



UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Insurance Economics M

2324-1-F8204B026

Learning objectives

The course provides the skills to understand, analyze 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
- The main forms of insurance: calculation of the premium and mathematical reserves
- Demographic risk and financial risk
- 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

Prerequisites

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

Teaching methods

The entire training activity will mainly be carried out with theoretical lessons aimed at the real application of insurance techniques and practical exercises.

Exam preparation exercises will be carried out in class.

Assessment methods

The exam is written with optional oral.

The written exam aims to verify the understanding of the insurance technique in terms of risk measurement, calculation of the insurance premium and of the technical reserves.

The written exam consists of two parts.

A first part consists of an elaborate on spreadsheets that the student will have to carry out the week before the written exam. The thesis focuses on the topics addressed in the lessons and which were the subject of exercises. To prepare for the test, the student will have all the teaching material used at his disposal.

The second part consists of the actual written test in attendance on the day of the exam in the classroom which will consist of questions with true/false answers, correspondences, multiple choice and simple numerical calculations to be carried out with the aid of a calculator. Also in this case the numerical exercises will focus exclusively on topics already covered in the lessons and will be such that they can be carried out easily in the time allowed for the test

The student, who will not be satisfied with the outcome and the evaluation obtained, can request an oral exam after the publication of the grade of the written exam. Both the oral and the written exam concern the whole programme.

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

QUALITY EDUCATION | GENDER EQUALITY
