# CSCE 4905 Capstone I

Instructor: David Keathly
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Semester: Fall 2011
Time: Fri. 9:30 am - 12:20 pm
Place: NTDP F260

## Course Catalog Description

First of a two course sequence in which students develop a complex IT System starting from customer requirements and progressing through the entire analysis, design, implementation, testing and delivery lifecycle. Students work in teams to develop a project plan, complete the technical components of the project, prepare a variety of deliverable documents, and finally deliver the finished product to the customer. The first course will focus on the analysis and design of the system.

## Course Outcomes

1. Gather and refine user functional requirements and other functional and non-functional requirements and constraints for a large-scale information system, and create a system requirements specification document.
2. Perform system analysis and design tasks using recognized software engineering methods to create a preliminary design specification for a system based on a requirements specification.
3. Utilize software project management principles, skills and tools in creating the requirements and preliminary design specifications.
4. Create a project management plan, including a schedule and budget for a large-scale information systems project.
5. Create initial test and documentation plans for a project.
6. Utilize configuration management, project management and design tools in the course of the project.

## Textbook:

*none*

## Prerequisites

CSCE 3055

## Course Requirements:

Attendance: Optional, although student is responsible for all materials covered in lecture and class discussion
Exams: None
Project: The majority of the assignments in this course will relate to a large group project that will extend into the CSCE 4925 class in the Spring semester
Assignments: There will be a few initial individual assignments and a number of group deliverables throughout the semester

**For More information**

Faculty Webpage: www.cse.unt.edu/~dkeathly
Class Web Page: moodle.cse.unt.edu

**Topics**

- The Nature of Design
- Project management
- Defining System Requirements
- Analysis Modeling
- Preliminary and Detailed design
- Implementation
- The project lifecycle
- Team Planning, Coordination and Survival
- System Testing
- Delivery
- Reliability
- Ethics and Social Responsibility

**Course Calendar** (subject to change)

| Week | Topics | Readings, Materials and Assignments |
|---|---|---|
| Week 1 | Course Overview<br>Setup Team Room<br>Personal Assessment<br>Nature of Design | see lecture notes on class web page |
| Week 2 | Lecture: Team and Project Management<br>Determine Teams and Team Names<br>IA -1 presentations<br>Bi-weekly status report | see lecture notes on class web page |

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|---|---|---|
| Week 3 | Lecture: Project Lifecycle<br>brainstorm project ideas<br>meet with client | see lecture notes on class web page |
| Week 4 | Project ID and Need<br>Lecture: Development Methodologies<br>Lecture: Requirements<br>Bi-weekly status report | see lecture notes on class web page |
| Week 5 | RUP and Use Cases | see lecture notes on class web page |
| Week 6 | Lecture: Preliminary Design Overview<br>Bi-weekly status report | see lecture notes on class web page |
| Week 7 | Work Week | see lecture notes on class web page |
| Week 8 | Review Preliminary Design details<br>Bi-weekly status report | see lecture notes on class web page |
| Week 9 | Work Week | see lecture notes on class web page |
| Week 10 | Bi-weekly status report | see lecture notes on class web page |
| Week 11 | Lecture/Discussion Detailed Design | see lecture notes on class web page |
| Week 12 | Lecture: Testing<br>Work Week<br>Bi-weekly status report | see lecture notes on class web page |
| Week 13 | Lecture: Reliability and Delivery | see lecture notes on class web page |
| Week 14 | Work Week<br>Bi-weekly status report | see lecture notes on class web page |
| Week 15 | Crunch Week! | |
| Week 16 | Final Presentations | |

## Grading Policy

**The various components of your grade are weighted as follows:**

| | |
|---|---|
| Team Project Deliverables | 40% |
| Individual Reports, Presentations and Editorships | 15% |
| Team Presentations | 15% |
| Peer and Instructor Performance Reviews | 30% |

**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 in person at class, at person in my office (not at the front desk!) or via email unless otherwise instructed.
- 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 at your option. However, you are responsible for all discussion, lecture and other information disseminated during the lecture period, regardless of whether you attend or not.
- 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.

**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 required for team assignments.
For further details and clarifications regarding collaboration and cheating, view the university Student Rights and Responsibilities web page.

**Student Evaluation of Teaching Effectiveness (SETE)**
The Student Evaluation of Teaching Effectiveness (SETE) 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 SETE 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.