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# ILA 101 – Pricing and Introduction to Valuation and Risk Management

## Nov 2026/Mar 2027/Jul 2027

### Important Course Information:

<a href="#">Exam Registration</a>	Candidates may register online or with an application.
<a href="#">Order Study Notes</a>	Study notes are part of the required syllabus and are not available electronically but may be purchased through the online store.
<b>Syllabus Resources</b>	Resources listed in this syllabus may include study notes, online readings, textbooks, videos and module content. Candidates are responsible for all materials in their entirety, including sections such as Appendices, unless it is stated otherwise in the syllabus.
<b>Topic Weight Ranges</b>	The weight ranges show the relative emphasis on each topic. They are intended to apply broadly over multiple sittings; however, on any individual exam these could fall outside the published range. Some questions will cover multiple learning objectives.
<b>Learning Outcomes</b>	Each resource lists the primary learning outcome(s) it aligns with under that topic. Resources are listed in the recommended order of study to best master the overall topic. Additional guidance is provided in the Course Strategy Guide.
<a href="#">Introductory Study Note</a>	The Introductory Study Note has a complete listing of all study notes as well as errata and other important information.
<b>Case Study</b>	A case study will not be provided for this examination.
<a href="#">Past Exams</a>	Past Exams are available on the SOA website.
<a href="#">Updates</a>	Candidates should be sure to check for updates on the course homepage periodically for additional corrections or notices to the current syllabus.

**1. Topic: Individual Life and Annuity Product Design and Pricing (15%-25%)**

**Learning Objectives**

The candidate will understand the designs of the common Life and Annuity products and their associated features and inherent risks, and the methods to design and price these products.

**Learning Outcomes**

The Candidate will be able to:

- a) Describe and compare various life insurance and annuity product designs
- b) Evaluate and apply pricing practices for life and annuity products
- c) Describe and apply the common profit metrics (IRR, Value of New Business, Embedded Value, ROE) used in pricing insurance products
- d) Explain and apply nonforfeiture calculation techniques

Resources	Learning Outcomes
ILA101-100-25: Life Products and Features	1a, 1b
ILA101-101-25: Annuity Products and Features	1a, 1b
<a href="#">Structured Settlement Annuities</a> , SOA Research Institute, Mar 2022	1a, 1b
<a href="#">Pension Risk Transfer in Canada and the U.S.</a> , SOA Research Institute, Feb 2022	1a, 1b
<a href="#">Registered Index-Linked Annuities</a> , SOA Research Institute, Aug 2022	1a, 1b
<a href="#">Life Insurance Acceleration Riders</a> , SOA Reinsurance News, Jul 2013, pp. 35-38	1a, 1b
ILA101-102-25: Understanding Profitability in Life Insurance	1c
ILA101-103-25: Ch. 9 of <i>Life Insurance Products and Finance</i> , Atkinson and Dallas	1c
ILA101-104-25: Ch. 11, pp. 499-512 of <i>Life Insurance Products and Finance</i> , Atkinson and Dallas	1c
ILA101-105-25: Life Insurance and Annuity Non-forfeiture Practices	1d

## 2. Topic: Assumption Development and Experience Studies (15%-25%)

### Learning Objectives

The candidate will understand different types of actuarial assumptions and how experience studies are designed and used for evaluating past experience and for setting assumptions.

### Learning Outcomes

The Candidate will be able to:

- a) Describe types of actuarial assumptions commonly used for life insurance and annuity actuarial functions
- b) Describe and evaluate mortality, lapse, premium persistency, term conversions and utilization assumptions used for various purposes, and apply methods and techniques for their development
- c) Explain and apply actuarial credibility methods
- d) Describe and apply the framework, process, and significant considerations for creating modern mortality tables used by life insurance companies
- e) Describe the process and apply techniques for experience studies

