MATH 309A - ABSTRACT ALGEBRA
WINTER 2011

TR: 2:40 - 4:00 P.M. (HATHORN 105)

Instructor: Peter Wong

Office: 212 Hathorn

Office phone: x6143

e-mail: pwong

Textbook: *A First Course in Abstract Algebra* (7th ed.) by John B. Fraleigh, Addison Wesley, Boston, 2003.

Office hours: 10:00 - 11:00 T, 11:00 - 12:00 W or by appointment

Grading: Attendence/Class Participation/Homework - 5%; Quizzes - 30%; 2 mid-terms @20% each; Final Exam - 25%

Prerequisites: Math 205 and Math s21

This is an introduction to abstract algebra. We make use of the techniques and concepts from Math s21 (Introduction to Abstraction) to further study rich algebraic structures commonly used in higher mathematics and applications. These structures include elements of group theory, of ring theory, and of field theory. We plan to cover sections §1-11, 13-15, 18-23, 26, 27, 29, and if time permits, we also include §30 - 32, 34 of the text.

Note on exams:

All exams will be take home and the dates are given in the syllabus below. Under **NO** circumstances are you allowed to discuss the exam problems with anyone else BUT me. Collaboration, in any form, with other classmates on any exam problem is prohibited. I TAKE THIS VERY SERIOUSLY.

There will be approximately 10 weekly quizzes this semester. Each of them consists of one or two short problems mostly of computational nature. Homework problems from the text will be assigned frequently and reading assignment will be given at the end of every lecture. Homework will be

collected once a week. Late homework will NOT be accepted. Be sure to read ahead of time before coming to the next class.

Syllabus:

Week 1: §1-3;

Week 2: §3-5, quiz 1 (1/18);

Week 3: §6-8, quiz 2 (1/25);

Week 4: §9-10, quiz 3 (2/1);

Week 5: §11, 13, quiz 4 (2/8), EXAM 1 due (2/8);

Week 6: §13-15, quiz 5 (2/15);

WINTER RECESS

Week 7: §15, 18, quiz 6 (3/1);

Week 8: §19-21, quiz 7 (3/8);

Week 9: §21-23, quiz 8 (3/15);

Week 10: §23, 26, quiz 9 (3/22), EXAM 2 due (3/22);

Week 11: §26, 27, quiz 10 (3/29);

Week 12: §29, 30-32;