Course program

1. Introduction

   Social insurance, social security and welfare. Insurance and assistance.

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


8 Introduction to the actuarial mathematics for health insurance
Text books


