

ILA – Life Product Management Exam

Spring 2023

Important Exam Information:

[Exam Registration](#)

Candidates may register online or with an application.

[Order Study Notes](#)

Study notes are part of the required syllabus and are not available electronically but may be purchased through the online store.

Syllabus Readings

Readings listed in this syllabus may include study notes, online readings and textbooks. Candidates are responsible for all readings in their entirety, including sections such as Appendices, unless it is stated otherwise in the syllabus.

[Introductory Study Note](#)

The Introductory Study Note has a complete listing of all study notes as well as errata and other important information.

Case Study

A case study will not be provided for this examination.

[Past Exams](#)

Past Exams from 2000-present are available on SOA website.

[Updates](#)

Candidates should be sure to check the Updates page on the exam home page periodically for additional corrections or notices to the current syllabus.

Individual Life and Annuities – Life Product Management Exam
Spring 2023

1. Topic: Product Design, Pricing and Assumptions

Learning Objectives

The candidate will understand the designs and risks of the common life and annuity products and features, as well as the methods and metrics used to design and price these products.

Learning Outcomes

The Candidate will be able to:

- a) Describe the designs of the common life and annuity products and evaluate their associated features and inherent risks
- b) Describe and evaluate methods and metrics used to design and price these products, and assess their profitability
- c) Describe and assess insurance and annuity distribution approaches and the impact of emerging technologies
- d) Describe and evaluate the impact of VM-20 on pricing
- e) Describe considerations and practices related to "Lapse-Supported" insurance
- f) Describe methodologies, approaches, considerations and tools related to the Underwriting function
- g) Describe methodologies and considerations used in the regulation of nonforfeiture practices
- h) Describe and evaluate the product development environment and cycle
- i) Describe and apply the principles of "Macro-Pricing" ("Project Based Analysis" vs. "Unit Based Pricing")
- j) Describe the operation of Life Acceleration Riders and their role in meeting market needs
- k) Describe what is meant by Life Settlements and assess their impact on insurance product pricing/management
- l) Describe and apply the principles of "Risk-Based Pricing"
- m) Describe how predictive analytics can be used in life and annuity pricing applications
- n) Describe and apply the requirements of applicable ASOPs on Life and Annuity Product Pricing and Assumptions
- o) Describe how taxes may be treated in a pricing model and the impact of tax reform on life products profitability
- p) Describe and apply methods for pricing term conversions
- q) Describe and evaluate the types of assumptions commonly used in actuarial pricing and product development
- r) Describe and evaluate the role of Behavioral Economics in understanding and modeling policyholder behavior in the life and annuity context
- s) Describe the framework, process, and significant considerations for creating mortality tables. Describe and apply the methods for determining exposures, and considerations for developing select period mortality rates

