CSCI 440. 61E – Applied Software Project Development

COURSE SYLLABUS: Spring 2026

INSTRUCTOR INFORMATION

Instructor:	Dr. Mohammad Alsmirat, Assistant Professor
Office Location:	ACB1 #325
Office Hours:	Monday, Wednesday 1:30 PM – 3:00 PM Tuesday, Thursday 12:00 PM – 1:00 PM or by appointment
University Email Address:	mohammad.alsmirat@etamu.edu
Preferred Form of Communication:	**EMAIL subject must contain** *CSCI-440-61E*
Communication Response Time:	Email response within 1~2 business days

COURSE INFORMATION

Location/time: Mon, Wed Noon-1:15p Campus: Rellis Campus Building: ACB2 Room: 218

Textbook: *Systems Analysis and Design in a Changing World* - 7th Edition by John W. Satzinger, Robert B. Jackson, and D. Burd, Shelly, Cengage Learning, 2016, ISBN: 9781305117204. (or earlier edition)

Course Description

This is the second part of the capstone design project experience course. As a member of a systems development team, students will experience analysis, design and implementation of a project. Students will delve into contemporary software engineering practices by integrating DevOps, microservices, and containers into their project work.

Prerequisites: Prerequisites: CSCI 359, CSCI 380.

The *syllabus/schedule are subject to change.*

Student Learning Outcomes

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

1. Explain well known software development process models.
2. Use modeling techniques (such as UML diagrams) to specify the requirements and design of software system.
3. Build user-friendly, aesthetic, and functional interfaces for software projects.
4. The ability to analyze a problem, identify, formulate and use appropriate computing techniques to formulate and implement a solution.
5. Understand and apply software testing techniques to evaluate a computer-based system.
6. Function effectively on a team to accomplish an independent project under time and design constraints.

Tentative Course Outline

Week	Content
1	Introduction & Review
2-3	• Scrum & Jira • intro to DevOps
3-4	• Project launch, Sprint 1 • Intro to microservices and containers
5-6	Sprint 2
7-8	Sprint 3
9	Midterm Presentation
10	**Spring Break**
11-12	Sprint 4
13-14	Sprint 5
15-16	Sprint 6
17	Final Presentation

COURSE REQUIREMENTS

Minimal Technical Skills Needed

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Students should be able to study independently and have strong implementation skills. Students are expected to have strong background in both mathematics and computer systems.

Instructional Methods

The course will consist mainly of discussions, student presentations and lectures. Important material from the text and outside sources will be covered in class. Therefore, class attendance is essential for success. Students are expected to contribute to each class in the form of discussions, questions and project updates.

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 D2L course management system. The course web page will contain lectures, project information and supporting material. Information on D2L will be updated frequently so it is a good idea to check it regularly. Assignments are posted on D2L and should be submitted through D2L.

Student Responsibilities or Tips for Success in the Course

To plan a minimum of three hours of outside preparation for each hour of class is a safe time allocation for successfully completing the course.

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

Basis for Evaluation:

- Bi-weekly reports: 20% of grade
- Midterm Presentation: 20% of grade
- Final Project submission: 30% of grade
- Final Group Presentation: 30% of grade

Project Information:

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A significant component of the course consists of conducting a semester group project with the following requirements:

- Group Formation:
  - Create teams of 3-4 members.
  - Appoint a team leader to facilitate communication and coordination.
- Project Idea Selection:
  - Brainstorm ideas that align with individual interests and skills.
  - Assess feasibility based on timeframe and available resources.
  - Clearly define project objectives, scope, and potential impact.
- Project Analysis and Design:
  - Utilize methodologies taught in CSIS359 for a comprehensive analysis and design.
  - Identify and document functional and non-functional requirements.
  - Develop a high-level architecture diagram and detail system components.
  - Create an implementation plan outlining steps and timeline.
- Development:
  - Teams must build a fully functional project version, adhering to all specified requirements.
- Testing:
  - Conduct comprehensive testing to verify that the implementation aligns with project specifications and desired functionality.
- Bi-Weekly Reporting:
  - Each team is required to submit a Bi-Weekly report detailing their activities for the previous period.
  - Report Content:
    - Completed Tasks: List all tasks successfully finished during the last period, including key milestones achieved.
    - Individual Contributions: Clearly outline each team member's significant contributions and responsibilities undertaken.
    - Upcoming Tasks: Provide a detailed plan of tasks scheduled for the following 2 weeks, highlighting priorities and dependencies.

