Syllabus - MATH 3360 - Foundations of Algebra I Section 1 Spring 2014

Instructor Information

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Office Hours: MWF 10:00 am - 11:00 am, and by appointment. **Webpage:** www.math.ttu.edu/~mccarthy/math3360s14.html

Note: Outside of office hours the best way to contact me is via e-mail. Please include your full name in any e-

mail you send to me.

Course Information

Class Times: MWF 11:00 am - 11:50 pm in Mathematics 015

Prerequisites: MATH 2360 and MATH 3310

Textbook: Algebra, Pure & Applied by A. Papantonopoulou, published by Pearson

Course Description and Purpose

This course is intended to be the introduction to abstract mathematics, with proofs. It is also a writing intensive course.

Course Learning Outcomes

Students learn how to think and reason abstractly in the context of algebraic structures, and learn how to write correct and clear mathematical arguments in this context. Concepts to be mastered by the students include but are not limited to the following:

- Groups and group homomorphisms
- Group actions
- Rings and ring homomorphisms
- Polynomials

Learning Assessment

Learning outcomes will be assessed through homework exercises and examinations.

Homework: Homework will be assigned throughout the semester as written assignments. There will be 6-10 writing assignments. Students will be given the opportunity to rewrite at least four of the assignments, based on appropriate feedback from the instructor. In these cases, should the first submission be unsatisfactory, the second submission will count for the grade. Late homework will not be accepted.

In-class exams: There will be two in-class exams given during the semester. A tentative schedule for these

Exam 1: Friday, February 28 Exam 2: Friday, April 11

Final exam: The final exam will take place on Tuesday, May 13, 7:30 am - 10:00 am in our regular classroom. The final exam is comprehensive, i.e., it will examine material from the entire course.

Grading

A student's overall percentile grade for the course will be calculated based on his/her percentile grade in each of the assessment categories described above, weighted as follows:

Homework 20%

In-class exams 40% (each worth 20%)

Final Exam 40%

Letter grades will then be assigned in accordance with the following correspondence:

Letter grade A = a percentile grade of 90% of higher

Letter grade B = a percentile grade of 80% or higher, that is lower than 90%

Letter grade C = a percentile grade of 70% or higher, that is lower than 80%

Letter grade D = a percentile grade of 60% or higher, that is lower than 70%

Letter grade F = a percentile grade lower than 60%

Civility In The Classroom

Texas Tech University endeavors to foster a classroom climate of mutual respect among students and between students and teacher. Mutual respect means that we should be tolerant of different ideas and varying opinions about topics of discussion in class, that we address each other respectfully and without interrupting while others are speaking, and that we do not engage in disruptive behavior in class. Signs of disrespect include, but are not restricted to: ringing cell phones (students must turn them off or leave them home), reading a newspaper or other material that is not part of a class assignment while in class, talking with classmates during class, eating and drinking in class, and similar disruptive behaviors. Students who engage in disruptive behavior will be warned. Repeated disruptive behavior may result in the student being asked to leave the classroom.

Academic Honesty

The TTU "Code of Student Conduct", which you should have received when you enrolled in the university, contains a lengthy list of prohibited behaviors, among which is "Academic Dishonesty". Please note that cheating and plagiarism (a form of cheating) are included among the actions that are subject to disciplinary action. Cheating will not be tolerated in this course. A student who is caught cheating will receive a grade of 0 on the exam, paper, or exercise. Awarding of a grade of F for the course is also a possible penalty. In addition, the incident of academic dishonesty will be reported to the Dean of the appropriate academic college for such disciplinary action as they see fit to administer.

Plagiarism: "The appropriation or imitation of the language, ideas, and thoughts of another author, and representation of them as one's original work." *The Random House College Dictionary*, revised edition. New York: Random House, 1975, p. 1014.

"1. The use, by paraphrase or direct quotation, of the published or unpublished work of another person without full and clear acknowledgement; 2. the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials." *Student Affairs Handbook*, Texas Tech University, Lubbock, Texas, 1998-99, p. 22.

Plagiarism and cheating are not tolerated and will result in a grade of 0 on work that contains plagiarized material. In addition, a grade of F may be awarded for the course. Any cases of cheating will be reported to the Honors College and the responsible academic dean (i.e., Arts & Sciences, Business Administration, Engineering, etc.)

Accommodation Of Students With Disabilities

Any student who, because of a disability, may require special arrangements in order to meet the course requirements should contact the instructor as soon as possible to make any necessary arrangements. Students should present appropriate verification from Student Disability Services during the instructor's office hours. Please note instructors are not allowed to provide classroom accommodations to a student until appropriate verification from Student Disability Services has been provided. For additional information, you may contact the Student Disability Services office in 335 West Hall or 806-742-2405.

Student Absences

Observation Of Religious Holy Days: A student who is absent from classes for the observation of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence if, not later than the fifteenth day after the first day of the semester, the student had notified the instructor of each scheduled class that the student would be absent for a religious holy day.

Officially Approved Trips and Excused Absences: A student who misses an examination or is unable to complete an assignment due to an officially approved trip or an excused absence (e.g. illness) will be allowed to make-up the missed examination or assignment within a reasonable timeframe thereafter. Students should notify the instructor of any such absences as soon as is possible. The student should be able to provide official evidence to support the reason for their absence (e.g. a doctor's note in the case of illness).

Unexcused Absences: Make-up of examinations or assignments will not be allowed in the case of unexcused absences.

Tentative Course Outline

Chapters 1-3	January 15 - February 24	17 hours
Chapter 4	March 3 - March 28	9 hours
Chapter 6	March 31 - April 7	4 hours
Chapter 7 (Sections 1-2)	April 14 - April 18	3 hours
Chapter 8 (Sections 1-4)	April 23 - May 5	6 hours
Review and Testing		4 hours
Total		43 hours