

To: CASTF  
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### **Comparison of the SOA General Insurance track to the U.S. Qualification Standards**

The relevant section of the Standards is Section 3.1.1.2. It states:

3.1.1.2 Statement of Actuarial Opinion, NAIC Property and Casualty Annual Statement — An actuary should successfully complete relevant examinations administered by the American Academy of Actuaries or the Casualty Actuarial Society on the following topics: (a) policy forms and coverages, underwriting, and marketing; (b) principles of ratemaking; (c) statutory insurance accounting and expense analysis; (d) premium, loss, and expense reserves; and (e) reinsurance.

This document will take each of the five items in the list and show where in the SOA pathway it is covered. Item (a) is split into two parts. The following abbreviations are used:

FAP – Fundamentals of Actuarial Practice. An online course required of all SOA members

INT – Introduction to General Insurance. A 60 question multiple-choice exam based on material from The Institutes

IRR – Introduction to Ratemaking and Reserving. A five hour written-answer exam covering the two indicated topics

FRE – Financial and Regulatory Environment. A five hour written-answer exam covering financial statements and regulation

(a) Policy forms and coverages

INT has seven learning objectives on this topic

<b>EXAM: GI-INTRO</b>	<b>TOPIC: Underwriting Property and Liability Insurance</b>
<b>Learning Objective</b>	
3. The candidate will understand the different policy considerations in underwriting property and liability insurance policies.	
<b>Learning Outcomes</b>	
The candidate will be able to:  a) Describe in detail each of the COPE factors used to evaluate property loss exposures b) Explain how insurable interest, policy provisions for valuing losses, and insurance to value affect a loss payment amount under property insurance c) Explain how underwriters use policy amount, amount subject, normal loss expectancy (NLE), probable maximum loss (PML), and maximum foreseeable loss (MFL) to measure potential loss severity d) Describe the underwriting considerations for business income and extra expense coverage e) Describe the underwriting considerations and risk control techniques associated with employee dishonesty and crimes committed by others f) Describe the loss exposures and the underwriting considerations for commercial general liability insurance g) Describe the underwriting considerations for personal and commercial auto insurance h) Describe the key underwriting considerations relevant to the evaluation of submissions for workers compensation insurance i) Describe the underwriting considerations for umbrella and excess liability insurance	
<b>Syllabus Resources</b>	
<ul style="list-style-type: none"><li>• CPCU 520 – 5 Underwriting Property and Liability Insurance</li></ul>	

<b>EXAM: GI-INTRO</b>	<b>TOPIC: Personal Auto Policy</b>
<b>Learning Objective</b>	
10. The candidate will understand the role of automobile insurance in society and the contents of the Personal Auto Policy.	
<b>Learning Outcomes</b>	
<p>The candidate will be able to:</p> <ul style="list-style-type: none"> <li>a) Evaluate various laws and systems regarding approaches to compensating automobile accident victims: Tort liability system, Financial responsibility laws, Compulsory insurance laws, Uninsured motorists coverage, Underinsured motorists coverage, and No-fault insurance</li> <li>b) Describe no-fault automobile laws in terms of their types required benefits</li> <li>c) Explain how high-risk drivers may obtain auto insurance</li> <li>d) Describe automobile insurance rate regulation in terms of rating factors, matching price to exposure, competition, and other regulatory issues</li> <li>e) Summarize the sections of the Personal Auto Policy</li> <li>f) Identify the types of information typically contained on the declarations page of a personal auto policy</li> <li>g) For each of Part A – Liability Coverage, Part B – Medical Payments Coverage, Part C – Uninsured Motorists Coverage, and Part D – Coverage for Damage to Your Auto: Summarize the provisions; given a case describing a claim, determine if that part of the coverage applies and, if so, the amount the insurer would pay for the claim</li> <li>h) Describe underinsured motorist insurance in terms of its purpose and the ways in which it can vary by state</li> <li>i) Describe the insured’s duties following a covered auto accident or loss as shown in Part E</li> <li>j) Summarize each of the general provisions in Part F</li> <li>k) Describe the Personal Auto Policy endorsements that are used to handle common auto loss exposures</li> <li>l) Given a case describing a claim, determine whether the Personal Auto Policy would cover the claim and, if so, the amount the insurer would pay for the claim</li> </ul>	
<b>Syllabus Resources</b>	
<ul style="list-style-type: none"> <li>• CPCU 553 – 2 Automobile Insurance and Society</li> <li>• CPCU 553 – 3 Personal Auto Policy: Liability, Med Pay, and UM Coverage</li> <li>• CPCU 553 – 4 Personal Auto Policy: Physical Damage, Duties After an Accident, Endorsements</li> </ul>	

