

Life Insurance and Retirement Product Development

Subject Syllabus 2025





1. Overview and Aim

The theme of the subject is to promote the concept of the actuary as an expert advisor in the product development process. As well as describing how to complete the technical aspects of the product development process, another aim is for students to understand the various conflicts that arise across different groups of stakeholders. Meeting reasonable customer needs and helping customers understand whether these needs are met form core concepts in the subject. The implications of serving the public good will also be discussed.

The subject has considerable focus on the external environment for a life insurer or retirement fund and how, for example, government policies have a significant impact on product design.

Technical aspects of setting the price via profit testing, setting pricing and funding assumptions and reviewing assumptions through emerging experience are described. Students will be expected to identify financial risks and how to manage these risks.

The broader issue of the management required to achieve the products' objectives is introduced by explaining actuarial roles in the product development process. The intention is to show students that actuaries are not just technical experts but are also strategic advisors in this process. In particular, while actuaries typically do not make decisions on various factors (e.g. administration systems, marketing material) they play an important specialist advisory role in these decisions.

2. Student Outcomes

After successfully completing this subject, students will be able to:

- consider whether reasonable customer expectations have been, or will be, met;
- critically evaluate the need for actuarial advice in the product development process;
- conduct experience reviews;
- construct a profit test and explain the results;
- contribute to the management of financial and other risks; and
- evaluate the business planning process.



3. Prerequisites

While there are no formal prerequisites for this subject, students will be assumed to have studied (but not necessarily passed) all Foundation subjects and all Associate subjects.

4. Assessment Skill Level

Assessment of this subject will be split across the following skill levels:

- Simple Application (25%): demonstration of a detailed knowledge and understanding of the topic;
- Application (50%): demonstration of an ability to apply the principles underlying the topic within a given context; and
- Higher-Order (25%): demonstration of an ability to perform deeper analysis and assessment of situations, including forming judgements, taking into account different points of view, comparing and contrasting situations, suggesting possible solutions and actions and making recommendations.

5. Assessment Method

The subject is assessed via a three-hour (plus 15-minute reading time) open-book examination, worth 80% of the mark, and an assignment, worth 20% of the mark.



6. Learning Objectives

The following is a list of the learning objectives for this subject, with mapping to the relevant subject chapter indicated in brackets after each learning objective.

- 1 Evaluate customer needs (C2)**
 - 1.1 Consider the reasons customers purchase financial products and their expectations when doing so
 - 1.2 Explain the issues that individuals face when purchasing financial products and the key factors that influence them
 - 1.3 Explain how customer needs may change over the lifetime of a product
 - 1.4 Explain how providers of financial products meet customer needs
- 2 Evaluate the various financial products offered for sale (C3)**
 - 2.1 Analyse the main types of life insurance and retirement products in terms of risks to both customers and product providers
 - 2.2 Evaluate whether a product meets the needs of customers, at point of sale and over the lifetime of the policy or fund
 - 2.3 Explain how the risks of different retirement income and life insurance products impact on product design
 - 2.4 Advise on the construction of tools that illustrate potential future benefits and accompanying explanatory material
- 3 Consider the internal and external operating environments of life insurers and retirement funds (C4, C5 & C6)**
 - 3.1 Describe the key features and participants in a financial services market (C4)
 - 3.2 Examine the roles and responsibilities of various stakeholders of life insurers and retirement funds (C4)
 - 3.3 Examine the role of actuaries and their interactions with other stakeholders (C4)
 - 3.4 Explain the role of government in life insurance and retirement systems, including social security, the multi-pillar retirement approach, tax concessions, regulation and prudential supervision (C4)
 - 3.5 Discuss the range of organisational structures associated with life insurers and retirement funds (C4)



