CSCE 4925 Capstone II

Instructor: David Keathly                                   Semester: Spring 2011
Office: NTDP F201J                                       Time: F 9:30 am – 12:20 pm
Office Hours: MW 1:00 pm – 2:00 pm                        Place: NTDP F260
Phone: 940-55-4801                                       Email: david.keathly@unt.edu

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 constraints 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.

Textbook:

none

Prerequisites

CSCE 4905

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

Topics

- System Implementation
- Unit, Subsystem and System Testing
- Acceptance and 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>
<tbody>
<tr>
<td>Week 1</td>
<td>Course Overview</td>
<td>see lecture notes on class web page</td>
</tr>
<tr>
<td></td>
<td>Setup Team Room</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Project Plan Updates</td>
<td></td>
</tr>
<tr>
<td>Week 2</td>
<td>Detailed Design review and update Bi-weekly status report</td>
<td>see lecture notes on class web page</td>
</tr>
<tr>
<td>Week 3</td>
<td>Lecture: System Implementation</td>
<td>see lecture notes on class web page</td>
</tr>
<tr>
<td>Week 4</td>
<td>Lecture: Testing</td>
<td>see lecture notes on class web page</td>
</tr>
<tr>
<td></td>
<td>Bi-weekly Status report</td>
<td></td>
</tr>
<tr>
<td>Week 5</td>
<td>Lecture: Test Plans</td>
<td>see lecture notes on class web page</td>
</tr>
<tr>
<td>Week 6</td>
<td>Bi-weekly status report</td>
<td>see lecture notes on class web page</td>
</tr>
<tr>
<td>Week 7</td>
<td>Lecture: Test Procedures</td>
<td>see lecture notes on class web page</td>
</tr>
<tr>
<td>Week 8</td>
<td>Bi-weekly status report</td>
<td>see lecture notes on class web page</td>
</tr>
<tr>
<td>Week 9</td>
<td>Lecture: Maintenance Documents</td>
<td>see lecture notes on class web page</td>
</tr>
<tr>
<td>Week 10</td>
<td>Bi-weekly status report</td>
<td>see lecture notes on class web page</td>
</tr>
<tr>
<td>Week 11</td>
<td>Lecture: User Documentation</td>
<td>see lecture notes on class web page</td>
</tr>
<tr>
<td>Week</td>
<td>Activity</td>
<td>Notes</td>
</tr>
<tr>
<td>------</td>
<td>----------</td>
<td>-------</td>
</tr>
<tr>
<td>12</td>
<td>Work Week Bi-weekly status report</td>
<td>see lecture notes on class web page</td>
</tr>
<tr>
<td>13</td>
<td>Lecture: Reliability</td>
<td>see lecture notes on class web page</td>
</tr>
<tr>
<td>14</td>
<td>Work Week Bi-weekly status report</td>
<td>see lecture notes on class web page</td>
</tr>
<tr>
<td>15</td>
<td>Delivery to Customer</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Final Presentations</td>
<td></td>
</tr>
</tbody>
</table>

**Grading Policy**

The various components of your grade are weighted as follows:

- Team Project Deliverables: 45%
- Individual Reports, Presentations and Editorships: 10%
- Team Presentations: 15%
- Peer, Client 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 is required for team assignments. All
resources used should be clearly cited in written work of any kind, both individual and team.

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.