Math 321: Foundations of Abstract Algebra
Fall 2011

Basic Course Information

Instructor: Prof. Jen Paulhus
Time and Location: MWF 1:15- 2:05 PM in 2243 Noyce Science Center
Office Hours: M 2:15-3:05, T 10:00-10:50, TH 3:15-4:15, F 12:00-1:00
Office: 2220 Noyce Science Center
e-mail: paulhusj@grinnell.edu
web site: http://www.math.grinnell.edu/~paulhusj/teaching/ma321f11.html
Text:*An Introduction To Algebraic Structures*, Joseph Landin
Material Covered: We will cover much of the book.
Other Sources: On reserve in the Kistle Science Library are three other books.
    Algebra by Artin
    Abstract Algebra by Beachy and Blair
    Abstract Algebra by Dummit and Foote
and online at http://abstract.ups.edu/ you can find a copy of
    Abstract Algebra: Theory and Applications by Tom Judson

What is Algebra?

Abstract algebra is one of the fundamental branches of modern mathematics. While it has its roots as far back as the late 1700's, it first came to prominence in the early 1900's. There are many current active areas of research in algebra. This course will introduce you to several of the primary object of study in the subject: groups, rings, and fields.

Grading Policies

Homework: Homework assignments will be due *at the beginning* of class on Fridays. Assignments will be listed on the web page and on PWeb. No late homework will be accepted but I will drop your lowest homework score. The grading rubric for homework, along with some suggestions on good mathematical writing, may be found on the web page. Homework is 33% of your grade.

Exams: There will be two in-class exams, on **September 26** and **November 7**. The exams will be closed books, closed notes, etc. No makeup exams will be given unless agreed to beforehand so contact me immediately if you have any conflict with an exam. The two exams will be 17% each.

Final: There will be a cumulative final which will count for 33% of your grade. The final exam is **Thursday, December 15** from 9:00 AM - 12:00 PM. Do not make plans to go home early.

Solutions for the homeworks and grades will be posted on the course's PWeb page.

Other Class Policies

Your final grade in this course will reflect your performance throughout the whole semester. Except for a possible bonus question on the exams and an occasional challenge homework problem, there will be no extra credit and you cannot retake an exam nor redo homework.

Cell phone or laptop usage is strictly prohibited during class.

Please show up on time, please do not leave in the middle of class unless it is an emergency, and please keep conversations among yourselves during class to an absolute minimum.

If you have specific physical, psychiatric, or learning disabilities and require accommodations, please let me know early in the semester so that your learning needs may be appropriately met. You will need to provide documentation of your disability to the Dean for Student Academic Support and Advising, Joyce Stern, located on the 3rd floor of the Rosenfield Center (x3702).

Academic Honesty

Make sure you are familiar with the guidelines for academic honesty which you can find here: http://www.grinnell.edu/offices/studentaffairs/shb/academicpolicies/academichonesty.

There are very serious consequences if you are found to be in violation of one of these polices. I do encourage you to work together to solve homework problems, but everyone must write their own solutions. Copying homework solutions from any source is considered academically dishonest.

Additionally, if you work with others you must note this at the top of the first page of the assignment. This is purely for bookkeeping purposes and will not affect your score whatsoever. It is good practice to get in the habit of citing help you receive on any work.

Unsolicited Advice

One major goal of the class is to teach you how to think about the problems and explain your solutions like a mathematician. Like any new subject, this requires learning the language we use and the conventions for explaining our work. The best way to do this is to practice, practice, practice.

Whenever you can, read ahead in the material. A list of planned topics for future classes will be regularly updated on the web page.

Most of you will be challenged during the semester. Be prepared to not "get" everything right away.

Work together when you can.

If you are struggling, come see me early. If you wait until a week before the final, there isn't much that can be done to help you.