Resources	Learning Outcomes
ILA101-106-25: Experience Assumptions for Individual Life Insurance and Annuities	2a
ILA101-107-25: Lapse Supported Insurance Analysis	2b
<a href="#">Educational Note Supplement: Selective Lapsation for Renewable Term Insurance Products</a> , CIA, Feb 2017	2b
<a href="#">Report on Premium Persistency Assumptions Study of Flexible Premium Universal Life Products</a> , May 2012, pp. 9-15	2b
<a href="#">Variable Annuity Guaranteed Living Benefits Utilization</a> , SOA LIMRA Research, 2018, Executive Summary only (pp. 19-32)	2b
<a href="#">Term Conversions: Pricing and Reserves</a> , Product Matters, Mar 2017	2b
<a href="#">Predictive Models on Conversion Studies for the Level Premium Term Plans</a> , SOA, Mar 2017	2b
<a href="#">Credibility Methods Applied to Life, Health, and Pensions</a> , SOA, Feb 2019 (pp. 1-25 only) <ul style="list-style-type: none"> <li>• <a href="#">Credibility Methods Companion Excel Files</a></li> </ul>	2c
<a href="#">Table Development</a> , Feb 2018 (excluding Appendices C, D, F, G & H)	2d

[Experience Study Calculations](#), SOA, Oct 2016 (revised Mar 2024), sections 2-4, 11, 12, 15, 17 & 18 (excluding 18.2, 18.8 & 18.9)

2e

### 3. Topic: Product Management (15%-25%)

#### Learning Objectives

The candidate will understand common issues and practices related to Product Management.

#### Learning Outcomes

The Candidate will be able to:

- a) Describe and assess insurance and annuity distribution approaches and underwriting approaches
- b) Describe and apply the significant US and Canadian tax regulations relating to the taxation of individual life and annuity insurance products
- c) Recommend and justify changes to non-guaranteed elements
- d) Describe and evaluate the challenges insurers face in a rising interest rate environment

Resources	Learning Outcomes
<a href="#">Life Insurance for the Digital Age: An End-to-End View</a> , Product Matters, Nov 2017	3a
<p><i>The Art and Science of Life Insurance Distribution</i>, Bennett, Douglas J., and Zultowski, Walter H., 2014</p> <ul style="list-style-type: none"> <li>• Ch. 3: The Primary Life Insurance Distribution Channels</li> <li>• Ch. 4: The Functions of Distribution in the Life Insurance Business</li> <li>• Ch. 6: Distribution Compensation</li> <li>• Ch. 7: The Economics of Life Insurance Distribution</li> <li>• Ch. 10: The Future of Life Insurance Distribution</li> </ul>	3a
ILA101-108-25: Chapters 1 and 2 of <i>Life Insurance and Modified Endowments Under IRC §7702 and §7702A</i> , Desrochers, 2nd Edition	3b
ILA101-116-25: Ch. 10, <i>The Taxation of Life Insurance Policies of Canadian Insurance Taxation</i> , Swales, et. al.	3b
<a href="#">Overview of Nonguaranteed Elements (NGEs)</a> , SOA Research Institute, Nov 2022	3c
<a href="#">Market Trends and Product Designs: Considerations When Interest Rates are Rising</a> , Product Matters, Nov 2021	3d

## 4. Topic: Introduction to Life and Annuity Valuation Concepts (15%-25%)

### Learning Objectives

The candidate will understand common valuation and capital techniques used in US, Canadian, and international regulatory frameworks.

### Learning Outcomes

The Candidate will be able to:

- a) Describe the US statutory actuarial framework, including the principles-based reserves and calculate basic life insurance reserves
- b) Describe the US GAAP actuarial framework and calculate term insurance reserves and deferred acquisition cost
- c) Describe the IFRS actuarial framework, including the basic calculation of reserves
- d) Explain and apply methods in capital management across various jurisdictions

