

# MAT 371

## Seçme Konular

by  
Ayberk Zeytin

Course Title: From Elementary Number Theory to Algebraic Number Theory

Tentative Outline:

- review of basic concepts: divisibility, Euclidean algorithm, congruence, unique factorization etc.
- diophantine equations
- continued fractions
- binary quadratic forms
- quadratic fields, their Galois theory and class group

Schedule: Wednesdays 11.00 - 14.00, FEF 10

References:

There is not a canonical book that I have chosen. However, I believe the following items will be useful:

- *Advanced Number Theory* by Cohn, H.
- *Number Theory* by Weil, A.
- *An Introduction to Number Theory*, by Stark, H.M.
- *Galois Theory, Algebraic Number Theory and Zeta Functions*, by Stark, H.M. appeared in *From Number Theory to Physics*, eds. Waldschmidt, M, et al.

Contact me in case you have trouble accessing these.

Grading:

- homeworks: % 50
- final: % 50