- 3.6 Explain the key functions of life insurers and retirement funds (C4, C5 & C6)
- 3.7 Consider the management of setting unit prices and crediting rates (C5)
- 3.8 Evaluate underwriting and claims management processes for life insurers and retirement funds (C6)
- 4 Design a product development process (C7)**
 - 4.1 Explain the cyclical process involved in developing new products
 - 4.2 Explain the methods used by organisations to identify and meet customer needs
 - 4.3 Develop a product strategy based on identified customer needs
 - 4.4 Evaluate the key considerations in designing a product, including its design features and their impact on the entity's risk profile
 - 4.4.1 Explain the product design requirements for retirement funds
 - 4.4.2 Evaluate the product design options for life insurance products
 - 4.5 Examine the requirements for manufacturing and distributing life insurance and retirement products
 - 4.5.1 Compare the various methods used by life insurers and retirement funds to acquire new business
 - 4.5.2 Identify the range of options for remunerating sales forces or distribution channels and evaluate the implications of each
 - 4.6 Explain ways that entities monitor and respond to the performance of a new product
- 5 Prepare experience investigations (C8)**
 - 5.1 Explain when and why experience investigations may be undertaken
 - 5.2 Prepare various types of experience investigations
 - 5.2.1 Prepare economic experience investigations
 - 5.2.2 Prepare expense experience investigations
 - 5.2.3 Prepare discontinuance experience investigations
 - 5.2.4 Prepare mortality experience investigations
 - 5.2.5 Prepare morbidity experience investigations
 - 5.2.6 Prepare new business experience investigations



- 5.2.7 Prepare membership experience investigations
- 5.3 Analyse the results of experience investigations to set assumptions for valuation, product pricing, bonus setting, capital and appraisal value calculations
- 5.4 Analyse the results of experience investigations to inform business strategy and drive business outcomes
- 5.5 Explain the outcomes of experience investigations to stakeholders
- 6 Produce product pricing (C9 & C10)**
 - 6.1 Produce a profit test (C9)
 - 6.1.1 Explain how to profit test a range of typical insurance products
 - 6.1.2 Compare potential profit measures
 - 6.1.3 Produce sensitivity and scenario analysis when profit testing
 - 6.1.4 Compare deterministic and stochastic pricing techniques for the major classes of life insurance products
 - 6.2 Determine appropriate surrender values for major product classes (C9)
 - 6.3 Demonstrate how to complete policy alterations for major product classes (C9)
 - 6.4 Produce pricing for participating business, including the declaration of bonuses (C10)
 - 6.4.1 Describe different types of bonus distribution and the relationship with asset shares
 - 6.4.2 Contrast the allocation of profit and distribution of profit to participating policyholders
 - 6.4.3 Examine the issues and requirements when providing advice to management on bonus distribution, with reference to equity, solvency, sustainability and policyholders' reasonable expectations
- 7 Evaluate alternative reinsurance programs (C11)**
 - 7.1 Construct a reinsurance program appropriate to the insurer's needs
 - 7.1.1 Explain the purpose of reinsurance
 - 7.1.2 Evaluate different reinsurance options
 - 7.1.3 Explain the factors that should be considered when designing a reinsurance program



- 8 Propose components of risk management frameworks applicable to life insurers and retirement funds, covering risk assessment, risk management, risk reporting, governance and culture. (C12)**
- 8.1 Consider the relationship between objectives, risks and capital
 - 8.2 Assess the different types of risks and their potential impact
 - 8.3 Design a risk management framework
 - 8.4 Examine the impact of the internal and external environment on risk management, including the role of regulators
 - 8.5 Plan the implementation of risk management processes within a business function
- 9. Evaluate the business planning process (C13)**
- 9.1. Describe the objective of business planning and the key inputs and outputs in the business planning process
 - 9.2. Describe the key stakeholders involved in business planning and their role.
 - 9.3. Evaluate the key consideration for preparing a business plan
 - 9.4. Distinguish between business planning and analysis of surplus



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Actuaries use data for good by harnessing the evidence to navigate into the future and make a positive impact. They think deeply about the issue at hand, whether it's advising on commercial strategy, influencing policy, or designing new products. Actuaries are adept at balancing interests of stakeholders, clients and communities. They're called upon to give insight on complex problems and they'll look at the full picture. Actuaries analyse the data and model scenarios to form robust and outcome-centred advice.

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