Course structure: We will interlace two distinct paths through the topics of this course: first, readings and problem assignments from the text; and second, lectures and handouts on the bigger picture. The first of these will follow Lovrić’s text, which will provide the majority of the details of the material, along with plenty of illustrative examples and discussion. As such, it will be crucial that you not only “read” the assigned pages and problems from the text, but that you hold yourself to the higher standard of considering them carefully and fully—don’t rush! Any statement in the text whose meaning or intent isn’t clear should be considered further and discussed with your classmates, in class, or at office hours. A sample problem or computation in the text has been entirely wasted if, after having read it, you couldn’t find your way through that problem or a similar one in the future—do not wait until seeing the assigned problems before you decide what is and is not worth learning, because the problem assignments will seldom cover every concept and method presented in the section. Instead, endeavor to learn everything that you can, and use the problems as an aid to help gauge your progress.

Along with the readings and problems in the text, we will present and discuss handouts establishing the core concepts of the material. This component of the course will reinforce Lovrić’s text by supplementing (or, in one case, correcting) the book’s presentation of certain concepts. Class time will also provide a forum for discussing material from the book or assigned problems, as necessary. If the material contained in hundreds of pages of text seems unmanageable, you’re correct—it will be unmanageable, unless you properly organize the material conceptually, which is what this second element of the course is there for: to provide a concept map to make sure we don’t get lost in the details.

Class meetings: Show up in mind as well as body. Follow along mentally, reason things through yourself, and ask questions! Think. Think, think, think! Don’t just sit back and watch…

As far as class notes: don’t overdo it with them. It’s difficult to think and write at the same time, and you can guess from the above paragraph which one I’d rather you did. Treat your note-taking as you would a highlighter when reading a book—write down only the key ideas and observations, don’t just blindly write down everything I say and write. The core definitions and facts will be available for reference in the course materials, so there’s no need to waste your attention copying every single one of them down—you’ll gain more if you use class as a time to consider and discuss.

Office hours are any time I’m free. And I won’t be hiding…I want you to learn this material. If you want you to learn the material, too, then put in the time and effort it takes to do so. My officially posted office hours are at the top of the syllabus, but I’ll be happy to talk with you almost any time or place, unless I have a previous commitment.

There is no reason that you should come away from any topic we cover without fully understanding it, if you participate in class, carefully review your notes, work observantly on your assignments, and come to office hours to clear up any material with which you’re not yet comfortable.
Homework is an essential tool for learning the material, as well as your first gauge of your understanding of the material. Essential! Seriously. Despite this fact, homework is the most often neglected component of the course…thus its long treatment here. Take the correct approach to homework: your goal in doing a homework assignment should not be simply to get it finished as quickly as possible, but instead to take whatever time is necessary to work through all of the problems until you really understand them in every detail. Don’t underestimate the importance of homework—it plays a crucial role in the process of learning mathematics.

As far as using your book and notes when you’re doing homework: don’t misuse them. What does this mean? Make sure that whatever you need to know to do a problem sticks around in your head long enough for your mind to get a chance to remember it. If the process runs as: confused by problem → look up the answer → done with problem, all in the span of a minute, then you’ve (unfortunately) run a successful brain-bypass. Sure, the homework problem goes smoothly—the only problem is that you usually don’t learn whatever it was that you needed to. Work at your own pace, and work to understand every nuance of each problem that you work. Take a little more time to think an issue through if it isn’t immediately clear. This time spent thinking through topics for yourself is the most valuable time that you can spend when studying mathematics, so don’t avoid it or bypass it in a rush to be “finished”—this time of contemplation is where a great deal of learning happens.

I strongly suggest looking over the material before you start your homework (almost like studying for a quiz), then trying first to do the problems without any outside materials. If all goes smoothly with the problems, then you’re well on your way to a basic understanding of the material. But keep a blank piece of paper nearby, and if you ever do need to look anything up, copy down that “missing” fact or idea; this assures that you pick up on whatever it is that you were missing in terms of understanding—and it will be useful when you study the material again. Be sure, once you’ve completed a homework assignment, that you understand what’s going on and would be prepared to do similar problems if they came up again.

As far as working together on the homework, I strongly suggest it—it makes the work both more enjoyable and more profitable. The same warning applies as above, however: don’t immediately ask for help if something difficult comes up, and be sure to write down on a sheet of paper any help that you get from your friends—because in the end it’s you who must understand the material and know how to do the problems.

Out-of-class discussion: Do it! Honestly. You’ll learn the material better, and in the process, you’ll get to know your classmates a little better too.

Your course grade will be based on the term exams and the final exam, along with any quizzes and a nominal contribution from homework and class participation.