



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## COURSE SYLLABUS

### Insurance Economics M

2223-1-F8204B026

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#### Learning objectives

The course provides the skills to understand and measure insurance risks.

#### Contents

The course aims to make students familiar with the measurement of risks in the main insurance contracts (life and non-life policies) and to provide introductory skills on premium and reserve calculation techniques from a solvency perspective.

#### Detailed program

##### Part I.

- The importance of insuring
- Introduction to insurance, the branches, subjects and general principles
- Aversion and risk premium
- Insurance and moral hazard
- Descriptive notes of the main non-life classes
- Non-life insurance: calculation of the premium and technical reserves
- Notes on budget analyzes

##### Part II

- Life insurance: technical bases, pure premiums, natural premiums, mathematical reserves, risk and savings

premiums.

- Class I contracts, revaluable policies and class III contracts
- Analysis and breakdown of the technical profit for the year
- Industrial profits, distributable profits and cost of capital
- Economic value of an insurance company
- Technical reserves with a view to solvency
- Solvency capital, internal model and standard formula
- IAS / IFRS principles

## **Prerequisites**

It is advisable to have given Applied Probability and to follow Microeconomics.

## **Teaching methods**

The entire training activity will be carried out mainly through lessons. Exercises will be carried out in the classroom in preparation for the exam questions.

## **Assessment methods**

The exam is written with an optional oral exam.

The written exam consists of two parts. The written exam aims to verify the understanding of the risks and methods of calculating the premium in relation to the various areas of application and that the student is able to apply the techniques for calculating premiums and reserves for the purposes of insurance solvency. .

The student can request an oral exam after the publication of the written grade: the oral exam covers the entire program.

## **Textbooks and Reading Materials**

Pitacco, E. , Lezioni di Tecnica Attuariale delle Assicurazioni Libere sulla Vita” , Lint Editoriale.

- Teacher's notes.

## **Semester**

## **Teaching language**

Italian.

**Sustainable Development Goals**

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