



Canadian Institute  
of Actuaries  
EDUCATION

Institut canadien  
des actuaires  
ÉDUCATION

# FCIA SYLLABUS

Group benefits track



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# Fellow exams syllabuses

## FCIA exams syllabuses overview

### Background

In June 2021, the CIA Board approved [new qualification pathways](#) to ACIA (Associate, CIA) and FCIA (Fellow, CIA) designations, including CIA-drafted examinations and modules. Five FCIA-level education tracks are available to candidates. All FCIA tracks include three exams and two modules. This document outlines the group benefits (GB) track exams and modules syllabuses.

Exams are administered as an open-book, four-hour exam requiring analysis in the context of a problem and submission of written responses to specific questions. Candidates will complete the exam through the CIA's learning management system. The ranges of weights (expressed in parentheses) attached to the examination topics further below apply to most of exams administered. Candidates should also recognize that questions often cover multiple learning objectives, including communication.

### Education tracks

For information, the table below outlines the Fellow level exams applicable to each track:

Track	Exams
Individual life and annuities (ILA)	F1ILA: Finance and Valuation F2ILA: Product Design F3ILA: Risk Management
Property and casualty (PC)	F1PC: Pricing F2PC: Estimating unpaid claims and financial reporting under IFRS 17 – <i>Insurance Contracts</i> F3PC: ERM, Economic Capital Modeling and Stress and Scenario Testing
Group benefits (GB)	F1GB: Product Design and Group Benefits Environment F2GB: Group Benefits Product Pricing F3GB: Group Benefits Reserving
Finance, investments and ERM (FIE) with option in banking	F1FIE: Financial Products F2FIE: Valuation and Financial Considerations F3FIE: Risk Management <i>or</i> F3BNK: Banking Applications
Retirement benefits (RET)	F1RET: Pension Funding and Regulation F2RET: Financial Reporting F3RET: Pension Risk Management

## Bloom's taxonomy description

The CIA exam syllabuses set out the depth of knowledge and application required, using revised Bloom's taxonomy of education objectives. For comparison purposes, the development of the IAA Education Syllabus is also based on the revised Bloom's taxonomy. This model reflects two dimensions: the knowledge dimension and the cognitive process dimension. This framework is widely used and respected by educators worldwide.

Revised Bloom's Taxonomy (RBT)  
Cognitive Process Dimension

Verbs	1	2	3	4	5	6
Objects	REMEMBER Recognize, Recall	UNDERSTAND Interpret, Exemplify, Classify, Summarize, Infer, Compare, Explain	APPLY Execute, Implement	ANALYZE Differentiate, Organize, Attribute	EVALUATE Check, Critique	CREATE Generate, Plan, Produce
A. Factual Knowledge	A1	A2	A3	A4	A5	A6
B. Conceptual Knowledge	B1	B2	B3	B4	B5	B6
C. Procedural Knowledge	C1	C2	C3	C4	C5	C6
D. Metacognitive Knowledge	D1	D2	D3	D4	D5	D6

**Factual knowledge:** Basic information; includes relevant information such as terminology and knowledge of applicable details of the subject matter.

**Conceptual knowledge:** The relationships between topics of a broader structure that make them function together. Consists of systems of information, such as classifications and categories.

**Procedural knowledge:** How to apply knowledge; includes algorithms, heuristics (rules of thumb), techniques, and methods, as well as knowledge about when to use these procedures.

**Metacognitive knowledge:** Knowledge of thinking in general and in particular. Refers to knowledge of thinking processes and information about how to manipulate these processes effectively.

Given the open book nature of the exams, it was established that the exams syllabuses would reflect higher levels learning, according to the following guidelines. Basic knowledge serves to lay the foundation of the exam questions.

