Instructor: David Keathly  
Semester: Fall 2016  
Office: NTDP F202  
Time: TTh 1 – 2:20 pm NTDP F260  
Office Hours: MW 10:00 – 12:00 and TTh 10:00 – 11:30  
Phone: 940-565-4801  
Email: david.keathly@unt.edu (Email generally has better response time)

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

Textbook:

*Systems Engineering: Analysis, Design and Development*, by Norman Augustine 2nd Edition  

Prerequisites

CSCE 3055

Course Requirements:

- Attendance: Required  
- 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](http://www.cse.unt.edu/~dkeathly)  
- Class Web Page: [http://learn.unt.edu](http://learn.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)

<table>
<thead>
<tr>
<th>Week</th>
<th>Topics</th>
<th>Readings, Materials and Assignments</th>
</tr>
</thead>
</table>
| Week 1| Lecture: Course Overview  
Setup Team Room  
Personal Assessment  
Lecture: Nature of Design  
IA -1 presentations     | see lecture notes on class web page                     |
| Week 2| Pitch Day presentations  
Determine Teams and Team Names                                    | see lecture notes on class web page                     |
| Week 3| Lecture: Project Lifecycle  
brainstorm project ideas  
meet with client  
Status Report          | see lecture notes on class web page                     |
| Week 4| Project ID and Need  
Lecture: Development Methodologies  
Lecture: Requirements | 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  
Status Report           | see lecture notes on class web page                     |
<p>| Week 7| Requirements Due                                                     | see lecture notes on class web page                     |
| Week 8| Review Preliminary Design details                                    | see lecture notes on class web page                     |
| Week 9| Lecture/Discussion Detailed Design                                   | see lecture notes on class web page                     |</p>
<table>
<thead>
<tr>
<th>Week 10</th>
<th>Prelim Design Due Status Report</th>
<th>see lecture notes on class web page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 11</td>
<td>Lecture: Testing</td>
<td>see lecture notes on class web page</td>
</tr>
<tr>
<td>Week 12</td>
<td>Lecture: Reliability and Delivery</td>
<td></td>
</tr>
<tr>
<td>Week 13</td>
<td>Detailed Design Due Status Report</td>
<td></td>
</tr>
<tr>
<td>Week 14</td>
<td>Begin Development - Prototyping</td>
<td></td>
</tr>
<tr>
<td>Week 15</td>
<td>Development Work Week Parts and service orders due</td>
<td></td>
</tr>
<tr>
<td>Week 16</td>
<td>Continue Development Review activities for Break and Spring semester Status Report</td>
<td></td>
</tr>
<tr>
<td>Week 17</td>
<td>Final Presentations – includes review of prototype developed</td>
<td></td>
</tr>
</tbody>
</table>

**Grading Policy**

The various components of your grade are weighted as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team Project Deliverables</td>
<td>35%</td>
</tr>
<tr>
<td>Individual Reports, Presentations and Editorships</td>
<td>10%</td>
</tr>
<tr>
<td>Team Presentations</td>
<td>10%</td>
</tr>
<tr>
<td>Peer and Client Performance Reviews</td>
<td>20%</td>
</tr>
<tr>
<td>Instructor Assessment of Individual and Team</td>
<td>25%</td>
</tr>
</tbody>
</table>

**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 Blackboard under the appropriate assignment 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 COMPPELLING 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 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**

The Student Evaluation of Teaching Effectiveness 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.