CSCI 359.0SB System Analysis & Design

COURSE SYLLABUS: Spring 2017

INSTRUCTOR INFORMATION

Instructor: Dr. Donghwoon Kwon

Office Location: JOUR 209
Office Hours: Tue & Thur 01:00PM-04:00PM

Office Phone: N/A
Office Fax: N/A

University Email Address: donghwoon.kwon@tamuc.edu

Preferred Form of Communication: Email
Communication Response Time: Within 24 hours

COURSE INFORMATION

Textbook(s) Required

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

Optional Texts and/or Materials

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

Guide to the Software Engineering Body of Knowledge (SWEBOKv3) published by IEEE Computer Society Press, http://www.computer.org/web/swebok/v3

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)

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

A Guide to the Project Management Body of Knowledge (PMBOK guide 5th edition)

The syllabus/schedule are subject to change.

published by Project Management Institute (PMI), ISBN-10: 1935589679, ISBN-13: 978-1935589679

Course Description
This course will provide the student with the opportunity to experience the several phases of conventional software development in conjunction with software engineering and project management practices. This course will also focus on in-depth knowledge as well as practical experience based on scenario-based and / or real case studies. Various software architectures will be introduced. Each student is expected to fully participate in a team project over the course of the semester.

Student Learning Outcomes (Should be measurable; observable)

Students will be able to
(SLO #1) An ability to apply knowledge of computing and mathematics appropriate to the discipline
(SLO #2) An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution
(SLO #3) An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs
(SLO #4) An ability to function effectively on teams to accomplish a common goal
(SLO #5) An ability to communicate effectively with a range of audiences
(SLO #6) Recognition of the need for and an ability to engage in continuing professional development
(SLO #7) An ability to use current techniques, skills, and tools necessary for computing practice.

COURSE REQUIREMENTS

Instructional Methods

1. Lectures: Important material from the text and outside sources will be covered in class. Students should plan to take careful notes as not all material can be found in the texts or readings.
2. Assignments: 4 team assignments will be given to students.
3. Quizzes: Occasional announced quizzes will be given to help ensure students keep up with assigned material.
4. Exams: Two exams will be given, one midterm exam and one final exam. Midterm exam will primarily cover topics from week 1-7, and final exam will be comprehensive.

GRADING

Final grades in this course will be based on the following scale:

% of Total Points	Grade
90%-100%	A
80%-89%	B
70%-79%	C
60%-69%	D
59% or Below	F

Category	Percentage
Midterm	20%
Final Exam	20%
Term Project	30%
Quizzes	10%
Assignments	10%
Presentation	10%

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TECHNOLOGY REQUIREMENTS

- To fully participate in online courses you will need to use a current Flash enabled internet browser. For PC and Mac users the suggested browser is Mozilla Firefox.

- You will need regular access to a computer with a broadband Internet connection. The minimum computer requirements are:
    - o 512 MB of RAM, 1 GB or more preferred
    - o Broadband connection required courses are heavily video intensive
    - o Video display capable of high-color 16-bit display 1024 x 768 or higher resolution

- You must have a:
    - o Sound card, which is usually integrated into your desktop or laptop computer
    - o Speakers or headphones.
    - o *For courses utilizing video-conferencing tools and/or an online proctoring solution, a webcam and microphone are required.

- Both versions of Java (32 bit and 64 bit) must be installed and up to date on your machine. At a minimum Java 7, update 51, is required to support the learning management system. The most current version of Java can be downloaded at: JAVA web site   http://www.java.com/en/download/manual.jsp

- Current anti-virus software must be installed and kept up to date.

- Run a browser check through the Pearson LearningStudio Technical Requirements website. Browser Check   http://help.ecollege.com/LS_Tech_Req_WebHelp/en-us/#LS_Technical_Requirements.htm#Browset

    Running the browser check will ensure your internet browser is supported.
        Pop-ups are allowed.
        JavaScript is enabled.
        Cookies are enabled.

- You will need some additional free software (plug-ins) for enhanced web browsing. Ensure that you download the free versions of the following software:
    - o Adobe Reader https://get.adobe.com/reader/
    - o Adobe Flash Player *(version 17 or later)* https://get.adobe.com/flashplayer/
    - o Adobe Shockwave Player   https://get.adobe.com/shockwave/
    - o Apple Quick Time   http://www.apple.com/quicktime/download/

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- At a minimum, you must have Microsoft Office 2013, 2010, 2007 or Open Office. Microsoft Office is the standard office productivity software utilized by faculty, students, and staff. Microsoft Word is the standard word processing software, Microsoft Excel is the standard spreadsheet software, and Microsoft PowerPoint is the standard presentation software. Copying and pasting, along with attaching/uploading documents for assignment submission, will also be required. If you do not have Microsoft Office, you can check with the bookstore to see if they have any student copies.