	Remember	Understand	Apply	Analyze	Evaluate	Create
<b>Factual</b>	A1	A2	A3	A4	A5	A6
<b>Conceptual</b>	B1	B2	B3	B4	B5	B6
<b>Procedural</b>	C1	C2	C3	C4	C5	C6
<b>Metacognitive</b>	D1	D2	D3	D4	D5	D6

First level	A1, A2, B1, B2
Second level	A3, A4, B3, B4, C1, C2, C3, D1, D2, D3
Third level	A5, A6, B5, B6, C4, C5, C6, D4, D5, D6

# Group benefits track exams

## Exam F1GB: Product Design and Group Benefits Environment

The aim of this exam is for candidates to develop the following skills:

1. Understand the main principles and techniques of design that are relevant to group insurance.
2. Apply these principles and techniques within the context of group insurance.
3. Evaluate hypothetical scenarios, including using judgment to assess the implications of possible actions and to develop appropriate proposals or recommendations relating to pricing group insurance products.
4. Understand the Canadian health insurance environment.
5. Understand US and other health insurance environments.

### 1. Principal terms

1. Define principal terms used in group benefits and health insurance design. (A1)

### 2. Product design (25%)

1. Analyze benefits' design features and provisions (life, premium waiver, accidental death, and dismemberment [AD&D], disability, medical, drug, dental, critical illness [CI], long-term care [LTC], optional benefits, individual health insurance). (D4)
2. Analyze issues associated with benefit design and calculate, compare, and contrast benefit-coverage levels (drug formularies, new drugs, drug substitution [generic or other], preferred provider networks, direct payment, evolution of dental-fee guides, emerging illnesses, digital/virtual products, health care/wellness spending accounts, etc.). (C4)
3. Analyze and calculate possible participant anti-selection and its related impacts. (C4)
4. Understand the rationale underlying risk classification for individual health products. (B2)
5. Evaluate the structure of employee-benefit plans and products offered, and the rationale for offering these structures. (B5)
6. Recommend an employee-benefit strategy considering an employer's objectives. (C5)

### 3. Benefit law and regulation (20%)

1. Understand the effects of applicable legislation and regulation, including (but not limited to) privacy, human rights, and non-discrimination on the following: (B2)
  - a. Allowable benefits and exclusions.
  - b. Benefit plan design and pricing.
  - c. Plan administration.
  - d. Claims management and administration.
  - e. Human rights and non-discrimination.
2. Outline provisions of the Canadian Life and Health Insurance Association (CLHIA) guidelines and calculate impacts where applicable (definitions of groups, takeover rules, coordination of benefits, disclosure). (C3)
3. Outline and apply applicable provisions of the Civil Code of Québec to group insurance. (C3)

4. Outline and apply applicable provisions of other relevant laws and regulations to group insurance. (C3)
5. Apply relevant case law and interpret its implications. (C3)
6. Outline and apply provincially mandated benefits (prescription drug coverage in Québec, etc.). (C3)
7. Compare and contrast the main differences between Québec law and the rest of Canada (designation of beneficiary, change of insurers, civil union, etc.). (D5)
8. Outline and describe the legal aspects of self-insurance. (B2)

#### 4. Insurance company law and regulation (15%)

1. Understand and apply the following legislation: (B3)
  - a. Office of the Superintendent of Financial Institutions (OSFI) guidelines.
  - b. Insurance Companies Act.
  - c. Uniform Life Insurance Act and major variations.
  - d. Uniform Health Insurance Act and major variations.
  - e. Québec's Civil Code.
  - f. Other provincial laws that have an impact on insurance (regulations on insurance and other acts, laws on the sale and distribution of insurance products, etc.).
2. Evaluate special issues (group creditor insurance, change of carrier, designation of beneficiary, etc.). (B5)
3. Identify and understand relevant case law and its implications. (D2)

#### 5. Workers' compensation (5%)

1. Outline and evaluate the following: (B5)
  - a. Social insurance programs governed by provincial legislation, with emphasis on prevention of workplace injuries, diseases, and fatalities.
  - b. Association of Workers' Compensation Boards of Canada (AWCBC).
  - c. Publicly insured programs vs. self-insured programs.
  - d. Integration of workers' compensation programs with private group insurance programs.
  - e. Unique aspects of disability management when disability arises from a cause covered under workers' compensation.

#### 6. Public and other benefit programs (15%)

1. Analyze the impact of following public plans on group insurance: (C4)
  - a. Canada/Québec Pension Plans.
  - b. Canada Health Act.
  - c. Provincial medical and drug plans.
  - d. Provincial automobile plans.
  - e. Employment Insurance.
  - f. Québec Parental Insurance Plan.
  - g. Québec Public Prescription Drug Insurance Plan.



