

COURSE INFORMATION

MATH 620 - Algebraic Structures I, Section 1 Fall 2015

Class Meeting: DuSable 310, MWF 9:00-9:50 AM.

Instructor: Deepak Naidu, Associate Professor of Mathematics.
Office: Watson 324.
Email: dnaidu@math.niu.edu.
Office hours: MWF 10:00-10:50 AM, or by appointment.

Course Description: Group theory including the Sylow theorems, the basis theorem for finite Abelian groups. Polynomial rings, field theory, Galois theory, solvable groups, and solvability of equations by radicals. **Prerequisite:** MATH 421 or MATH 521, or consent of department. **Credits:** 3.

Course Objectives: The student is expected to acquire a thorough understanding of the basic theory of groups, rings and fields at the graduate level. In addition, the student will hone his or her skills at constructing and writing mathematical proofs and presenting mathematics orally.

Textbook: There is no prescribed textbook for the course. The following two books are recommended as references:

- *Algebra*, by Thomas W. Hungerford.
- *Abstract Algebra*, by David S. Dummit and Richard M. Foote.

Course Webpage: A course webpage will be maintained at <http://webcourses.niu.edu>. Lecture notes, homework, homework solutions, exam solutions, and other relevant information will be posted there. You will also be able to check your grades there.

Grading Scale: Your grade will be determined by weekly homework, one take-home mid-term exam, and a comprehensive final exam as follows:

30 %	Homework.
30 %	Mid-Term Exam.
40 %	Final Exam.

At the end of the semester, letter grades will be assigned as follows: 80-100% A, 70-79% B, 60-69% C, 50-59 % D, less than 50% F.

Homework: Homework will be collected once every week on Friday at the beginning of class. **Late homework will not be accepted.** While it may not be possible to grade all problems assigned, you should hand in all the assigned problems, as a selection of the problems will be graded and recorded for your homework score. Your lowest homework score will be dropped before computing your grade. You are free to discuss homework problems with each other, and to consult with me. Solutions handed in, however, should be your own work. Using outside resources (e.g. internet) is not permitted.

Mid-Term Exam: A take-home midterm exam will be given after we finish discussing group theory.

Final Exam: The final exam will be comprehensive and will be held on Wednesday, December 09, 8:00-9:50 AM, in the usual classroom.

Email Policy: You are expected to check your NIU email daily. Due to privacy issues, I cannot discuss grades over email or phone. If you have a question about your grade, please come see me in person.

Lecture Notes: Lecture notes will be posted on the course webpage. Read the notes before class, and bring them with you to class.

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DRC Statement: Northern Illinois University is committed to providing an accessible educational environment in collaboration with the Disability Resource Center (DRC). Any student requiring an academic accommodation due to a disability should let his or her faculty member know as soon as possible. Students who need academic accommodations are encouraged to contact the Disability Resource Center (DRC). The DRC is located on the 4th floor of the Health Services Building, and can be reached at 815-753-1303 or drc@niu.edu.

Important Dates/Holidays:

Monday, September 07	Labor day, no classes.
Wednesday-Friday, November 25-27	Thanksgiving break, no classes.
Friday, December 04	Last day of classes.
Wednesday, December 09	Final Exam.