

## Course Staff

<b>Instructor</b>	Alexa Sharp	<b>Classmate</b> _____
<b>Email</b>	alexsharp@oberlin.edu	
<b>Office</b>	King 223E	<b>Email</b> _____
<b>Office Hours</b>	MT 1:30-3pm F 1:30-2:30pm	<b>Tel</b> _____
<b>Workshop Leaders</b>	Eli Bixby and Margaret Nichols	Sunday afternoons (see web)
<b>Office Hour Holders</b>	Louisa Berger and Jack Kearney Gabe Isman	Sunday and Tuesday evenings (see web) Monday evenings (see web)

## Overview

CS280 is an introduction to the design and analysis of algorithms. The primary goal of this course is to introduce some common techniques and issues that arise in the study of algorithms. Topics include dynamic programming, network flows, NP-completeness, and much more. Students are expected to be comfortable with discrete math (MATH 220) and data structures (CS 150/151).

The purpose of CS280 is to give you the confidence, tools, and techniques to tackle difficult problems. You will learn how to assess the main challenges of a problem, find one or more solutions, and determine which solution is best. Finally, you will learn how to recognize and prove that certain problems are computationally intractable, and what can be done in these situations.

## Textbook and Website

We are using Kleinberg & Tardos' *Algorithm Design*, published by Addison Wesley. Select handouts and announcements will be posted on the **course webpage** at

[www.cs.oberlin.edu/~asharp/cs280/index.html](http://www.cs.oberlin.edu/~asharp/cs280/index.html).

## Course Requirements & Expectations

**Ten** written homework — expect to spend at least 8 hours per week on each.

**Two** take-home tests — expect shorter versions of homework, to be worked on alone.

**One** final — expect a longer, cumulative test.

**One** grading session — expect to help me grade an assignment with two of your classmates.

**Daily** attendance and participation — expect to be in class.

Homework	56%
Tests	20%
Final	16%
Grading, Attendance and Participation	8%

## Homework Policy

- Homework is due in class on the specified date. Late homework is accepted within 24 hours of its deadline for half credit. After 24 hours no credit is given. The first late assignment (up to 24 hours) per student incurs no penalty.
- Your first three assignments must be prepared with LaTeX, but after that you may hand-write your solutions if you choose. You may not use MSWord or other typesetting programs.
- You must hand in hard copies of your assignments (emailed solutions are not accepted.)

## Honor Code

I take the honor code very seriously, and will report any violations to the Honor Code Committee.

This is a class where working with your peers is not only allowed, it is encouraged. However, the assignments you hand in must be written up by yourself and represent your own thoughts and work. In particular, you may discuss ideas with your classmates, but do not write anything down. If you really understand the discussion, you should be able to reconstruct it on your own. You may not use the internet or other references other than the textbook, unless told otherwise.

If you do work with a friend or friends, please write your cohorts' names on the top of your assignment. This is important, and I certainly think no less of you if you work with your classmates. Separate rules apply to your exams and tests, which will be explained at the appropriate time. Finally, you must write the honor code on every assignment, quiz, and exam, along with your signature. You know the drill by now. For the record, the honor code is

“I affirm that I have adhered to the Honor Code in this assignment.”

## Workshops and Student Office Hours

Louisa Berger, Jack Kearney, and Gabe Isman will provide three office hour sessions per week; this is a time for you to ask questions about the current homework or course material. Eli Bixby and Margaret Nichols will hold one workshop per week; these are group problem-solving sessions guided by Eli and Margaret, on textbook problems related to the upcoming assignment. Going to the workshop and solving problems *not* on the homework could actually save you time on the homework itself, so you should strongly consider attending; I will give bonus points. The workshops and office hours will be in King 221, times will be posted on the website once settled.

## Tutors

There are tutors available, provided by Oberlin College. If you think you'd like such a tutor, just contact me and I'll get you set up. Don't wait until it's too late!

## Student Disabilities

If you require special accommodation, please speak to me during the first week of class so that I can make suitable arrangements. You must be registered with the office of Student Disabilities.

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