- h. National pharmacare initiative.
- 2. Evaluate how private group insurance plans work within the framework of public programs in Canada. (D5)
- 3. Perform calculations under the plans mentioned in 1. above. (C3)
- 4. Evaluate Government's role in health-care policy and regulation. (D5)
- 5. Analyze financing and the flow of funds in the Canadian health-care system and the role of the provider and government. (D4)
- 6. Describe variations in consumer behavior under the Canadian health system. (D2)

### 7. The U.S. healthcare model (10%)

- 1. Understand the operations of various types of (public, private, or both) health-care models applicable in the United States and their financing: (B3)
  - a. Health Maintenance Organization (HMO).
  - b. Preferred Provider Organization (PPO).
  - c. Private Group Insurance Plans.
  - d. Affordable Care Act (ACA or Obamacare).
  - e. Medicare and Medicaid.
- 2. Differentiate the role of various players in the U.S. system (networks, employers, insurers, actuaries) (B4)
- 3. Critique social programs in Canada and the United States, and discuss the value of the different systems. (B5)

### 8. Other healthcare models (10%)

- 1. Understand the various types of (public, private, or both) health-care models: (B2)
  - a. Other countries of interest (such as the United Kingdom and China).
  - b. Developing country for health-care models (such as India)
- 2. Compare and contrast the role of various stakeholders in these systems (networks, employers, insurers, actuaries). (D5)

## Exam F2GB: Group Benefits Product Pricing

The aim of this exam is for candidates to develop the following skills:

1. Understand the main principles and techniques of pricing that are relevant to group insurance, including techniques to estimate the key components of a technical price.
2. Apply these principles and techniques within the context of group insurance.
3. Evaluate hypothetical scenarios, including using judgment to assess the implications of possible actions and to develop appropriate proposals or recommendations relating to pricing group insurance products.

### 1. Principal terms

1. Define principal terms used in group benefits and health insurance pricing. (A1)

### 2. Experience studies and predictive modelling (20%)

1. Explain and apply the relevancy and limitations of actuarial experience studies available for group insurance (industry tables and information: life mortality, waiver of premiums, long-term disability [LTD] termination, rate comparisons, expense benchmarks, Life Insurance Market Research Association, etc.). (C3)
2. Relative to 1., explain reasons for selecting applicable tables and their sources and characteristics: (D2)
  - a. CIA, Krieger, GLTD, CPP, QPP.
  - b. LTD incidence rates (Have and Garand).
3. Compare and contrast the differences between the CIA's Predictive Analytics Model for Canadian Group Disability Termination Experience and the Group Long-term Disability Termination Study. (D5)
4. Evaluate the relevancy and limitations of non-actuarial experience studies available for group insurance, such as Régie de l'assurance maladie du Québec (RAMQ) data for prescription drugs. (D5)
5. Analyze the sources, relevancy, and limitations of trends and forecasts studies available for group insurance (economic forecasts, disability incidence, and health-trend data) for the following: (C4)
  - a. RAMQ data for prescription drugs.
  - b. Economic trends published quarterly by chartered banks.
  - c. Annual drug-trend studies produced by pharmacy benefits managers.
  - d. Annual health-care-cost-trend studies by major consulting firms.
6. Perform calculations for claims models for various types of coverage: (C3)
  - a. Models for health and dental benefits.
  - b. Models for stop-loss claims.
7. Outline expense models for various types of coverage. (B2)
8. Describe how predictive modelling techniques can be used for claims analytics. (C3)



### 3. Credibility (10%)

1. Explain and outline the principles underlying the notion of credibility in group insurance. (D2)
2. Explain the variability of the notion of credibility in the group insurance market. (C2)
3. Analyze the factors affecting the credibility of a particular group (statistical heterogeneity, etc.). (B4)
4. Assess utilization of industry statistics and company experience. (C5)
5. Develop and apply credibility formulae to relevant calculations. (C4)
6. Evaluate credibility in the context of predictive models (C5).
7. Compare traditional actuarial models with predictive modelling techniques. (C4)

