

**St. Edward's University - Spring 2009**  
**COSC 3344.01 Computer Networks**

**Instructor:** Dr. James McGuffee  
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**Class Meetings:** Tuesdays and Thursdays 3:30-4:45pm Fleck Hall 206  
**Office Hours:**  
Monday and Wednesday 11:00a-12:15p  
Tuesday and Thursday 2:00p- 3:15p  
Also, available by appointment

**Course Description:**

An introduction to fundamental concepts in the design and implementation of computer communication networks, their protocols, and applications. Topics include an overview of network architectures, applications, network programming interfaces, transport, congestion, routing, and network security.

**Course Prerequisite:**

COSC 2331: Assembly Language Programming

**Required Text:**

*Computer Networking: A Top-Down Approach*, 4th Edition, by James F. Kurose and Keith W. Ross, Pearson Education, Inc., 2008. ISBN-13: 0-321-49770-3

**Note:** In addition to the hardcover book, you are required to have access to the on-line edition of the book. If you purchased a used book you will need to purchase a separate subscription to the on-line book.

For more information, please visit the on-line site at <http://www.awl.com/kurose-ross/>.

**Requirements:**

1. Attend all classes (for the entire class period).
2. Complete all assignments.
3. Complete all examinations.
4. Prepare in advance for all class sessions by reading and studying the text.
5. Seek assistance and ask questions about course material or course requirements from the instructor as necessary. You are responsible for all material presented in class.

**Active Class Participation:**

This will not be a traditional lecture and take notes kind of class. In my classes I like to use various pedagogical methods to help you learn the material. In order for these techniques to be successful you must be an active participant in all class activities. You are expected to attend all classes and be an active learner. If you ever feel uncomfortable or have any concerns about the class or class activities please come and see me in my office.

**Homework Assignments:**

Homework assignments will be posted on Blackboard. Homework assignments are to be an individual effort. Many of the assignments will require research and work outside of the text. If you have any questions, please ask your instructor.

Completed homework assignments should be submitted in a professional manner. A professional manner includes but is not limited to: neat and careful handwriting, clearly numbering each assignment, stapling pages when more than one sheet of paper is turned in, etc... Homework assignments are due at the beginning of class on the date due. **Late homework assignments will not be accepted for credit.**

**Programming Assignments:**

You will be given four programming assignments this semester.

- Multi-Threaded Web Server (page 188 of text), due: February 24, 2009
- Implementing a Reliable Transport Protocol (page 305 of text), due: March 24, 2009
- Distributed Asynchronous Distance-Vector Routing (page 430 of text), due: April 14, 2009
- Web Proxy Server (page 190 of text), due: April 30, 2009

Details on these programming assignments will be given in class. You will need to use the on-line resources at <http://www.awl.com/kurose-ross/> to assist you in completing these assignments. Most of the code for these assignments has been written and is available on-line. These assignments may take a considerable amount of time so don't procrastinate. **Late programming assignments will not be accepted for credit.**

**Wireshark Labs Group Project Assignments:**

In this assignment you will work collaboratively with your peers. The purpose of this assignment is to give your experience in collaboration and in network observation. Details on this assignment will be given in class and/or posted on Blackboard. **Late Wireshark lab assignments will not be accepted for credit.**

**Examinations:**

There will be four semester exams and one comprehensive final exam given this semester. Exams must be taken on the scheduled dates. If you miss an exam you will receive a grade of zero for that exam. If you are unable to take an exam on a specific date, you must let me know as soon as possible and provide written documentation of your reason for missing an exam. Only under extraordinary circumstances will a make-up exam be given. Even though the exams cover specific sections of the textbook, there is a strong possibility that some of the material you will be tested on will not be found in the text. Please remember that you are responsible for all material presented in class whether or not it is explicitly covered in your text.

**Academic Integrity:**

Unless otherwise specified, it is expected that all coursework represent only your efforts, not those of a group of peers, hired tutors, or other plagiarized material. In its broadest sense, academic dishonesty is defined as representing some other person's work as you own. The St. Edward's University *Undergraduate Bulletin* and the *Student Handbook* state that a student who is dishonest in any work may receive the maximum penalty of a mark of "F" for that course. Withdrawal from a course is not allowed when an "F" in the course for academic dishonesty has been imposed. Students caught committing academic dishonesty in this course will be subject to the full range of penalties as described in the *Undergraduate Bulletin* and in the *Student Handbook*.

