1-18-1994

Math 308 Administrative Rubbish.

Instructor: Bruce Ikenaga (Please just call me "Bruce".) Send email on CWRUnet to "`bxi`". (However, if you need to get in touch with me in a hurry, it's better to phone.)

Office: Yost 318

Phone: x2902 (Math Department office: x2880)

Office hours: If you need to see me and these times are inconvenient, let me know and we'll make other arrangements.

- Monday: 10:30 -11:15 a.m.; 1 - 2:30 p.m.
- Tuesday: noon - 2 p.m.
- Wednesday: 10:30 -11:15 a.m.; 1 - 2:30 p.m.
- Thursday: None
- Friday: 1 - 2 p.m.

Text: *Contemporary Abstract Algebra* (2nd edition) by Joseph Gallian, for the first few weeks of the term. After that I'll hand out notes in class.

Description: Math 308 is the second term of a 2-term sequence covering abstract algebra and linear algebra. It is a 3-credit course, meeting 3 times a week, and is required if you're majoring in math.

This course covers:

1. Basic abstract algebra, primarily ring and field theory.
2. Linear algebra.

Math 308 is not driven by applications — so if that is what you're looking for, you may be disappointed. Not everything in this course is "theoretical", but if you don't like "theory" you will probably not be very happy. What does this mean? It means that you should have some willingness to learn or appreciate things for their own sake. It also means that you should have some curiosity about why things are true and how they work. For example, there is less interest here than in calculus courses in simply applying rules or formulas.

Writing proofs requires real *writing.* It is not simply a matter of tossing equations and funny symbols onto the page. You will be judged by *how* you write — in this course, it is important!

Course organization: The class meets Monday, Wednesday, and Friday at 9:30 a.m.

There *may* be some computer projects involving the symbolic math package *Mathematica.* You'll be able to do any projects using the licenses on CWRUnet, or one of the open computer facilities on campus (Smith Lab or ESS, for example). No previous experience with *Mathematica* will be assumed.

Tests: There will be one in-class exam during the term. It will be held on Monday, March 7, and will be worth 100 points.

The Final is scheduled for 8 - 11 a.m. on Friday, May 6. The room will be announced in class. *Please do not make travel plans that will require you to leave prior to the exam.* The Final is worth 200 points.

There will be problem sets assigned (roughly) weekly. I estimate that the problem sets will total between 200 and 300 points (but this is a very rough estimate!).

The problem sets represent work that is too lengthy for a sit-down exam. They are an integral part of the course. You *cannot* get through this course simply by taking the exams, even if you do well on them.

Makeups and Excuses: To be excused from an exam or to turn in work late, you must give me a *written excuse* from either:

- A *medical professional*; or
- The Dean for Collegiate Affairs (Baker 102).

(Phone calls are not acceptable. Neither are notes from roommates, family members, or employers.)

Health Services will give you a slip saying that they saw you for a medical problem. This is certainly acceptable; I don't need to know the specifics.

If you are sick enough to miss a test, you are sick enough to get medical attention. Saying that you got sick but recovered before you could see a doctor is *not* acceptable.

Once you take an exam, it must be counted. Therefore, if you feel that illness or other circumstances might impair your performance, you should seek an excuse as described above. If you must miss an exam or turn work in late for non-medical reasons (personal problems, a religious holiday, a death in the family), you should see the Dean for Collegiate Affairs.

Whenever you miss a test or a deadline, let me know *promptly*. If you can't get a hold of me, leave a message with the Math Department (x2880). It is your responsibility to contact me and arrange to make up work you've missed.

Homework: I'll assign homework around a week before it's due. Problems will come from the textbook or from notes that I hand out.

You cannot learn to write proofs simply by copying someone else's. At some point, you *do* have to struggle with a difficult proof on your own, or you will never learn to do it.

I don't object if you discuss the homework with others, or look at books in the library. However:

1. You must write things up in your own words. If your work is too similar to someone else's, or to work in a book, I may ask you to redo the problem set (or simply reject the work, if it continues to be a problem).
2. If you obtained assistance from another person, or from a book, you should include a proper citation (e.g. "Calvin Butterball helped me do this problem", or "I looked this up in *Tess of the D'Urbervilles* by Thomas Hardy").

Recognizing that all of us get disorganized every now and then, I will allow you to turn in two problem sets up to a week late without an excuse. (This does not apply to the last problem set, which will probably be due without fail on the last day of class.) Because of this, I will normally hand out solutions a week after a problem set is due. Once solutions for a problem set are handed out, it is too late to turn the problem set in.

Deadlines will be enforced! A problem set that is one day late uses up one of your "free late papers". A problem set that is turned in 8 days after the day date won't be accepted.

Grades: I'll compute your grade by adding up your test and homework scores (plus any other work, such as computer projects). Things such as attendance will count as "fudge factors". I will also consider how well you expressed yourself — writing *is* important in mathematics!

- Everything counts! Don't assume that an "A" on the final will offset the effect of poor (or missing) work.
- There is no guaranteed correspondence between percentages and grades. For example, 90% doesn't *guarantee* an "A".
- Grades aren't curved. There is no guarantee that a certain percentage of the class must get an "A" — or an "F". On the one hand, this means to do well you must learn well — as opposed to simply beating out your peers. On the other hand, it doesn't hurt you if someone else does well.
- The Math Department requires that I treat everyone equally, and that I announce the grading policy

at the start of the course. In particular, I cannot extend a privilege to one person that I do not extend to everyone, and that I do not announce in advance. Therefore, you cannot do extra work or retake an exam (unless I let everyone do the same thing).

- You cannot get an Incomplete in order to avoid a poor grade.

Comments, complaints: If you have comments or complaints about anything connected with the course, please let me know! You are also welcome to post in the Math 308 area on Free-Net ("`go cwrumath`" and select "`Math Courses`").

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