



Course No.	Course Title	No. of Units			Pre-requisites
		Th.	Pr.	Credit	
MATH 312	Real Analysis II	3	-	3	MATH 311 MATH 241

Course Objectives:

After finishing the course, the student is expected to be familiar with the following:

- Evaluation of the area using Riemann sums.
- Using the difference mathematical proof methods to prove some fundamental theorems in analysis.
- Using the fundamental theorems to evaluate Riemann integrals.
- Distinction between the uniform and pointwise convergence of sequence of functions.
- Using the convergent tests of numerical series and series of functions.

Course Description:

The Riemann integral, The fundamental theorem of calculus, Sequences and series of functions simple convergence and uniform convergence, Metric spaces, Metric on a set, Metric space, Topology on a metric space, Function of several variables, Differentiation and partial differentiation.

Main Text Book:

- Principles of Mathematical Analysis, by Walter Rudin, 3rd edition, 1986.

Subsidiary Books:

- Introduction to Real Analysis, by R. G. Bartle and D. R. Sherbert, 3rd edition, John Wiley, New York 1999.