Mathematics 3510.001 Syllabus – Summer 2021

Course Description: Introduction to algebraic structures including groups, rings, integral domains, and fields.

Course Objective: By the end of the semester you should be very familiar with the basic concepts, proof techniques, and examples from group theory. You will also know examples of interesting rings, integral domains and fields and have a basic understanding of each. The concepts will be applied to combinatorial and number theory problems as well as problems that arise in other areas.

Prerequisite: Math 3000. Also Math 2700 which may be taken concurrently.

Book: A first Course in Abstract Algebra by John B. Fraleigh and Neal Brand (8th Edition) This book is in electronic format.

Professor: Neal Brand   neal.brand@unt.edu

Zoom Office Hours: Use access code 936 216 2449   Monday 1:00-2:00
                                                         Wednesday 3:30-4:30.
At other times you may email questions and I will attempt to answer them within a day. However, if you email a question after Friday noon, I may not be able to answer until Monday. You can also email and request a Zoom meeting.

Grading: Grades are based on one midterm exam, a final exam, and homework. The midterm exam is worth 100 points, homework is worth a total of 100 points and the final exam is worth 150 points for a total of 350 points. To earn an A it is sufficient to make a total of 310 points, 270 for a B, 220 for a C, and 170 for a D.

Homework: The assignments will be posted on Canvas. Scan your homework into a pdf file and submit it through Canvas. You are expected to turn in neatly written homework. If the grader has trouble reading the homework, then the homework will receive a grade of zero.

Exams: The midterm will be taken during the regular class time on July 8 via Zoom. The final will be given at 2:00 on August 6. You will be explicit directions on how take the exams and how to turn it in.

Extra Credit: Do not expect to be able to do extra credit work to help your grade either before or after the final exam. There will be no extra credit for this course. Please do not ask for extra credit work to help your grade. Your best bet to help your grade is to do the required work at the time it is assigned. For this class it is particularly important to keep up with what is done in class each day.

Daily Routine: You will be expected to watch videos, read the book or work on exercises before each class. Activities in class will vary from all lecture and discussion to participating in problem solving exercises. It is better to Zoom class unprepared than to not attend class, but it will be much more to your advantage to come to class fully prepared and participate actively in the classroom activities. I will attempt to record each class and have it available

within a few hours in case you wish to review what was said or if you are unable to attend live class.

Disabilities: The University of North Texas makes reasonable academic accommodation for students with disabilities. Students seeking accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with an accommodation letter to be delivered to faculty to begin a private discussion regarding your specificneeds in a course. You may request accommodations at any time, however, ODA notices of accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of accommodation for every semester and must meet with each faculty member prior to implementation in each class. For additional information see the Office of Disability Accommodation website at http://www.unt.edu/oda. You may also contact them by phone at 940.565.4323.

Cheating: No cheating will be tolerated. Cheating includes receiving help from anyone or anything that is not specifically allowed on an exam. On the other hand, you are encouraged to work together on the regular homework assignments as long as everyone participates and no one just copies the answers. Anyone caught cheating will receive an F for the course. Furthermore, a letter will be sent to the appropriate dean. I expect no cheating in this class. (See the UNT website on academic dishonesty: https://policy.unt.edu/sites/default/files/06.003.AcadIntegrity.Final_.pdf.)

Last Comment: Anything on this syllabus is subject to change at the discretion of the instructor.

Math 3510 Summer 2021
Sections refer to Abstract Algebra by Fraleigh and Brand 8th Edition

Week of	Monday	Tuesday	Wednesday	Thursday
June 14	No Class	Section 0 Read Section 0 before class	Sections 1 and 2 Sec. 0 Exercises Due Read Section 1	Section 2 Read Section 2
June 21	Section 2 Sec. 1 Exercises Due	Section 3 Read Section 3 Sec. 2 Exercises Due	Section 4 Read Section 4	Section 4 Sec 3 Exercises Due
June 28	Section 5 Read Section 5 Sec. 4 Exercises Due	Section 5	Section 6 Read Section 6 Sec. 5 Exercises Due	Section 6
July 5	Section 8 Read Section 8 Sec. 6 Exercises Due	Section 8	Review Sec. 8 Exercises Due	Midterm Exam
July 12	Section 9 Read Section 9	Section 9	Section 10 Read Section 10 Sec. 9 Exercises Due	Section 10
July 19	Section 12 Read Section 12 Sec. 10 Exercises Due	Section 12	Section 13 Read Section 13 Sec. 12 Exercises Due	Section 13
July 26	Section 22 Read Section 22 Sec. 13 Exercises Due	Section 22	Section 23 Read Section 23 Sec 22 Exercises Due	Section 23
August 2	Section 24 Read Section 24 Sec 23 Exercises Due	Sections 24 and 25 Read Section 25	Section 25 Sec. 24 Exercises Due	Review Turn in Exercises from Section 25

The final exam will be given on August 6 at 2:00.