance, preparing the case questions, and other participation actions as determined by the instructor during the semester. Do not expect a full grade if you do not attend class and do not participate in discussions.

## Instructor Policies:

1. I will not accept late homework or assignments.
2. I will not change an exam date for a student's convenience. Only physician approved medical conditions are considered.
3. I will not go over material that was covered in class with students who did not attend the class for unjustified reasons. Find colleagues who will lend you their notes.
4. I can take 5 % of points off on an assignment, homework or project if you send me an infected file. Make sure you scan your files for viruses before sending them to me.
5. I will spend the time needed with you to understand the material one-on-one during office hours.
6. I will reply to your emails in a reasonable time.
7. I will schedule a meeting at a convenient time if you cannot attend my office hours.
8. You are expected to write projects with proper grammar and spelling. While it is not the focus of the course, points can be taken off for poor writing. The instructor is particularly interested in YOUR writing, not how you can copy and paste the writings of other authors from the Web (considered plagiarism). Make sure you integrate, not copy, reference material.

**Re-grade Policy:** All tests and projects may be submitted for re-evaluation of the grade by the instructor. To request a re-grade, you must submit a written request within one week of the date the test or project was returned. The written request must include a cover sheet that explains (1) the specific test questions or aspects of the project that you want re-evaluated, and (2) why the original grade should be reconsidered. Re-grade requested more than one week after the day grades are returned to the class will not be processed, even if individuals were absent the day the grades were returned.

**Tentative Outline:**

<b>Week</b>		<b>CHAPTER</b>	<b>TOPIC</b>	<b>HOMEWORK/ DUE DATES</b>
Week 1	8/28-30	1	Introduction to networks & models	Exercise 6
Week 2	9/4-6	2 & 4	Data, Signals, and Modems	2: Ex. 2 4: Ex. 1, 2, 3, 8, 10 Box 2 & 3
Week 3	9/11-13	3	Media	Ex. 4, 5, 6, 7, 11 Box 1
Week 4	9/18-20	5	<b>Test 1 (1, 2, 3, 4)</b> Multiplexing	Ex. 3, 4 Box 2
Week 5	9/25-27	6	Errors	Ex.1, 2, 3, 4, 5 <b>Ass 1 Data conferencing</b>
Week 6	10/2-4	7 & 9	Local Area Networks and software	7: Ex. 5, 6, 9, 16 Box 3 9: Ex. 3, 5, 8, 13
Week 7	10/9-11	8	HTML (FrontPage) Internetworking	Ex. 3, 7 Box 2
Week 8	10/16-18		Continued <b>Test 2 (5, 6, 7, 8, 9)</b>	
Week 9	10/23-25	10	Wide Area Networks and The Network Game	Ex. 1, 3, 7 Box 2 <b>Ass 2 Encryption</b>
Week 10	10/30- 11/1	11	The Internet	Ex. 4, 5, 7, 10, 11, 18
Week 11	11/6-8	12	WAN telecommunication systems	Ex. 8, 9, 11, 12, 16, 17 Box 2
Week 12	11/13-15	13	Network security <b>Test 3 (10, 11, 12, 13)</b>	<b>Ass 3 Network design</b> Ex. 2, 8
Week 13	11/20-22		<b>Thanksgiving Break</b>	
Week 14	11/27-29		<b>Presentations – Technology Reports</b>	
Week 15	12/4-6		<b>Presentations - Technology Reports</b>	<b>Technology reports</b>
Week 16	12/11		<b>Presentations - Technology Reports</b>	

**\*\* Note: Several additional readings listed on the course Web page are required.**

**This schedule is tentative. Any changes will be announced in class.**

**The time allotted for the final exam (12/17 3:25-5:25 PM) will be used to complete presentations and the quiz.**