

Syllabus of Mathematical Analysis II

Salahaddin University

Subject: Mathematical Analysis II

College of Education

Third class

Department of Mathematics

Second Semester

Weekly hours: (3Ttheoretical +2Eexample) classes

Week 1: Chapter Six: The Riemann integral.

Week 2: Theorems on lower and upper Riemann sums with respect to a partition and its refinement.

Week 3: Continuity and monotonicity and Riemann integrability.

Week 4: Some operations on Riemann integrable functions.

Week 5: Negligible sets, Lebesgue theorem in Riemann integral.

Week 6: Riemann- Stieltjes integral.

Week 7: Chapter Seven: Differentiation.

Week 8: Chapter Eight: Measure theory: The length of bounded open intervals.

Week 9: Measure of bounded open subsets of the set of Real numbers.

Week10: Outer measure of bounded sets, some theorems on measure theory.

Week 11: Measure of unbounded subsets of the set of Real numbers.

Week 12: Lebesgue theory of integration.