



Ca' Foscari
**Summer
School**

UNIVERSITÀ CA' FOSCARI DI VENEZIA

SYLLABUS

CA' FOSCARI SUMMER SCHOOL 2014

INSEGNAMENTO: Mathematics1e 2

Settore Scientifico Disciplinare (SSD):SECS-S/06

Codice insegnamento:ET2018

Corso di Studio:

ET10 ECONOMIA AZIENDALE – ECONOMICS AND MANAGEMENT

Numero ore previste: 60

Cognome docente:CARRARO

Nome docente:Alberto

Modalità copertura:contratto

Periodo:16Giugno 2014 – 1 agosto 2014

San Sebastiano
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30123 Venezia

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MATHEMATICS 1

Objectives:

Carry out the study of functions of one real variable; apply the fundamental theorems of differential calculus and the continuity of functions; solve simple mathematical problems inspired by economic theory.

Prerequisites:

Topics usually taught in secondary school are assumed to be well known. Elementary algebra and arithmetic.

Contents:

Functions and their properties; limits and continuity. Differentiation and its applications. Optimization in one variable. Integration. Properties and operations of matrices.

MATHEMATICS 2

Objectives:

Provide an introduction to calculus for functions of one or more real variables as well as to linear algebra. Several examples and models from economics are



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discussed to help students acquire a habit for rigorous reasoning and precise language.

Prerequisites:

1. Topics usually taught in secondary school are assumed to be well known, and all the topics which are covered by the course Additional Learning Requirements in Mathematics (ALR). In particular the first five chapters of the textbook are assumed to be known.
2. Contents of the course Mathematics I: Functions of one variable. Differentiation. Derivatives in use. Single-variable optimization. Integration. Interest rates and present values.

Contents:

Functions of many variables. Partial derivatives. Multivariable optimization. Constrained optimization. Matrix and vector algebra.

Textbooks:

K. Sydsaeter, P. Hammond and A. Strom, *Essential Mathematics for Economic Analysis*, Pearson (2012).

Examination policy:

Written exam, optional oral exam.

Modalità di valutazione:

Attendance	5%	
Final exam	95%	

Language:

English

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