<b>EXAM: GI-INTRO</b>	<b>TOPIC: Homeowners Coverage</b>
<b>Learning Objective</b>	
11. The candidate will understand the contents of the ISO Homeowners Program and describe some specialty plans.	
<b>Learning Outcomes</b>	
<p>The candidate will be able to:</p> <ol style="list-style-type: none"> <li>a) Describe how individuals and families can use the ISO 2011 Homeowners insurance program to address their personal risk management needs</li> <li>b) Summarize the structure of the Homeowners Policy (HO-3), key changes in the ISO 2011 program revision, and factors important to rating homeowners insurance</li> <li>c) Determine whether the 2011 HO-3 policy provisions in Section I – Property Coverages provide coverage for a given loss or loss exposure: Coverage A – Dwelling, Coverage B – Other Structures, Coverage C – Personal Property, Coverage D – Loss of Use, and additional coverages</li> <li>d) Summarize the 2011 HO-3 policy provisions concerning Perils Insured Against and Exclusions</li> <li>e) Summarize each of the 2011 HO-3 policy provisions in Section I – Conditions</li> <li>f) Given a scenario describing a homeowners property claim, determine whether the 2011 HO-3 Policy Section I – Property Coverages would cover the claim and, if so, the amount the insurer would pay for the claim</li> <li>g) Determine whether the 2011 HO-3 policy provisions in Section II – Liability Coverage provide coverage for a given loss or loss exposure: Coverage E – Personal Liability, Coverage F – Medical Payments to Others, and additional coverages</li> <li>h) Determine whether one or more exclusions preclude the coverage provided by Section II of the 2011 HO-3 policy provisions in Section II – Exclusions</li> <li>i) Summarize the 2011 HO-3 policy provisions concerning Conditions applicable to Section II and Conditions applicable to Sections I and II</li> <li>j) Given a case describing a homeowners liability claim, determine whether the 2011 HO-3 policy Section II – Liability Coverage would cover the claim, and if so, the amount the insurer would pay for the claim</li> <li>k) Compare the coverage provided by each of the following 2011 Homeowners policies to the coverage provided by the 2011 HO-3 policy: HO-2 Broad Form, HO-5 Comprehensive Form, HO-4 Contents Broad Form, HO-6 Unit-Owners Form, and HO-8 Modified Coverage Form</li> <li>l) Summarize the coverages provided by the various 2011 ISO Homeowners policy endorsements</li> <li>m) Given a case describing a homeowners claim, determine whether a 2011 HO-3 Policy that may include one or more endorsements would cover the claim, and, if so, the amount the insurer would pay for the claim</li> <li>n) Describe the operation of the National Flood Insurance Program and the coverage it provides</li> <li>o) Describe the operation of FAIR plans and beachfront and windstorm plans and the coverage they provide</li> </ol>	
<b>Syllabus Resources</b>	
<ul style="list-style-type: none"> <li>• CPCU 553 – 5 Homeowners Property Coverage</li> <li>• CPCU 553 – 6 Homeowners Liability, Conditions, Coverage Forms, and Endorsements</li> <li>• CPCU 553 – 7 Other Residential Insurance (pages 24-37 only)</li> </ul>	

<b>EXAM: GI-INTRO</b>	<b>TOPIC: Commercial Property Insurance</b>
<b>Learning Objective</b>	
12. The candidate will understand the nature of Commercial Property Insurance.	
<b>Learning Outcomes</b>	
<p>The candidate will be able to:</p> <ul style="list-style-type: none"> <li>a) Describe commercial property insurance in terms of the major categories of loss exposures that can be covered and the components of a commercial property coverage part</li> <li>b) Determine whether a described item of property qualifies as Covered Property under one or more of these categories in the Building and Personal Property Coverage Form: Building, Your Business Personal Property, and Personal Property of Others</li> <li>c) Determine which of the additional coverages and coverage extensions of the Building and Personal Property Coverage Form apply to a described loss</li> <li>d) Determine whether the cause of a described loss is a covered cause of loss under the Causes of Loss – Basic Form or the Causes of Loss – Broad Form</li> <li>e) Determine whether the cause of a described loss is a covered cause of loss under the Causes of Loss – Special Form</li> <li>f) Apply the Limits of Insurance and Deductible provisions of the Building and Personal Property Coverage Form to a described loss</li> <li>g) Explain how each of the Loss Conditions and Additional Conditions affects coverage under the Building and Personal Property Coverage Form</li> <li>h) Explain how each of the following optional coverages described in the BPP modifies the basic coverage of the BPP: Agreed Value, Inflation Guard, Replacement Cost, and Extension of Replacement Cost to Personal Property of Others</li> <li>i) Summarize each of the Commercial Property Conditions</li> <li>j) Explain how each of the conditions contained in the Common Policy Conditions affects coverage under a commercial property coverage part</li> <li>k) Explain how each of these documents modifies the Building and Personal Property Coverage Form: Ordinance or Law Coverage endorsement, Spoilage Coverage endorsement, Flood Coverage endorsement, Earthquake and Volcanic Eruption Coverage endorsement, Peak Season Limit of Insurance endorsement, and Value Reporting Form</li> <li>l) Identify the factors that affect commercial property insurance premiums</li> <li>m) Given a case, determine whether, and for what amount, a described loss would be covered by a commercial property coverage part that includes the Building and Personal Property Coverage Form and any of the three causes of loss forms</li> </ul>	
<b>Syllabus Resources</b>	
<ul style="list-style-type: none"> <li>• CPCU 557 – 1 Commercial Property Insurance, Part I</li> <li>• CPCU 557 – 2 Commercial Property Insurance, Part II</li> </ul>	

<b>EXAM: GI-INTRO</b>	<b>TOPIC: Commercial General Liability Insurance</b>
<b>Learning Objective</b>	
13. The candidate will understand the nature of Commercial General Liability Insurance.	
<b>Learning Outcomes</b>	
<p>The candidate will be able to:</p> <ul style="list-style-type: none"> <li>a) Describe commercial general liability insurance in terms of the types of losses that can be covered by general liability insurance and the components of a commercial general liability coverage part</li> <li>b) Determine whether a described claim meets the conditions imposed by the Coverage A insuring agreement of the Commercial General Liability Coverage Form (occurrence version)</li> <li>c) Determine whether any of the exclusions applicable to Coverage A of the Commercial General Liability Coverage Form eliminate coverage for a described claim</li> <li>d) Determine whether a described claim meets the conditions imposed by the Coverage B insuring agreement of the Commercial General Liability Coverage Form and whether any of the Coverage B exclusions eliminate coverage for the claim</li> <li>e) Determine whether a described claim meets the conditions imposed by the Coverage C insuring agreement of the Commercial General Liability Coverage Form and whether any of the Coverage C exclusions eliminate coverage for the claim</li> <li>f) Summarize the supplementary payments of the Commercial General Liability Coverage Form</li> <li>g) Determine whether a described person or organization is an insured under the Commercial General Liability Coverage Form</li> <li>h) Explain how the following limits of insurance in the CGL Coverage Form are applied: Each occurrence limit, Personal and advertising injury limit, Damage to premises rented to you limit, Medical expense limit, General aggregate limit, and Products-completed operations aggregate limit</li> <li>i) Apply the Commercial General Liability Conditions to claims or other interactions between the insurer and the insured</li> <li>j) Explain how the premium for CGL coverage is determined</li> <li>k) Given a case, determine whether, and for what amount, the Commercial General Liability Coverage Form (occurrence version) covers a described claim</li> </ul>	
<b>Syllabus Resources</b>	
<ul style="list-style-type: none"> <li>• CPCU 557 – 6 Commercial General Liability Insurance, Part I</li> <li>• CPCU 557 – 7 Commercial General Liability Insurance, Part II</li> </ul>	