**Attendance**

Regular class attendance is an important part of this class. Attending class for the entire class period is also very important. For each time that you are late or leave class early, a 1/2 absence will be recorded. In other words, being late to two classes is the same as an absence. If you miss more than 3 class meetings you will be subject to excessive absence penalties. If you are excessively absent and the instructor decides not to withdraw you from the class, your final course grade will be reduced.

**Method of Determining Final Course Grade:**

Active Class Participation . . . . .	3%
<i>(not just attendance)</i>	
Homework Assignments . . . . .	16%
Programming Assignments . . . . .	20%
Wireshark Lab Assignments . . . . .	8%
Semester Exam Average . . . . .	32%
Final Exam . . . . .	21%

Final letter grades are assigned as follows:  
100-90=A; 89-80=B; 79-70=C; 69-60=D; and 50-0=F.

**Withdrawal:**

Although the instructor has the prerogative to withdraw students for excessive absences or lack of progress he is under no obligation to do so. It is the responsibility of the student and not the responsibility of the instructor to initiate all withdrawal proceedings. If the student fails to complete the course work and/or has excessive absences a grade of "F" will normally be assigned. According to the University calendar March 30, 2009 is the last day to withdraw and receive a grade of "W".

**Learning Considerations:**

If you have a medical, psychiatric or learning disability and require accommodations in this class, please let me know early in the semester or as soon as you are eligible. You will first need to provide documentation of your disability to the Student Disability Services Office located in Moody Hall 155 in Academic Planning and Support.

**Computer Competency Requirement:**

All Undergraduate and New College students who entered St. Edward's University under the Fall 1999 catalog and later are required to satisfy the Computer Competency Requirement (CCR). The CCR modules comprise of Introduction to Computers, WWW and Internet Communications, Basic Library Research, Introduction to Word Processing, Introduction to Spreadsheets, and Multimedia Presentations. Students must satisfactorily complete a web-based test over each module in order to fulfill this requirement. For more information about the Computer Competency Requirement, go to: [www.stedwards.edu/it\\_dept/competency](http://www.stedwards.edu/it_dept/competency) or call 464-8816.

**APSS:**

Academic Planning and Support Services wants each student to perform to the best of their ability academically. To assist students in their efforts, APSS offers individual academic counseling appointments. These meetings can allow for discussion of the structured academic skills training in such topics as time management, reading skills, goal setting, test preparation, etc. All St. Edward's students are encouraged to utilize these appointments through their entire college career. By doing so, you are increasing your chances of doing well not only in this course, but in your overall experience here at the University. To make an appointment, call APSS at 448-8660 or stop by Moody Hall 155.

**Tentative Weekly Schedule for COSC 3344.01 - Spring 2009:**

<i>Date</i>	<i>Planned Lecture Topic</i>	Text References
1/13, 1/15, 1/20, 1/22	Overview of Computer Networks and the Internet	Chapter 1
1/27	<b>EXAM 1</b>	
1/29, 2/3, 2/5, 2/10, 2/12	Application Layer, HTTP, FTP, SMTP, DNS, and Socket Programming	Chapter 2
2/17	<b>EXAM 2</b>	
2/19, 2/24, 2/25, 3/3, 3/5	Transport Layer, Reliable Data Transfer, TCP, and Congestion Control	Chapter 3
3/10	<b>EXAM 3</b>	
3/12	Link-State Routing Algorithm	Section 4.5.1
3/16-3/20	<i>SPRING BREAK</i>	
3/24, 3/26, 3/31, 4/2	Network Layer, Distance Vector Routing, Internet, Broadcast, and Multicast Routing	Chapter 4
4/7	<b>EXAM 4</b>	
4/9	<i>EASTER BREAK</i>	
4/14, 4/16, 4/21, 4/23, 4/28	Network Security, Cryptography, Authentication, Message Integrity, and Firewalls	Chapter 8
4/30	Review Day	
Tuesday 5/5	<b>Final EXAM</b> 3:45pm-5:45pm	