Math 580
Supplemental Text Book List

The following is a list of abstract algebra textbooks that are commensurate with a first course in abstract algebra. Note that none of these texts will follow our course notes particularly closely, but they will contain all of the supplemental abstract material that I would like to cover this quarter. Also, notice that several of these authors have multiple textbooks on the subject of abstract algebra (many of their other books are written for either a more advanced undergraduate course or a graduate course). If you choose to consult one of these texts, make sure you have the correct book by the given author.

[F] Fraleigh, John. *A First Course in Abstract Algebra*, 7^{th} ed., Addison-Wesley (2002), **ISBN**: 0201763907.

Fraleigh's text is an accessible introduction to abstract algebra. It has several examples of groups, but not ones that relate well to our course.

[G] Gallian, Joseph. *Contemporary Abstract Algebra*, 7^{th} ed., Brooks Cole (2009), **ISBN**: 0547165009.

Gallian's text is a nice introduction to abstract algebra. It has several examples from geometry (which fits nicely with our course) and more classical examples like cyclic groups and symmetric groups.

[He] Herstein, I.N. *Abstract Algebra*, 3^{rd} ed., Wiley (1996), **ISBN**: 0471368792.

Herstein's book, like Fraleigh's text, explains all of the introductory material and concepts in abstract algebra. However, the examples do not often come from geometry like they do in our course. Do not confuse the book with Herstein's *Topic in Algebra* which is much more terse.

[Hu] Hungerford, Thomas. *Abstract Algebra: An Introduction*, 2^{nd} ed., Brooks Cole (1996), **ISBN**: 0030105595.

Hungerford's book is very elementary and easy to read. It is organized very differently than most other texts; in introduces second quarter concepts before it introduces groups. However, if one knows which sections to read, it offers a nice introduction to group theory. Also, do not confuse this with Hungerford's book in the Graduate Texts in Mathematics series (by Springer).

[P] Pinter, Charles. *A Book of Abstract Algebra*, 2^{nd} ed., McGraw-Hill (2003), **ISBN**: 0071943505.

Pinter's book is a bit more advanced than the others. However, it covers the material relevant to the course and has wonderful practice exercises. I will probably borrow supplemental homework from this book.