

CS 103X: Discrete Structures

Course Information

Winter 2008

Vladlen Koltun*

Course Objectives.

- Cultivate clear thinking and creative problem solving.
- Thoroughly train in the construction and understanding of mathematical proofs. Exercise common mathematical arguments and proof strategies.
- Cultivate a sense of familiarity and ease in working with mathematical notation and common concepts in discrete mathematics.
- Teach the basic results in number theory, logic, combinatorics, and graph theory.
- Thoroughly prepare for the mathematical aspects of other computer science courses at Stanford, including CS 121, 143, 145, 154, 156, 157, and 161.
- Have fun.

Class Hours and Location.

- Lecture: MW 11:00am–12:15pm, 380-380Y

Instructor. Prof. Vladlen Koltun, vladlen@stanford.edu, Gates 374. Office hours by appointment after January 23rd.

TAs.

- Sudeep Tandon, [sudeept at stanford dot edu](mailto:sudeept@stanford.edu). Office hours TBA.
- Tai-Jin Lee, [taijin at stanford dot edu](mailto:taijin@stanford.edu). Office hours TBA.

Course web site. <http://cs103x.stanford.edu>

The web site will contain course materials and answers to frequently asked questions.

Grading.

- Midterm: 20%
- Weekly homework: 40%
- Final: 40%

*Computer Science Department, 353 Serra Mall, Gates 374, Stanford University, Stanford, CA 94305, USA; vladlen@stanford.edu.

Homework policy. Submitted homework solutions will be collected from the CS103X drop box next to Gates 182 on Fridays at 2:00pm. This deadline is strict and no late assignments will be considered. An hour later, at 3:00pm, a new homework assignment and an official solution to the last assignment will be placed in the CS103X handouts bin adjacent to the drop box. These materials will also be posted on the web site.

You are allowed to not submit up to two assignments. This should account for personal emergencies, illnesses, trips of all kinds, and so on. This is a very generous policy and no appeals beyond it will be considered. If you submit all (or all but one) assignments we will waive the two (respectively, one) worst grades. It is recommended that you submit all assignments.

You can email your solutions to the TAs (not the instructor) by the appropriate Friday at 2:00pm. The file should be in PDF format. If it includes math formulas, please use \LaTeX or an equation editor. Formulas in plain text will not be accepted.

Honor code and collaboration policy. Under the Honor Code at Stanford, each of you is expected to submit your own work in this course. On many occasions, however, it is useful to work with other students or to ask for general advice from the course staff or other experts. Such activity is both acceptable and encouraged, but you must indicate any collaboration or assistance on your solution sets. Any collaboration or assistance that is not given proper citation may be considered a violation of the Honor Code.

You are responsible for understanding and being able to explain the solutions you submit. You may study and discuss the course material in groups; however, after such group discussion you are obliged to write up the solutions to the homework assignments on your own, without assistance and without perusing the notes you have made during group study. This ensures that you truly understand the course material and the homework solutions.

The course staff will actively pursue any suspected cases of Honor Code violations. More importantly, if you do not adhere to these guidelines you might not promptly deal with a gap in your own understanding of the material, thus performing unexpectedly poorly in the midterm or the final, and seriously endangering your overall grade. Down the line, it will be harder for you to keep up with other courses that rely on the material taught here. We want you to do well, these guidelines are for your benefit.

Lecture notes. Lecture notes for the course are on the web site. Printouts for individual lectures will be distributed through the CS103X handouts bin. Note that lecture numbers in the lecture notes correspond to topics, rather than individual lectures in class.