



CSCI 524-01W Analysis & Design of Software Systems
COURSE SYLLABUS: Fall 2018

INSTRUCTOR INFORMATION

Instructor: U. John Tanik, Ph.D., Assistant Professor
Office Location: 210A
Office Hours:
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University Email Address: john.tanik@tamuc.edu
Preferred Form of Communication: email
Communication Response Time: few hours

COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings

Textbook(s) Required

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

Software Required: none

Optional Texts and/or Materials

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:

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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.

COURSE REQUIREMENTS

Minimal Technical Skills Needed

Examples include: Using the learning management system, using Microsoft Word and PowerPoint, using presentation and graphics programs such as Visio, MS Project, etc.

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Instructional Methods

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

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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@tamuc.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.

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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/34SafetyOfEmployeesAndStudents/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.

Student Responsibilities or Tips for Success in the Course

Remember quizzes can be given any time. It is recommended to login at least once per day to double-check for new announcements and expect to turn in an assignment weekly.

GRADING

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

- A = 90%-100%
- B = 80%-89%
- C = 70%-79%
- D = 60%-69%
- F = 59% or Below

Assessments

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

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D - at least 60% of the total points
F - less than 60% of the total points

Quizzes and homework will be given as needed to ensure learning outcomes are met before exams.

TECHNOLOGY REQUIREMENTS

Browser support

D2L is committed to performing key application testing when new browser versions are released. New and updated functionality is also tested against the latest version of supported browsers. However, due to the frequency of some browser releases, D2L cannot guarantee that each browser version will perform as expected. If you encounter any issues with any of the browser versions listed in the tables below, contact D2L Support, who will determine the best course of action for resolution. Reported issues are prioritized by supported browsers and then maintenance browsers.

Supported browsers are the latest or most recent browser versions that are tested against new versions of D2L products. Customers can report problems and receive support for issues. For an optimal experience, D2L recommends using supported browsers with D2L products.

Maintenance browsers are older browser versions that are not tested extensively against new versions of D2L products. Customers can still report problems and receive support for critical issues; however, D2L does not guarantee all issues will be addressed. A maintenance browser becomes officially unsupported after one year.

Note the following:

- Ensure that your browser has JavaScript and Cookies enabled.
- For desktop systems, you must have Adobe Flash Player 10.1 or greater.
- The Brightspace Support features are now optimized for production environments when using the Google Chrome browser, Apple Safari browser, Microsoft Edge browser, Microsoft Internet Explorer browser, and Mozilla Firefox browsers.

Desktop Support

Browser	Supported Browser Version(s)	Maintenance Browser Version(s)
Microsoft® Edge	Latest	N/A
Microsoft® Internet Explorer®	N/A	11
Mozilla®	Latest, ESR	N/A

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Browser	Supported Browser Version(s)	Maintenance Browser Version(s)
Firefox®		
Google® Chrome™	Latest	N/A
Apple® Safari®	Latest	N/A

Tablet and Mobile Support

Device	Operating System	Browser	Supported Browser Version(s)
Android™	Android 4.4+	Chrome	Latest
Apple	iOS®	Safari, Chrome	The current major version of iOS (the latest minor or point release of that major version) and the previous major version of iOS (the latest minor or point release of that major version). For example, as of June 7, 2017, D2L supports iOS 10.3.2 and iOS 9.3.5, but not iOS 10.2.1, 9.0.2, or any other version. Chrome: Latest version for the iOS browser.
Windows	Windows 10	Edge, Chrome, Firefox	Latest of all browsers, and Firefox ESR.

- You will need regular access to a computer with a broadband Internet connection. The minimum computer requirements are:
 - 512 MB of RAM, 1 GB or more preferred
 - Broadband connection required courses are heavily video intensive
 - Video display capable of high-color 16-bit display 1024 x 768 or higher resolution
- You must have a:
 - Sound card, which is usually integrated into your desktop or laptop computer

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- Speakers or headphones.
- *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](http://www.java.com/en/download/manual.jsp)
- Current anti-virus software must be installed and kept up to date.

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:
 - [Adobe Reader https://get.adobe.com/reader/](https://get.adobe.com/reader/)
 - [Adobe Flash Player \(version 17 or later\) https://get.adobe.com/flashplayer/](https://get.adobe.com/flashplayer/)
 - [Adobe Shockwave Player https://get.adobe.com/shockwave/](https://get.adobe.com/shockwave/)
 - [Apple Quick Time http://www.apple.com/quicktime/download/](http://www.apple.com/quicktime/download/)
- 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.

ACCESS AND NAVIGATION

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: 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.

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COMMUNICATION AND SUPPORT

Brightspace Support

Need Help?

Student Support

If you have any questions or are having difficulties with the course material, please contact your Instructor.

Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778 or click on the **Live Chat** or click on the words “[click here](#)” to submit an issue via email.



System Maintenance

D2L runs monthly updates during the last week of the month, usually on Wednesday. The system should remain up during this time unless otherwise specified in an announcement. You may experience minimal impacts to performance and/or look and feel of the environment.

Interaction with Instructor Statement

You may contact the instructor by text anytime if email response is not sufficient (posted in LMS).

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

Attendance online is checked often with quiz response in addition to HW as indicated by announcements. Late Work, Missed Exams, may not be acceptable unless extenuating circumstances. Extra Credit may be given in some instances (see announcements).

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.

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University Specific Procedures

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/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx>

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>

ADA Statement

Students with Disabilities

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learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

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Texas A&M University-Commerce

Gee Library- Room 162

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

Email: studentdisabilityservices@tamuc.edu

Website: [Office of Student Disability Resources and Services](#)

<http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/>

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Campus Concealed Carry Statement

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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/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>

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COURSE OUTLINE / CALENDAR

COURSE OUTLINE:

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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

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