

## CISC 255: Data Communications - Spring 2005

**Class Meetings:** Tu,Th 1:00 - 2:15

**Instructor:** Andrew B. Perry, Ph.D.

**Office:** Schoo 118

**Office Hours:**

Mon/Wed/Fri 11-11:30 AM

Mon/Wed/Fri 2-3 PM

Tuesday 10-10:30 AM

**Phone :** 748-3193

**Email:** perryand@yahoo.com

**Course Description :** This course is a survey of data transfer methods (data communications) with an emphasis on theoretical principles. Current computer networking technology is discussed, including much useful terminology. Basic principles of cryptography are also considered.

**Prerequisites:** CISC 235, Computer Logic Design

**Required Textbook:** William Shay, Data Communications, 3rd edition, 2004, ISBN 0-534-38317-3

**Optional References:**

- A.Tanenbaum, Computer Networks, 4th edition, Prentice Hall, ISBN 0130661023
- S. Singh, The Code Book, Anchor Books, ISBN 0385495323
- Introduction to Networking, Version 7.0, Westnet, ISBN 1586761145

**Grading Procedures:** Final grades will be computed as follows:

- Assignments, Class Discussion, Homework - approximately 30 %
- Exams - approximately 70 %

For grading purposes, the class will be divided into four units. During each unit, there will be assignments with various point values. Each unit will culminate in an exam worth 100 points. At the end of each unit, each student will receive a letter grade for that unit. The final grade for the course will be the average of the four unit grades.

Students will be guaranteed minimum grades according to the following schedule:  
94 % = A ; 90 % = A- ; 87 % = B+ ; 83 % = B ; 80 % = B- ; 77 % = C+ ; 73 % = C ; 70 % = C- ; 67 % = D+ ; 63 % = D ; 60 % = D-

**Classroom Format:** Lecture, Problem Solving

**Class Web Sites:** We will use the Manhattan course management system from time to time. At the beginning of the semester please log on to this virtual classroom. If necessary, I can help you get started Please go to the Post Office module and send me (Andrew Perry) an email for practice. Go to [www.springfieldcollege.edu](http://www.springfieldcollege.edu) - current students - manhattan online coursework and follows links to our section. I also have my own web site **[www.professorperry.com](http://www.professorperry.com)** .

**Attendance:** Attendance at all classes is required, unless you have arranged an excused absence BEFORE the class in question. See the *Student Handbook* for examples of excusable absences. Generally I will be quite flexible and lenient IF YOU INFORM ME IN ADVANCE. In order for an absence to be excused, you must send me email through the Manhattan Post Office module including the date of the absence and the reason.

This Manhattan Post Office email should be sent as early as possible, but in any case no later than twenty-four (24) hours after the missed class.

Attendance will affect your final grade as follows:

- Zero unexcused absences and at most one excused absence ... increase final grade by 1 %
- At least 1 week equivalent (150 minutes) of unexcused absences (but less than 2 weeks or 300 minutes) ... decrease final grade by 5 %
- At least 2 weeks equivalent (300 minutes) of unexcused absences ... decrease final grade by 10 %

For example, if your course average is 91 % (ordinarily an A-) but you have 200 minutes of unexcused absences, you will have a net 86 % score and a B for the class.

**Approximate Examination Dates:**

Regular exams: February , March , April , April

Final exam: Thursday, May 5, 2:45

Exact examination dates will be announced in class.

**Course Outline:**

1. Theory of Data Communication
2. OSI Reference Model
3. Computer Network Terminology
4. Computer Network Hardware
5. Fundamentals of Cryptography
6. Other Related Topics As Time Permits

**Statement on Academic Honesty :** Academic dishonesty of any sort will not be tolerated. Students cheating on exams or engaged in any other improper behavior will be reported to the Dean of Students for appropriate disciplinary action, and at the instructor's discretion, will normally receive a grade of F for the course.

**Statement on Classroom Decorum :** Students are expected to behave in an adult manner during class time. No eating or drinking is permitted. If students must talk to one another during a lecture, it should be very quiet. Students creating a disturbance will be asked to leave class.

**Statement on Special Needs:** If you have a documented physical, learning, or psychological disability on record with the Director of Student Support Services (748-3768), you may be eligible for reasonable academic accommodations to help you succeed in this course. It is your responsibility to request such accommodations in advance and to provide appropriate documentation to the Director of Student Support Services. Please let me know of your request as soon as possible, so that I can work with you and the director to arrange for reasonable accommodations.

**College Policies on Attendance and Academic Honesty:** See the *College Catalog* or the *Student Handbook* for the complete text of these policies.

**Course Outcomes:**

1. Students will be able to describe features of computer network hardware and software
2. Students will be able to describe data compression issues
3. Students will be able to explain the fundamentals of symmetric and public-key cryptography
4. Students will be able to use and design error correction and detection codes

**Assessment of Outcomes:** Homework, Exams