CSCI 524 Analysis & Design of Software Systems

2018 Spring Syllabus

CSCI   524   Analysis & Design Softwr Sys   Hours: 3
01W   21037   Tanik, Urcun   30   34
Meets 2/1/2018 through 5/11/2018
Web Based Class
Vita   Books/Materials
FLEX course
Prerequisites: Lvl G CSCI 515 Min Grade B

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TEXTBOOK:
System Analysis and Design - 10th Edition by Harry J Rosenblatt, Shelly Cashman Series, 2014, ISBN: 978-1-285-17134-0, ISBN10: 1-285-17134-9, ISBN13: 978-1-285-17134-0

Supplementary Text:
1. *Systems Analysis and Design in a Changing World* (Fifth Edition), 2009, John W. Satzinger, Robert B. Jackson, Stephen D. Burd, ISBN: 9781423902287 (Required from CSCI 359)

2. *Applying UML and Patterns: an Object-Oriented Analysis and Design and Iterative Development,* 2004, Craig Larman, Addison Wesley Professional, ISBN: 0-13-148906-2
   https://aanimesh.files.wordpress.com/2013/09/applying-uml-and-patterns-3rd.pdf

3. *Guide to the Software Engineering Body of Knowledge* (SWEBOKv3), 2015
   http://www.computer.org/web/swebok/v3

4. *Multidisciplinary Systems Engineering: Architecting the Design Process,* 2015, James A. Crowder, John N. Carbone, Russell P. Demijohn, (New TAMUC Advisory Board book from Raytheon available on course website)

5. *Managing and Leading Software Projects*, 2011, John Wiley & Sons, Richard E. Fairley (Available online)

COURSE DESCRIPTION:
CSCI 524 - Analysis & Design Softwr Sys
Hours: 3
Systems Analysis and Design. Three semester hours. This course will provide the student with the opportunity to experience the several phases of conventional software development. Established software engineering practices will be presented. Various software architectures will be introduced. Each student is

expected to fully participate in a team project over the course of the semester. Prerequisites: CSCI 515 and 520.
Credit hours: 3.

STUDENT LEARNING OUTCOMES:
1. Identify the main components of designing of a software system,
2. Explain project management concepts early in the systems development process,
3. Successfully tackle mini-cases and respond to real-life ethical issues in an IT environment,
4. Describe structured, object-oriented, and agile systems development methods,
5. Explain the importance of planning, implementing, and managing an effective IT security program,
6. Explain how IT supports business requirements in today's intensely competitive environment, and describe major IT developments and trends.

TENTATIVE COURSE OUTLINE:
Following is the tentative schedule of the topics that will be covered in this course. This schedule is subject to change so it's students' responsibility to watch for course announcements that will be posted on course eCollege site.

Week	Chapter	Topic
1	1	Introduction to Systems Analysis and Design
2	2	Analyzing the Business Case
3	3	Managing Systems Projects
4	4	Requirements Modeling
5	5	Data and Process Modeling
6	6 Midterm	Object Modeling (Midterm – till chapter 6)
7	7	Development Strategies
8	8	User Interface Design
9	9	Data Design
10	10	System Architecture
11	11	Managing Systems Implementation
12	12	Systems Support and Security
13	Project v1	Project/review
14	Project v2	Project/review
15	Final Exam	Final due

EVALUATION

Attendance (virtual), class-participation & quizzes 10%
Homework Assignments 20%
Project 20%
Midterm Exam 20%
Final Exam (Comprehensive of all the material covered) 30%

100%

Letter grades will be assigned according to the following scale:

A - at least 90% of the total points
B - at least 80% of the total points
C - at least 70% of the total points
D - at least 60% of the total points
F - less than 60% of the total points

COURSE REQUIREMENTS: FOLLOW POSTED Rubric on Wix site provided on e-college
Assignments: See course site in e-college for posted assignments, slides and other support material.
Project work involves teamwork following industry best practices. There will be regularly assigned
homework problems, which may require the application of various software packages. Assignments will
be given and returned online via the online eCollege system. It is the student's responsibility to login and
check the course eCollege site daily for announcements, assignments and course-related content.
Quizzes: Quizzes may be given as needed.
Exams: Two exams will be given, one midterm exam and one final exam. Midterm exam will primarily
cover topics from Chapters 1-6 (and project), and final exam will be comprehensive.
Policy: Follow all rules of ethics, e.g. you should do your own work on exams/projects and for
assignments. Copying another student's work is not acceptable. As stated in the "Academic Ethics"
section, any indication of cheating and/or plagiarism on an assignment or exam will be an automatic 0
(zero) for all students involved, in addition to disciplinary action.

ATTENDANCE: 100% ONLINE
Check e-college M-F, as a quiz may be given to check attendance anytime. Each student is expected to
regularly login to the course website at TAMUC eCollege. Be sure to login regularly each week to view a
chapter presentation, to take a quiz or submit an assignment. N/A for online: If you are late three times
for more than 15 minutes (or miss more than three classes with unexcused absence), you will
automatically drop a letter grade. If you miss more than five classes with unexcused absence, you will
automatically fail the course.

COMMUNICATION:
All announcements and updates about the course will be posted on course eCollege site. You will
also find chapter presentations, quizzes, assignments and/or exams on this portal. For any questions
you may have, you can contact me via email during weekdays and I will respond quickly. Each student is
responsible for the content/instructions of email communications.

ACADEMIC ETHICS:

"All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment." (See Student's Guide Handbook, Policies and Procedures, Conduct). Ethics include the issue of plagiarism, and copying parts or whole of assignments, quizzes and exams is just as serious as any other type of plagiarism. Any indication of cheating and/or plagiarism on an exam/assignment/project will be an automatic 0 (zero) for the exam/assignment/project for all students involved. Yet, based on cheating and plagiarism activity in any section of the class, instructor holds the right to give F grade for the course to the identified student(s).

STUDENTS WITH DISABILITIES
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:
Office of Student Disability Resources and Services
Texas A&M University-Commerce
Gee Library, Room 132
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
StudentDisabilityServices@tamu-commerce.edu

DISCLAIMER:
This syllabus is meant to provide general guidance of what to expect from this course. The instructor reserves the right to make changes as appropriate based on the progress of the class. All changes made to this syllabus during the semester will be announced. This document has been posted electronically. If you print a copy of it, please be sure to consult the last modified date of the online version to verify that your printed copy is current.

Smoke, Vapor & Tobacco Free Environment:
University Procedure 34.05.99.R1 now prohibits the use of vapor/electronic cigarettes, smokeless tobacco, snuff and chewing tobacco inside and adjacent to any building owned, leased, or operated by A&M – Commerce

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations. For a list of locations, please refer to (http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfE mployeesAndStudents/34.06.02.R1.pdf) and/or consult your event organizer). Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

Nondiscrimination Notice Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an

environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.