### 4. Capital requirements (15%)

1. Describe the principles underlying the determination of regulatory capital, in particular OSFI's Life Insurance Capital Adequacy Test (LICAT), including the following: (C4)
  - a. Identification of significant risk components.
  - b. Identification of specialized product LICAT requirements; and
  - c. Interpreting results from a regulatory perspective.
2. Outline and calculate the capital impacts of funding structures (refund accounting with claims fluctuation reserves, stop-loss, large amount pooling, hold-harmless agreements, etc.). (C4)

### 5. Product pricing (25%)

1. Outline and apply the underwriting process. (C3)
2. Evaluate how predictive analytics techniques can be used to estimate trends. (D5)
3. Identify risk-mitigation strategies (such as pre-existing condition exclusions). (B2)
4. Analyze the features, provisions, and pricing structures of flexible benefits. (C4)
5. Identify, compare, and contrast pricing variables relevant to group insurance by product (demographic variables, variables that vary from one group to another, variables that vary from one insurer to another, economic variables, etc.). (D5)
6. Apply relevant standards of practice. (C3)
7. Create a medical-cost-trend experience analysis. (C6)
8. Develop and recommend assumptions. (C6)
9. Calculate and recommend a manual rate. (D6)
10. Apply critical metrics to evaluate actual vs. expected results. (C3)

## 6. Profitability measures (10%)

1. Outline and calculate the following profitability measures: (C3)
  - a. Return on capital.
  - b. Return on equity.
  - c. Percent of premium.
  - d. Percent of assets.
  - e. Earnings per share.
  - f. Types of embedded value (“traditional,” “European,” “market consistent”).
2. Outline and explain the uses of embedded value. (B5)
3. Outline and explain the sources of earnings. (B5)
4. Perform benchmarking. (C5)

## 7. Financial arrangements in a group insurance plan (10%)

1. Compare and contrast the main features and benefits of financial arrangements (pooling, retention, hold-harmless, and self-insurance). (C4)
2. Identify and analyze issues associated with self-insurance. (B4)
3. Perform calculations relative to 1. and 2. above. (C3)

## 8. Insurance company taxation (10%)

1. Describe the following insurance company taxation features: (B2)
  - a. Tax reserves.
  - b. Investment income tax (IIT).
  - c. Income tax.
  - d. Claims fluctuation reserve (CFR) allowable; and
  - e. Premium taxes.
2. Perform calculations relative to 1. above. (C3)

## Exam F3GB: Group Benefits Reserving

The aim of this exam is for candidates to develop the following skills:

1. Understand the main principles and techniques for estimating reserves and claims-related expenses that are relevant to group insurance.
2. Apply these principles and techniques within the context of group insurance.
3. Evaluate the considerations involved in selecting a best-estimate reserve.
4. Understand how reserves link to wider business processes (e.g., business planning, pricing, financial reporting, and capital setting).
5. Describe reporting requirements and calculate actuarial values for financial reporting.
6. Evaluate hypothetical scenarios, including using judgment to assess the implications of possible actions.

### 1. Principal terms

1. Define principal terms used in the valuation of reserves and financial reporting for group insurers. (A1).

### 2. Reserving and claim liabilities (35%)

1. Outline the various uses of reserving (life insurance company financial reporting, reporting to client on refund accounting, pricing, etc.) and evaluate their impact on the selection of methods and assumptions. (B5)
2. Apply the Canadian Asset Liability Method (CALM). (C3)
3. Evaluate the impact of IFRS 17 on group insurance reserving. (C5)
4. Apply the applicable standards of practice (SOP). (C3)
5. Identify the applicable educational notes. (A2)
6. Understand, calculate, and evaluate provisions for adverse deviations (PfADs). (C5)
7. Compare and contrast aggregate and seriatim approaches. (B5)
8. Describe current tables/studies used in valuation (CIA experience analyses, group long-term disability (GLTD), Krieger, SOA tables, etc.). (B2)
9. Perform calculations for waiver of premiums (WP). (C3)
10. Perform calculations for LTD (disabled reserves). (C3)
11. Perform calculations for non-traditional approaches (WP and LTD reserves based on medical prognosis, etc.). (C3)
12. Perform calculations for incurred but not reported (IBNR) reserves (including the chain-ladder method). (C3)
13. Perform analysis on different reserving methods. (C4)
14. Evaluate stochastic approaches to calculation of group insurance reserves. (C5)
15. Evaluate stop-loss reserves reflecting timing mismatch between premium and claims. (C5)
16. Explain the limitations and biases of the traditional valuation methods. (C2)
17. Evaluate data resources and appropriateness for calculating reserves. (C5)
18. Describe the role and responsibilities of the appointed/valuation actuary. (B2)

### 3. Benefit taxation (15%)

1. Describe the following benefit taxation features and perform related calculations: (C4)
  - a. Income tax – federal (including relevant folios and interpretation bulletins).
  - b. Income tax – provincial (including differences with federal income tax).
  - c. Premium sales taxes and similar taxes.
  - d. Other premium taxes.
2. Describe and perform calculations to evaluate the impact of taxation on: (C5)
  - a. Claims.
  - b. Plan design, including flexible benefits plans.
  - c. Plan funding (cross-experience rating, cost sharing, etc.).
3. Describe and perform calculations relative to alternate benefit funding structures such as (C3):
  - a. Administrative services only (ASO).
  - b. Employee life and health trusts.

### 4. Employee benefits accounting (15%)

1. Compare post-retirement benefits vs. benefits while not actively at work. (B4)
2. Evaluate actuarial aspects of accounting for employee future benefits: (D5)
  - a. Canadian accounting recommendations under IAS 19.
  - b. CPA section 3462–3463 (private sector and not-for-profit).
  - c. CPA 3250, and CPA 3255 (public sector) plus non-Canadian accounting recommendations (Accounting Standards Codification [ASC]) 715/712 – U.S. regarding employee future benefits.
3. Calculate actuarial liabilities and other accounting items related to employee future benefits. (C3)
4. Apply CIA practice-specific standards to employee benefits. (C3)
5. Analyze the following issues related to post-employment benefits: (D4)
  - a. Why employers offer post-retirement and post-employment benefits.
  - b. Cost inflation.
  - c. Selection.
  - d. Reasonability of assumptions.

### 5. Insurance company financial reporting (10%)

1. Generate a basic financial statement and its components, including the impact of IFRS 17. (C6)
2. Describe the following concepts and perform relevant calculations: (C3)
  - a. Canada Annual Statement: statements, key exhibits, and schedules.
  - b. Taxable income.
  - c. Fair-value accounting principles.
  - d. International accounting standards.
  - e. Actuarial reviews of reserves.
3. Apply the IFRS 17 general method approach, variable fee approach, and premium allocation approach. (C3)

## 6. Financial and capital management (10%)

1. Differentiate surplus management and earnings management (D4).
2. Describe creation of value from a financial economics perspective (C4).
3. Relative to economic capital,
  - a. analyze the significant risk components; (C4)
  - b. select calculation methods appropriate to stakeholders' perspectives; and (D3)
  - c. describe how a company would implement an economic cap.(C5)
4. Evaluate the use of reinsurance as a capital management technique. (D5)

## 7. Asset and liability management (15%)

1. Compare and contrast asset models. (D5)
2. Compare and contrast asset allocation across the various lines of business of an insurer. (D5)
3. Outline the selection process of assets for backing group insurance liabilities. (C3)
4. Describe and apply the relationship between interest rate guarantees on refund arrangements and selection of assets. (C3)
5. Compare and contrast the relationship between asset liability management (ALM) at the corporate level and ALM at the line-of-business level. (C4)
6. Analyze liability models related to group insurance. (C4)
7. Interpret and develop appropriate presentation of results. (C6)
8. Evaluate the impacts of interest-crediting rates on pricing for new business. (C5)
9. Evaluate the impacts of interest-crediting rates on valuation of liabilities. (C5)
10. Assess risk margins related to the rate of return of assets. (C5)

# Group benefits track modules

## FCIA modules syllabuses overview

### Background

FCIA modules enable candidates to acquire and apply knowledge that is electronically administered. The CIA's learning management system serves as the overarching framework from which candidates obtain information on resources and activities required to complete the modules. Candidates will navigate through the materials by:

- Reading the screens;
- Linking to PDF files, Excel files, and published material;
- Reviewing examples;
- Visiting other websites, viewing demonstrations and graphical images;
- Making decisions and selections around targeted scenarios or case studies; and
- Completing specified assessments, where applicable.

Module participants are expected to come from a wide array of educational and career backgrounds. Some will be ACIAs or have obtained a recognized Fellow-level designation, and have:

- Demonstrated knowledge of the fundamental concepts and techniques for modelling and managing risk.
- Learned the basic methods of applying fundamental concepts and techniques to common problems involving uncertain future events, especially those with financial implications.
- Completed a professionalism course covering the importance of adherence to recognized standards of practice and the CIA *Rules of Professional Conduct* or some other professional code of conduct.

The primary audience for the FCIA modules is individuals who desire to be admitted as Fellows of the CIA. Individuals seeking continuing professional development credit can also register for the FCIA modules.

Each FCIA candidate through Pathways 1 and 2 is required to complete both FCIA modules, while Pathway 3 candidates will have to complete the second module. It is anticipated that FCIA module candidates will have six months from the date of module purchase to complete each FCIA module. As a general guideline, candidates should allocate approximately 100 hours to complete all activities included in a module.

# GB Module 1: Actuarial work and group benefits applications

## 1. Introduction to risk and insurance

1. Describe risk including insurable risk.
2. Provide examples of types of insurable risks and classes of life insurance that respond to insurable risk.
3. Describe and provide examples of perils and hazards.
4. Explain the conflicts that can arise in the objectives of risk management.
5. Identify and describe the five steps of the risk management process:
  - a. Step 1 – Identifying and analyzing exposures;
  - b. Step 2 – Formulating options;
  - c. Step 3 – Selecting the best technique;
  - d. Step 4 – Implementing the risk management plan; and
  - e. Step 5 – Monitoring results and modifying the plan.

## 2. Insurance categories and functions

1. Describe the basic insurance relationship of pooling funds to pay losses.
2. Explain the major functions of insurance:
  - a. Spread of risk.
  - b. Aid to security.
  - c. Aid to credit.
  - d. Loss prevention.
  - e. Source of capital.
  - f. Source of employment.
3. Identify and describe categories of insurance.
4. Identify and describe categories of retirement schemes.
5. Describe the different forms of insurance companies (e.g., stock mutual, government insurers, captive insurance companies.)
6. Explain financial stability and returns for insurers including the differences for stock companies and mutuals.

## 3. Regulatory framework

1. Describe the different roles of government in the regulation of insurance companies including federal control and provincial and territorial control.
2. Describe the major laws and regulations impacting insurance in Canada including:
  - a. The Insurance Companies Act.
  - b. Provincial and territorial insurance acts.
  - c. Regulations.
3. Describe the role of privacy laws in life insurance including the *Personal Information Protection and Electronic Documents Act*.
4. Describe how the United States and Canada monitor the insurance market and regulate it.
5. Describe why consumer protections are needed.
6. Explain the purposes of regulatory consumer laws and regulations.
7. Recognize the key points of a sample of regulations or laws relating to market regulation.



#### 4. Insurance company operations

1. Describe the major functions of an insurance company, including:
  - a. Finance, accounting, and investment.
  - b. Actuarial.
  - c. Marketing, agency, or production.
  - d. Underwriting.
  - e. Claims.
  - f. Reinsurance.
  - g. Risk management.
2. Describe basic insurance administration and how actuaries are involved.
3. Describe underwriting regimes, applications for insurance, preferred criteria, and screening tests, and how they relate to selection of risk.
4. For reinsurance:
  - a. Explain the purpose of reinsurance.
  - b. Describe the primary methods and types of reinsurance.
  - c. Describe the main reinsurance contract provisions.
5. Describe the roles and responsibilities of actuaries in insurance companies.

#### 5. Insurance documents and processes

1. Understand insurance as a contract and describe the major components of an insurance policy.
2. Identify and explain key insurance documents including:
  - a. The policy.
  - b. Certificates of insurance.
  - c. Endorsements.
  - d. Binders/cover notes.
3. Describe the major sections of an insurance policy including:
  - a. Coverage summary.
  - b. Insuring agreements.
  - c. Statutory conditions.
  - d. Policy conditions.
  - e. Signature clause.
4. Describe the process and requirements for assigning, terminating, and renewing an insurance contract.
5. Identify the stakeholders in an insurance policy (policyholder, insureds, including employees and dependents, etc.).
6. Describe insurance documentation and processes.

## 6. The insurance marketplace

1. Describe basic insurance products:
  - a. Life insurance and annuities.
  - b. Property and casualty (P&C).
  - c. Health and group insurance.
  - d. Government-sponsored and public plans:
    - i. Employment Insurance;
    - ii. Workers' compensation;
    - iii. Health care; and
    - iv. Pension plans.
2. Describe key issues related to customers of insurance products.

## 7. Consulting firm operations

1. Describe the traditional functions of a consulting firm:
  - a. Administration and consulting of pension plans.
  - b. Filing requirements.
  - c. Actuarial valuation and financial reporting requirements.
  - d. Benefit plan design and amendments.
  - e. Audit and peer review.
  - f. Appointed Actuary tasks and responsibilities.
  - g. Product design and pricing.
  - h. Negotiation of premium rates.
  - i. Sales and distribution of insurance.
  - j. Third-party administration.
  - k. Risk management.
2. Describe the roles and responsibilities of actuaries in consulting firms.

## 8. Introduction to employee benefits

1. Identify the main components of total compensation.
2. Describe the role of employee benefits within total compensation.
3. Describe the role of group insurance within employee benefits.

## 9. Principles of actuarial evidence

1. Describe the role of actuaries in family law, including the valuation of pension plan benefits in marriage (relationship) breakdown.
2. Describe the role of actuaries in civil litigation, including damages in personal injuries, fatalities, wrongful termination, insurance and reinsurance disputes, pension disputes, and other litigation.
3. Describe the role conferred to actuaries by the Criminal Code of Canada in calculating the criminal rate of interest.
4. Describe and distinguish the roles of a fact witness, an expert witness, and a provider of litigation advice.
5. Describe the context provided by the common law, legislation, and the rules of civil procedure on actuarial evidence practice.
6. Describe the role of *CIA Rules of Professional Conduct* and the *Standards of Practice* (Part 1000, general, and Part 4000, actuarial evidence) in guiding the professionalism of actuarial evidence practice. Show awareness of the importance of professionalism for actuaries whose actuarial evidence practice is incidental to full-time practice in another actuarial practice area, such as insurance or pensions.
7. Describe the functions fulfilled by other professionals in the litigation area, such as life-care planners, vocational experts, accountants, economists, engineers, personal financial planners, business valuers, appraisers and structured settlement brokers, and how these professionals complement and compete with the function of actuaries in actuarial evidence.

## GB Module 2: Professional considerations in the group benefits environment

### 1. Professional considerations

1. Outline the qualification requirements of the appointed actuary in Canada.
2. Describe the role and responsibilities of the appointed/valuation actuary in Canada.
3. Outline for which instances an appointed actuary is required in Canada.
4. Describe the roles and responsibilities of actuaries in life insurance companies, such as in the areas of valuation, pricing, policy illustration, and ERM.
5. Outline qualification requirements under the U.S. qualification standard (USQS).
6. Outline requirements of the CIA professional standards that may inadvertently be breached in the life insurance practice.
7. Identify and apply actuarial standards of practice relevant to:
  - a. Financial reporting and valuation.
  - b. Financial condition testing.
  - c. Non-guaranteed elements.

### 2. Benefit law and regulation

1. Understand and apply the effects of applicable legislation and regulation, including (but not limited to) privacy, human rights, and non-discrimination, on the following:
  - a. Human rights and non-discrimination.
  - b. Provisions of Canadian Life and Health Insurance Association (CLHIA) guidelines (definitions of groups, takeover rules, coordination of benefits, disclosure).
  - c. Provincial health plans.
  - d. Applicable provisions of the Civil Code of Québec to group insurance.
  - e. Applicable provisions of other relevant laws and regulations to group insurance.
  - f. Relevant case law and its implications.
  - g. Provincially mandated benefits (prescription drug coverage in Québec, etc.).
  - h. The main differences between Québec law and the rest of Canada (designation of beneficiary, change of insurers, civil union, etc.).
  - i. Legal and tax aspects of self-insurance.
2. Demonstrate understanding of regulators' guidance and context for different approaches to responsible investment and specifically, the integration of environmental, social, and governance (ESG) factors in the investment process.
3. Demonstrate an understanding of the underlying issues that constitute factors within each of the ESG areas.
4. Demonstrate an understanding of the ESG market: relevance, size, scope, key drivers and challenges, and risks and opportunities.
5. Describe examples of public health programs and initiatives and data issues in the United States and Canada.

