

# Syllabus ISD 599: Software Engineering Winter 2016

## 1. Basic Information

Instructor: Dr. David Chesney, 4624 BBB, [chesneyd@umich.edu](mailto:chesneyd@umich.edu), Office Hours: Wednesdays, 12 noon - 2 pm; and as needed (please send email to schedule)

Teaching Assistant: Ms. Addison Parker, [parkerak@umich.edu](mailto:parkerak@umich.edu), Office Hours: Thursdays, 1:30 - 2:30 pm in Duderstadt Atrium; and as needed (please send email to schedule)

Course Coordinator: Dr. Jason Crandall, 119 Chrysler, [crandalj@umich.edu](mailto:crandalj@umich.edu)

## 2 Course Overview

Focus on the process for software development of a large, complex software system for a cognitively and/or physically impaired audience. Pragmatic aspects of the production of software systems, dealing with structuring principles, design methodologies and formal and informal analysis. Significant amount of project documentation is required. Team-based projects are required.

## 3 Course Correspondence

Course website: <https://umich.instructure.com/courses/65781>

Course-related questions may be posted to the course forum (Canvas/Piazza) if they are of general interest, and/or requested directly to faculty email if they are specific to an individual. Specific or personal correspondence may be sent directly to course faculty.

## Brief Course Outline

Week	
1	Course Intro
2	DBT
3	SWE Process Models
4	Project Management
5	What? (Requirements), UML Use Case and Seq
6	IP Law Basics
7	How? (Design) UML Class and Statechart
8	Universal Design: Customer and Platform
9	Build (Standards)
10	Test
11	Change Management and Maintenance
12	Business Models
13	Wrap-up
	Other Topics: Standardized Modeling Languages; Case Studies

## 4 Reading List

There is no assigned text for the course. Readings and other resources (e.g., recorded lectures) will be posted regularly by instructors for the course. Material will then be posted on the Canvas site. There may also be handouts that the faculty will provide either in hardcopy or by posting on the course Canvas site. An announcement will be sent to the students when new information has been posted. It is strongly recommended that you read the Canvas site regularly.

## 5 Grading Policy

Your work in this course is composed of attending lecture and discussion sections, reading assigned material, completing homework assignments, submitting a research paper, taking one midterm exam, and possibly taking quizzes and/or a final exam. Final grades will be based on the total points earned on the homework, project, exams(s), and quiz(zes) out of a possible 500 pts. The weight assigned to each category is as follows:

- |                  |         |                             |         |
|------------------|---------|-----------------------------|---------|
| • Research Paper | 180 pts | • Exam                      | 200 pts |
| • Homework       | 100 pts | • Evaluations/Participation | 20 pts  |

performance. There is a gray area or several points around each specific numeric grade, within which a  $\pm$  system is used. Two people getting the same numeric grade might therefore receive different letter grades for the course. If the student is in one of these gray areas, their grade may go up or down depending upon whether course performance has been improving or declining, or whether participation in group work has been sufficient or inadequate. The grades of C- and D+ will not be given in this course.

### 5.1 Grading Errors

We make every effort to grade correctly, however we do sometimes make mistakes. Arithmetic errors can be corrected in person by your TA. If you believe something was graded incorrectly, you may submit it for a regrade in writing (not email) no later than five working days after the graded work is returned to the student. The work in question will be regraded carefully in its entirety, with consideration given to the written request. As a result, your grade might go up or it might go down. This second evaluation is final. Each subsequent regrade request will receive greater scrutiny.

### 5.2 Incompletes

Incompletes will generally not be given for this course. In accordance with university policy, doing poorly in a course is not a valid reason for an incomplete. If you are having problems in the course, please talk to the instructor as soon as you are able.

## 6 Homework Assignments

Four homework assignments (25 pts. each) are assigned over the course of the semester. Homework makes up 100 pts of your grade. Homework is typically due as an electronic attachment to Canvas/Assignments. Late homework assignments will not be accepted for any reason. However, we may drop your lowest homework score when determining your final grade.

## **7 Exams and Quizzes**

The combination of a midterm exam, a possible final exam, and multiple quizzes make up 250 pts of your grade (Exam(s): 200 pts, Quiz(zes): 50 pts). The midterm exam is scheduled for Thursday, March 24, 2016, in the evening. The final exam is scheduled for Thursday, April 21, 2015, in the evening. Details regarding the form and content of the quizzes and exams will be available at a later date (as the exam nears). Quizzes may be given at any time during a scheduled lecture or discussion. If you miss a quiz without a documented medical or personal emergency, you will receive a zero for the quiz. If you anticipate conflicts with an exam or need additional time because of a learning disability, talk to the instructor at least 1 week before the exam date. Outside commitments (including job interviews) are not considered a valid reason for missing an exam or quiz.

## **8 Research Paper**

Details to be determined. The research paper will be related to the software engineering case studies assigned during the semester.

## **9 Getting Help**

Your first and best option is to ask your question during the office hours of a member of course staff. The next best option is to post your question to the forum (Piazza), which will be monitored regularly. If the forum post contains any material that may violate the Collaboration and Cheating policy, then the post should be sent directly to course staff rather than posted on the forum. Posted questions must not reveal solutions to the projects or homework questions. We do understand that students sometimes have questions of a personal or sensitive nature. For such matters, please see Dr. Chesney during office hours. If you have a conflict with all posted hours, then please send an email to schedule another time.

## **10 Policy on Collaboration and Cheating**

Acts of cheating and unacceptable collaboration will be reported to the Engineering or LS&A Honor Councils, as appropriate. Cheating is when you copy, with or without modification, someone else's work that is not meant to be publicly accessible. Unacceptable collaboration is the knowing exposure of your own exam answers, project solutions, or homework solutions; or the use of someone else's answers or solutions made public. This includes solution sets and student solutions from past incarnations of 481. This means that students cannot use previous solution sets, even if the solutions are your own. At the same time, I encourage students to help each other learn the course material. As in most courses, there is a boundary separating these two situations. You may give or receive help on any of the concepts covered in lecture or discussion and on the specifics of C++ syntax. You are allowed to consult with other students about the general approach for homework solutions. However, all written work, whether in scrap or final form, must be done by you or your partners, where applicable.

You are not allowed to look at or in any way derive advantage from the existence of solutions prepared in prior terms, whether these solutions are copies of former students' work or solution sets handed out by course staff. I will be using an automated program to correlate projects against each other and past solution sets. If you have any questions as to what constitutes unacceptable collaboration or exploitation of prior work, please talk to the instructor right away. You are expected to exercise reasonable precautions in protecting your own work. Don't let other students borrow your account or computer, don't leave your work in a publicly accessible directory, and take care when discarding printouts.