

## Computer Science and the Stanford Honor Code

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*Based on a handout by Eric Roberts and Mehran Sahami*

Since 1921, academic conduct for students at Stanford has been governed by the Honor Code, which reads as follows:

### THE STANFORD UNIVERSITY HONOR CODE

- A. The Honor Code is an undertaking of the students, individually and collectively:
  - (1) that they will not give or receive aid in examinations; that they will not give or receive unpermitted aid in class work, in the preparation of reports, or in any other work that is to be used by the instructor as the basis of grading;
  - (2) that they will do their share and take an active part in seeing to it that others as well as themselves uphold the spirit and letter of the Honor Code.
- B. The faculty on its part manifests its confidence in the honor of its students by refraining from proctoring examinations and from taking unusual and unreasonable precautions to prevent the forms of dishonesty mentioned above. The faculty will also avoid as far as practicable, academic procedures that create temptations to violate the Honor Code.
- C. While the faculty alone has the right and obligation to set academic requirements, the students and faculty will work together to establish optimal conditions for honorable academic work.

In the Computer Science Department, we take the Honor Code seriously and expect you to do the same. The good news is that the vast majority of you will do so. The bad news is that all historical evidence indicates that some students in computer science will submit work that is not their own, short-changing not only their own learning but undermining the atmosphere of trust and individual achievement that characterizes Stanford's academic community. Each year, the Computer Science Department accounts for somewhere between 20 and 60 percent of all Honor Code cases, even though our courses represent less than 15 percent of the student enrollment.

The purpose of this handout is to make our expectations as clear as possible in the hope that we will reduce the number of Honor Code violations that occur. The basic principle under which we operate is that each of you is expected to submit your own work in this course. In particular, attempting to take credit for someone else's work by turning it in as your own constitutes plagiarism, which is a serious violation of basic academic standards.

### Recognition and Synthesis

There is a significant gap between *understanding* code and *writing* code. The goal of CS106B is to help you gain proficiency writing code that solves meaningful problems. Along the way, we will go over many code examples, which we hope will help give you a sense for how to apply certain techniques. Ultimately, though, we expect you to be able to apply these techniques to solve new problems.

As you learn how to program, you will probably find that it is easier to read and understand existing code than it is to synthesize it yourself. The entire reason we have programming assignments is to make sure that you get practice solving problems on your own. It is extremely easy to fall into a trap where you are able to solve problems by copying code from other sources – quite possibly understanding the code as you copy it – without at all learning how to write your own programs. Accordingly, we expect you to do your own work and not to copy solutions from other sources.

## A Note on Course Grades

Very few of the Honor Code cases we prosecute each quarter involve students deliberately cheating to gain an unfair advantage in the course. Most Honor Code cases are due to last-minute panicking in which a student made a poor decision to copy work from someone else.

If you don't turn in one of the assignments, your overall course grade will be negatively impacted, but it is unlikely that a single missed assignment will cause you to fail the course. More likely, your grade will drop by a half-step or two (e.g. from an A to an A- or a B+). If you are having a hard time with one of the assignments and legitimately feel that you cannot finish it, it is substantially better to just not submit it than to submit work that is not your own. You are far better off taking a slightly lower grade than facing university disciplinary proceedings.

## Our Honor Code Policy

The Honor Code policy in CS106B consists of four rules, which are specified below.

### **Rule 1: You must indicate on your submission any assistance you received.**

Our expectation is that you will work individually on each assignment. If you receive any assistance on the assignment (e.g. discussing ideas with a friend, looking up code online, etc.) without providing any citations, you may be guilty of plagiarism.

From the attention that the department pays to the Honor Code, some of you will get the idea that any discussion of assignments is somehow a violation of academic principle. Such a conclusion, however, is completely wrong. In computer science courses, it is usually appropriate to ask others—the TA, the instructor, or other students—for hints and debugging help or to talk generally about problem-solving strategies and program structure. However, these discussions should not approach a level where you are discussing specific lines of code. If they do, please be sure to cite the assistance you receive.

As long as you properly cite any outside aid you receive, you will not be guilty of plagiarism. If you turn in someone else's code but properly cite that the solution is not your own, you have not committed plagiarism. If you submit a program that you found online but properly cite the website where you found it, you have not committed plagiarism. That said, we reserve the right to reduce your grade on an assignment if important portions of your submission are not your own work.

### **Rule 2: You must not consult any assignment solutions that are not your own.**

CS106B is a popular course; by the end of this academic year, we estimate that over 1,200 students will have taken it. We tend to reuse assignments from quarter to quarter, since each assignment is specifically calibrated to test some particular aspect of the material.

It is a serious violation of the Stanford Honor Code to submit assignment solutions that are not your own – in part or in whole – without proper citation. In fact, **we strongly suggest that you never consult anyone else's solutions to any of the CS106B assignments.** As mentioned earlier in this handout, one of the major goals of CS106B is to teach you how to solve problems on your own. Reading solution code that is not your own ruins the assignment by giving away many of the insights you were supposed to have on your own. Moreover, if you do so without citing your sources, you risk committing plagiarism.

Some people have posted working solutions to the assignments online. It is extremely easy to retrieve this code with a Google search. As before, it is a serious violation of the Stanford Honor Code to sub-

mit any code taken from such a source without properly citing it, and you are **strongly** discouraged from looking at any code of this sort. If you do use code that you find online, please remember that you are required to cite it and that failure to do so may constitute plagiarism.

**Rule 3: You must not attempt to disguise any code that is not your own.**

Many Honor Code cases we prosecute each quarter happen because someone turns in someone else's code that is modified to make it look original. Each quarter, we find assignment submissions that superficially appear different, but upon closer inspection are obviously related to one another; typically, one will be modified from the other by renaming variables and functions, inserting or removing comments, and reordering the functions and classes within the program.

*We are extremely good at detecting code that has been deliberately disguised.* Everyone has a distinct coding style, and it is easy for us to spot when one piece of code is a modified version of another. As mentioned later in this handout, we also have automated tools that can find code that has been transformed this way.

If you take code from another source, you are required to cite that source. Disguising or rewriting code from another source without providing a citation is plagiarism and is a serious violation of the Stanford Honor Code.

**Rule 4: All submissions are subject to automated plagiarism detection tools.**

Stanford employs powerful automated plagiarism detection tools that compare assignment submissions with other submissions from the current and previous quarters. These tools are amazingly effective at detecting unusual resemblances in programs, which are then further examined by the course staff. Submissions deemed to be potential infractions of the Honor Code are referred to Stanford's Judicial Affairs office. We really hope it doesn't come to that. But, sadly, all this discussion would not be necessary if we had not had such problems in the past.