Syllabus: CSTE 7315. Educational Network Design
Fall 2017
Department of Computer Science
Sam Houston State University

General Information
- Instructor: Donggil Song, Ph.D.
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Office Hours
- Available online most times during this semester
- Virtual office hours: Monday & Thursday: 9am – 12pm
- Email is the best way to communicate

Course Description
This course examines the technical, environmental, and policy issues involved in the development of educational technology infrastructures, focusing on network design and evaluation. This is a 100% online course. There will be no face-to-face meetings required.

Course Objectives
At the end of this course students should be able to:
- Analyze the trend of the network design and technical foundations
- Apply systematic approaches to the App design focusing on data and network flow
- Create an instructional App development project proposal

Textbook
No textbook is required for this course.

Topic Readings
Topic readings include but **not limited to** the following:
- Topic 1. Network design basic
  - Computer network definitions: Google "computer network"
  - Network design: https://www.techopedia.com/definition/30186/network-design
  - The basics of computer networking: http://freedomtoteach.collins.co.uk/teaching-the-basics-of-computer-networking/
- Topic 2: Server technology
  - Web server: Google "web server"
  - Server in Computer Networking: https://www.lifewire.com/servers-in-computer-networking-817380
  - Server software: Google "server software"
- Topic 3: Database system
  - Database system: Google "database system"
  - SQL & NoSQL: Google "sql vs nosql"
  - Database design: Google "database design"

- Topic 4: Client – server networking
  - Introduction to client server networks: https://www.lifewire.com/introduction-to-client-server-networks-817420
  - Web application: Google "web application"
  - Client – server network: Google "client server network"
  - Network packet: Google "computer network packet"
- Topic 5: LMS and LTI
  - LMS: Google "learning management system"
  - LMS external app: Google "LMS external app"
  - LTI: Google "learning tools interoperability"

Tasks and Grading (Total 500 points)*
- Task 0. Weekly self-regulated learning activity (4 points X 15 weeks = 60 points)
- Task 1 – 5. Class participation (20 points X 4 topics** = 80 points)
- Task 6. Topic presentation & teaching (80 points)
- Task 7 – 13. App design project (280 points)
  - Task 7. Needs analysis (30 points)
  - Task 8. Database design (30 points)
  - Task 9. Network design (30 points)
  - Task 10. Design document (30 points)
  - Task 11. Presentation (80 points)
  - Task 12. Peer review (20 points)
  - Task 13. Final paper (60 points)

* All tasks are individual tasks.

* If the required tasks are completed after the due date, the penalty points will be applied to each late assignment:
- 10% penalty between 0 – 24 hours
- 20% penalty between 24 – 48 hours
- 100% penalty after 48 hours
- For the fourth time and any further delayed to turn in the late assignment, no grade will be issued.
- There will be no extra credit project offered to make up any missing points.

** The class participation task (Task 1 – 5) will be waived for the week you participate in Task 6.

Grading Criteria
- A: 450 – 500
- B: 400 – 449
- C: 350 – 399
- F: Below 349

Course Schedule

Week	Dates	Topic	Task*
1	8/23 – 8/29	Preview and topic assign	

2	8/30 – 9/5	Network overview & App design project introduction	
3	9/6 – 9/12	Topic 1. Network design basic	Task 1, Task 6
4	9/13 – 9/19	Topic 2. Server technology	Task 2, Task 6
5	9/20 – 9/26	Topic 3. Database system	Task 3, Task 6
6	9/27 – 10/3	Topic 4. Client – server networking	Task 4, Task 6
7	10/4 – 10/10	Topic 5. LMS and LTI	Task 5, Task 6
8	10/11 – 10/17	Needs analysis	Task 7
9	10/18 – 10/24	Database design	Task 8
10	10/25 – 10/31	Network design	Task 9
11	11/1 – 11/7	Design document	Task 10
12	11/8 – 11/14	Presentation	Task 11
13	11/15 – 11/21	Peer review	Task 12
14	11/22 – 11/28	Review & Thanksgiving	
15	11/29 – 12/5	Final paper	Task 13

*Note: Every week has Task 0 (Weekly self-regulated learning activity).
**Note: Week 2 – 6 have Task 6 (Topic presentation & teaching).

Tests

This course is a project-based course and does not require tests or final exams.

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.

The students are not allowed to turn in or modify any projects or files from other classes to earn academic credits toward to this course, unless the students obtain a written permission from the professor.

Students with Disabilities Policy

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 disability@shsu.edu). 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 Observance
University policy allows for student to observe religious holy days without penalty. If you intend to miss class or project due dates as a result of the observance of a religious holy day or as a result of the necessary traveling time required for religious observance, such an absence will not be penalized. As a courtesy, it would be appreciated if you notify the instructor in advance in writing, of the dates and times of class sessions that are to be missed.

Drop Dates
See academic calendar: http://www.shsu.edu/~reg_www/academic_calendar/

Academic Probation and Suspension (from the Graduate Catalog 2016-2017)
In order to achieve and remain in academic good standing at Sam Houston State University, a graduate student must maintain an overall grade point average of at least 3.0 on all graduate coursework attempted. A graduate student who falls below a 3.0 overall grade point average at the close of any semester during which one or more semester credit hours are attempted will be placed on probation. If an enrolled student on probation fails to achieve a minimum 3.0 overall grade point average at the close of the next semester or summer school following the starting of the probation, the student will be suspended. A 3.0 overall grade point average is the absolute minimum required for graduation. A student who earns three grades of "C" or one grade of "F" will be terminated from graduate studies.