



Course No.	Course Title	No. of Units			Pre-requisites
		Th.	Pr.	Credit	
MATH 444	Number Theory	3	-	3	MATH 342

Course Objectives:

- The student will improve his logical thinking and learn the techniques of the proofs of the theorems.
- The student will be equipped with the methods of solved exercises.
- It is expected that the students may apply the techniques learn in this course to apply of the theorems of number theory.

Course Description:

Divisibility theorem in the integers, Primes and their distribution, The theory of congruencies, Fermat's theorem, Wilson's theorem and their applications, Primitive roots, Applications of congruencies, The quadratic reciprocity law.

Main Text Book:

- Elementary Number Theory and its Applications, by Kenneth H. Rosen, 5th edition, Addison Wesley (Boston, New York) 2005.

Subsidiary Books:

- An Introduction to the Theory of Numbers, by G. H. Hardy, Edward M. Wright, Andrew Wiles, Roger Heath-Brown and Joseph Silverman, 6th edition, Oxford University Press 2008.