Syllabus

Course Name: CSci 5802–Software Engineering II
Semester: Spring 2003
Professor: Mats Heimdahl
Lecture Hours: Tuesday and Thursday, 2:30-3:45 in ME-212
Recitation: No recitations for this class

This syllabus describes the course Software Engineering II. It explains the organization of the course, outlines the expectations for the course, and provides the rules that will govern grading and class participation.

Course Description
Software engineering is concerned with the cost effective development and evolution of software systems. In this course we will explore techniques that can be considered “advanced” software engineering techniques—that is, techniques and topics we did not have the time to cover properly in an overview course such as CSci 4081 and 5801. The course will cover various topics in requirements engineering, formal modeling, product family engineering, project management, testing, verification, and reuse. Note that depending on the offering of the course, only a subset of the topics will be covered. The course introduces the techniques through lectures and by giving you a chance apply the techniques to smaller case examples. The examples will in most cases be developed in small teams.

Requirements
You must have taken CSci 4081 or CSci 5801 before this course (or acquired equivalent knowledge from other sources). In addition, you should have knowledge of some higher level programming language (such as, C, C++, Ada, Pascal, or Java). You are expected to know basic data structures (such as, lists, sets, and trees), algorithms (such as, sorting, searching, and tree traversals), recursion, data abstraction, and finite state machine models. Finally, knowledge of discrete mathematics is an advantage.

On Line Resources
The course web page is located at the following URL:

http://www-users.cs.umn.edu/~heimdahl/csci5802/
Course Administration and Personnel

Professor
Dr. Mats P.E. Heimdahl, 6-201 EE/CS
Office Hours: Monday 3:15-4pm, Wednesday 3:30-4pm, and by appointment.
E-mail: heimdahl@cs.umn.edu
Telephone: (612)-625-2068

Teaching Assistant(s)
Lorry Strother, 2-203 EE/CS
Office Hours: TBD
E-mail: strother@cs.umn.edu
Telephone: (612)-626-7500

Texts

Suggested additional reference reading
ISBN 0-201-70103-0

Or

Or

Additional readings will be assigned as the course progresses. These additional readings will be (1) available on the course web page, (2) handed out in class, or (3) available at copies on campus.

Tests
There will be two in-class Midterm Examination as well as a Final. All tests are closed book. Picture ID will be required on all tests.

- Midterm 1: March 6
- Midterm 2: April 10
- Final: May 14, 8:00-10:00am.

Assignments
We will assign homework approximately every other week. Some homework will be collected and graded; some will be assigned for your own edification. Most homework assignments will be group assignments—you can assume it is a group assignment unless otherwise stated.
**Expected work load**
The courses will take quite a bit of your spare time. We do not have a large project, but the modeling assignments can be quite time consuming and there is a fair amount of reading.

**Group work**
As mentioned above, most of the work in the class will be performed in groups. However, be aware that you need to pull your weight on the assignments. Substandard work is obvious to your groups as well as the instructor and will be reflected in your grade. In addition, each group is required to turn in peer evaluations at the end of the course. Finally, much of the group work will be reflected directly on the tests; if you have not done the work you will do poorly on the tests.

**Grading**
About 20% of your grade will be based on the group assignments. You are graded on the quality of the work you produce, not on how many hours a week you spend.

Midterm 1 will be worth 20%, the second midterm 20%, and the Final 30%. The remaining 10% will be awarded based on in-class participation and participation in the group.

Students are required to perform satisfactory on both tests and assignments to receive a passing grade. All assignments and tests will be awarded 100 points. A **general guideline** for grading will be the following:

<table>
<thead>
<tr>
<th>Total Score ($)</th>
<th>Letter Grade</th>
<th>S/N Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>$100 \leq s &lt; 95$</td>
<td>A</td>
<td>S</td>
</tr>
<tr>
<td>$95 \leq s &lt; 90$</td>
<td>A-</td>
<td>S</td>
</tr>
<tr>
<td>$90 \leq s &lt; 87$</td>
<td>B+</td>
<td>S</td>
</tr>
<tr>
<td>$87 \leq s &lt; 83$</td>
<td>B</td>
<td>S</td>
</tr>
<tr>
<td>$83 \leq s &lt; 78$</td>
<td>B-</td>
<td>S</td>
</tr>
<tr>
<td>$78 \leq s &lt; 75$</td>
<td>C+</td>
<td>S</td>
</tr>
<tr>
<td>$75 \leq s &lt; 70$</td>
<td>C</td>
<td>S</td>
</tr>
<tr>
<td>$70 \leq s &lt; 67$</td>
<td>C-</td>
<td>S</td>
</tr>
<tr>
<td>$67 \leq s &lt; 60$</td>
<td>D</td>
<td>N</td>
</tr>
<tr>
<td>$60 \leq s &lt; 0$</td>
<td>F</td>
<td>N</td>
</tr>
</tbody>
</table>
Additional Course Information
This section contains some general rules that will be enforced during the course. Please review these guidelines carefully.

Integrity and Ethics
The policy of the university on scholarship and grades will be followed. Implicit in handing in homework, assignments, papers, and exams is that they represent the student’s own work (or the result of sanctioned collaboration). Any exceptions should be explicitly noted. Representing someone else’s work as one’s own is grounds for failing the course.

Classroom Climate
All students are expected to behave as scholars at a leading institute of technology. This includes arriving on time, not talking during lecture (unless addressing the instructor), and not leaving the classroom before the end of the lecture. Disruptive students will be warned and potentially dismissed from the classroom.

Examinations
The midterm (held during regular lecture hours) and a final are required. These exams will contain questions covering material in the required text, homework, assignments, and lectures. If any of the tests fall on a religious holiday the tests will be rescheduled.

Make-up
Make-ups for graded activities may be arranged if your absence is caused by documented illness or personal emergency. A written explanation (including supporting documentation) must be submitted to your instructor; if the explanation is acceptable, an alternative will be arranged. Whenever possible, make-up arrangements will be completed prior to the scheduled activity. A student not taking an exam or not turning in an assignment will receive a score of 0. Alternative times for the final exam will be arranged only under university criteria for rescheduling a final exam.

Late submissions
Programming assignments and homework are due at the beginning of class. Late work is not accepted without prior approval. Any assignment turned in after class will be considered late and will be subject to the usual penalties. Submitting all assignments is a necessary condition for passing this class. Assignment submitted late will be penalized 10% per day, including weekends and holidays.

Incomplete
The I grade indicates that the instructor has (1) reasonable expectations that the student can complete an unfinished course on her/his own no later than the end of the next quarter and (2) believes that legitimate reasons exist to justify extending the deadline for course completion. The only acceptable reasons will be documented illness or personal emergency. A written explanation (including supporting documentation) must be submitted to your instructor; if the explanation is acceptable, an Agreement for the Completion of Incomplete Work will be filled out as a contract between the student and the instructor.

Special needs
It is University policy to provide, on a flexible and individual basis, reasonable accommodations to students that have disabilities that may effect their ability to participate in course activities or to meet course requirements. Students with disabilities are encouraged to contact their instructor early in the quarter to discuss their individual needs for accommodations.