UNIVERSITÀ DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Mathematical Methods

2122-2-E1802M118

Learning area

Learning objectives

The aim of the course is to give the main tools for the basics of series, integrals and linear algebra. Furthermore, it ⎯

Contents

Matematica Generale II: Sequences and series, integrals and linear algebra.

Matematica Finanziaria: The course presents the basic principles of traditional financial mathematics (also known as ⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯

Detailed program

⎯

⎯⎯⎯⎯

2) Integrals: definitions, main results and computation.

3) Linear algebra: matrices, vectors and linear systems.

Matematica Finanziaria:

Capitalization Laws Financial transactions. Amounts, interest, discount. Capitalization laws and _____

Annuities and their classification. Value of an annuity in an instant t. Calculation of present and _____

Accrued capital. Repayment of a loan. Depreciation.

Financial operations in general: investments / financing, narrowly, side, general, pure. Selection _____

Bonds and their valuation: characteristics of a bond and profitability indicators. Term structure, ____

Prerequisites

Prerequisites are considered indispensable knowledge and mastery of the typical topics of the _____

_____

Student who do not intend to subscribe to the HONOR CODE can write to their teacher to agree ____

Teaching methods

_____

Assessment methods

___

_____

_____

Matematica Finanziaria:

In the emergency period Covid-19 exams will be only remotely managed. They will be carried _____

The exams, after the health emergency, will be delivered in ways that will be, subsequently, _____

Textbooks and Reading Materials

- "Successioni, serie e integrali", Manuale modulare di Metodi Matematici, vol. 5, a cura di Giovanna Carcano, edizioni Giappichelli Torino

- "Algebra lineare", Manuale modulare di Metodi Matematici, vol. 4, a cura di Maria Ida Bertocchi, edizioni Giappichelli Torino

- S. Stefani, A. Torriero, G.M. Zambruno: "Elementi di Matematica finanziaria e cenni di programmazione lineare" Giappichelli, 5 a ed., 2017