



**ISM 4220- Business Data Communications**  
**Fall 2008 Section 901**  
**Thursdays 6:20 PM - 9:05 PM, CIS 1045**

**Instructor** : Manish Agrawal  
**Office** : CIS 2071  
**Telephone** : (813)-974-6716  
**Fax** : (813)-974-6749  
**E-mail:** [magrawal@coba.usf.edu](mailto:magrawal@coba.usf.edu)  
**Office Hours** : Thursdays 5:45 PM – 6:20 PM and anytime my office door is open

**Course Materials**

1. Course pack, available from Pro-Copy (cost ~ \$25)
2. Readings: <http://www.ismlab.usf.edu/dcom> (username/ password: dcomsite/ dcomsite)
3. Course website at the MyUSF portal

**Course Objective and format**

*The primary goal of this course is to answer the question “How do computers talk to each other?”*

The exchange of information between computer applications is called Business Data Communications (DataComm for short). Datacomm technologies provide the underlying plumbing that enable computer applications to access resources on remote computers.

The course is designed for any BS student with an interest in computer networking. The course will focus on concepts in business data communications that are likely to stand the test of time. The instructor will rely on the course pack and web readings for course content. Upon completion of the course, students will get the foundation to evaluate and utilize most current data communication technologies.

The course will include two lab exercises. The first lab will introduce and use Excel macros to reinforce recall of the functions of the seven OSI layers. The second exercise will use Wireshark, a free easy-to-use tool to view network traffic in computer networks. Both labs will be at introductory skill level.

As part of a university education's goal of educating the “whole individual”, students will be expected to participate in class and will receive credit for such participation. This will primarily take the form of presenting coherent and structured answers to demonstrate understanding of the web readings. Please use these as opportunities to build your communication skills in a professional context.

**Attendance Policy**

It is in the interest of students to attend classes regularly since missing classes can affect students' scores on participation as well as performance in quizzes and tests. Considerable effort is spent in class to simplify what is otherwise a fairly wide subject area. Material not covered in the course pack could be discussed in the class and be graded on exams and quizzes. On days with low attendance, specific hints on exam questions will be provided as an incentive/ reward for attendance that day.

The instructor would like the classroom format to offer benefits to students that are not possible in online and other distance-learning formats. These benefits include interactive learning through unscripted discussions and class participation. However, this is possible only through the active participation of students who are present in class and take pride in contributing to the discussion.

## **Make-Up Policy**

The instructor will accommodate students who have to miss quizzes, assignments or tests due to ***medical emergencies in the immediate family or job-related situations***. These are the only conditions under which accommodation will be considered in real-time during the semester. Should such situations arise, the student must provide necessary documentation before the missed deliverable can be rescheduled.

Students who anticipate being absent from class due to a ***major religious observance*** must provide written notice of the date(s) and events(s) to the instructor by the second meeting.

## **Academic Honesty**

The Instructor strongly believes in academic honesty (See USF Honor Code below.) A first instance of academic dishonesty will result in a grade of zero for the work involved. A second occurrence during the semester will result in a failing grade for the course. **The above code will be strictly enforced. Please do not attempt to test level of enforcement.**

## **USF HONOR CODE**

Each individual is expected to earn his or her degree on the basis of personal effort. Consequently, any form of cheating on examinations or plagiarism on assigned papers cannot be tolerated in the University community and will be punishable, according to the seriousness of the offense, in conformity with this rule: Cheating is defined as: (a) the unauthorized granting or receiving of aid during the prescribed period of a course-graded exercise; students may not consult written materials such as notes or books, may not look at the paper of another student, nor consult orally with any other student taking the same test; (b) asking another person to take an examination in his or her place, or taking an examination for or in place of another student; (c) stealing, borrowing, buying, or disseminating tests, answer keys, or other examination material; (d) stealing or copying research papers, creative papers, speeches, drawings, diagrams, musical scores, graphs, maps, computer programs, etc. and presenting them as one's own.

## **Disability accommodations**

Any student with a disability is encouraged to meet with me privately during the first week of class to discuss accommodations. Each student must bring a **current Memorandum of Accommodations** from the Office of Student Disability Services, which is a prerequisite for receiving accommodations. Accommodated examinations through the Office of Student Disability Services require two weeks notice.

## **Submission guidelines**

During the semester, students will work on assignments to reinforce concepts. The following are general points to be observed in all deliverables:

- Assignments are based on end of chapter questions from the course pack and are available as "Assignments" under Course Documents on Blackboard
- Project deliverables will be specified in the project hand-outs
- Submissions must be typed (or word-processed) or handwritten clearly and submitted on paper. Unclear deliverables will be returned for resubmission within a week.
- Student name, course title and deliverable identification must be clearly stated in all deliverables and any email correspondence. This saves my time in looking up relevant information. An example email subject line is: **ISM 4220: Assignment 1 clarification** and an example closing email line is: **Manish Agrawal (012-345-6789)**.
- Please retain assignments until you verify that scores have been correctly posted on myUSF
- All quizzes, assignments and other deliverables are scheduled for the last meeting of the respective weeks at the start of class.