- For additional information about system requirements, please see: System Requirements for LearningStudio https://secure.ecollege.com/tamuc/index.learn?action=technical

ACCESS AND NAVIGATION

Pearson LearningStudio (eCollege) Access and Log in Information

This course will be facilitated using Pearson LearningStudio, the learning management system used by Texas A&M University-Commerce. To get started with the course, go to myLeo and from the top menu ribbon select eCollege.   Then on the upper left side of the screen click on the My Courses tab. http://www.tamuc.edu/myleo.aspx

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@tamuc.edu**.**

Note: It is strongly recommended you perform a "Browser Test" prior to the start of your course. To launch a browser test login to Pearson LearningStudio, click on the My Courses tab, and then select the Browser Test link under Support Services.

Pearson LearningStudio Student Technical Support

Texas A&M University-Commerce provides students technical support for the use of Pearson LearningStudio.

Technical assistance is available 24/7 (24 hours, 7 days a week).

If you experience LearningStudio (eCollege) technical problems, contact the LearningStudio helpdesk at 1-866-656-5511 (toll free) or visit Pearson 24/7 Customer Support Site http://247support.custhelp.com/

The student help desk may be reached in the following ways:

> **Chat Support:** Click on *'Live Support'* on the tool bar within your course to chat with a Pearson LearningStudio Representative.

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Phone: 1-866-656-5511 (Toll Free) to speak with Pearson LearningStudio Technical Support Representative.

Accessing Help from within Your Course: Click on the *'Tech Support'* icon on the upper left side of the screen inside the course.   Then you will be able to get assistance via online chat or by phone.

Note: Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

Policy for Reporting Problems with Pearson LearningStudio

Should students encounter Pearson LearningStudio based problems while submitting assignments/discussions/comments/exams, the following procedure must be followed:

1.   Students must report the problem to the help desk. You may reach the helpdesk at 1-866-656-5511.
2.   Students must file their problem with the helpdesk and obtain a helpdesk ticket number
3.   Once a helpdesk ticket number is in your possession, students should email me to advise me of the problem and provide me with the helpdesk ticket number.

4.   I will call the helpdesk to confirm your problem and follow up with you

PLEASE NOTE: Your personal computer and internet access problems are not a legitimate excuses for filing a ticket with the Pearson LearningStudio Help Desk. Only Pearson LearningStudio based problems are legitimate reasons to contact the Help Desk.

You strongly are encouraged to check for your internet browser compatibility **BEFORE** the course begins and take the Pearson LearningStudio tutorial offered for students who may require some extra assistance in navigating the Pearson LearningStudio platform.

myLeo Support
Your myLeo email address is required to send and receive all student correspondence. Please email helpdesk@tamuc.edu or call us at 903-468-6000 with any questions about setting up your myLeo email account. You may also access information at myLeo. https://leo.tamuc.edu

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Learner Support
The One Stop Shop was created to serve you by providing as many resources as possible
in one location. http://www.tamuc.edu/admissions/onestopshop/

The Academic Success Center provides academic resources to help you achieve
academic success.
http://www.tamuc.edu/campusLife/campusServices/academicSuccessCenter/

FREE MobilE APPS

The Courses apps for phones have been adapted to support the tasks students can easily
complete on a smaller device.   Due to the smaller screen size course content is not presented.

The Courses app is free of charge. The mobile Courses Apps are designed and adapted
for different devices.

PEARSON COURSES	**App Title:**	**iPhone –** Pearson LearningStudio Courses for iPhone **Android** – LearningStudio Courses - Phone
	Operating System:	**iPhone** - OS 6 and above **Android** – Jelly Bean, Kitkat, and Lollipop OS
	iPhone App URL:	https://itunes.apple.com/us/app/pearson-learningstudio-courses/id977280011?mt=8
	Android App URL:	https://play.google.com/store/apps/details?id=com.pearson.lsphone

Once downloaded, search for Texas A&M University-Commerce, and it should appear on the
list. Then you will need to sign into the myLeo Mobile portal.