Resources	Learning Outcomes
<p><i>Statutory Valuation of Individual Life and Annuity Contracts, Volume I</i>, Claire, D., Lombardi, L. and Summers, S., 5<sup>th</sup> Edition, 2018</p> <ul style="list-style-type: none"> <li>• Chapter 1: Overview of Valuation Concepts (excluding 1.1-1.9)</li> <li>• Chapter 11: Valuation Methodologies (excluding 11.3.9-11.3.11)</li> </ul>	4a
ILA101-110-25: Fundamentals of the Principle-Based Approach to Statutory Reserves for Life Insurance	4a
ILA101-118-26: Chapter 1 of <i>US GAAP for Insurers</i> , Freedman, M., and Frasca, R., 3 <sup>rd</sup> Edition, 2024	4b
ILA101-119-26: Chapter 5 of <i>US GAAP for Insurers</i> , Freedman, M., and Frasca, R., 3 <sup>rd</sup> Edition, 2024	4b
ILA101-111-25: Insurance Contracts First Impressions: 2020 Edition IFRS 17, (only Sections 1.1-1.2, 3.1, 5.1-5.3, 6.1-6.4, 14.1-14.2, 15.1-15.2, 17.1-17.3, 20.1)	4c
<p><a href="#">Regulatory Capital Adequacy for Life Insurance Companies: A Comparison of Four Jurisdictions</a>, SOA Research Institute, Jul 2023</p> <ul style="list-style-type: none"> <li>• Companion Excel Spreadsheet: <a href="#">Comparison of Jurisdictions Tool</a></li> </ul>	4d

## 5. Topic: Introduction to Assets and Risk Management (15%-25%)

### Learning Objectives

The candidate will understand various techniques for addressing the mitigation of risk within a life insurance and annuity context.

### Learning Outcomes

The Candidate will be able to:

- a) Describe and evaluate approaches for integrating ALM into an enterprise's risk and financial management framework
- b) Describe and apply the basic concepts of cash flow matching, immunization, duration/convexity matching, segmentation
- c) Describe how common insurance guarantees generate embedded options and calculate the value of these options
- d) Explain the function and attributes of common assets used to support life insurance and annuity liabilities
- e) Describe basic terms, concepts, and types of life insurance reinsurance arrangements
- f) Explain various methods and perform financial statement calculations of reinsurance transactions, including yearly renewable term, coinsurance, modified coinsurance, and funds withheld arrangements

Resources	Learning Outcomes
ILA101-112-25: Revisiting the Role of Insurance Company ALM within a Risk Management Framework	5a
ILA101-113-25: Ch. 7 (sections 7.2-7.5 & 7A) of <i>Derivatives Markets</i> , McDonald, 3rd Edition	5b
ILA101-114-25: Ch. 16 of <i>ALM Management of Financial Institutions</i> , Tilman, 2003	5c
<p><i>An Introduction to Computational Risk Management of Equity-Linked Insurance</i>, Feng, Runhuan, 2018</p> <ul style="list-style-type: none"> <li>• Ch. 1: Modeling of Equity-linked Insurance</li> <li>• Ch. 4: Pricing and Valuation (excluding Section 4.7)</li> </ul>	5c
<p>ILA101-115-25: Simulation of a Guaranteed Minimum Annuity Benefit, Freedman, 2019</p> <ul style="list-style-type: none"> <li>• <a href="#">Excel Model - Stochastic Simulation of a GMAB Option (Accompanies Simulation of a GMAB)</a></li> </ul>	5c
ILA-117-25: Ch. 10, pp. 235-262, excluding exhibits 10-1 & 10-2, and Ch. 21 of <i>Handbook of Fixed Income Securities</i> , Fabozzi, F.J.	5d

<i>Life, Health &amp; Annuity Reinsurance</i> , Tiller, John E. and Tiller, Denise, 4 <sup>th</sup> Edition, 2015 <ul style="list-style-type: none"><li>• Ch. 1: Basic Terms and Concepts (pp. 3-16 &amp; 22)</li><li>• Ch. 4: Basic Methods of Reinsurance</li><li>• Ch. 5: Advanced Methods and Structures of Reinsurance</li></ul>	5e
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