<b>EXAM: GI-INTRO</b>	<b>TOPIC: Workers Compensation and Employers Liability Insurance</b>
<b>Learning Objective</b>	
14. The candidate will understand workers compensation and employers liability coverages.	
<b>Learning Outcomes</b>	
<p>The candidate will be able to:</p> <ul style="list-style-type: none"> <li>a) Describe workers compensation statutes in terms of: Basic purpose, Benefits provided, and Persons and employments covered</li> <li>b) Describe workers compensation statutes in terms of: Extraterritorial provisions, Federal jurisdiction, and Methods for meeting employers' obligations</li> <li>c) Summarize these sections of the Workers Compensation and Employers Liability Insurance Policy: Information Page, General Section, and Part One – Workers Compensation Insurance</li> <li>d) Explain why employers liability insurance is needed and how the Workers Compensation and Employers Liability Insurance Policy addresses this need</li> <li>e) Describe the purpose and operation of Part Three – Other States Insurance in the Workers Compensation and Employers Liability Insurance Policy</li> <li>f) Describe the need for and the coverage provided by the Voluntary Compensation and Employers' Liability Coverage Endorsement and the Longshore and Harbor Workers' Compensation Act Coverage Endorsement</li> <li>g) Explain how premium bases, classifications, and premium adjustments affect the rating of workers compensation insurance</li> <li>h) Given a case, determine whether the Workers Compensation and Employers Liability Insurance Policy covers a described injury or illness and, if so, what types of benefits or what amount of damages is covered</li> </ul>	
<b>Syllabus Resources</b>	
<ul style="list-style-type: none"> <li>• CPCU 557 – 9 Workers Compensation and Employers Liability Insurance</li> </ul>	

<b>EXAM: GI-INTRO</b>	<b>TOPIC: Specialty Coverages</b>
<b>Learning Objective</b>	
15. The candidate will understand various specialty coverages.	
<b>Learning Outcomes</b>	
<p>The candidate will be able to:</p> <ul style="list-style-type: none"> <li>a) Describe commercial excess liability insurance and commercial umbrella liability insurance in terms of: The three basic types of commercial excess liability insurance and The provisions commonly found in commercial umbrella liability policies that distinguish them from other types of commercial liability policies</li> <li>b) Describe professional liability insurance and management liability insurance in terms of: How they differ from each other, How they differ from commercial general liability policies, and The common types of professional and management liability policies</li> <li>c) Describe the purpose and characteristics of each of these types of environmental insurance policies: Site-specific environmental impairment liability (EIL) policies, Underground storage tank compliance policies, Remediation stop-loss policies, Contractors pollution liability policies, and Environmental professional errors and omissions liability policies</li> <li>d) Describe aircraft insurance in terms of: The purpose-of-use categories that insurers use to classify aircraft and The coverages that can be included in an aircraft policy</li> <li>e) Describe the types of losses that can be covered by each of the insuring agreements generally available in cyber risk insurance policies</li> <li>f) Explain how an organization domiciled in the United States can insure foreign loss exposures that would not be covered under standard property and liability insurance policies</li> <li>g) Summarize the purpose and provisions of the terrorism endorsements developed by Insurance Services Office, Inc., and the National Council on Compensation Insurance, Inc.</li> <li>h) Summarize the guarantee provided by the particular types of surety bonds within the following bond classifications: Contract bonds, License and permit bonds, Public official bonds, Court bonds, and Miscellaneous bonds</li> </ul>	
<b>Syllabus Resources</b>	
<ul style="list-style-type: none"> <li>• CPCU 557 – 11 Specialty Coverages</li> </ul>	

In FAP, Module 4, Section 8, Page 9 there is a paper describing the structure of insurance policies and how they are critical in communicating important information to the policyholder.

(a) Underwriting and marketing

These two topics are covered with three learning objectives from INT

<b>EXAM: GI-INTRO</b>	<b>TOPIC: Insurance Marketing and Distribution</b>
<b>Learning Objective</b>	
4. The candidate will understand the insurance marketplace and marketing and distribution systems.	
<b>Learning Outcomes</b>	
The candidate will be able to:  a) Describe the following attributes of the competitive property-casualty insurance marketplace: distinguishing characteristics of insurance customers, insurer marketing differentiations, and unique factors in the insurance marketplace b) Explain how typical insurer marketing activities are performed and why they are performed c) Describe the main types of insurance distribution systems and channels, including the principal characteristics that distinguish one distribution system from another d) Describe the functions performed by insurance producers e) Describe the key factors an insurer should evaluate during the distribution-system and distribution-channel selection process	
<b>Syllabus Resources</b>	
<ul style="list-style-type: none"><li>• CPCU 520 – 3 Insurance Marketing and Distribution</li></ul>	