Individual Life and Annuities – Life Product Management Exam
Spring 2023

Resources

- LPM-107-07: Experience Assumptions for Individual Life Insurance and Annuities
- LPM-121-13: Life Insurance and Annuity Non-forfeiture Practices
- LPM-134-15: Digital Distribution in Insurance: A Quiet Revolution
- LPM-142-16: Malcolm Life Enhances Its Variable Annuities, 2010
- LPM-147-17: Life Insurance: Focusing on the Consumer (excluding Appendices)
- LPM-148-19: Ch. 9 of *Life Insurance Products and Finance*, Atkinson and Dallas
- LPM-149-22: Ch. 11, pp. 499-512 of *Life Insurance Products and Finance*, Atkinson and Dallas
- LPM-150-19: Tax Reform Impacts on Life Insurance Pricing and Profitability, 2018
- LPM-151-19: Transamerica Term Life: Understanding Post-Level Experience
- LPM-152-19: Lapse Supported Insurance Analysis
- LPM-165-20: Life Products and Features
- LPM-166-20: Annuity Product and Features
- LPM-171-21: Excerpts from Ch. 12 and Ch. 18 *Statutory Valuation of Individual Life and Annuity Contracts*, Claire, Lombardi and Summers, 5th Edition (sections 12.2 & 12.4 and sections 18.2, 18.3.2 & 18.3.3 only)
- [Structured Settlement Annuities](#), SOA Research Institute, Sklar, 2022
- [Pension Risk Transfer in Canada and the U.S.](#), SOA Research Institute, Simmons, 2022
- [Standards of Practice, Canadian Institute of Actuaries Actuarial Standards Board](#), 2022, Section 1600
- [ASOP 2: Non-guaranteed Charges or Benefits for Life Insurance Policies and Annuity Contracts](#), Sep 2021 (excluding Appendices)
- [ASOP 54: Pricing of Life and Annuity Products](#), Jun 2018
- [Impact of VM-20 on Life Insurance Product Development](#), SOA Research, Nov 2016, pp. 1-31 (excluding discussion of 20-year term)
- [The Use of Predictive Analytics in the Development of Experience Studies](#), The Actuary, Oct/Nov 2015, pp. 26-34
- [Variable Annuity Guaranteed Living Benefits Utilization](#), SOA LIMRA Research, 2018, Executive Summary only (pp. 19-32)
- [Predictive Modeling for Life Insurance: Ways Life Insurers Can Participate in the Business Analytics Revolution](#), Product Matters, Jun 2018
- [Macro-Pricing](#), Product Development Monograph, pp. 11-41
- [Life Insurance Acceleration Riders](#), SOA Reinsurance News, 2013, pp. 35-38
- [The Response of Life Insurance Pricing to Life Settlements](#), Product Matters, Sep 2006
- [Risk Based Pricing – Risk Management at Point of Sale](#), Product Matters, Jun 2009
- [Life Insurance for the Digital Age: An End-to-End View](#), Product Matters, Nov 2017
- [Term Conversions: Pricing and Reserving](#), Product Matters, Mar 2017

Individual Life and Annuities – Life Product Management Exam
Spring 2023

- [Term Conversions - A Reinsurers Perspective](#), Product Matters, Jun 2012
- [Term Mortality and Lapses](#), Product Matters, Aug 2005
- [Ending the Mortality Table](#), Living to 100 Symposium
- [Post Level Term Experience Results](#), 2014, pp. 21-44
- [Level Term Lapse Rates – Lessons Learned Here and in Canada](#), Product Matters, Oct 2011, pp. 11-14
- [Modeling of Policyholder Behavior for Life and Annuity Products](#), SOA, 2014, pp. 6, 9-16 & 19-73
- [Report on Premium Persistency Assumptions Study of Flexible Premium Universal Life Products](#), May 2012, pp. 9-15
- [Understanding the Volatility Experience and Pricing Assumptions in Long-Term Care Insurance](#), 2014, pp. 4-46
- [Report on the Conversion Experience Study for the Level Premium Term Plans](#), 2016, pp. 6-9, 39-40 & Appendix B
- [Long-Term Care Insurance: The SOA Pricing Project](#), 2016
- [Table Development](#), Feb 2018 (excluding Appendices C, D, F, G & H)

Individual Life and Annuities – Life Product Management Exam
Spring 2023

2. Topic: Value Creation
Learning Objectives
The candidate will understand the theory of "Value Creation" for life and annuity products and how to evaluate the patterns of earnings emergence under various regulatory regimes.
Learning Outcomes
The Candidate will be able to: <ul style="list-style-type: none">a) Describe, evaluate and apply the economic value creation frameworkb) Describe and apply the common profit metrics (IRR, Value of New Business, Embedded Value, ROE) used in pricing insurance productsc) Describe and evaluate fundamental strategies for enhancing value through active in-force and operational management
Resources
<ul style="list-style-type: none">• LPM-113-09: Economics of Insurance: How Insurers Create Value for Shareholders, pp. 4-31• LPM-153-19: Life in-force Management: Improving Consumer Value and Long-Term Profitability• LPM-155-19: Understanding Profitability in Life Insurance• Relationship of IRR to ROI on a Level Term Life Insurance Policy, Product Matters, Jun 2013, pp. 18-21• Evolving Strategies to Improve Inforce Post-Level Term Profitability, Product Matters, Feb 2015, pp. 23-29

