Department of Computer Science

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COURSE SYLLABUS COSC 2327 INTRODUCTION TO COMPUTER NETWORKS 3 Credit Hours, Spring 2018

Class Meeting: Jan 17, 2018 – May 10, 2018

AB1, Room 204, MWF 11:00AM - 11:50AM

Blackboard Learning Management System – http://blackboard.shsu.edu

Instructor: Dr. Min Kyung An

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Office Hours: TBA

Teaching Assistant: TBA

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Course Description:

This course introduces the underlying concepts and principles of modern computer networks, with the introduction of protocols, architectures, and implementation issues. Students will learn how/why these protocols and architectures work by using the layered organization of the Internet in a top-down fashion: Application, Transport, Network, Data Link and Physical layers. The technical details in application layers and the principle of reliable data transfer in transport layers are focused in this class. Students will also implement network applications using the existing network protocols and architectures. (Prerequisites: CS 1436. Credit 4. Programming Fundamentals I)

Course IDEA Objectives:

Based on the Individual Development & Educational Assessment (IDEA), at the end of this course, the ideal student should be able to present the following essential and important objectives:

(1) Gaining a basic understanding of the subject (e.g., factual knowledge, methods, principles, generalizations, theories).

Course Objectives:

At the end of this course, students should be able to: configure computer systems on a local area network; describe the structure of network communication; design a simple local area network; figure out IP address; understand the protocols of networking; and describe the issues surrounding network security.

Required Textbooks: <u>Textbooks</u>: Computer Networking (7th Edition), by James F. Kurose, & Keith W. Ross,

Addison-Wesley, 2016, ISBN: 9780133594140

Optional Reference: 1. Java Networking Tutorial

http://download.oracle.com/javase/tutorial/networking/index.htm,

2. Examples for Java Network Programming,

http://www.ibiblio.org/java/books/jnp3/examples/index.html

- 3. Applied Networking Labs by Randall Boyle. Prentice Hall, ISBN-13: 9780132310345
- 4. Python programming languages. http://www.python.org/

Course Requirements:

SHSU E-mails:

Students are required to check SHSU E-mails regularly as announcement and reminders will be sent to SHSU e-mails.

Reading:

Reading assignment of textbook chapter(s), textbook slide(s), and supplementary material(s) will be posted on Blackboard. Although reading assignments won't be explicitly graded, it is a critical to catch up with course contents; thus, please make sure you are not to be behind.

Quizzes:

From time to time, lectures will start (or end up) with a closed-book quiz.

Exams:

Three closed-book exams will be given. Students will be given at least one week notice for the date of these exams. All the examinations are written examinations. There is no make-up examination available for any students. Students who fail to take the third examination fail the class automatically unless excused for good cause by the college Dean. Also, students are required to ask any questions on each graded paper within one week after each posting.

Assignments:

Homework assignments will be given periodically in a various form (solving problems, hand-on projects, short papers, etc). Unless otherwise mentioned, no email submissions will be accepted, and each homework should be turned in Blackboard before/on the due date. Late submissions will NOT be accepted, and there will be no exceptions. Graded homework with the instructor's comments will be uploaded on Blackboard usually within a week from the due date, and students are required to request correction(s) on grading within a week after each grade's posting.

Classroom Participation:

Students are expected to pay attention during lectures, to be respectful listening when the instructor or your peers are speaking, and to be fully engaged in your learning without texting, checking your phone or email, or participating in other digital distractions. *No cell phones are allowed during lectures*. If you are distracting others in your lack of participation, you will hear from instructor via email or in a short face-to-face conference before, during or after class, and *participation points will be taken away throughout the semester*.

Attendance:

In accordance with University Policy, regular attendance is required and your attendance will be seriously monitored. Students are expected to arrive to the classroom *on time*, otherwise no full attendance credit for the day will be given. You are responsible for all material covered in every class, regardless of whether you attended or not. It is your responsibility to obtain notes, assignments, etc., from fellow class members if you miss a class.

Grading Criteria:

Classroom Participation (5%) + Attendance (10%) + Quizzes (20%) + Exams (15%, 20%, 20%) + Assignments (10%) = TOTAL (100%)

Course letter grades will be assigned according to the following:

90% ≤ TOTAL ≤ 100% → "A" 80% ≤ TOTAL < 90% → "B" 70% ≤ TOTAL < 80% → "C" 60% ≤ TOTAL < 70% → "D" 0% ≤ TOTAL < 60% → "F"

E-mail:

E-mail communication is naturally the best way to communicate with the instructor. Please understand that the instructor will NOT respond to any E-mails that do not follow appropriate etiquette. At a minimum, your email must include your name, course information, and specifics of your question. It must not include common IRC chat lingo or shorthand. If your email does not conform to the above mentioned minimum requirements, then your email will not be answered.

(Note: Please add "COSC2327" in the subject of each e-mail so that the instructor can easily retrieve the emails from students in COSC2327.)

Blackboard:

It will be the only source of all course related materials including homework problem sets and additional notes. Please familiarize yourselves with the course environment. While the instructor will try to provide all the prerequisite foundations materials required for the course, students are expected to possess a certain level of computing maturity and the desire to learn new concepts and naturally willing to work hard in this process to succeed in the course.

Rules of Conduct:

Students will refrain from behavior in the classroom that intentionally or unintentionally disrupts the learning process and, thus, impedes the mission of the university. Please turn off or mute your cellular phone before class begins. Students are prohibited from eating in class, using tobacco products, making offensive remarks, reading newspapers, sleeping, talking among each other at inappropriate times, wearing inappropriate clothing, or engaging in any other form of distraction. Inappropriate behavior in the classroom shall result in a, minimally, a directive to leave class or being reported to the Dean of Students for disciplinary action in accordance with university policy.

Academic Dishonesty:

All students are expected to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain complete honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. The university and its official representatives may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including, but not limited to, cheating on an examination or other academic work which is to be submitted, plagiarism, collusion and the abuse of resource materials.

No cheating on an examination or assignments is allowed. A score of zero will be given to the student if such a case occurred.

Other Administrative Matters:

Americans with Disabilities Act:

It is the policy of Sam Houston State University that individuals otherwise qualified shall not be excluded, solely by reason of their disability, from participation in any academic program of the university. Further, they shall not be denied the benefits of these programs nor shall they be subjected to discrimination. Students with disabilities that might affect their academic performance should register with the Office of Services for Students with Disabilities located in the Lee Drain Annex (telephone 936-294-3512, TDD 936-294-3786, and e-mail <u>disability@shsu.edu</u>). They should then make arrangements with their individual instructors so that appropriate strategies can be considered and helpful procedures can be developed to ensure that participation and achievement opportunities are not impaired.

SHSU adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with disabilities. If you have a disability that may affect adversely your work in this class, then I encourage you to register with the SHSU Services for Students with Disabilities and to talk with me about how I can best help you. All disclosures of disabilities will be kept strictly confidential. NOTE: No accommodation can be made until you register with the Services for Students with Disabilities. For a complete listing of the university policy, see: http://www.shsu.edu/dept/academic-affairs/documents/aps/students/811006.pdf.

Religious Holidays:

An institution of higher education shall excuse a student from attending classes or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence.