

Individual Life and Annuities Company/Sponsor Perspective – Canada Spring 2009

Important Exam Information:

Exam Date and Time	A read-through time will be given prior to the start of the exam—15 minutes in the morning session and 15 minutes in the afternoon session.
Exam Registration	Candidates may register online or with an application.
Study Note Order Form	Study notes are part of the required syllabus and are not available electronically.
Introductory Study Note	The Introductory Study Note has a complete listing of all study notes as well as errata and other important information.
Past Exams	Past Exams from 2000-present are available on SOA web site.
Updates	Candidates should be sure to check the Updates page on the exam home page periodically for additional corrections or notices.

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Syllabus for Individual Life and Annuities Canada Company/Sponsor Perspective Exam:

The candidate should be very familiar with the Learning Objectives as described in this syllabus document. These Learning Objectives are the first ingredient in developing the syllabus and also guide the examination committee when writing questions. The Learning Objectives set out the cognitive level needed to pass this exam. You will notice that the candidates are expected to “analyze,” “explain,” “calculate,” “describe,” “apply,” etc. While studying the syllabus material, candidates may want to refer to the Learning Objectives to remain focused on the goals of the exam.

Exam: ILA - CSP	TOPIC: <u>Financial Reporting</u>
Learning Objective	
1. The candidate will understand the preparation of financial statements and reports of Can life insurance companies and be able to analyze the data in them.	
Learning Outcomes	
The candidate will be able to:	
A. Prepare the basic financial statements for a life insurance company.	
B. Describe the structure of the Can Annual Statement and explain the purpose of its statements, key exhibits and schedules.	
C. Describe how to compute the taxable income of a life insurance company	
D. Explain fair value accounting principles	
E. Describe international accounting standards	
Syllabus Resources	
<ul style="list-style-type: none"> • <i>Canadian Insurance Taxation</i>, Second Edition, 2000, PriceWaterhouseCoopers Chapters 3–6, 11 and 28. For background only, Chapter 1, 2, 7–10 and 27 • <i>Valuation of Life Insurance Liabilities</i>, Lombardi, Fourth Edition, 2006, Chapter 1 • ILA-C100-07: Financial Reporting Developments Accounting for Derivative Instruments and Hedging Activities: A Comprehensive Analysis of FAS 133 (Overview and Appendix C) • ILA-C122-09: PWC IFRS Insurance Alert: Phase II Discussion Paper, May 2007 • ILA-C123-09: IASB Phase II Preliminary View Discussion Paper, Ch. 3 • ILA-C623-09: Proceedings: Lesson Learned: Implications of CICA 3855, PD-30, June 2007 • An Approach to Fair Valuation of Insurance Liabilities Using the Firm’s Cost of Capital, NAAJ, Apr 2002, pp. 18-23 only http://www.soa.org/library/journals/north-american-actuarial-journal/2002/april/naaj0204_3.pdf • CIA Educational Note: Calm Implications of AcSB Section CICA 3855 Financial Instruments – Recognition and Measurement – June 2006 http://www.actuaries.ca/members/publications/2006/206077e.pdf • CIA Educational Note: Implications of CICA Accounting Standard 3855 and 1530 – Jan 2007 http://www.actuaries.ca/members/publications/2007/207002e.pdf • CIA Educational Note: Implications of CICA Handbook Section 3855 – Financial Instruments on Future Income and Alternative Taxes: Update to Fall Letter: April 2007 http://www.actuaries.ca/members/publications/2007/207029e.pdf • “Fair Value of Liabilities: The Financial Economic Perspective”, NAAJ Jan 2002 http://www.soa.org/library/journals/north-american-actuarial-journal/2002/january/naaj0201_2.pdf 	

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Exam: ILA – CSP	TOPIC: <u>Principles of Valuation</u>
Learning Objective	
2. The candidate will be able to understand and apply valuation principles of individual life insurance and annuity products issued by Can Life Insurance companies.	
Learning Outcomes	
The candidate will be able to:	
A.	
i) Describe Valuation Methods	
ii) Select appropriate valuation assumptions.	
B. Compute liabilities for the following products:	
i) Traditional life insurance	
ii) Term life insurance	
iii) Universal life insurance	
iv) Deferred annuity	
v) Payout annuity	
vi) Segregated Funds with guaranteed minimum death benefits	
vii) Segregated Funds with guaranteed living benefits	
viii) Riders	
C. Devise and use reserve audit methods	
Syllabus Resources	
<ul style="list-style-type: none"> • <i>Valuation of Life Insurance Liabilities</i>, Lombardi, Fourth Edition, 2006, Chapter 1 • ILA-C102-09: Actuarial Review of Reserves and Other Annual Statement Liabilities • ILA-C104-07: Valuation of Living and Death Benefit Guarantees for Variable Annuities • ILA-C602-07: CIA Report on the Task Force on Actuarial Liability Consistency: May 2003 • ILA-C615-07: OSFI Guideline E-12: Inter-Segment Notes for Life Insurance Companies • ILA-C621-09: CIA Draft Educational Note: Valuation of Universal Life Policy Liabilities November 2006 • ILA-C622-09: CIA Consolidated Standards of Practice – Section 2100, 2300, 2500 – Nov 2007 http://www.actuaries.ca/SOP_Doc/2000_Insurers/SOP_e_Insurers_2000.pdf • CIA: DCAT: Life and Property and Casualty: June 1999 Omit Section IIIB http://www.actuaries.ca/members/publications/1999/9930e.pdf • CIA Educational Note: Aggregation and Allocation of Policy Liabilities: September 2003 http://www.actuaries.ca/members/publications/2003/203083e.pdf • CIA Educational Note: Approximations to the Canadian Asset Liability Method (CALM): November 2006 http://www.actuaries.ca/members/publications/2006/206133e.pdf • CIA Educational Note: Best Estimates Assumptions for Expenses – November 2006 http://www.actuaries.ca/members/publications/2006/206134e.pdf • CIA Educational Note: Expected Mortality: Fully Underwritten Canadian Individual Life Insurance Policies: July 2002 http://www.actuaries.ca/members/publications/2002/202037e.pdf • CIA Educational Note: Future Income and Alternative Taxes: December 2002 http://www.actuaries.ca/members/publications/2002/202065e.pdf • CIA Educational Note: Margins for Adverse Deviations (Mfad) – November 2006 http://www.actuaries.ca/members/publications/2006/206132e.pdf • CIA Educational Note: Selection of Interest Rate Models: December 2003 http://www.actuaries.ca/members/publications/2003/203106e.pdf • CIA Report: Use of Stochastic Techniques to Value Liabilities under Canadian GAAP: August 2001 	

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<http://www.actuaries.ca/members/publications/2001/20169e.pdf>

- CIA Task Force on Segregated Fund Investment Guarantees, March 2002 (Chapter 1-5)
<http://info.worldbank.org/etools/docs/library/83954/cia.pdf>
- CIA Use of Actuarial Judgment in Setting Assumptions and Margins for Adverse Deviations, November 2006
<http://www.actuaries.ca/members/publications/2006/206147e.pdf>
- CIA: Valuation of Segregated Fund Investment Guarantees (December 2003 and October 2005)
<http://www.actuaries.ca/members/publications/2005/205111e.pdf>
<http://www.actuaries.ca/members/publications/2003/203107e.pdf>

Exam: ILA - CSP	TOPIC: <u>Reinsurance</u>
Learning Objective	
<p>3. The candidate will be able to evaluate various forms of reinsurance, what the financial impact is of each form, and describe the circumstances that would make each type of reinsurance appropriate.</p>	
Learning Outcomes	
<p>The candidate will be able to:</p> <p>A. For traditional and financial reinsurance, explain the consequences and calculate the effect on both ceding and assuming companies with respect to:</p> <ul style="list-style-type: none"> i) risk transfer ii) cash flow, iii) financial statements iv) tax, and v) reserve credit requirements <p>B. Describe what considerations would be examined to determine the appropriate reinsurance form from the ceding and assuming company perspectives</p>	
Syllabus Resources	
<ul style="list-style-type: none"> • <i>Canadian Insurance Taxation</i>, Second Edition, 2000, PriceWaterhouseCoopers , Chapter 31 • <i>Life and Health and Annuity Reinsurance</i>, Tiller, Third Edition, 2005, Chapters 4–6 and 11 • Report of the CIA Task Force on the Appropriate Treatment of Reinsurance, Oct 2007 http://www.actuaries.ca/members/publications/2007/207081e.pdf 	

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Exam: ILA - CSP	TOPIC: <u>Financial and Capital Management</u>
Learning Objective	
4. The candidate will be able to explain and apply the basic methods, approaches and tools of financial management in a life insurance company context.	
Learning Outcomes	
The candidate will be able to:	
A. Describe and calculate basic performance measures	
B. Perform basic financial analysis by product line and total company	
C. Explain and create a product line “gains by source” analysis	
D. Apply methods of valuation to business and asset acquisitions and sales	
E. Explain and apply the basic methods and approaches of surplus management and earnings management	
F. Describe how securitization is used within capital management	
Syllabus Resources	
<ul style="list-style-type: none"> • <i>Life Insurance Products and Finance</i>, Atkinson and Dallas, 2000, Chapter 16 • ILA-C105-07: Value Based Financial Measurement • ILA-C106-07: <i>Insurance Industry Mergers and Acquisitions</i>, Chap 4 (Sections 4.1-4.6) • ILA-C107-07: Securitization of Life Insurance Assets and Liabilities • ILA-C603-07: OSFI Guideline D-9: Sources of Earnings Disclosure, December 2004 • ILA-C604-07: Proceedings: PD#8: Sources of Earnings and Disclose: Appointed Actuaries Seminar 2004 • ILA-C605-07 Proceedings: D7: Earnings Volatility and Canadian GAAP: General Meeting 2004 • ILA-C618-09: OSFI Guideline D-10: Accounting for Financial Instruments Designated as Fair Value Option, February 2007 • CIA: Sources of Earnings: Determination and Disclose, August 2004 http://www.actuaries.ca/members/publications/2004/204047e.pdf • “Strategic Management of Life Insurance Company Surplus,” TSA XXXVIII (pages 105-116) http://www.soa.org/library/research/transactions-of-society-of-actuaries/1986/january/tsa86v387.pdf 	

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Exam: ILA - CSP	TOPIC: <u>Financial and Capital Management</u>
Learning Objective	
5. The candidate will understand the Risk Based Capital (RBC) regulatory framework and the principles underlying the determination of Regulatory RBC.	
Learning Outcomes	
The candidate will be able to:	
A. Describe the MCCSR/RBC regulatory framework and the principles underlying the determination of Regulatory RBC.	
B. Compute MCCSR for a life insurance company, including: <ul style="list-style-type: none"> i) Identification of significant risk components ii) Identification of specialized product MCCSR requirements iii) Interpreting results from a regulatory perspective 	
Syllabus Resources	
<ul style="list-style-type: none"> • <i>Valuation of Liabilities</i>, Lombardi, Fourth Edition, 2006, Chapters 1 and 16 • ILA-C606-09: OSFI: Guideline Minimum Continuing Capital and Surplus Requirements for Life Insurance Companies 1-6, 9 (Dec 2007) • ILA-C609-07: CIA: OSFI Submission: Future Direction of Insurance Capital Rules: March 2005 • ILA-C616-08: Proceedings: Enterprise Risk Management (PD-15), October 2006, General Meeting • ILA-C619-09: MCCSR in Canada, What comes next (?), PD-11, June 2007 	

Exam: ILA - CSP	TOPIC: <u>Financial and Capital Management</u>
Learning Objective	
6. The candidate will understand the principles underlying the determination of Economic Capital.	
Learning Outcomes	
The candidate will be able to:	
A. Explain and apply the concepts, approaches and methods for determining Economic Capital	
Syllabus Resources	
<ul style="list-style-type: none"> • ILA-C108-07: The Theory of Risk Capital in Financial Firms • ILA-C121-08: Economic Capital Modeling: Practical Considerations, Milliman White Paper • ILA-C610-07: Proceedings: PD#4: Economic Capital • Economic Capital: The Controversy at the Water Cooler, Financial Reporter, Fall 2006 http://www.soa.org/library/newsletters/risk-management-newsletter/2006/december/RMN0612.pdf • Economic Capital for life Insurance Companies, SOA Research paper, Feb 2008, Ch. 1, 3, 4, 5, 6 http://www.soa.org/files/pdf/research-ec-report.pdf 	

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Exam: ILA - CSP	TOPIC: <u>Embedded Value, and Value Creation</u>
Learning Objective	
7. The candidate will understand embedded value, and value creation conceptual frameworks.	
Learning Outcomes	
The candidate will be able to:	
A. Explain and apply the methods and principles of embedded value	
B. Describe and apply the principles of how insurance companies create value from a financial economics perspective	
Syllabus Resources	
<ul style="list-style-type: none"> • ILA-C105-07: Value-Based Financial Measurement • ILA-C110-07: The Economics of Insurance: How Insurers Create Value for Shareholders 	

Exam: ILA - CSP	TOPIC: <u>Model Office and Asset/Liability Modeling</u>
Learning Objective	
8. The candidate will be able to integrate data from various sources into model office and asset/liability models.	
Learning Outcomes	
The candidate will be able to:	
A. For an ALM model:	
<ul style="list-style-type: none"> i) Select appropriate assumptions and scenarios ii) Model dynamic behavior of both assets and liabilities iii) Model and explain various strategies, including hedging iv) Analyze and evaluate results v) Recommend appropriate strategies 	
B. Apply a model office process and make appropriate recommendations.	
C. Analyze and explain actual vs. projected differences	
D. Explain limitations of models and possible sources of error	
<ul style="list-style-type: none"> i) Quality of data ii) Granularity of the model 	
Syllabus Resources	
<ul style="list-style-type: none"> • <i>Life Insurance Products and Finance</i>, Atkinson and Dallas, 2000, Chapters 14 and 15 • ILA-C112-07: ALM for Insurers • ILA-C113-07: <i>Life Insurance Accounting</i>, Chapter 22, Asset/Liability Management • ILA-C114-07: Life Insurance Forecasting and Liability Models - exclude appendices 	

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Exam: ILA - CSP	TOPIC: <u>Risk Management And Mitigation</u>
Learning Objective	
9. The candidate will understand the sources of risk faced by the enterprise and evaluate the mitigation thereof.	
Learning Outcomes	
The candidate will be able to:	
<ul style="list-style-type: none"> A. Identify, categorize and evaluate potential sources of risk in products including but not limited to mortality, morbidity and lapse. B. Identify, categorize and evaluate potential sources of risk in investments including but not limited to credit risk, liquidity and asset-liability matching. C. Describe and evaluate the other risks an insurance company faces including operational, marketplace and expense risks. D. Describe how risks (e.g. product, investments and operational) and opportunities interact and how they influence firm strategy. E. Describe and apply methods of risk mitigation and hedging and to understand the limitations of such methods. F. Evaluate methods for measuring and controlling equity-based exposure associated with embedded options. G. Describe the roles of rating agencies, analysts and regulators together with their methods and impact on insurance companies. 	
Syllabus Resources	
<ul style="list-style-type: none"> • ILA-C104-07: Valuation of Living and Death Benefit Guarantees for Variable Annuities • ILA-C115-07: Rethinking Risk Management • ILA-C116-07: Mapping of Life Insurance Risks, AAA Report to NAIC • ILA-C117-07: Moody's Looks At Risk Management and the New Life Insurance Risks • ILA-C118-07: Regulators' Perspective on Actuarial Opinions and Valuations • ERM and Insurance Company Ratings – One Year On, Risk Management Newsletter, March 2007 http://www.soa.org/library/newsletters/risk-management-newsletter/2007/march/RMN0703.pdf • Specialty Guide on ERM, Chapters 1-6 http://www.soa.org/library/professional-actuarial-specialty-guides/enterprise-risk-management/2005/august/spg0605erm.pdf • Stochastic Analysis of Long Term Multiple-Decrement Contracts, Clark and Runchey, Jan 2008 - Exclude http://www.soa.org/files/pdf/research-stochastic.pdf 	
Appendices	
http://www.soa.org/files/pdf/research-stochastic.pdf	

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Exam: ILA - CSP	TOPIC: Professional Considerations
Learning Objective	
10. The candidate will understand the professional standards addressing financial reporting and valuation.	
Learning Outcomes	
The candidate will be able to:	
<ul style="list-style-type: none"> A. Explain the role and responsibilities of the appointed / valuation actuary. B. Identify and apply relevant professional actuarial qualification standards. C. Identify and apply actuarial standards of practice relevant to financial reporting and valuation. D. Explain the actuary’s professional responsibilities to stakeholders including obligations under Sarbanes-Oxley 	
Syllabus Resources	
<ul style="list-style-type: none"> • ILA-C119-07: Management Reports and Reports to Regulatory Bodies • ILA-C120-07: SEC Implements Internal Control Provisions at Sarbanes-Oxley act; Adopts Investment Company R&D Safe Harbor • ILA-C612-07: Guideline AuG-43: Audit of Actuarial Liabilities of Insurance Enterprises • ILA-C613-07: Proceedings: PS#12: Role of the Appointed Actuary: AA seminar 2005 • ILA-C620-09: OSFI: Guideline E15: Sound Business and Financial Practices: Appointed Actuary: Legal Requirements, Qualification and External Review: November 2006 • ILA-C622: CIA: Consolidated Standards of Practice: (Section 2400) – November 2007 • Actuarial Aspects of SOX 404, 12/04 Financial Reporter #59 http://www.soa.org/library/newsletters/financial-reporter/2004/december/fm0412.pdf • Regulatory Capital Filing Certification (May 2006) http://www.actuaries.ca/members/publications/2006/206049e.pdf • Responsibilities of the Actuary for Communicating Sarbanes-Oxley Control: Effectiveness in Accordance with Actuarial Standards of Practice, 12/04 Financial Reporter #59 http://www.soa.org/library/newsletters/financial-reporter/2004/december/fm0412.pdf 	