MATH 309A - ABSTRACT ALGEBRA
WINTER 2014

MWF: 12:05 - 1:00 P.M. (HATHORN HALL 104)

Instructor: Peter Wong

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Textbook: *Contemporary Abstract Algebra* (7th ed.) by J. Gallian, Brooks/Cole, Belmont, 2010.

Office hours: 11:00 - 12:00 MWF 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 Chapters 1-20 of the text.

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.

Tentative Syllabus:

Week 1: §1-2, quiz 1 (1/10);

Week 2: §3-4, quiz 2 (1/17);

Week 3: §5-6, quiz 3 (1/27);

Week 4: §6, quiz 4 (2/3);

Week 5: §7-9, Exam 1 (2/5);

Week 6: §9-10, quiz 5 (2/12);

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Week 7: §11-12, quiz 6 (2/26);

Week 8: §12-13, quiz 7 (3/5);

Week 9: §14-15, quiz 8 (3/12);

Week 10: §15, Exam 2 (3/17);

Week 11: §16-17, quiz 9 (3/24);

Week 12: §17-18, quiz 10 (3/31).