<b>EXAM: GI-INTRO</b>	<b>TOPIC: The Underwriting Function</b>
<b>Learning Objective</b>	
5. The candidate will understand the purpose, role, and function of underwriting.	
<b>Learning Outcomes</b>	
The candidate will be able to:  a) Describe the purpose of underwriting b) Describe the underwriting activities typically performed by line and staff underwriters c) Describe the importance of compliance with underwriting authority in individual account selection d) Describe the constraining factors considered in the establishment of underwriting policy e) Describe the purposes that underwriting guidelines and underwriting audits serve f) Describe the steps in the underwriting process g) Explain how an insurer's underwriting results are measured and how financial measures can be distorted	
<b>Syllabus Resources</b>	
<ul style="list-style-type: none"><li>• CPCU 520 – 4 The Underwriting Function</li></ul>	

<b>EXAM: GI-INTRO</b>	<b>TOPIC: Underwriting Property and Liability Insurance</b>
<b>Learning Objective</b>	
6. The candidate will understand the different policy considerations in underwriting property and liability insurance policies.	
<b>Learning Outcomes</b>	
<p>The candidate will be able to:</p> <ul style="list-style-type: none"> <li>j) Describe in detail each of the COPE factors used to evaluate property loss exposures</li> <li>k) Explain how insurable interest, policy provisions for valuing losses, and insurance to value affect a loss payment amount under property insurance</li> <li>l) Explain how underwriters use policy amount, amount subject, normal loss expectancy (NLE), probable maximum loss (PML), and maximum foreseeable loss (MFL) to measure potential loss severity</li> <li>m) Describe the underwriting considerations for business income and extra expense coverage</li> <li>n) Describe the underwriting considerations and risk control techniques associated with employee dishonesty and crimes committed by others</li> <li>o) Describe the loss exposures and the underwriting considerations for commercial general liability insurance</li> <li>p) Describe the underwriting considerations for personal and commercial auto insurance</li> <li>q) Describe the key underwriting considerations relevant to the evaluation of submissions for workers compensation insurance</li> <li>r) Describe the underwriting considerations for umbrella and excess liability insurance</li> </ul>	
<b>Syllabus Resources</b>	
<ul style="list-style-type: none"> <li>• CPCU 520 – 5 Underwriting Property and Liability Insurance</li> </ul>	

(b) Principles of ratemaking

The IRR exam covers this topic with five learning objectives.

<b>Exam: GI IRR</b>	<b>1. Topic: Introduction and Key Considerations</b>
<b>Learning Objectives</b>	
The candidate will understand the key considerations for general insurance actuarial analysis.	
<b>Learning Outcomes</b>	
The Candidate will be able to: <ul style="list-style-type: none"><li>a) Understand professional requirements and the actuarial control cycle</li><li>b) Identify different types of data used for actuarial analysis</li><li>c) Identify professional responsibilities related to data</li><li>d) Recognize differences in how data are aggregated and segregated</li><li>e) Identify qualitative information required for actuarial analysis</li><li>f) Describe the use of credibility theory</li><li>g) Identify trend adjustments and describe the relationship between trend and loss development</li><li>h) Describe documentation requirements</li><li>i) Describe and recognize the role of professional judgment in actuarial analysis</li><li>j) Create a claims development triangle from claims transaction data</li><li>k) Estimate written, earned and unearned premiums</li><li>l) Adjust historical earned premiums to current rate levels</li></ul>	
<b>Resources</b>	
<ul style="list-style-type: none"><li>• <i>Fundamentals of General Insurance Actuarial Analysis</i>, J. Friedland<ul style="list-style-type: none"><li>○ Part 1: Introduction</li><li>○ Part 2: Key Concepts Relevant to Many Types of Actuarial Work</li><li>○ Part 3: Preparing the Data</li></ul></li></ul>	

<b>Exam: GI IRR</b>	<b>2. Topic: Projecting Ultimate Claims</b>
<b>Learning Objectives</b>	
The candidate will understand how to calculate projected ultimate claims and claims-related expenses.	
<b>Learning Outcomes</b>	
<p>The Candidate will be able to:</p> <ul style="list-style-type: none"> <li>a) Use loss development triangles for investigative testing</li> <li>b) Estimate ultimate claims using various methods: development method, expected method, Bornhuetter Ferguson method, Cape Cod method, frequency-severity methods, Berquist-Sherman methods</li> <li>c) Estimate claims-related expenses and recoveries</li> <li>d) Explain the effect of changing conditions on the projection methods cited in (b)</li> <li>e) Assess the appropriateness of the projection methods cited in (b) in varying circumstances</li> <li>f) Evaluate and justify selections of ultimate values based on the methods cited in (b)</li> </ul>	
<b>Resources</b>	
<ul style="list-style-type: none"> <li>• <i>Fundamentals of General Insurance Actuarial Analysis</i>, J. Friedland <ul style="list-style-type: none"> <li>○ Part 4: Projecting Ultimate Claims, Claims-Related Expenses, and Recoveries</li> </ul> </li> </ul>	

<b>Exam: GI IRR</b>	<b>4. Topic: Trending</b>
<b>Learning Objectives</b>	
The candidate will understand trending procedures as applied to ultimate claims, exposures and premiums.	
<b>Learning Outcomes</b>	
<p>The Candidate will be able to:</p> <ul style="list-style-type: none"> <li>a) Identify the time periods associated with trending procedures</li> <li>b) Describe the influences on frequency and severity of changes in deductibles, changes in policy limits, and changes in mix of business</li> <li>c) Choose trend rates and calculate trend factors for claims</li> <li>d) Describe the influences on exposures and premiums of changes in deductibles, changes in policy limits, and changes in mix of business</li> <li>e) Choose trend rates and calculate trend factors for exposures</li> </ul>	
<b>Resources</b>	
<ul style="list-style-type: none"> <li>• <i>Fundamentals of General Insurance Actuarial Analysis</i>, J. Friedland <ul style="list-style-type: none"> <li>○ Part 6: Trending Procedures</li> </ul> </li> </ul>	