### 3. Regulation and taxation of insurance

1. Explain why solvency regulation is important.
2. Describe implications of insolvency.
3. Describe the required financial reporting requirements.
4. Explain the regulatory processes used to monitor solvency.
5. Explain how contracts are taxed to the owner of the contract.
6. Describe constraints on policy design imposed by tax laws.
7. Describe the two major categories of differences between pre-tax earnings and taxable earnings.
8. Distinguish between the different forms of taxes paid by Canadian companies.
9. Understand the differences between federal and provincial taxation.

### 4. Canadian financial reporting

1. Apply the principles underlying the determination of LICAT, including the following:
  - a. Identification of significant risk components;
  - b. Identification of specialized-product LICAT requirements;
  - c. Interpreting results from a regulatory perspective; and
  - d. Compare and contrast to other regulatory capital regimes.
2. Describe and explain the regulatory and tax environment for insurance and annuities in Canada, specifically: effect on product development, reserving, pricing, and business practices.
3. Describe key IFRS 17 financial concepts for written and ceded coverages and how they are calculated.
4. Describe IFRS 17 valuation methods.
5. Calculate IFRS 17 liabilities for life and annuity products and their associated riders.

### 5. Risk management and mitigation

1. Outline the roles of rating agencies, analysts, and regulators together with their methods and impact on insurance companies.
2. Calculate and evaluate financial conditions testing (FCT).
3. Calculate and evaluate stress testing (own-risk and solvency assessment, or ORSA).
4. Integrate climate-related considerations in the ORSA, stress testing, and add climate scenario analysis where applicable.
5. Apply the applicable actuarial standards of practice.
6. Outline problems or recent problems faced by insurance companies.
7. Identify general sources of risk in a group insurance line of business (strategic, operational, control, etc.).
8. Identify sources of risk in products, including (but not limited to) mortality, morbidity, and lapse.
9. Identify sources of risk in investments, including (but not limited to) credit risk, liquidity, and asset/liability matching.
10. Identify other risks, including operational, marketplace, competition and expense risks, legislative risk, and risk from government plan cost shifting.
11. Outline the relation between risks (e.g., product, investments, and operational) and opportunities and influences on firm strategy.
12. Understand the roles of rating agencies, analysts, and regulators together with their methods and impact on insurance companies.

## 6. Risk management and reinsurance

1. Outline and describe the following concepts of reinsurance:
  - a. Risk appetite.
  - b. Risk identification.
  - c. Risk assessment.
  - d. Risk monitoring.
  - e. Risk limits.
  - f. Risk mitigation.
  - g. Risk capacity.
  - h. Risk tolerances.
  - i. Desired risk profile.
  - j. Risk objectives.
  - k. Risk reporting.
  - l. Reinsurance types and uses.
  - m. Management and mitigation of catastrophic claims.
  - n. Non-evidence maximums (NEMs).
  - o. Underwriting guidelines (including unique aspects of group insurance underwriting such as underwriting on the employer and on the broker).
  - p. Large amount pooling.
  - q. Assuris and Canadian Drug Insurance Pooling Corporation (CDIPC).
2. Explain the purpose and use of reinsurance in the context of group insurance.

## 7. Communication and organizational behaviour

1. Explain differences between good and poor communication techniques and their implications.
2. Apply techniques to structure ideas logically.
3. Develop clear fact-based messages that can be communicated persuasively.
4. Explain the role of cognitive biases on making suboptimal individual decisions.
5. Evaluate the role of organizational behavior on organizational decision-making processes and efficacy.
6. Explain why communication is strategically important to organizations.
7. Describe how information is communicated within organizations.
8. Describe organizational and individual barriers to effective communication.
9. Identify the risks of ineffective communication.
10. Explain how to overcome communication barriers and minimize risks of ineffective communication.
11. Recognize the influence of culture and diversity on communication.
12. Apply CIA Standards of Practice and Rules of Professional Conduct in business communication.



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