Syllabus

UTK – M251 – Matrix Algebra

Spring 2005, Jochen Denzler, MWF 1:25–2:15, Ayres 314

Textbook: Howard Anton: Elementary Linear Algebra — Odd enough the book even has answers to even numbered questions. But we’ll get around this oddity.

Course contents: Basically, Ch. 1–7 of the book, with a few omissions, and a bit from Ch. 8, 9 blended in. I will cover chapter 3 before chapter 2, which is logically possible and will allow to get a motivation for determinants. See special notes for an overview.

Grade: We’ll have 3 in-class and one final exam, and homework. They count towards the grade as follows: either \( \frac{1}{7} \) each in-class exam, and \( \frac{2}{7} \) each for the final and for the homework, or else \( \frac{1}{5} \) each in-class exam, and the homework, and \( \frac{2}{6} \) for the final, whichever gives the better average for each individual.

Note: I will NOT give an extensive review before in-class exams. This would encourage ineffective learning strategies. Make sure to assemble the material in your brain as a coherent and meaningful entity, not as a bag of single tricks and skills. That’s more rewarding and prepares you better, and you’ll need to relearn less before the comprehensive final.

Homework: Each homework problem will be graded with either 0, 1 or 2 points, unless otherwise specified. This puts the responsibility on you to hand in decent solutions and do calculations correctly. You will typically not be able to find solutions in the back of the book, because I will make up my own problems. However you will find very similar problems (with different numbers) in the book. You can use them as needed; I will not assign gazillions of cloned problems for training ad nauseam; this should leave you time to think and breathe. But be aware that you must do some independent thinking.

There will often be ways how you can check the correctness, or at least the plausibility of your result. And the question “how can I check my answer to this problem, once I have found an answer?”, is a good question to ponder about, or to ask me if you don’t see it.

I may occasionally assign true/false or conceptual questions and then schedule a brief quiz with a selection, essentially, from these questions. A quiz question will then count as a homework question. But be sure that you understand, rather than memorize, the answers. I am determined and able to detect and defeat parroted answers. I am even more determined (and hopefully able;-) to help you in the office hour if you have difficulties in understanding the concepts (as indicated, e.g., by an urge to memorize).

Class Attendance: I do not take attendance formally; however you are responsible for the class contents. Relying on reading the book alone will not stimulate conceptual thinking and is therefore strongly discouraged. If you miss for a good reason, I’ll be helpful in catching up, but it shouldn’t be a regular habit. — I have to give feedback to the University for Title IV students and want to clarify, based on previous sad experience, my policy to distinguish between F and FX. Collecting support by only showing up for exams with no other class activity will not work (unless it’s a passing grade). Failing the course with virtually discontinued attendance, and discontinued hwk will earn an FX, not an F (with implications on funding for Title IV students).

I have scheduled regular office hours Monday 2:30–3:30 and Wednesday 3:30–4:30. They may be rescheduled permanently if this serves a class need (or in rare circumstances one time with previous announcement, if the reason is on my side). You are welcome to request an appointment at other times or drop in. However, in order to address a time-management concern I am having, I’ll reserve Tuesday as research day and will likely not be in on Tuesdays. Otherwise I accomodate drop-ins, whenever feasible, even though I cannot always guarantee immediate availability. My office is Ayres 317 E, phone 4-5325. Email is denzler@math.utk.edu, but I may not read it for half a day or for an entire weekend.