

CS180 Winter 2021 Syllabus

Course book: Algorithm Design

By [Jon Kleinberg](#), [Éva Tardos](#) · 2012

Lectures and discussions will be recorded and available for students on CCLE.

The following is the approximate flow of the course.

Week 1 - Introduction, stable matching

Week 2 - Induction

Week 3 - Graphs, graph structure, trees, Directed graphs, undirected graphs

Week 4 - Greedy algorithms, divide and conquer

Week 5 - Dynamic programming

Week 6 - Practice what we learned and HW solution discussion

Week 7 - Midterm

Week 8 - Convex hull, geometric algorithms

Week 9 - NP-completeness

Week 10 - Distributed algorithms, parallel algorithms

Final

Grades will be decided based on the following function:

$\text{Max}(\text{final}, (\text{final} \cdot 0.5 + \text{midterm} \cdot 0.3 + \text{HW} \cdot 0.2))$

(The maximum between the final and the final, midterm, and Homework, weighted 50%, 30%, and 20% respectively)

HW submission will be through [Gradescope](#). Please register using our course code: **3YJNX3**
For those not familiar with Gradescope submission, please make sure you go through the assignment workflow in the [getting started](#) page.

Group submission is allowed and encouraged. Groups of up to 3 people can form by the first week of class. If you know people in class and can assemble your group, great!. Email the TA your formed group by the first week. If you wish to be in a group and have no friends taking the class with you, email the TA your interest in joining a group, together with your timezone, and we will randomize groups of 3 in the same time zone.

Class is Mon & Wed 10:00 - 12:00

Professors office hours are Mondays 12:00 - 1:00

Link to join both is: <https://ucla.zoom.us/j/99337550681>

Discussion is Fri 10:00 -12:00

TA office hours are Tuesdays 8:00am - 9:45am

Link to join both is: <https://ucla.zoom.us/j/94436154375>