### **Late-Policy**

Assignments, problem sets, cases and projects are expected to be delivered on paper at the start of class on the due date except where noted. **Late submissions or submissions in other forms (e.g. email attachments) will be penalized 50% of the credit for the exercise.**

### **Miscellaneous**

1. Quizzes will strictly include end of chapter questions. Each quiz will include 6-8 questions. Exam 1 will be essay type, Exam 2 will be multiple choice. Though exam 2 will not be comprehensive, it will include questions to test compliance with the ALC (Academic Learning Compact).
2. The instructor assumes that students in this class are here because they are excited by the idea of using computers and learning how to network them together. This excitement should drive students to use every resource available (Google being the most important) to fill in knowledge gaps where applicable.
3. Like most professions, IT is a craft. Like most successful professionals, the more you work on perfecting your craft, the better your rewards will be.
4. Contrary to doom stories in the media about the off-shoring of IT jobs, the reality is that IT professionals continue to command very satisfactory and rising salaries.
5. Many students find the material in this course fairly involved and it is very distracting for them to have other students come in and out of class after class has begun. Therefore, you are requested to come to class within 10 minutes of the scheduled time and to stay till the end of class unless it is absolutely necessary to leave.
6. The main mode of communication between the instructor and students during off-class hours will be your official USF email address. You are responsible to regularly check email directed to your official USF email addresses for any announcements. ***Guidelines to redirect mail from your USF account to any other account (roadrunner etc.) are available on the course portal.***
7. USF regulations state that only students who are registered for this class may attend and be present in the classroom while presentations are being made. Any students who feel they need assistance to attend class must contact USF's Office of student disability services (974-4309) and request a review and authorization if appropriate for necessary support.
8. All unauthorized recordings of class are prohibited. Recordings that accommodate individual student needs must be approved in advance and may be used for personal use during the semester only; redistribution is prohibited.

### **Disclaimer**

In the interests of the class, deviations may be made in the coverage of topics as outlined in the tentative course calendar. However, to help plan your calendars for the rest of the semester, submission dates will be non-negotiable after the first day of class.

### **Announcements**

Students who enter USF under the 2001-2002 or later catalog are required to earn a grade of C, or better, in every core class and an overall GPA of 2.0 for all core classes.

### Tentative Course Calendar

| Week (class)                    | Topic                                      | Readings   | Lab*      | Deadlines**      |
|---------------------------------|--|--|-----------|------------------|
| 1 – 8/28                        | Syllabus, layering (ch1)                   | Ch0/1,2,4,7                                      |           |                  |
| 2 – 9/4                         | Layering (ch1), physical layer (ch2)       | Ch0/3,6; Ch0/5                                   |           |                  |
| 3 – 9/ 11                       | Physical layer (ch2), Excel macro          | Ch1/1,2,5  | Excel     | Excel macro      |
| 4 – 9/ 18                       | Ethernet (ch3)                             | Ch1/5,6; Ch3/1                                   |           |                  |
| 5 – 9/ 25                       | IP (ch4)                                   | Ch3/2,5,6; 7-10                                  |           | Assn 1(ch 1-3)   |
| 6 – 10/ 2                       | IP (ch4)                                   | Ch4/1,2  |           | Quiz 1 (ch 1-3)  |
| 7 – 10/ 9                       | TCP (ch5)                                  | Ch4/4,6-8;<br>9,10,12,13                         |           |                  |
| 8 – 10/ 16                      | TCP (ch5), exam 1 review                   |  |           | Exam #1 (ch 1-4) |
| 9 – 10/ 23                      | Applications (ch6)                         | Ch5/1-3; 4-5                                     |           |                  |
| 10 – 10/ 30                     | Applications (ch6), Wireshark              | Ch6/1,4,7,8                                      | Wireshark |                  |
| 11 – 11/ 6                      | Applications (ch6), Support services (ch7) | Ch6/9,12,14;<br>17-20                            |           | Wireshark        |
| 12 – 11/ 13                     | Support services (ch7)                     | Ch6/21,24,25;<br>26-30                           |           | Assn 2 (ch 5-6)  |
| 13 – 11/ 20                     | Support services (ch7), Wireless (ch8)     | Ch6/38,39  |           | Quiz 2 (ch 5-6)  |
| 14 – 11/ 27                     | T h a n k s g i v i n g b r e a k          |  |           |                  |
| 15 – 12/ 4                      | Wireless (ch8), Exam 2 review              | Ch7/1,9,15; 17-19,<br>24,25; Ch8/1,4-8           |           | Assn 3 (ch 7)    |
| F i n a l e x a m i n a t i o n |  |  |           |                  |
| *Classroom and day TBA          |  | **All deadlines fall on last meeting of the week |           |                  |

### Course Grading

Final grade for the course will be based on students' performance on tests, quizzes, assignments and projects. Scores on the various deliverables will be posted on the myUSF portal. The weights used in determining grades are as follows:

| <i>Item</i>   | <i>Number</i> | <i>Weight %</i> | <i>Performance</i> |
|---------------|---------------|-----------------|--------------------|
| Exams         | 2             | 44              | Individual         |
| Quizzes       | 2             | 12              | Individual         |
| Assignments   | 3             | 12              | Individual         |
| Labs          | 2             | 08              | Individual         |
| Participation | Multiple      | 20              | Individual         |
| Feedforward   | 2             | 04              | Individual         |

### Grading Policy

| Total% | Grade                 | Total% | Grade |
|--------|-----------------------|--------|-------|
| >= 93  | A+ (max 10% of class) | >= 73  | C+    |
| >= 90  | A                     | >= 70  | C     |
| >= 87  | A-                    | >= 67  | C-    |
| >= 83  | B+                    | >= 63  | D+    |
| >= 80  | B                     | >= 60  | D     |
| >= 77  | B-                    | < 60   | F     |

## Feed forward form - 1

Name: \_\_\_\_\_

The first thing the instructor can do to improve the class *for you*.



## Feed forward form - 2

Name: \_\_\_\_\_

The second thing the instructor can do to improve the class *for you*.