UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Theory of Risk and Insurance Markets

2425-3-E1803M108

Learning objectives

The course, divided into two modules, aims to provide the knowledge base of the Italian insurance and social security industry as a whole. The first module entitled "Economics and technique of insurance companies" aims to describe the functioning of life and non-life insurance companies in their main aspects of technical operation and the relevant regulations. The second module, entitled " Social security ", aims to provide an overview of the public social security system and the private system of pension funds and their functioning, also from the point of view of financial management.

Contents

The course is divided into two parts, the first entitled "Economics and Technique of Insurance Companies" and the second entitled " Social Security".

Economics and Technique of Insurance Companies

This course provides the fundamentals of insurance business, the market and the economics of insurance companies. After an overview of the peculiarities of the industry and the concepts of risk management, the course explores the basic principles of insurance activities, the characteristics of supply and demand, the life and non-life businesses, the structure and operation of companies, the value creation process, the balance sheet, capital and governance requirements and the most relevant aspects of supervisory regulations. Risk and capital management.

Social security

The module focuses on outlining the characteristics of the Italian social security system, with a focus on the regulatory evolution that has determined its current structure. After the overview of the system, the pension funds system in Italy is analysed in more detail, focusing on closed pension funds, open pension funds and individual insurance pension products, analysing their regulations, structure and functioning. In the final part of the module

the focus is on the financial management of pension funds, with hints at the basic principles of portfolio theory and particular attention to the evaluation and measurement of fund performance.

Detailed program

Economics and Technique of Insurance Companies

Section I - Industry characteristics, the notion of risk and its management. Risk pooling and its benefits. Basic principles of insurance, diversification, moral hazard and insurability of risks. Ownership structures, capital choices and supervision. Supply and demand structures.

Section II - Life insurance products: technical and regulatory characteristics of life contracts and their classification. The main technical-actuarial profiles relating to pricing and the establishment of the actuarial reserves. Analysis of the offer of the main products available in Italy.

Section III - Non-life insurance products: technical and regulatory characteristics of non-life contracts and their classification. The main technical-actuarial profiles relating to pricing. Analysis of the offer of the main products available in Italy.

Section IV - Technical management, financial statements and capital requirements. The statutory financial statements of insurance companies and the financial statements according to IAS/IFRS. Value creation and the main management and financial statement indicators for measuring performance. The three pillars of Solvency II. Strategic planning, capital management and Own Risk and Solvency Assessment.

Social security

1. Course introduction

2. The Italian pension system and its characteristics (ref. chapter 1th of the textbook)

3. Forms of complementary social security (ref. chapter 2th)

4. Forms and organisational models of pension funds (ref. textbook appendix)

5. Fiscal profiles of pension funds (ref. chapter 4th)

6. Negotiated funds - (ref. chapter 2th - 2.6)

7. Open-ended pension funds and the insurance offer (ref. chapter 2th - 2.11 and 2.12)

8. The financial management of pension funds (Slides)

8.1 basic principles of portfolio theory (Markowitz, CAPM) with Excel applications
8.2 passive management and benchmarking
8.3 the construction, types and selection of benchmarks
8.4 basic principles of performance measurement
8.5 risk-adjusted performance measures

Prerequisites

None

Teaching methods

All lectures are conducted in face-to-face delivery modality:

- 14 lectures of 2 hours delivered in the in-presence delivery mode. 28 lectures in the aggregate.

Assessment methods

The exam is held in written form, as multiple choice on Computerized Examination Platform (Moodle), followed by an oral assessment.

WRITTEN TEST (Multiple Choice - MC)

The test requires being connected to the lecturer's Webex room for checking during the test. If required, a second cell phone connection should be provided for desk check.

There will be three possible alternative tests to choose from: a) Prof. Forte's test only (Social Security); b) Prof. Bellucci's test only (Economics of Insurance); c) the third option that includes both tests (COMPLETE).

Each individual test has a duration of 7 minutes, while 14 minutes is the time allowed if you choose the complete test. The time of the test runs automatically and at the end it involves automatic delivery.

The COMPLETE test consists of 20 Multiple Choices (MCs). 10 MCs are from Economics of Insurance and 10 are from Social Security. Only one answer is the correct one. Each correct question is worth 1 point, each wrong answer is worth -0.25, each ungiven answer is worth 0.
The Social Security test consists of 10 Multiple Choices. Only one answer is the correct one. Each correct answer is worth 1 point, each wrong answer is worth -0.25, each ungiven answer is worth 0.
The Economics of Insurance test consists of 10 Multiple Choices. Only one answer is the correct one. Each correct answer is worth 1 point, each wrong answer is worth -0.25, each ungiven answer is worth 0.

At the end of the written test, students receive an indication of their score and instructions for taking the oral exam. The MC exam score will be reference and indicative basis for the subsequent oral assessment. At the end of the MC test, students may decide to withdraw, but may not do so at the end of the oral assessment. Students who have carried out the COMPLETE test must perform the oral test of both Social Security and Economics of Insurance modules.

ORAL EXAM

Those who have passed the written test, i.e., have obtained a **scores > 3 points** for each single module; (**> 7 points** for the COMPLETE test), and have been preliminarily identified, will participate in the oral examination in the sequence identified by the teachers.

The final grade for the course is given by the simple average of the marks given in the two modules.

it is possible to take the two modules on two different dates, but it is not possible to keep a grade from one module valid for more than one subsequent exam date.

Textbooks and Reading Materials

Economics and technique of insurance

Compulsory reading of the material provided by the lecturer and which will be made available in the "teaching material" section of the course e-learning page. The material consists of three documents covering all parts of the course.

Recommended textbooks:

A. Bellucci, Strategy, risk management and value creation in insurance companies, Giappichelli, 2014.

C.Porzio, D.Previati, R.Cocozza, S.Miani, Raoul Pisani. Economics of insurance firms. McGrow-Hill 2011. [Chapters 1, 2, 3, 4, 5, 6, 7, 8, 11].

Other textbooks: Alberto Floreani. Economics of insurance companies. Il Mulino/manuals 2011. Edited by Stefano Miani. I prodotti assicurativi - third edition. G. Giappichelli Editore - Turin 2010. (NB the text only deals with part 2 and 3 of the course).

Social security

The reference resource consists of the parts of the book indicated in the Syllabus, and the slides provided by the teacher.

The study of the parts of the textbook indicated by the teacher is compulsory, in addition to the slides and other material that may be provided. The material provided by the teacher will be available in the "teaching material" section of the course e-learning page.

Recommended textbook:

"La previdenza complementare per i lavoratori pubblici e privati" ; Francesco Vallacqua - Ed. Egea 2012

Semester

First half

Teaching language

Italian

Sustainable Development Goals