Exam: GI IRR	5. Topic: Ratemaking
<b>Learning Objectives</b>	
The candidate will understand how to apply the fundamental ratemaking techniques of general insurance.	
<b>Learning Outcomes</b>	
<p>The Candidate will be able to:</p> <ul style="list-style-type: none"> <li>a) Describe the objectives of general insurance rate regulation and the various regulatory environments</li> <li>b) Calculate expenses used in ratemaking analyses including expense trending procedures</li> <li>c) Incorporate underwriting profit and contingency margins into ratemaking</li> <li>d) Calculate loadings for catastrophes and large claims</li> <li>e) Demonstrate the use of credibility in ratemaking</li> <li>f) Calculate overall rate change indications under the claims ratio and pure premium methods</li> <li>g) Calculate risk classification changes and territorial changes</li> <li>h) Calculate deductible factors, increased limits factors, and coinsurance penalties</li> <li>i) Calculate rates for large accounts</li> <li>j) Perform individual risk rating using standard plans</li> <li>k) Calculate rates for claims-made coverage</li> </ul>	
<b>Resources</b>	
<ul style="list-style-type: none"> <li>• <i>Fundamentals of General Insurance Actuarial Analysis</i>, J. Friedland <ul style="list-style-type: none"> <li>○ Part 7: Ratemaking</li> </ul> </li> <li>• “<i>The Mathematics of Excess of Loss Coverages and Retrospective Rating—A Graphical Approach</i>,” Lee, Y., Casualty Actuarial Society, 1988 Proceedings, Vol. LXXV <p style="margin-left: 20px;"><b>This article may be accessed at <a href="http://www.casact.org">www.casact.org</a> through the following navigation:</b></p> <ul style="list-style-type: none"> <li>- <b>Publications</b> <ul style="list-style-type: none"> <li>- <b>Yearbook/Proceedings</b> <ul style="list-style-type: none"> <li>- <b>Past Issues of the Proceedings of the Casualty Actuarial Society</b></li> <li>- <b>1988 Proceedings of the Casualty Actuarial Society, Volume LXXV</b> <ul style="list-style-type: none"> <li>- <i>The Mathematics of Excess Loss Coverage...</i></li> </ul> </li> </ul> </li> </ul> </li> </ul> </li> </ul>	

<b>Exam: GI IRR</b>	<b>7. Topic: Catastrophe Modeling</b>
<b>Learning Objectives</b>	
The candidate will understand the nature and application of catastrophe models used to manage risks from natural disasters.	
<b>Learning Outcomes</b>	
<p>The Candidate will be able to:</p> <ul style="list-style-type: none"> <li>a) Describe the structure of catastrophe models</li> <li>b) Apply catastrophe models to insurance ratemaking, portfolio management, and risk financing</li> </ul>	
<b>Resources</b>	
<ul style="list-style-type: none"> <li>• <i>Catastrophe Modeling: A New Approach to Managing Risk</i>, Grossi, P.; and Kunreuther, H. <ul style="list-style-type: none"> <li>○ Ch. 1-7 (Section 2.4.1 is incorrect and will not be tested; however, exceedance probability curves as discussed elsewhere in the book may be tested)</li> </ul> </li> </ul>	

(c) Statutory insurance accounting and expense analysis

The first three learning objectives of FRE cover this subject.

<b>Exam: GI FRE</b>	<b>1. Topic: Financial Reporting</b>
<b>Learning Objective</b>	
The candidate will understand the elements of financial reporting for general insurance companies.	
<b>Learning Outcomes</b>	
The candidate will be able to: <ul style="list-style-type: none"><li>a) Understand and apply the concepts of insurance accounting</li><li>b) Compare different financial reporting standards for general insurers including: U.S. Statutory Accounting Principles (SAP), U.S. Generally Accepted Accounting Principles (GAAP), Canadian Generally Accepted Accounting Principles (CGAAP), Solvency II and International Financial Reporting Standards (IFRS)</li><li>c) Describe the elements of the NAIC Annual Statement</li><li>d) Complete and interpret selected pages/schedules in the NAIC Annual Statement as included in the resources</li><li>e) Understand and apply the concepts of reinsurance accounting</li><li>f) Understand and apply the elements of discounting for general insurance loss reserves</li><li>g) Demonstrate knowledge of taxation for general insurers in the U.S.</li><li>h) Estimate the premium asset for retrospectively rated policies for financial reporting</li></ul>	
<b>Resources</b>	
<ul style="list-style-type: none"><li>• <i>General Insurance Financial Reporting Topics</i>, Society of Actuaries:<ul style="list-style-type: none"><li>○ Part 1 Accounting Systems for General Insurers</li><li>○ Part 2 Accounting for Insurance Contracts</li><li>○ Part 3 Accounting for Financial Instruments</li><li>○ Part 4 Accounting Perspectives for Non-Admitted Assets</li><li>○ Part 5 Accounting for Reinsurance Contracts</li><li>○ Part 6 Schedule F, Statutory Credit for Reinsurance</li><li>○ Part 7 Statutory Loss Accounting and Schedule P</li><li>○ Part 8 Measuring Total Income for General Insurers</li><li>○ Part 9 Notes to the Financial Statements</li><li>○ Part 10 Statutory Surplus: Computation, Pricing, and Valuation</li><li>○ Part 15 Income Taxes for General Insurers</li></ul></li><li>• National Association of Insurance Commissioners, Official 2012 NAIC Annual Statement Blanks, Property and Casualty (individual and consolidated basis), pages 2-14, 17-19, 20-30 (Schedule F) and 34-94 (Schedule P)</li><li>• FRE-801-14: Excerpts from National Association of Insurance Commissioners, Accounting Practices and Procedures Manual, 2012,<ul style="list-style-type: none"><li>○ Preamble</li><li>○ Statement of Statutory Accounting Principles 3, “Accounting Changes and Corrections of Errors”</li><li>○ Statement of Statutory Accounting Principles 5 Revised, “Liabilities, Contingencies, and Impairment of Assets,” excluding paragraphs 15-24, 28-30 and Appendix A</li></ul></li></ul>	

