



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## COURSE SYLLABUS

### Mathematical Models for Hospitality and Tourism Management

2223-1-F7601M054

---

#### Learning objectives

The course aims at providing the mathematical instruments to be used in the framework of decision theory

#### Contents

Mathematical instruments for decision theory with a focus on weather derivatives and their application in the framework of tourism industry.

#### Detailed program

Set theory, functions, order relations.

Functions of one variable.

First and second order derivative, optimization problems.

Standard derivatives: forwards, futures, put and call options, pricing of the options.

Weather derivatives.

#### Prerequisites

No specific prerequisites.

## **Teaching methods**

Lectures

## **Assessment methods**

The examination is written with exercises and/or theoretical questions. The oral exam is optional.

## **Textbooks and Reading Materials**

Lectures notes. Further referring texts will be suggested during the lessons.

## **Semester**

Second semester

## **Teaching language**

Italian

## **Sustainable Development Goals**

---