

# **CSCI440.0SE & 7RE Applied Software Project Development**

COURSE SYLLABUS: FALL 2017 R 4:30PM-7:10PM, BA 338

#### INSTRUCTOR INFORMATION

Instructor: (Name & Title) Dr. Abdullah N. Arslan

Office Location: JOUR 206

Office Hours: T&R: 10:30am-12:30pm, F: 4:10pm-5:10pm

Office Phone: 903 468 3097 Office Fax: 903-886-5404

University Email Address: Abdullah.Arslan@tamuc.edu

Preferred Form of Communication: e-mail Communication Response Time: 24 hrs

## **COURSE INFORMATION**

## Materials - Textbooks, Readings, Supplementary Readings

## Textbook(s) Required

Systems Analysis and Design in a Changing World (Fifth or Higher Edition), 2009, John W. Satzinger, Robert B. Jackson, Stephen D. Burd, ISBN: 9781423902287

The professor will make supplementary information for the course available online. These include class notes, assignments, PowerPoint slides, class announcements, the course syllabus, test dates, etc. The professor will announce in class when such information becomes available electronically. It is the student's responsibility to follow these announcements.

## Software Required

Microsoft Vision for creating project documents

#### 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 <a href="https://aanimesh.files.wordpress.com/2013/09/applying-uml-and-patterns-3rd.pdf">https://aanimesh.files.wordpress.com/2013/09/applying-uml-and-patterns-3rd.pdf</a>
- **2.** *Managing and Leading Software Projects*, 2011, John Wiley & Sons, Richard E. Fairley (Available online)
- **3.** Guide to the Software Engineering Body of Knowledge (SWEBOKv3) <a href="http://www.computer.org/web/swebok/v3">http://www.computer.org/web/swebok/v3</a>
- **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)

## **Course Description**

Hours: 3

A capstone project to provide the student with experience with analysis, design and implementation of a semester project as a member of a systems development team. Prerequisite: CSCI 359, 380; BUSA 428 or permission of instructor.

In this course, we review briefly the topics on the traditional and object oriented approaches to software development covered in prerequisite courses. The students will put their knowledge on these topics at work on the projects they select at the beginning of the semester.

The main objective is to teach students basics of the software engineering (SE) process life cycle, and develop a project with which the acquired knowledge is put into practice. The project is a major component of this course

## Student Learning Outcomes

- 1. Develop and maintain an informational and project repository web site for an application project.
- 2. Use Microsoft Visio to create, edit, and publish to a web site traditional process model diagrams.
- 3. Use Microsoft Visio to create, edit, and publish to a web site Entity-Relationship diagrams.
- 4. Develop and use a team constitution.
- 5. Solve team conflicts in a project building environment.
- 6. Build user-friendly, aesthetic, and functional interfaces for application software projects.
- 7. Create a database using an Entity-Relationship diagram.
- 8. Develop and implement a system application project in an object-oriented programming language using traditional process model diagrams as a guide.
- 9. Connect a database and interface to software project.

- 10. Create system documentation including help files, diagrams, and programming code.
- 11. Present the final project to an audience consisting of faculty, peers, administrators, and business leaders.
- 12. Evaluate other team members based upon specific criteria. (Derived based on team member evaluations.)

#### **COURSE REQUIREMENTS**

#### Minimal Technical Skills Needed

Students must know how to use the learning management system, Microsoft Word and PowerPoint, presentation and graphics programs.

#### Instructional Methods

The instructor will lecture on software development topics. The parts of the lectures will be devoted to reviewing material on these topics. In parts of the lectures, students will report the status of their work. Students will use some of the lecture time working on their projects. The instructor will join students in these activities.

## Student Responsibilities or Tips for Success in the Course

Students must regularly log into the course website for announcements. Students need to on their report their every week and participate in team's work.

#### **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

Final score will be out of 100, and the above percentages will be applied to student's total score to determine the letter grade.

#### Assessments

Assignments/project documentation	35%
Midterm Project Presentation	15%
Midterm Exam	10%
Final Project Presentation	25%
Final Exam	15%

The assessment of your work will be largely based on your team project and your contributions to your project. The exams and project presentations will provide relevant information in this regard.

## **TECHNOLOGY REQUIREMENTS**

- To fully participate in online activities 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
  - 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
  - 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: <u>JAVA web site http://www.java.com/en/download/manual.jsp</u>
- Current anti-virus software must be installed and kept up to date.
- Run a browser check through the Pearson LearningStudio Technical Requirements website. <u>Browser Check http://help.ecollege.com/LS\_Tech\_Req\_WebHelp/en-us/#LS\_Technical\_Requirements.htm#Browset</u>

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/
  - Adobe Flash Player (version 17 or later) https://get.adobe.com/flashplayer/
  - Adobe Shockwave Player https://get.adobe.com/shockwave/
  - Apple Quick Time http://www.apple.com/guicktime/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.
- For additional information about system requirements, please see: <u>System Requirements for LearningStudio</u>
   <a href="https://secure.ecollege.com/tamuc/index.learn?action=technical">https://secure.ecollege.com/tamuc/index.learn?action=technical</a>

## **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 <a href="mayleo">myleo</a> and from the top menu ribbon select eCollege. Then on the upper left side of the screen click on the My Courses tab. <a href="http://www.tamuc.edu/myleo.aspx">http://www.tamuc.edu/myleo.aspx</a>

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.

