

Course Information

Welcome to 6.042! In this course, we'll teach you some mathematics that we think you'll find useful in your study of computer science. This handout contains basic information about the class, but all this and more is also available on the course website:

<http://courses.csail.mit.edu/6.042/fall108/>

Prerequisites. The only prerequisite is 18.01. If you have already taken 18.310 or 6.046, then you should not take 6.042.

Lecture. There are 90-minute lectures on Tuesday and Thursday in 32-123 at 2:30 PM. We'll post lecture notes on the website after each class.

Recitation. There are 1-hour recitations on Wednesday and Friday focused on solving problems in small groups. Attendance is required! **The first recitation is tomorrow (Friday). We'll post recitation assignments on the website tonight.**

Office hours. Everyone on the course staff has office hours every week. Times and locations are on the website.

Reading. The only reading is *Nuts and Bolts of Proofs* by Cupillari, which is available in the Coop. You should read the whole book over the next two weeks.

Homework. There are 14 problem sets. Typically, a problem set is released on the website on Tuesday, is due on the following Monday night at 7PM in the locked boxes at the elevator lobby in 32-G5, and is returned in recitation on Wednesday. Late homework is not accepted, but talk to your recitation instructor if a special situation arises.

Exams. There are three exams: two 2-hour quizzes and a 3-hour final during finals week.

Collaboration. You are welcome to work with other students on homework, but your writeup must be entirely your own. Please do not refer to course materials from previous terms. On the top of your homework, list:

- all collaborators, other than course staff
- all written sources that you consulted, other than Cupillari and course handouts from this term

If you had no collaborators and consulted no written sources, then write, "I worked alone." *Homework without a collaboration statement will not be graded.* Collaboration on exams is not allowed. If you somehow violate the collaboration policy, your best option is to tell us before we notice. Mistakes you confess are forgivable.

Grading We compute a percentage score based on your coursework and then assign a letter grade as follows:

| | |
|----------|--------------|
| A | 88.0 - 100% |
| B | 75.0 - 87.9% |
| C | 60.0 - 74.9% |
| D | 50.0 - 59.9% |
| F | below 50% |

Your percentage score is the weighted average of your scores in five areas: homework, recitation, quiz 1, quiz 2, and the final exam. The weights listed below total 110%, but we'll cut 10% off the weight of your weakest exam. Scores in the five individual areas are determined as follows:

Homework (25%) We drop your lowest score. We may normalize an entire recitation section upward, if necessary to compensate for variations in grading standards.

Recitation (20%) Each recitation is worth 0, 1, or 2 points. If you attend for the full period and work constructively with your team, then you get 2 points. If you miss part of recitation or glaringly fail to work constructively with your team, then you get 1 point. If you are absent, you get 0 points. We drop your two lowest recitation scores.

Quiz 1 (20%), Quiz 2 (20%), Final (25%) If the class median on an exam is below 75% (which is typical), then we normalize all scores upward so that the median is 75%. We normalize by adding a fixed number of points to every score. Scores are not capped at 100%. If the median on an exam is above 75%— fantastic!

How to Succeed. We want everyone to get the best possible grade within the bounds of fairness. There is no curve; in principle, everyone could get an A. Here are some suggestions on how you can do well:

- Attend recitation! If you show up on time, stay the whole hour, and work constructively with teammates, then you've got 20% in the bag.
- Attend lecture! We'll explain every topic in the course and take your questions. The course notes are only a backstop; if you follow lecture, then *Nuts and Bolts* is the only essential reading all term!
- Collaborate with other students on the homework. Some problems in 6.042 are tricky and sharing insights can save you a lot of time.
- Rely on your recitation instructor. Attend office hours and send questions to him or her via email. (Office hours are also a good opportunity to find collaborators.)
- Exams are typically tough. The best preparation is to do your best on each homework and go over your mistakes afterward with your recitation instructor.

- If you are having one of *those terms* and you're getting buried by 6.042, MIT, and life at large, then come talk to us and we'll see if we can help you out.

Good luck and we hope you enjoy the class!