# Syllabus CSCI 359.7RB – System Analysis & Design Texas A&M University Commerce Fall 2017

Instructor: Omar El Ariss Office Location: JOUR 238 Email: Omar.El.Ariss@tamuc.edu

**Phone**: 903-886-5403 **Office Hours**:

| Day            | Time               |  |
|----------------|--------------------|--|
| Tuesday        | 11:00 am - 1:00 pm |  |
|                | 3:15 pm - 4:15 pm  |  |
| Thursday       | 3:30 pm - 6:30 pm  |  |
| By appointment |                    |  |

## Meeting Time and Place

Tuesday, Thursday: 2:00 pm to 3:15 pm, BA338

#### **Text Book**

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

## Prerequisite

CSCI 340 (concurrently) or CSCI 270 (Min Grade C)

#### Goal

The main goal of this course is to introduce students to the several phases of the traditional structured analysis, object-oriented concepts, and agile methods approach to systems analysis and design. This course introduces the major concepts, techniques, and challenges of software engineering so that students can prepare for their future careers as software engineers. Moreover, students will participate in group projects to obtain hands-on experiences on the software development life cycle.

#### **Course Outcomes**

Upon completion of the course, students will be able to:

- Discuss key principles for software project management such as cost estimation and risk analysis.
- o Explain well known software development process models.
- Develop an awareness of the different approaches that might be taken towards systems analysis and design.
- Ability to analyze a problem, and define the computing requirements appropriate to its solution.
- O Use modeling techniques (such as UML diagrams) to specify the requirements and design of an information system.

- o Understand and apply software testing techniques.
- o Communicate effectively with a range of audiences.
- o Function effectively on teams to accomplish a common goal.

# **Homework Assignments**

Homework will consist of a number of individual and group in class work to ensure your understanding of class materials.

# **Project Information:**

A significant component of the course consists of selecting a semester group project. Each student is expected to work in groups of four. Consider appointing a group leader to coordinate the effort. Every week all teams are required to make a weekly report that includes presence/absence/late appearance and each team member's major activities and contribution.

# Grading

Homework Assignments: 15% of grade
Project: 40% of grade
Midterm Exam: 20% of grade
Final Exam: 25% of grade

Letter grades will be determined using a standard percentage of points scale:

| Letter Grade | Cut-off Score |
|--------------|---------------|
| A            | 90%           |
| В            | 80%           |
| С            | 70%           |
| D            | 60%           |
| F            | Below 60%     |

Class attendance, doing all your project and homework will help the borderline cases. Check your grades often. Any score may be disputed up to seven (7) days after the score is posted. After 7 days, the score remains as-is.

#### **Methods of Instruction**

The course will consist mainly of lectures, discussions and student presentations. Important material from the text and outside sources will be covered in class. Therefore, class attendance and good note taking are essential for success. Students are expected to contribute to each class in the form of discussion and questions. Therefore, it is necessary to do any required reading before class.

This syllabus contains an overview of what will be covered in class; for specific information, students are referred to the class web page maintained on eCollege course management system. Information on eCollege will be updated frequently so it is a good idea to check it regularly. Assignments are posted on eCollege and should be submitted through eCollege.

#### **Attendance**

You are expected to attend every class. If you must miss a class, it is your responsibility to make up for the work that you missed. If you are going to be absent from class please notify the instructor in advance.

# **Late Submissions Policy**

All work submitted electronically must be submitted by midnight of the due date. Late work will be deducted 10% for each day past the due date. Assignment will not be accepted after three days from the due date.

#### **Tentative Course Outline**

| Week | Content  |
|------|--|
| 1    | Chapter 1: Introduction to Systems Analysis and Design |
| 2    | Chapter 2: Analyzing the Business Case                 |
| 3    | Chapter 3: Managing Systems Projects                   |
| 4    | Chapter 4: Requirements Modeling                       |
| 5    | Chapter 5: Data and Process Modeling                   |
| 6    | Chapter 6: Object Modeling                             |
| 7    | Midterm Exam   |
|      | Chapter 7: Development Strategies                      |
| 8    | Chapter 8: User Interface Design                       |
| 9    | Chapter 9: Data Design                                 |
| 10   | Chapter 10: System Architecture                        |
| 11   | Chapter 11: Managing Systems Implementation            |
| 12   | Chapter 12: Managing Systems Support and Security      |
| 13   | Thanksgiving Break                                     |
| 14   | Project Presentations                                  |
| 15   | Project Presentations                                  |
| 16   | Final Exam (comprehensive)                             |

#### **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. <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: Netiquette <a href="http://www.albion.com/netiquette/corerules.html">http://www.albion.com/netiquette/corerules.html</a>

# **Special Needs**

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

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.

## **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 <a href="http://www.java.com/en/download/manual.jsp">http://www.java.com/en/download/manual.jsp</a>
- 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 <a href="http://help.ecollege.com/LS Tech Req WebHelp/en-us/#LS Technical Requirements.htm#Browset">http://help.ecollege.com/LS Tech Req WebHelp/en-us/#LS Technical Requirements.htm#Browset</a>

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 <a href="https://get.adobe.com/reader/">https://get.adobe.com/reader/</a>
  - o Adobe Flash Player (version 17 or later) <a href="https://get.adobe.com/flashplayer/">https://get.adobe.com/flashplayer/</a>
  - o Adobe Shockwave Player <a href="https://get.adobe.com/shockwave/">https://get.adobe.com/shockwave/</a>
  - o Apple Quick Time <a href="http://www.apple.com/quicktime/download/">http://www.apple.com/quicktime/download/</a>
- 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 <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 myLeo 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 <a href="https://helpdesk@tamuc.edu">helpdesk@tamuc.edu</a>.

**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 <a href="http://247support.custhelp.com/">http://247support.custhelp.com/</a>

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 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

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

The Academic Success Center provides academic resources to help you achieve academic success. <a href="http://www.tamuc.edu/campusLife/campusServices/academicSuccessCenter/">http://www.tamuc.edu/campusLife/campusServices/academicSuccessCenter/</a>

#### **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                |  |
|---------|------------|---|--|
|         |            | Android - LearningStudio Courses - Phone                          |  |
| COURSES | Operating  | iPhone - OS 6 and above   |  |
|         | System:    | Android – Jelly Bean, Kitkat, and Lollipop OS                     |  |
|         | iPhone App | https://itunes.apple.com/us/app/pearson-learningstudio-           |  |
|         | URL:       | <u>courses/id977280011?mt=8</u>                                   |  |
|         | 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 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.