Individual Life and Annuities – Life Product Management Exam
Spring 2023

3. Topic: Product Management, Operations and Studies
Learning Objectives
The candidate will understand common issues and practices related to In Force and New Business Product Management, and how experience studies are designed and used for evaluating past experience and for setting assumptions.
Learning Outcomes
The Candidate will be able to: <ul style="list-style-type: none">a) Recommend and justify changes to policyholder dividendsb) Describe and assess the impact of adverse selection due to Life Settlementsc) Describe and evaluate the challenges insurers face in a low and potentially rising interest rate environmentd) Describe and evaluate how diversification of insurance risks can reduce volatilitye) Describe and evaluate approaches for quantifying the price of VA guarantees and evaluating hedge effectivenessf) Describe how experience studies are designed and used for evaluating past experience, and for setting assumptionsg) Describe how credit scores and other alternative data might be used to supplement mortality rate estimatesh) Describe and apply the use of statistical credibility methods used for validating actuarial judgment when evaluating experiencei) Explain and apply the Limited Fluctuation and Buhlmann credibility methods to mortality and lapse experience study data
Resources
<ul style="list-style-type: none">• LPM-133-16: Testing for Adverse Selection in Life Settlements: The Secondary Market for Life Insurance Policies, pp. 2-18• LPM-156-19: The Impact of Stochastic Volatility on Pricing, Hedging and Hedge Efficiency of Withdrawal Benefit Guarantees in Variable Annuities (<i>Note: Candidates not responsible for mathematical derivations or detailed results, but should understand concepts and methodology</i>)• LPM-157-19: Diversification of Longevity and Mortality Risk• LPM-168-20: LexisNexis® Risk Classifier – Stratifying Mortality Risk Using Alternative Data Sources• LPM-171-21: Excerpts from Ch. 12 of <i>Statutory Valuation of Individual Life and Annuity Contracts</i>, Claire, Lombardi and Summers, 5th Edition (sections 12.3 & 12.4 only)• Mechanics of Dividends, SOA Research Institute, Dale Hagstrom, Mar 2022• Transition to a High Interest Rate Environment: Preparing for Uncertainty, SOA Research, Jul 2015, Executive Summary, section IV: parts C (1-4 & 8-11 only), D, E & H• Experience Study Calculations, Oct 2016, sections 2-4, 11, 12 15, 17 & 18 (excluding 18.2, 18.8 & 18.9)• Credibility Theory Practices, 2009 (excluding Appendices and formula derivations)

Individual Life and Annuities – Life Product Management Exam
Spring 2023

4. Topic: Reinsurance
Learning Objectives
The candidate will understand the various forms of traditional reinsurance, will be able to assess how and when they are effectively used, and will be able to perform the associated accounting (from both ceding and assuming perspectives) for basic reinsurance transactions.
Learning Outcomes
The Candidate will be able to: <ul style="list-style-type: none">a) Evaluate and analyze traditional and advanced reinsurance transactions, and prepare related financial statement entriesb) Describe and evaluate indemnity reinsurance and evaluate its use, forms, and requirementsc) Describe risk transfer considerations, and evaluate their impact on reinsurance agreement provisionsd) Describe and evaluate nonproportional reinsurance arrangements and their usee) Describe and evaluate how strategic/customized reinsurance solutions may enhance insurer prospects
Resources
<ul style="list-style-type: none">• <i>Life, Health & Annuity Reinsurance</i>, Tiller, John E. and Tiller, Denise, 4th Edition, 2015<ul style="list-style-type: none">○ Ch. 4: Basic Methods of Reinsurance○ Ch. 5: Advanced Methods and Structures of Reinsurance○ Ch. 6: Assumption○ Ch. 7: Reinsurance of Inforce Risks○ Ch. 9: Risk Transfer Considerations (pp. 269-280)○ Ch. 17: Nonproportional Reinsurance• LPM-160-19: Strategic Reinsurance and Insurance: The Increasing Trend of Customized Solutions, pp. 1-4, 14-15 & 18-31