CSCE 4925 Capstone II

Instructor: David Keathly
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Place: see Canvas course page
Time: see Canvas course page
Location: see Canvas course page
Office Hours: See Canvas course page and by appointment
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Course Catalog Description

Second course in the senior capstone sequence. Focus is the application of techniques to the design of electronic systems that have digital hardware and software components. Students apply the theory acquired from numerous engineering courses to solve real-world design problems. The design will consider realistic constrains including economic, environmental, sustainability, manufacturability, ethical, social, safety.

Course Outcomes

1. Create a detailed systems design and implementation plan using standard software engineering tools and methodology.
2. Implement the design for a large-scale information system.
3. Create a test plan and series of test procedures for a project and execute the procedures against the components created.
4. Create a delivery and maintenance plan for a large scale information system.
5. Utilize configuration management, project management and design tools in the course of the project.
6. Create a lifecycle plan for the information system developed.
7. Understand the classification and characteristics of large computing systems.
8. Demonstrate the ability to perform common systems installation, integration, maintenance, and administration tasks.
9. Demonstrate the ability to plan and execute the deployment of an IT system or components into a client environment.

Textbook:

none

Prerequisites

CSCE 4905

Course Requirements:

Attendance: Attendance is required and will be periodically monitored
Exams: None
Project: The majority of the assignments in this course will relate to a large group project that will completed based on preliminary work in CSCE 4905 Assignments: There will be a few initial individual assignments and a number of group deliverables throughout the semester

For More information

David Keathly's Webpage: faculty.unt.edu Class Web Page:
unt.instructure.edu

Topics

- System Implementation
- Unit, Subsystem and System Testing
- Acceptance and Delivery
- Reliability
- Ethics and Social Responsibility

Course Calendar **(subject to change)**

Week	Topics	Readings, Materials and Assignments
Week 1	Course Overview Setup Team Room Project Plan Updates	see lecture notes on class web page
Week 2	Detailed Design review and update Bi-weekly status report	see lecture notes on class web page
Week 3	Lecture: System Implementation	see lecture notes on class web page
Week 4	Lecture: Testing Bi- weekly Status report	see lecture notes on class web page
Week 5	Lecture: Test Plans	see lecture notes on class web page
Week 6	Bi-weekly status report	see lecture notes on class web page
Week 7	Lecture: Test Procedures	see lecture notes on class web page
Week 8	Bi-weekly status report	see lecture notes on class web page
Week 9	Lecture: Maintenance Documents	see lecture notes on class web page
Week 10	Bi-weekly status report	see lecture notes on class web page
Week	Lecture: User Documentation	see lecture notes on class web page

Week	Topics	Readings, Materials and Assignments
Week 1	Course Overview Setup Team Room Project Plan Updates Detailed Design review and update Bi-weekly status report Lecture: System Implementation Lecture: Testing Bi-weekly Status report Lecture: Test Plans Bi-weekly status report Lecture: Test Procedures Bi-weekly status report	see lecture notes on class web page
Week 2		see lecture notes on class web page
Week 3		see lecture notes on class web page
Week 4		see lecture notes on class web page
Week 5		see lecture notes on class web page
Week 6		see lecture notes on class web page
Week 7		see lecture notes on class web page
Week 8		see lecture notes on class web page
Week 9	Lecture: Maintenance Documents Bi-weekly status report Lecture: User Documentation Work Week Bi-weekly status report Lecture: Reliability Work Week Bi-weekly status report Delivery to Customer Final Presentations (will be scheduled during Design Day program) Presentations this week dependent on status at Design Day	see lecture notes on class web page
Week 10		see lecture notes on class web page
Week 11		see lecture notes on class web page
Week 12		see lecture notes on class web page
Week 13		
Week 14		
Week 15		
Week 16		

Grading Policy

Week	Topics	Readings, Materials and Assignments
Week 1	Course Overview Setup Team Room Project Plan Updates Detailed Design review and update Bi-weekly status report Lecture: System Implementation Lecture: Testing Bi-weekly Status report Lecture: Test Plans Bi-weekly status report Lecture: Test Procedures Bi-weekly status report	see lecture notes on class web page
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Week 3		see lecture notes on class web page
Week 4		see lecture notes on class web page
Week 5		see lecture notes on class web page
Week 6		see lecture notes on class web page
Week 7		see lecture notes on class web page
Week 8		see lecture notes on class web page
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Week 10		see lecture notes on class web page
Week 11		see lecture notes on class web page
Week 12		see lecture notes on class web page
Week 13		
Week 14		
Week		

The various components of your grade are weighted as follows:

Team Project Deliverables	50%
Team Presentations	10%
Performance Reviews	10%
Instructor Assessment	30%

Note that all students in a group may not receive the same scores in each area depending on their individual effort and participation

Course Policies:

- ABSOLUTELY, NO LATE project assignments will be graded, unless specific arrangements are made with the instructor in advance.
- All assignments will be turned in by midnight on the date due. Assignments may be submitted on BB Learn in the appropriate drop box unless otherwise indicated.
- ALL requests for extensions on assignments must be made prior to the due date, in person, and must be for a valid "emergency" reason. In extreme circumstances, contact after the due date may be accepted if there is a COMPELLING reason.
- Attendance is required, is part of your grade, and will be monitored in order to ensure that all groups operate at peak efficiency. You are responsible for all discussion, lecture and other information disseminated during the lecture period, regardless of whether you attend or not. You are also responsible for all team assignments made by your team lead and deliverable leads regardless of your attendance. You must provide documentation for excused absences for emergencies etc.
- Lectures and Project assignments are included in this syllabus. However, you should regularly check the class website, as well as take note of in-class announcements for changes in the schedule or assignments.
- You should plan to spend, on average, about 10-15 hours per week outside of the normal class meetings working on the various aspects of your project. As deadlines draw near, the time commitment may increase.

Collaboration and Cheating:

Collaboration among students in class is most certainly encouraged, as it is my belief that it provides a better learning environment, and is required for team assignments. All resources used should be clearly cited in written work of any kind, both individual and team. Note that each student should turn in his or her own work unless it is a group assignment. Collaboration should only extend to discussing concepts and ideas, not in completing the actual details of the assignment. Work that is substantially similar without warrant will be subject to penalties at the discretion of the instructor.

This class will use a single strike policy in that one instance of serious cheating or other form of academic dishonesty will result in a failing grade for the Course. The infraction will also be reported to the office of Student Affairs. This office maintains a database that is available to other instructors as well as employers. This could seriously affect your future employability.

For further details and clarifications regarding collaboration and cheating, view the university Student Rights and Responsibilities web page.

Student Perception of Teaching (SPOT)

SPOT is a requirement for all organized classes at UNT. This short survey will be made available to you at the end of the semester, providing you a chance to comment on how this class is taught. I am very interested in the feedback I get from students, as I work to continually improve my teaching. I consider the SPOT to be an important part of your participation in this class

ADA:

UNT complies with all federal and state laws and regulations regarding discrimination including the Americans with Disability Act of 1990 (ADA). If you have a disability and need a reasonable accommodation for equal access to education or services please contact the Office of Disability Accommodation. It is your responsibility to inform the instructor of any accommodations or other ADA conditions during the first two weeks of the academic term.