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.

Tips for Success in the Course

1. Check D2L at least twice a week.
2. Communicate effectively and constantly with your team members.
3. Start your project assignments (sprints) early.

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Use of AI generative tools:
East Texas A&M University acknowledges that there are legitimate uses of Artificial Intelligence, chatbots, or other software that has the capacity to generate code, and textual answers. Any unreferenced and undocumented use of such software is not allowed and constitutes an instance of academic dishonesty (plagiarism).

TECHNOLOGY REQUIREMENTS

LMS

All course sections offered by East Texas A&M University have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements

LMS Requirements:
https://community.brightspace.com/s/article/Brightspace-Platform-Requirements

LMS Browser Support:
https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm

YouSeeU Virtual Classroom Requirements: https://support.youseeu.com/hc/en-us/articles/115007031107-BasicSystemRequirements

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.

COMMUNICATION AND SUPPORT

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

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Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here:

https://community.brightspace.com/support/s/contactsupport

Interaction with Instructor Statement

The instructor will make an effort to answer questions in a timely manner.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

You should do your own work on exams and for programming assignments. Copying another student's work is not acceptable. Any indication of cheating or plagiarism on an exam/assignment will result in an automatic 0 (zero) for the exam/assignment for all students involved. Yet, based on cheating and plagiarism activity in any section of class, instructor holds the right to give F grade to the identified student(s). Regarding codes in assignments, you may be required to explain the code you submitted. In case of discursive explanation, the instructor holds the right to lower your grade. No makeup exams or assignments unless documents explaining emergency are provided.

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 Student Guidebook.

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum:
https://www.britannica.com/topic/netiquette

ETAMU Attendance

For more information about the attendance policy please visit the Attendance webpage.

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Academic Integrity

Students at East Texas A&M University 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: https://inside.tamuc.edu/aboutus/policiesproceduresstandardsstatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03.pdf

- Graduate Student Academic Dishonesty: https://inside.tamuc.edu/aboutus/policiesproceduresstandardsstatements/rulesprocedures/13students/graduate/13.99.99.R0.10.pdf

Students with Disabilities-- ADA Statement

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
East Texas A&M University
Gee Library- Room 162
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
Email: studentdisabilityservices@tamuc.edu
Website: **Student Disability Services**

Nondiscrimination Notice

East Texas A&M University 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 East Texas A&M University 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 East Texas A&M University 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/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all East Texas A&M University campuses. Report violations to the University Police Department at 903886-5868 or 9-1-1.

East Texas A&M Supports Students' Mental Health

The Counseling Center at East Texas A&M, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students. Students have 24/7 access to the Counseling Center's crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit https://www.etamu.edu/counseling-center/

Mental Health and Well-Being

The university aims to provide students with essential knowledge and tools to understand and support mental health. As part of our commitment to your well-being, we offer access to Telus Health, a service available 24/7/365 via chat, phone, or webinar. Scan the QR code to download the app and explore the resources available to you for guidance and support whenever you need it.

http://telusproduction.com/app/5108.html

AI use policy [Draft 2, May 25, 2023]

East Texas A&M University acknowledges that there are legitimate uses of Artificial Intelligence, ChatBots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course.

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Any use of such software must be documented. Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism). Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course. Students should be aware of such requirements and follow their instructors' guidelines. If no instructions are provided the student should assume that the use of such software is disallowed.
In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.
13.99.99.R0.03 Undergraduate Academic Dishonesty
13.99.99.R0.10 Graduate Student Academic Dishonesty