## Taking CS106E for Four Units

The official Stanford Catalog Description of CS106E mentions "Students taking the course for 4 units will be required to carry out supplementary programming assignments in addition to the course's regular assignments." The original intention was that different parts of the course would have programming assignments associated with them, and students wanting more programming practice could take the class for four units and do these assignments.

When CS106E was conceived, all students at Stanford learned Java in the prerequisite CS106A class. Since then CS 106A has split into three groups of students each learning a different programming language-Java, Python, or JavaScript. As coming up with assignment support for three different languages was too much to do while also working on the main content of the course, I have dropped the original programming plan for this initial offering of CS106E.

As some students may either want to explore the course material a bit further or simply want to get that extra unit, I am providing some alternate means to earn four units. The extra work done for the 4 -unit option will count for $15 \%$ of the overall grade, this gives us an overall breakdown of:

Midterm: $25.5 \%$
Final: 25.5\%
Regular Assignments: 34\%
Extra Assignments for 4-Unit Option: 15\%
Here are the Options for gaining an extra unit:

## Writing One or More Papers on Computing

You may either explore topics we covered in lecture in more depth, or you may choose to explore new topics we did not cover in class. As students' desire for depth may vary, using this option you may either:

1) Write a single 10-page paper on a topic of your choice,
2) Write two 5-page papers on two different topics,
3) Write one 4-page paper and two 3-page papers.

Please check with either myself or one of the TAs for approval on your paper topics before beginning your research.

## Develop a Website

One of the skills you'll be learning in this class is how to create a website. You may choose to develop a website to earn the extra 1-unit of course credit. The website may focus on design and simply use HTML and CSS, or if you want to explore website
programming your website may focus on PHP (with or without SQL) or client-side programming with JavaScript or both PHP and JavaScript.

Please note that it is a violation of Stanford Policy to both receive academic credit for work and to be paid for that same work. Therefore, whatever topic you choose for your website cannot be related to a current job or consulting work.

Please check in with either myself or one of the TAs for approval before beginning work in earnest on your website.

## Write One or More Programs

The final option is to follow the original course plan and write one or more programs exploring concepts covered in lecture. This one is open-ended, so use a language of your choice and come up with a program related to lecture topics that you would like to write. You may choose to write a few smaller programs or one big program.

As with the other options, do check in with us for plan approval before beginning your actual programming.