- Statement of Statutory Accounting Principles 9, "Subsequent Events"
  - Statement of Statutory Accounting Principles 53, "Property Casualty Contracts-Premiums"
  - Statement of Statutory Accounting Principles 55, "Unpaid Claims, Loss and Loss Adjustment Expenses," excluding paragraphs 6-8
  - Statement of Statutory Accounting Principles 62 Revised, "Property and Casualty Reinsurance"
  - Statement of Statutory Accounting Principles 65, "Property and Casualty Contracts"
- *"Risk Transfer Testing of Reinsurance Contracts,"* Brehm, P. and Ruhm, D., Variance, 2007, Volume 01, Issue 01, pages 9-17

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- Past Journal Issues

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- 9 Risk Transfer Testing of Reinsurance Contracts...

- *"Estimating the Premium Asset on Retrospectively Rated Policies,"* Teng, M. and Perkins, M., Casualty Actuarial Society, 1996 Proceedings, Vol. LXXXIII, pages 611-647, excluding Section 5

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- Past Issues of the Proceedings of the Casualty Actuarial Society

- 1996 Proceedings of the Casualty Actuarial Society, Volume LXXXIII

- Estimating the Premium Asset on Retrospectively Rated Policies

<b>Exam: GI FRE</b>	<b>2. Topic: Financial Health Measurement</b>
<b>Learning Objective</b>	
The candidate will understand the analysis of a general insurer’s financial health through prescribed formulas, ratios and other solvency regulation methods.	
<b>Learning Outcomes</b>	
<p>The candidate will be able to:</p> <ul style="list-style-type: none"> <li>a) Evaluate the financial health of a general insurer using information contained in the Annual Statement</li> <li>b) Understand and apply the elements of the NAIC RBC formula</li> <li>c) Calculate and interpret the results of financial health ratios</li> <li>d) Discuss the Canadian Minimum Capital Test and the Canadian Dynamic Capital Adequacy Test</li> <li>e) Understand the development and principles of solvency regulation, including that in the U.S., Canada and the E.U.</li> <li>f) Demonstrate knowledge of the E.U. Solvency II standard formula solvency capital requirement</li> <li>g) Demonstrate knowledge of ORSA and its implementations</li> <li>h) Compare different solvency standards</li> <li>i) Discuss the function of credit rating agencies and their impact on general insurers</li> </ul>	
<b>Resources</b>	
<ul style="list-style-type: none"> <li>• <i>General Insurance Financial Reporting Topics</i>, Society of Actuaries: <ul style="list-style-type: none"> <li>○ Part 12 Solvency Monitoring</li> <li>○ Part 13 General Insurance Financial Ratings</li> </ul> </li> <li>• FRE-102-14: <i>“Insurance Regulatory Information System (IRIS) Ratios Manual,”</i> National Association of Insurance Commissioners, 2013 Edition, Pages 1-26</li> <li>• <i>“The United States Insurance Financial Solvency Framework,”</i> National Association of Insurance Commissioners, 2010  <a href="http://www.naic.org/documents/committees_e_us_solvency_framework.pdf">http://www.naic.org/documents/committees_e_us_solvency_framework.pdf</a> </li> <li>• <i>“NAIC Own Risk and Solvency Assessment (ORSA) Guidance Manual,”</i> National Association of Insurance Commissioners, as of March 2013  <a href="http://www.naic.org/documents/committees_e_orsa_wg_related_docs_guidance_manual_2013.pdf">http://www.naic.org/documents/committees_e_orsa_wg_related_docs_guidance_manual_2013.pdf</a> </li> <li>• <i>“The Implications of Solvency II for U.S. Insurance Regulation,”</i> Vaughan, T., Policy Brief, Networks Financial Institute at Indiana State University, 2009-PB-03, February 2009  <a href="http://www.naic.org/Releases/2009_docs/090305_vaughan_presentation.pdf">http://www.naic.org/Releases/2009_docs/090305_vaughan_presentation.pdf</a> </li> </ul>	