• **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
- 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 <a href="mailto:helpdesk@tamuc.edu">helpdesk@tamuc.edu</a> or call us at 903-468-6000 with any questions about setting up your myLeo email account. You may also access information at myLeo. <a href="https://leo.tamuc.edu">https://leo.tamuc.edu</a>

#### **Learner Support**

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

The <u>Academic Success Center</u> 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	App Title:	iPhone – Pearson LearningStudio Courses for iPhone
رلےا		Android – LearningStudio Courses - Phone
COURSES	Operating	iPhone - OS 6 and above
	System:	Android – Jelly Bean, Kitkat, and Lollipop OS
	iPhone	https://itunes.apple.com/us/app/pearson-learningstudio-
	App URL:	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

## **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 <u>opt out</u> 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 will respond to your questions within 24 hrs unless there are exception situations such as sickness.

#### COURSE AND UNIVERSITY PROCEDURES/POLICIES

## Course Specific Procedures/Policies

Due dates for parts of projects will be announced at least one week before the deadline.

#### **Late Policy:**

NO late assignments and project will be accepted.

#### Make-up Policy:

No individual make-up test will be permitted except in the case of a formal institutional excuse. There will be no makeup for assignments and project.

## During the written exams laptops and phones must be switched off all the time. Attendance:

"Students are expected to be present for all class meetings of any course for which they are enrolled. Per University Procedure A13.02, effective September 1, 1996, students are responsible for learning about and complying with the attendance policy stated in the catalog, Student's Guidebook, and/or faculty syllabus. It is the prerogative of the faculty to drop students from courses in which they have accrued excessive absences as defined in the course syllabus." **Student Handbook** 

The instructor will take the attendance at the beginning of each lecture and only once. If a student misses 3 or more lectures without legitimate reasons, the instructor will make the student drop the course. If this is not possible, the letter grade of 'F' will be assigned to the student.

Parts of the lectures are also the times when teams meet to work and report on the project. The student is not doing his/her part when he/she misses a lecture.

Lateness and leaving class early may count as an absence and are not acceptable unless you are ill or a family emergency exists. If you miss a class, it is your responsibility to obtain notes from a fellow student. Office hours are not meant for individual lectures. Any class material missed by the student is the student's responsibility to acquire.

## 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 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 <a href="Student Guidebook">Student Guidebook</a>.
<a href="http://www.tamuc.edu/admissions/registrar/documents/studentGuidebook.pdf">http://www.tamuc.edu/admissions/registrar/documents/studentGuidebook.pdf</a>

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: <a href="Netiquette">Netiquette</a>
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#### CHEATING WILL NOT BE TOLERATED

#### **Academic Dishonesty:**

Academic integrity is the pursuit of scholarly activity free from fraud and deception and is an educational objective of this institution. Academic dishonesty includes, but is not limited to, **cheating**, **plagiarizing**, fabricating of information or citations, facilitating acts of academic dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students. If you are caught in an academic dishonesty situation on **any** course work, you will be given a grade of **F** for the course and referred to the Dean of Students for further disciplinary action. "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, Polices and Procedures, Conduct**).

#### Withdrawal Policy:

There are deadlines for withdrawing from this course. It is the student's responsibility to follow these deadlines.

#### TAMUC Attendance

For more information about the attendance policy please visit the <u>Attendance</u> webpage and <u>Procedure 13.99.99.R0.01.</u> 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:

<u>Undergraduate Academic Dishonesty 13.99.99.R0.03</u>

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**

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

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:

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/

**Smoke, Vapor & Tobacco Free Environment:** 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.

#### **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 <u>Carrying Concealed Handguns On Campus</u> document and/or consult your event organizer.

#### Web url:

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/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**

#### TOPICS/ACTIVITIES BY WEEKS

WEEK	TOPIC	
1-2	Project selection, Assignment #1 is posted.	
3	Project launch, team introductions, scope, planning, Assignment	
	1 is due. Assignment 2 is posted.	
4-5	Project Analysis, Assignment 2 is due. Assignment 3 is posted	
	on Week 4, due Week 5.	
6	Midterm Project Presentation and Midterm Exam	
7-9	Project Design, Assignment 4 is posted on Week 7 due Week 8,	
	Assignment 5 is posted on Week 8 and due Week 9.	

10-13	Project Implementation and Testing, Assignment 6 is posted on Week 11, due Week 13.
14	Final Project Presentation and Final Exam