

Learning Objectives: Catastrophe Risk Management and Insurance Fundamentals

Exam 1

Assignment 1: Understanding Risk

MODULE TITLE	LEARNING OBJECTIVES
Understanding and Quantifying Risk	Describe each of the following in the context of risk: <ul style="list-style-type: none">• Uncertainty• Possibility• Possibility compared with probability
Classifications of Risk	Explain how the following classifications of risk apply and how they help in risk management: <ul style="list-style-type: none">• Pure and speculative risk• Subjective and objective risk• Diversifiable and non-diversifiable risk• Quadrants of risk (hazard, operational, financial, and strategic)
Financial Consequences of Risk	Describe the three financial consequences of risk.

Assignment 2: Risk Management

MODULE TITLE	LEARNING OBJECTIVES
Basic Purpose and Scope of Risk Management	Describe the basic purpose and scope of risk management in terms of the following: <ul style="list-style-type: none">• How risk management is practiced by organizations• The basic distinction between traditional risk management and enterprise-wide risk management
Loss Exposures	Describe the following elements of property loss exposures: <ul style="list-style-type: none">• Assets exposed to loss• Causes of loss, including associated hazards• Financial consequences of loss
Risk Management Benefits	Describe the benefits of risk management and how it reduces the financial consequences of risk for individuals, organizations, and society.
Risk Management Program Goals	Summarize pre-loss and post-loss risk management program goals and the conflicts that can arise as they are implemented.
The Risk Management Process	Describe each of the steps in the risk management process.

Assignment 3: Risk Control

MODULE TITLE	LEARNING OBJECTIVES
Risk Control Techniques	Describe the six categories of risk control techniques in terms of the following: <ul style="list-style-type: none">• Whether each reduces loss frequency, reduces loss severity, or makes losses more predictable• How each can be used to address a particular

Learning Objectives: Catastrophe Risk Management and Insurance Fundamentals Exam 1

	loss exposure <ul style="list-style-type: none"> • How they differ from another
Application of Risk Control Techniques	Explain how risk control techniques can be applied to property loss exposures.
How Smart Products Apply to Risk Management (includes catastrophe management)	Demonstrate how smart products can be applied to risk management.

Assignment 4: Overview of Insurance Operations

MODULE TITLE	LEARNING OBJECTIVES
Classifications of Insurers	Explain how insurers have organized to provide property-casualty insurance.
Insurer Goals	Describe the major goals of an insurer.
Constraints on Achieving Insurer Goals	Describe the internal and external constraints that impede insurers from achieving their major goals.
Measuring Insurer Performance	Describe the measurements used to evaluate how successful an insurer is at meeting its established goals.
Functional View of Insurance	Describe the core and supporting functions performed by insurers.

Assignment 5: Insurance Policy Analysis

MODULE TITLE	LEARNING OBJECTIVES
Distinguishing Characteristics of Insurance Policies	Describe the following characteristics of insurance policies, including common exceptions to these characteristics. <ul style="list-style-type: none"> • Indemnity • Utmost good faith • Fortuitous losses • Contract of adhesion • Exchange of unequal amounts • Conditional • Nontransferable
Policy Provisions	Describe the purpose(s) and characteristics of each of these types of policy provisions in a property-casualty insurance policy: <ul style="list-style-type: none"> • Declarations • Definitions • Insuring agreements • Exclusions • Conditions • Miscellaneous provisions
Policy Analysis	Describe the primary methods of insurance policy analysis.

Learning Objectives: Catastrophe Risk Management and Insurance Fundamentals

Exam 1

Assignment 6: Common Policy Concepts

MODULE TITLE	LEARNING OBJECTIVES
Insurable Interest	Given a case, evaluate one or more entities' insurable interests.
Insurance to Value	Explain why insurance to value is important to property insurers, how insurers encourage insurance to value, and what insureds can do to address the problems associated with maintaining insurance to value.
Property Valuation Methods	Explain how property is valued under each of the following valuation methods in property insurance policies: <ul style="list-style-type: none">• Actual cash value• Replacement cost• Agreed value• Functional valuation
Reasons for Property Deductibles	Explain how deductibles in property insurance benefit the insured.

