Course Information

Lecturers:	Piotr Indyk Office hours: By appointment `indyk@theory.lcs.mit.edu`	NE43–373	452–3402
	Seth Teller Office hours: By appointment `teller@lcs.mit.edu`	NE43–252	8–7885
Class meets:	TR 1-230pm in 4-237		

1 Course requirements and grading

To receive credit for this course, you have to satisfy the following requirements:

- **Presentation:** each student has to prepare and present one of the topics listed in the Course Syllabus. Usually, each presentation will be given by one student, unless the topic is very difficult, in which case two students can split the work.

  Each presentation should last 60-70 minutes. It should be given using slides created in the electronic format of your choice (preferably html), so that we can archive the presentations for future reference. Our classroom has a networked computer, and a large projection screen.

  In order to help the students understand and prepare the material, we will arrange two meetings with each student presenter. During the first meeting, scheduled two weeks before your presentation, we will go over the relevant readings and discuss the material with you (note that for this to make sense, you must have completed the readings *before* meeting with us). During the second meeting, scheduled one week before your presentation, we will go over the presentation and possibly propose some changes (note that this requires you to have a reasonably complete draft of your slides ready *before* the second meeting).

  Each student presentation will be *graded* according to the following scale:

  – Satisfactory: well-prepared presentation; student showed good understanding of the material.

  – Marginal: presentation was somewhat unprepared; or, the material was not well-understood by the student.

  – Unsatisfactory: the student was likely the only person who understood the presentation and even that was unclear.

The preparatory meetings are mandatory. They are a valuable opportunity for us to meet with you individually. You must attend both preparatory meetings to pass the class.

We expect, and will work hard with you to ensure, that all presentations will fall into the Satisfactory class. An especially well-prepared presentation will be rewarded with a handshake and a photo with the professors.

- **Homework:** there will be four assignments (see Syllabus for assignment and due dates). Each will consist of three parts:

  - basic theoretical part: problems solvable using pen and paper;
  - optional theoretical part: more pen and paper problems;
  - optional Java programming assignment.

  Each homework solution must contain

  - answers to the basic theoretical part; and
  - answers to the optional theoretical part *or* a solution to the optional programming assignment.

  Each of the three parts of the homework will be worth 50 points. Although you are welcome to hand in solutions for all 3 parts, you can get at most 100 points for each assignment.

Your final grade will be determined in equal parts by the presentation grade and the sum of the homework scores. We will be very happy if everybody gets an A.

Another way to satisfy the course requirements is to solve (or make a *significant* progress on) an open research problem. In this case, the student gets an $A+$. The research problems will be given upon request. They are *hard* – no one knows how to solve them. Unless you manage to make a *significant* progress (as judged by us), no partial credit will be given. In particular, simply working on an open problem will not influence your score.

We reserve the right to change the grading policy.

2 Collaboration

You are encouraged to collaborate on the solution of the homeworks. However, if you collaborate you must **work independently on each problem** before discussing it with others. If you do collaborate, you *must* name your collaborators in your writeup. Whether or not you collaborate, **you must write up solutions on your own**. If you obtain a solution through research (e.g., through library work), acknowledge your source, but – again – write up the solution on your own.

Worked problems will be submitted on paper. Programming assignments will be submitted as an emailed URL to the professors, who will follow the link, examine the demo, accompanying text, and source code, and grade the solution.

At most two students can collaborate on one research problem.