

# CS 190 Project Requirements: Teaching Tools

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## Background

Teaching Tools would allow professors and teaching assistants to completely manage a course with a single piece of software. The program would centralize the information involved in teaching a course in an organized, user-friendly fashion.

## Basic Features

**Grade Book: (High)** The grade book allows users to input, edit and remove all grading done for the class. Set up in a spreadsheet-like format, the grade book lists all students enrolled in the class and their grades for assignments, exams, etc. It also provides functionality for calculations. For example, final grades are functions of all coursework and must be calculated by a given function. Grades may be inputted as integers, letter-grades or pass/fail.

**Lecture Note Creation: (High)** The lecture note creator allows the user to produce and edit notes for lectures, homework assignments, or other documentation related to the class. Various templates, including text and images, are provided for convenience and aesthetics. Users may also create their own templates for later use.

**Notes Area: (High)** As multiple users will access the program at various times, the notes section allows them to leave reminders, questions and notes for each other. It will allow them to simply post the note in a central area of the program or send out a group/individual e-mail.

**Permissions: (Medium)** In the case that the primary user of the software (professor most likely) does not want to allow access to all areas of the program to other users, he or she may utilize the permissions functionality. For example, if the professor wants to restrict the teaching assistants' access to the grade book, he or she may deny them permission.

**Grading Rubrics: (High)** This section of the program displays a form-like rubric for grading purposes. Users create the rubric with a breakdown of the grading for a given assignment. In order to design the rubric, the user will have a set of tools much like the toolbox in Adobe Photoshop. Tools will include text boxes, input boxes and images. When the assignment is handed in, graders can enter their input into the rubric, after which grades will automatically appear in the grade book. Again, templates for grading rubrics will be provided and may also be created and saved.

**Student Information: (High)** This section of the program primarily stores relevant information about the students in the class. For example, the professor may want phone numbers, e-mail addresses, class years, etc. Users may also create e-mail lists and send out group/individual e-mails from this section.

***Course Website: (Medium)*** Users may create and maintain a course website. The creation of the website requires no programming experience and is limited in the design capabilities. There are specific templates for the website. Users do not have the ability to create and manage their own designs. The tools available with website creation include creating a new page, upload documents to post, create links, make a table, make a form and post text. Completing each of the above tasks requires either clicking a button or entering information into a form and then pressing update.

### **Optional Features**

***Add-Ons to the Course Website Section: (Low)*** Functionality can be added to the course website section. Users may be able to create their own designs using basic HTML. Users may also put simple JavaScript on a page, such as image roll-overs. In order to insert the JavaScript, users follow a simple wizard-like process (requiring no knowledge of JS). For example, if inserting an image rollover, users would press a JS button and simply choose the images for the roll-over. Functionality may also be added to allow students to access their grades online. This would require some secure form of reaching only their grades.

***Exercises/Quizzes for Students: (Medium)*** In this section, users can create interactive exercises and quizzes for students. Students would log into the program and complete the exercise/quiz after which it would be instantaneously graded and inputted in to the grade book.