

Mathematics 310.01  
Introduction to Abstract Algebra  
Fall, 2011  
Gasson 306, MWF 2–3  
Rob Gross

Office: Carney 371, 617-552-3758

Office Hours: Monday and Wednesday, noon–1, Friday, 3–5, and by appointment

Electronic mail: [gross@bc.edu](mailto:gross@bc.edu)

Class home page: <http://fmwww.bc.edu/gross/MT310>

Text: *Abstract Algebra*, by I.N. Herstein

MT310 covers fundamental topics in the field of abstract algebra: groups, rings, and fields. Building strongly on the material in MT210 (Linear Algebra) and MT216 (Introduction to Abstract Mathematics), we will see how these relatively simple structures permeate many areas of mathematics.

### Homework

Homework will be assigned and collected weekly, usually on Fridays. If you wish to turn in any homework longer than one page, *you must use a stapler or paper clip*. Folding the edges of the pages over is unacceptable.

You may not work together on homework assignments. You should feel free to see me during office hours, or e-mail me for help when you are stuck on problems. Many of the homework problems can require days to solve, so you should not wait until Thursday evening to start working.

All homework submitted in this class must be typeset in some way. Microsoft Office, Open Office, or similar word processors are acceptable, but not the best way to type mathematics. I strongly suggest that you install some version of  $\text{\LaTeX}$  on your computer and learn how to use it.

Macintosh users can download  $\text{\MacTeX}$  at <http://www.tug.org/mactex>. Windows users can download  $\text{\MikTeX}$  at <http://miktex.org>. There is plentiful documentation included in either of those downloads, but it is buried deep in various folders. One helpful guide is *The Not So Short Introduction to  $\text{\LaTeX} 2_{\epsilon}$* , available at <http://tobi.oetiker.ch/lshort/lshort.pdf>. The Wikipedia entry for  $\text{\LaTeX}$  has links to many other introductory articles, including an excellent Wikibook at <http://en.wikibooks.org/wiki/LaTeX>. An interface called LyX is available at <http://www.lyx.org>.

As you prepare your solutions, I suggest that you store a copy on MyFiles, and also mail a copy to yourself every time you made any changes. Flash drives have been known to fail, and hard drives, particularly on laptops, are also less reliable than you might think.

### Grades

There will be three examinations during the semester, tentatively scheduled for Friday, October 7; Monday, November 7; and Wednesday, December 7. These will account 13%, 15%,

and 17%, respectively, of your final grade. The final will account for 35%. Homework will account for the remainder.

The final examination for MT310.01 is scheduled for Tuesday, December 20, at 9 AM. Note that this time is fixed by the Registrar, and cannot be altered.

### **Academic integrity**

Academic integrity is central to the mission of higher education. Please observe the highest standards of academic integrity in this course. Please review the standards and procedures that are published in the university catalog and on the web, at:

<http://www.bc.edu/catalog/univ/meta-elements/ssi/integrity.shtml>

Make sure that the work you submit is in accordance with university policies. If you have any questions, please consult with me. Violations will be reported to the Deans' Office and reviewed by the College's Committee on Academic Integrity.