

PÓS-GRADUAÇÃO – Ementa de disciplina
Mestrado e Doutorado em Economia

DISCIPLINE: Mathematical Analysis I	CODE: MDPMAT001
ACRONYM: MAT	
PROFESSOR: Alexandre Madureira	WORKLOAD: 40h CREDIT HOUR: 4
MANDATORY: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	COURSE: <input type="checkbox"/> M <input type="checkbox"/> D <input checked="" type="checkbox"/> MD
PREREQUISITES: Calculus I	
CONCENTRATION AREA: Mathematics	
STUDY PLAN Mathematical Analysis I Course <ul style="list-style-type: none"> a. Peano axioms b. Finite, countable and uncountable sets. c. Real numbers: defining properties, supremum axiom; d. Bolzano—Weierstrass and Heine—Borel theorems; e. Sequences; f. Limits; g. Mean—value theorem, Intermediate value theorem; h. Basics of topology. 	
GOALS To learn the basics of one variable analysis as proof techniques.	
BIBLIOGRAPHY Textbook Calculus, Volume II, Tom Apostol. The elements of real analysis, Robert Bartle. Curso de Análise, Volume I, Elon Lages Lima. Curso de Análise, Volume II, Elon Lages Lima. Espaços Métricos, Elon Lages Lima.	

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Introdução à Análise real, Alexandre Madureira.

Real Analysis with Economic Applications, Efe A. Ok.

Principles of Mathematical Analysis, Walter Rudin.

Analysis I , Terence Tao.

Analysis II , Terence Tao.