Instructor: Nurit Haspel
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Phone – 617-287-6414.
Office – S-3-071
Office hours – Tu Th 1:45–3:30 or by appointment.
Course schedule: Tu Th 12:30–1:45, W-1-031
TA: ?
Course Description (not necessarily in order)

- Methods for structuring and manipulating data in computing.
- Application program interface (API), data abstraction and encapsulation.
- Design and analysis of algorithms, including theoretical background.
- Algorithmic techniques – greedy algorithms, dynamic programming etc.
- Graph theory and applications.
- Introduction to computability (if time allows)
- Throughout the entire course we will study advanced techniques for program development and organization.
The course material will be available online and updated regularly with class notes and assignments.

Attendance is not required (but highly encouraged). You are responsible for keeping yourselves up to date if you miss a class.

Don’t be afraid to ask questions in or out of class. I highly encourage it, I won’t think you are stupid and it won’t lower your grade.

Don’t hesitate to send me e-mails. I expect e-mails. It won’t lower your grade.

In your e-mails be as specific and give as many details as possible.

However, don’t expect me to solve your homework for you or debug your code.
Course Requirements

- Prerequisite: CS210, CS240, MATH140 or equivalent.
- Homework (written) and programming assignments approx. every two weeks (15% each).
- Midterm exam (30%), final exam (40%).
- First homework posted online. Due in 9 days.
- Most of it is review.
- Should be submitted to Gradescope
Your final grade should be at least D- (at least 40) to pass.

You also have to pass the final exam.


Algorithms Design, by Jon Kleinberg and Eva Tardos.

Recommended books: CLRS 3rd edition, “Algorithm design manual” by Steven Skiena (see course webpage). The CS210 Algorithms book will also be useful later on in the course.
- Apply for an account with the course ASAP.
- You will get a subdirectory where pa’s can be submitted.
- I’ll open a piazza group and add you all to it with your UMB account.
- Post there questions or comments you think may be of interest to the class.
- Announcements will be posted there. **Make sure to follow it.**
- Look at the homework assignment.
- If you have a problem solving the homework – talk to me ASAP.
I won’t answer questions you can easily look up yourselves. examples include, but are not limited to:

- Date and time of final exam (it’s on WISER)
- Anything that appears on the Linux guide referred to on the course webpage
- In general, anything that appears on or accessible from the course webpage
- Pre-requisite material (except for a quick review).
- Anything answered in the CS dept. FAQ section

If you miss classes regularly I will treat you fairly but won’t go out of my way to help you make up the missing material.

If you fall asleep in my class I reserve the right to take a selfie with you and post it on social media.
Academic Honesty

- The homework and programming assignments are strictly individual. So are the tests.
- For programming assignments I use the MOSS plagiarism detection software.
- I have a second-strike policy.
- First strike – you get a 0 in the homework and a warning.
- Second strike – you fail the course + a report to the higher administration
- The no. of strikes includes plagiarism in other courses as well (we have a registry).