Course program

1. Introduction

   Social insurance, social security and welfare. Pension Funds classification.

2. Multiple decrement models (theory of competing risks)

   Populations subject to multiple contingencies. Single decrement tables, central rates of multiple decrement. Multiple decrement tables.

3. Demographic projections

4. Individual present values and benefit valuation

5. Funding systems

   Present values for 1(more) cohort(s). Fully funded pension systems: the General Average Premium. Pay as you go pension systems. Terminal funding system. The social security evolution. The three pillars. Mutuality and solidarity.

6. Actuarial liabilities and normal costs


7 Mortality projection and longevity risk

   Mortality trends. Mortality projection models. Longevity risk: identification, measure and hedging. (Student project)

8 Introduction to the actuarial mathematics for health insurance
Text books


Exams and Contacts

The exams are scheduled in the following dates:

\[\text{June }24^{\text{th}}, \text{ July }22^{\text{nd}}, \text{ September }23^{\text{rd}}\]

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Students’ reception \textit{Friday from 3 to 4 pm} (channel on TEAMS - Room 12, on the III floor, of Cubo 3C)