

Combinatorics Schedule and Homework Assignments  
S Hudson, started 4/29/08 - updated 5/8/08

This page will be updated every week or so. I'll collect homework (HW) every Thursday and return it to you on the following Monday. We'll have a quiz on the related material on Tuesday.

There may be some changes or exceptions, which I'll post here. For now, there are two; a) there will be no HW collected on May 22, since May 26 is a holiday; and b), there will be no quiz in the first or last weeks (just the final exam).

Rules (also see my Policy web page): You may talk to your classmates about ideas, but do the problems yourself, and show enough work to convince me it is your own. You may check your answers (most of them, anyway) in the back of the book.

I'll collect the HW before class starts, so that we can go over some problems together as needed. Anything after that is late, and counts for half credit. I'll generally accept HW up to one week late. Turn it in on stapled loose-leaf paper. Leave some blank space at the top of page one for notes to/from your prof (see HW 1).

I will not have time to grade all the problems, so I'll base your weekly grade on a few sample problems, plus completeness, neatness, etc. Thus, it's possible to have some bad luck, but I find that the HW average at the end is usually pretty accurate. If you feel that your average HW grade at the end of the term is not accurate, return them *all* to me for a review. Save all your HW and quizzes!

**HW 1, due Thursday May 8:**

1) Read the Discrete Math problems on my exam page. You don't have to solve them, though I recommend that, if you have the time. We'll probably go over some problems like these later in MAD 4203, so it's OK if a few look a bit mysterious now. But please write me a short note about those. If I don't hear from you, I'll assume you understand the notation and vocabulary, and that most of the problems don't look too hard.

2) Read most of Chapters 1-2; you can skim over sections 1.2-1.4, and you can delay Ch 2 a few days, if necessary. Do these problems, from Ch 1.8 (most have short answers in the back):

1-5, 7, 21, 23, 29-32 and 35-37.

If you get stuck, you can omit ONE of the problems on coverings; you can substitute 24 for 23; and you can substitute either 39 or 40 for one of 35-37. Write me a note at the top of page one if you do any of these. Learn how to do all the assigned ones before the first quiz - though it is unlikely you will see exact copies of the HW problems there.

**Quiz 1, Tuesday May 13:** About 20-25 minutes, followed by a lecture.

This will cover HW 1 above, and my lectures through Thursday 5/9/08. I'll assume you've read most of Ch 2 by then, and that you understand the Discrete Math problems - or, at least the wording of them.

The quizzes may contain other kinds of questions, such as: True-False, state a definition, state/prove a theorem, etc. You can find my Calculus and Linear Algebra exams online, if you'd like to check my exam style. But MAD 4203 is mainly a problem-solving course, so I expect most of the quiz problems will be somewhat similar to your HW.

**HW 2, due Thursday May 15:**

- a) This course is mainly about thinking skills. It may help to consciously think about which strategies have worked for you in HW's 1 and 2. Write down one thing you've learned, one sentence of general advice that you'd like to remember or pass on. For example, *Replace a problem that's too complex by a smaller version, for practice or maybe a recursive approach.*
- b) From Ch 2.4, do problems 4, 9, 11, 12, 14, 16, 19, 23, 24 and 27.
- c) Do ONE of the harder problems in Ch 2.4: 2, 8, 13 or 21. Make a note at the top of page one, on which of these you chose.
- d) From Ch 3.6, do problems 1-5.

Since this web page is already getting a bit long, I will put HW 3 on a separate page (combihw3.pdf) - probably also some remarks on Quiz 2. See the bottom of my syllabus for a link to it.

S.H. - 5/15/08