<b>Exam: GI FRE</b>	<b>3. Topic: Responsibilities of the Actuary</b>
<b>Learning Objective</b>	
The candidate will be able to apply the standards of practice regarding the responsibilities of the actuary as defined by regulators and the American Academy of Actuaries.	
<b>Learning Outcomes</b>	
<p>The candidate will be able to:</p> <ul style="list-style-type: none"> <li>a) Describe, interpret and apply the applicable Standards of Practice</li> <li>b) Describe, interpret and apply the responsibilities of the actuary with respect to the Statement of Actuarial Opinion and the Actuarial Report</li> <li>c) Compare the Statements of Actuarial Opinion in the U.S. and Canada</li> <li>d) Describe and apply the concept of materiality</li> <li>e) Discuss the International Actuarial Association position on the function of the actuary in prudential supervision</li> </ul>	
<b>Resources</b>	
<ul style="list-style-type: none"> <li>• <i>General Insurance Financial Reporting Topics</i>, Society of Actuaries: <ul style="list-style-type: none"> <li>○ Part 14 Overview of the General Insurance Statement of Actuarial Opinion</li> </ul> </li> <li>• Actuarial Standards of Practice, Actuarial Standards Board of the American Academy of Actuaries, <ul style="list-style-type: none"> <li>○ No. 1, Introductory Actuarial Standard of Practice, March 2013</li> <li>○ No. 20, Discounting of Property/Casualty Unpaid Claim Estimates, September 2011</li> <li>○ No. 21, Responding to or Assisting Auditors or Examiners in Connection with Financial Statements for All Practice Areas, May 2011</li> <li>○ No. 36, Statements of Actuarial Opinion Regarding Property/Casualty Loss and Loss Adjustment Expense Reserves, May 2011</li> <li>○ No. 41, Actuarial Communications, December 2010</li> <li>○ No. 43, Property/Casualty Unpaid Claim Estimates, May 2011</li> </ul> <a href="http://www.actuarialstandardsboard.org/asops.asp">http://www.actuarialstandardsboard.org/asops.asp</a> </li> <li>• <i>"International Standard of Actuarial Practice 1, General Actuarial Practice,"</i> Approved by the IAA Council November 18, 2012, International Actuarial Association  <a href="http://www.actuaries.org/ISAP1/ISAP1_Final_WebVersion.pdf">http://www.actuaries.org/ISAP1/ISAP1_Final_WebVersion.pdf</a> </li> <li>• <i>"A Public Policy Practice Note, Statements of Actuarial Opinion on Property and Casualty Loss Reserves,"</i> American Academy of Actuaries, Committee on Property and Liability Financial Reporting, 2012  <a href="http://www.actuary.org/files/COPLFR_PN_Dec17_2012.pdf">http://www.actuary.org/files/COPLFR_PN_Dec17_2012.pdf</a> </li> <li>• <i>"Materiality, Concepts on Professionalism,"</i> American Academy of Actuaries, Task Force on Materiality, Discussion Paper, Professionalism Series, 2006, No. 8  <a href="http://www.actuary.org/files/materiality_06.8.pdf/materiality_06.8.pdf">http://www.actuary.org/files/materiality_06.8.pdf/materiality_06.8.pdf</a> </li> <li>• <i>"The Function of the Actuary in Prudential Supervision,"</i> International Actuarial Association, September 2002  <a href="http://www.actuaries.org/LIBRARY/Papers/Prudential_Supervision_EN.pdf">http://www.actuaries.org/LIBRARY/Papers/Prudential_Supervision_EN.pdf</a> </li> </ul>	

(d) Premium, loss, and expense reserves

Four learning objectives from IRR cover this subject.

<b>Exam: GI IRR</b>	<b>1. Topic: Introduction and Key Considerations</b>
<b>Learning Objectives</b>	
The candidate will understand the key considerations for general insurance actuarial analysis.	
<b>Learning Outcomes</b>	
The Candidate will be able to: <ul style="list-style-type: none"><li>a) Understand professional requirements and the actuarial control cycle</li><li>b) Identify different types of data used for actuarial analysis</li><li>c) Identify professional responsibilities related to data</li><li>d) Recognize differences in how data are aggregated and segregated</li><li>e) Identify qualitative information required for actuarial analysis</li><li>f) Describe the use of credibility theory</li><li>g) Identify trend adjustments and describe the relationship between trend and loss development</li><li>h) Describe documentation requirements</li><li>i) Describe and recognize the role of professional judgment in actuarial analysis</li><li>j) Create a claims development triangle from claims transaction data</li><li>k) Estimate written, earned and unearned premiums</li><li>l) Adjust historical earned premiums to current rate levels</li></ul>	
<b>Resources</b>	
<ul style="list-style-type: none"><li>• <i>Fundamentals of General Insurance Actuarial Analysis</i>, J. Friedland<ul style="list-style-type: none"><li>○ Part 1: Introduction</li><li>○ Part 2: Key Concepts Relevant to Many Types of Actuarial Work</li><li>○ Part 3: Preparing the Data</li></ul></li></ul>	

<b>Exam: GI IRR</b>	<b>2. Topic: Projecting Ultimate Claims</b>
<b>Learning Objectives</b>	
The candidate will understand how to calculate projected ultimate claims and claims-related expenses.	
<b>Learning Outcomes</b>	
<p>The Candidate will be able to:</p> <ul style="list-style-type: none"> <li>a) Use loss development triangles for investigative testing</li> <li>b) Estimate ultimate claims using various methods: development method, expected method, Bornhuetter Ferguson method, Cape Cod method, frequency-severity methods, Berquist-Sherman methods</li> <li>c) Estimate claims-related expenses and recoveries</li> <li>d) Explain the effect of changing conditions on the projection methods cited in (b)</li> <li>e) Assess the appropriateness of the projection methods cited in (b) in varying circumstances</li> <li>f) Evaluate and justify selections of ultimate values based on the methods cited in (b)</li> </ul>	
<b>Resources</b>	
<ul style="list-style-type: none"> <li>• <i>Fundamentals of General Insurance Actuarial Analysis</i>, J. Friedland <ul style="list-style-type: none"> <li>○ Part 4: Projecting Ultimate Claims, Claims-Related Expenses, and Recoveries</li> </ul> </li> </ul>	

<b>Exam: GI IRR</b>	<b>3. Topic: Financial Reporting</b>
<b>Learning Objectives</b>	
The candidate will understand financial reporting of claim liabilities and premium liabilities.	
<b>Learning Outcomes</b>	
<p>The Candidate will be able to:</p> <ul style="list-style-type: none"> <li>a) Describe the key assumptions underlying ratio and count-based methods for estimating unpaid unallocated loss adjustment expenses</li> <li>b) Estimate unpaid unallocated loss adjustment expenses using ratio and count-based methods</li> <li>c) Describe the components of claim liabilities in the context of financial reporting</li> <li>d) Evaluate the estimates of ultimate claims to determine claim liabilities for financial reporting</li> <li>e) Describe the components of premium liabilities in the context of financial reporting</li> <li>f) Evaluate premium liabilities</li> </ul>	
<b>Resources</b>	
<ul style="list-style-type: none"> <li>• <i>Fundamentals of General Insurance Actuarial Analysis</i>, J. Friedland <ul style="list-style-type: none"> <li>○ Part 5: Financial Reporting and the Establishment of Reserves</li> </ul> </li> </ul>	

