

MATH 463

2021-2022 FALL SEMESTER

Textbook: Algebra -Thomas W. Hungerford

Joseph J. Rotman, The Theory of Groups: An Introduction, Allyn and Bacon, Boston 1965

Derek J. S. Robinson, A Course in the Theory of Groups (Second Edition), Graduate Texts in Mathematics 80 (Springer–Verlag, New York 1996)

Lecture: Tuesday: 9.40-10.30, M102

Thursday: 8.40-10.30 , M104

Grading: Midterm 1: 30%

Midterm 2: 30%

Final: 40%

One make-up exam will be offered after the final exam for those who have (for a good reason) missed an earlier exam.

Tentative course outline:

Week 1: Groups,subgroups

Week 2: Cyclic groups

Week 3: Normal subgroups,Factor groups

Week 4: Homomorphism,Isomorphism,Isomorphism Theorems

Week 5: Group acting on sets

Week 6: Commutator subgroups

Week 7: Direct product and Direct sums

Week 8: Abelian groups , The Fundamental theorem of finite abelian groups

Week 9: Free abelian groups

Week 10: Rank of an abelian group

Week 11: Divisible groups

Week 12: Sylow theorems

Week 13: Solvable groups

Week 14: Nilpotent groups