Math 343 - 61188 - Introduction to Modern Algebra (3)
Syllabus - OSU - Spring 2015

Instructor: Filix Maisch  
e-mail: maischf@math.oregonstate.edu
Meetings: MWF 12 - 12:50 PM  
Room: Kidder 280
Office: BEXL 429  
Off. hrs: MW 3:30 - 4:30 and by appt.  
(& Fridays 3-4 in the MLC)
Suggested Text: A First Course in Abstract Algebra, John Fraleigh
Web: people.oregonstate.edu/~maischf/

Attendance: Regular attendance will be expected, but roll will not be taken.

Honor Code: Students are expected to be familiar with Oregon State University’s Student Conduct Code. Please review this statement at the following web link:
http://studentlife.oregonstate.edu/studentconduct/university-policies

Accommodations: Accommodations are collaborative efforts between students, faculty and Disability Access Services (DAS). Students with accommodations approved through DAS are responsible for contacting the faculty member in charge of the course prior to or during the first week of the term. Students who believe they are eligible for accommodations should contact DAS immediately at 737-4098.

Course Description:  This course is an introduction to groups, rings, and fields with an emphasis on the integers and polynomial rings with selected applications.

Prerequisites: MTH 341 AND MTH 355

Schedule: See web for tentative term schedule.

Evaluation: Your grade is determined by 6 homework assignments, a midterm, and a final. Here is the point breakdown:

- Homework - 125 (6 homework scores worth 25 points each. One is for “extra credit.”)
- Midterm - 75 (Monday, May 4th, in-class)
- Final - 100 (6 PM, Tuesday, June 9th)

Grades will not be harder than:
270 - 300 A/A-, 240 - 269 B+/B-B-, 210 - 239 C+/C, 180 - 209 D, 0 - 179 F.

I do not use blackboard/canvas for this course. A “keep track of my own grade” sheet is included at the end of this syllabus.

Resources: Your primary resource is me. Make a note of my office hours and come by as soon as you have any questions related to your study of abstract algebra (aka modern algebra). Another resource is the Math Learning Center (aka MLC) in Kidder 108H, which is a great place to drop in for help (but please be aware that not all tutors in the MLC will be able to help you with this material). It is open from 9 AM to 4 PM, Monday through Friday, from the second week onward. I’ll be in there on Fridays.
Homework: Each homework assignment will be available on the course web page at least one week before they are due in-class (due dates shown on tentative term calendar). Late homework will not be accepted. If for some reason you have to miss a class on a day homework is due, you may either slide it under my office door (by noon) or scan and e-mail me your assignment (by noon).

Tests: Calculators and/or notes are NOT allowed on the midterm nor on the final. Tests cannot be made-up/rescheduled without an extremely compelling reason.

Specific Learning Outcomes: Upon completing MTH 343 a successful student is expected to be able to do the following.

1. State the basic definitions of groups, subgroups and group homomorphisms.
2. Derive basic properties of groups, subgroups and group homomorphisms.
3. Calculate and use the order of elements in groups.
4. Identify normal subgroups and their connection with quotient groups.
5. Apply the First Isomorphism Theorem for groups.
6. State the basic definitions and derive basic properties of rings, subrings and ring homomorphisms.
7. State the definition of an ideal and recognize its connection with quotient rings.

Write down your scores!

(1) Homework 1 : .....out of 25
(2) Homework 2 : .....out of 25
(3) Homework 3 : .....out of 25
(4) Homework 4 : .....out of 25
(5) Homework 5 : .....out of 25
(6) Homework 6 : .....out of 25
(7) Midterm : .....out of 75
(8) Final: .....out of 100