<b>Exam: GI IRR</b>	<b>4. Topic: Trending</b>
<b>Learning Objectives</b>	
The candidate will understand trending procedures as applied to ultimate claims, exposures and premiums.	
<b>Learning Outcomes</b>	
<p>The Candidate will be able to:</p> <ul style="list-style-type: none"> <li>a) Identify the time periods associated with trending procedures</li> <li>b) Describe the influences on frequency and severity of changes in deductibles, changes in policy limits, and changes in mix of business</li> <li>c) Choose trend rates and calculate trend factors for claims</li> <li>d) Describe the influences on exposures and premiums of changes in deductibles, changes in policy limits, and changes in mix of business</li> <li>e) Choose trend rates and calculate trend factors for exposures</li> </ul>	
<b>Resources</b>	
<ul style="list-style-type: none"> <li>• <i>Fundamentals of General Insurance Actuarial Analysis</i>, J. Friedland <ul style="list-style-type: none"> <li>○ Part 6: Trending Procedures</li> </ul> </li> </ul>	

(e) Reinsurance

This subject is covered in several places.

One learning objective from INT.

<b>EXAM: GI-INTRO</b>	<b>TOPIC: Reinsurance</b>
<b>Learning Objective</b>	
9. The candidate will understand the function and types of reinsurance and its application.	
<b>Learning Outcomes</b>	
The candidate will be able to:  a) Describe reinsurance and its principal functions b) Describe the three sources of reinsurance c) Describe treaty reinsurance and facultative reinsurance d) Describe the types of pro rata reinsurance and excess of loss reinsurance and their uses e) Describe finite risk reinsurance and other methods that rely on capital markets as alternatives to traditional and non-traditional reinsurance f) Describe the factors that should be considered in the design of a reinsurance program g) Given a case, identify the reinsurance needs of an insurer and recommend an appropriate reinsurance program to address those needs h) Explain how reinsurance is regulated	
<b>Syllabus Resources</b>	
<ul style="list-style-type: none"><li>• CPCU 520 – 10 Reinsurance</li></ul>	

One learning objective from FRE

<b>Exam: GI FRE</b>	<b>1. Topic: Financial Reporting</b>
<b>Learning Objective</b>	
The candidate will understand the elements of financial reporting for general insurance companies.	
<b>Learning Outcomes</b>	
<p>The candidate will be able to:</p> <ul style="list-style-type: none"> <li>a) Understand and apply the concepts of insurance accounting</li> <li>b) Compare different financial reporting standards for general insurers including: U.S. Statutory Accounting Principles (SAP), U.S. Generally Accepted Accounting Principles (GAAP), Canadian Generally Accepted Accounting Principles (CGAAP), Solvency II and International Financial Reporting Standards (IFRS)</li> <li>c) Describe the elements of the NAIC Annual Statement</li> <li>d) Complete and interpret selected pages/schedules in the NAIC Annual Statement as included in the resources</li> <li>e) Understand and apply the concepts of reinsurance accounting</li> <li>f) Understand and apply the elements of discounting for general insurance loss reserves</li> <li>g) Demonstrate knowledge of taxation for general insurers in the U.S.</li> <li>h) Estimate the premium asset for retrospectively rated policies for financial reporting</li> </ul>	
<b>Resources</b>	
<ul style="list-style-type: none"> <li>• <i>General Insurance Financial Reporting Topics</i>, Society of Actuaries: <ul style="list-style-type: none"> <li>○ Part 1 Accounting Systems for General Insurers</li> <li>○ Part 2 Accounting for Insurance Contracts</li> <li>○ Part 3 Accounting for Financial Instruments</li> <li>○ Part 4 Accounting Perspectives for Non-Admitted Assets</li> <li>○ Part 5 Accounting for Reinsurance Contracts</li> <li>○ Part 6 Schedule F, Statutory Credit for Reinsurance</li> <li>○ Part 7 Statutory Loss Accounting and Schedule P</li> <li>○ Part 8 Measuring Total Income for General Insurers</li> <li>○ Part 9 Notes to the Financial Statements</li> <li>○ Part 10 Statutory Surplus: Computation, Pricing, and Valuation</li> <li>○ Part 15 Income Taxes for General Insurers</li> </ul> </li> <li>• National Association of Insurance Commissioners, Official 2012 NAIC Annual Statement Blanks, Property and Casualty (individual and consolidated basis), pages 2-14, 17-19, 20-30 (Schedule F) and 34-94 (Schedule P)</li> <li>• FRE-801-14: Excerpts from National Association of Insurance Commissioners, Accounting Practices and Procedures Manual, 2012, <ul style="list-style-type: none"> <li>○ Preamble</li> <li>○ Statement of Statutory Accounting Principles 3, “Accounting Changes and Corrections of Errors”</li> <li>○ Statement of Statutory Accounting Principles 5 Revised, “Liabilities, Contingencies, and Impairment of Assets,” excluding paragraphs 15-24, 28-30 and Appendix A</li> <li>○ Statement of Statutory Accounting Principles 9, “Subsequent Events”</li> <li>○ Statement of Statutory Accounting Principles 53, “Property Casualty Contracts-Premiums”</li> </ul> </li> </ul>	

- Statement of Statutory Accounting Principles 55, “Unpaid Claims, Loss and Loss Adjustment Expenses,” excluding paragraphs 6-8
  - Statement of Statutory Accounting Principles 62 Revised, “Property and Casualty Reinsurance”
  - Statement of Statutory Accounting Principles 65, “Property and Casualty Contracts”
- *“Risk Transfer Testing of Reinsurance Contracts,”* Brehm, P. and Ruhm, D., *Variance*, 2007, Volume 01, Issue 01, pages 9-17

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- 1996 Proceedings of the Casualty Actuarial Society, Volume LXXXIII

- Estimating the Premium Asset on Retrospectively Rated Policies

From IRR

Learning objectives 1, 2 and 3 and the associated reading material (presented earlier in this document) integrate reinsurance reserving into the material on reserving for primary insurance.