The Courses App for Android and iPhone contain the following feature set:

• View titles/code/Instructor of all Courses enrolled in online
• View and respond to all discussions in individual Courses
• View Instructor Announcements in individual Courses
• View Graded items, Grades and comments in individual Courses
• Grade to Date
• View Events (assignments) and Calendar in individual Courses
• View Activity Feed for all courses
• View course filters on activities
• View link to Privacy Policy
• Ability to Sign out
• Send Feedback

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LearningStudio Notifications

Students can be alerted to course activities via text on their mobile phones or up to two email addresses.

Based on their preferences, students can automatically receive a push notification with every new: course announcement, threaded discussion post, grade, and/or assignment without having to login to the course. Enrolled students will automatically receive email notifications for announcements and can opt out of this feature. To receive text notifications, students must opt in.

To begin setting up notifications, go into your course in LearningStudio and click on the bell-shaped Notifications icon on the main menu ribbon.

By default the student's university email address will appear. This cannot be changed in LearningStudio. Additional email addresses may be added by clicking the Add button. After all of the other selections are completed be sure to click the Save and Finish button.

COMMUNICATION AND SUPPORT

Interaction with Instructor Statement

The instructor's communication response time and feedback on assessments are stated clearly.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

1. *Assignments*: All assignments are **team work** and **MUST** be turned in by the assigned deadlines. All assignments are due at the time specified. Please keep in mind that no late work will be accepted without penalty. If an assignment is turned in after the due date, **20%** of the grade will be forfeited each day. No assignment will be graded if submitted **5 or more days** after it is due. An assignment must be submitted within 5 days of the due date if you want it graded. All assignments must be placed in the appropriate Dropbox in eCollege.
2. *Attendance*: Each student is expected to be present at all class lectures. 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**.
3. *Examination Makeup Policy*: If a student is absent from an exam during the scheduled time for that exam, the student will automatically receive a grade of 0 for the exam unless:
   a. the student notifies the instructor of the absence prior to the exam and supplies a written doctor's excuse explaining the absence or
   b. there is an extraordinary situation which the instructor allows as an acceptable excuse (instructor needs to be notified within 24 hrs of the exam). If (a) or (b) applies, arrangements for a makeup exam will be made.
   It will be the responsibility of the student to show written documentation supporting the absence, from your team coach, physician, or other relevant authority.
4. *Policy on Academic Integrity*: 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

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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).

5. *Syllabus Change Policy*: The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

University Policies and Announcements

Student Conduct
All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the Student Guidebook. http://www.tamuc.edu/admissions/registrar/documents/studentGuidebook.pdf
Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: Netiquette http://www.albion.com/netiquette/corerules.html

TAMUC Attendance
For more information about the attendance policy please visit the Attendance webpage and Procedure 13.99.99.R0.01. http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf

Academic Integrity
Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

Undergraduate Academic Dishonesty 13.99.99.R0.03

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf

Graduate Student Academic Dishonesty 13.99.99.R0.10

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf

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:

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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
Email: Rebecca.Tuerk@tamuc.edu
Website: Office of Student Disability Resources and Services
http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/

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.

Campus Concealed Carry Statement

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 the Carrying Concealed Handguns On Campus document and/or consult your event organizer.

Web url:
http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployees
AndStudents/34.06.02.R1.pdf

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.

COURSE OUTLINE / CALENDAR

Week	Chapter	Topics
1	1	Introduction to Systems Analysis and Design **Assignment #1**: Create a project charter Due date: By 11:59PM, 02/05/2017
2	2	Analyzing the Business Case
3	3	Managing Systems Projects **Assignment #2**: Create a Project Management Plan (PMP) Due date: By 11:59PM, 03/05/2017
4	*	1st Assignment Presentation
5	4	Requirements Modeling
6	5	Data and Process Modeling

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7	6	Object Modeling **Assignment #3**: Create a Software Requirements Specification Due date: By 11:59PM, 04/02/2017
8	*	2nd Assignment Presentation Midterm
9	*	Spring Break
10	7	Development Strategies
11	8	User Interface Design **Assignment #4**: Create a Software Design Specification (SDS) Due date: By 11:59PM, 04/30/2017
12	*	3rd Assignment Presentation
13	9	Data Design
14	10	System Architecture
15	11	Managing Systems Implementation
16	12	Systems Support and Security and Review Session
17	*	Final Exam

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