



| Course No. | Course Title | No. of Units | | | Pre-requisites |
|------------|-------------------|--------------|-----|--------|---------------------|
| | | Th. | Pr. | Credit | |
| MATH 445 | Topics in Algebra | 3 | - | 3 | Department Approval |

Course Objectives:

- To teach areas in algebra those are not covered in the other algebra courses.
- To develop the students abstract and logical thinking capabilities.
- To develop the student's mathematical ability to handle proofs in finite group theory.

Course Description:

Series, Normal, Composition, Invariant, Chief series, Jordan-holder theorem, Automorphism, Characteristic, Minimal normal subgroups, Characteristically simple groups, Group commutators (derived group), Solvable groups, Subnormal subgroups, Nilpotent groups lower and upper central series, Nilpotent groups, Mean theorems on nilpotent groups.

Main Text Book:

- A Course in Group Theory, by John F. Humphreys, Oxford University Press 1996.

Subsidiary Books:

- Abstract Algebra, by David S. Dummit, Richard M. Foote, 3rd edition, 2003.