Assignment 7: Personal Home Policy Coverages

MODULE TITLE	LEARNING OBJECTIVES
ISO Homeowners Program	Describe how individuals and families can use the ISO Homeowners insurance program to address their personal risk management needs.
Overview of Homeowners Form HO-3	Summarize these aspects of the 2011 Homeowners Program: <ul style="list-style-type: none">• Structure of the Homeowners Policy (HO-3)• Key changes in the ISO 2011 Program Revision• Factors important to rating homeowners insurance
HO-3 Section I - Property Coverages	Determine whether the 2011 HO-3 policy provisions in the following Section I - Property Coverages provide coverage for a given loss or loss exposure: <ul style="list-style-type: none">• Coverage A – Dwelling• Coverage B - Other Structures• Coverage C - Personal Property• Coverage D - Loss of Use• Additional Coverages
HO-3 Section I - Perils Insured Against and Exclusions	Summarize each of the 2011 HO-3 policy provisions: <ul style="list-style-type: none">• Perils Insured Against• Exclusions
2011 HO-3 Section I - Property Coverage Case Study	Given a scenario describing a homeowners property claim, determine whether the 2011 HO-

Learning Objectives: Catastrophe Risk Management and Insurance Fundamentals Exam 1

	3 Policy Section I - Property Coverages would cover the claim, and if so, the amount the insurer would pay for the claim.
Coverage Variations in ISO Homeowners Forms	Compare the coverage provided by each of the following Homeowners policies to the coverage provided by the HO-3 policy: <ul style="list-style-type: none"> • HO-2 Broad Form • HO-3 Special Form • HO-4 Contents Broad Form • HO-5 Comprehensive Form • HO-6 Unit-Owners Form • HO-8 Modified Coverage Form
Commonly Used Endorsements that Modify the 2011 ISO Homeowners Policies	Describe the commonly used endorsements that are used to modify a homeowners policy coverage

Assignment 8: Commercial Property Coverages

MODULE TITLE	LEARNING OBJECTIVES
Overview of the Commercial Property Insurance	Describe commercial property insurance in terms of these elements: <ul style="list-style-type: none"> • The major categories of loss exposures that can be covered • The components of a commercial property coverage part
BPP Covered Property	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: <ul style="list-style-type: none"> • Building • Your Business Personal Property • Personal Property of Others
BPP Additional Coverages and Coverage Extensions	Determine which of the additional coverages and coverage extensions of the Building and Personal Property Coverage Form apply to a described loss.
Causes of Loss—Basic Form and Broad Form	Determine whether the cause of a described loss is a covered cause of loss under either the Causes of Loss—Basic Form or the Causes of Loss—Broad Form.
Cause of Loss—Special Form	Determine whether the cause of a described loss is a Covered Cause of Loss under the Causes of Loss—Special Form.
BPP Limits of Insurance and Deductible	Apply the Limits of Insurance and Deductible provisions of the Building and Personal Property Coverage Form to a described loss.
BPP Loss Conditions and Additional Conditions	Explain how each of the Loss Conditions and Additional Conditions affects coverage under

Learning Objectives: Catastrophe Risk Management and Insurance Fundamentals Exam 1

	the Building and Personal Property Coverage Form.
BPP: Optional Coverages	<p>Explain how each of the following optional coverages described in the BPP modifies the basic coverage of the BPP:</p> <ul style="list-style-type: none"> • Agreed Value • Inflation Guard • Replacement Cost • Extension of Replacement Cost to Personal Property of Others
Commercial Property Conditions	Summarize each of the Commercial Property Conditions.
Common Policy Conditions	Explain how each of the conditions contained in the Common Policy Conditions affects coverage under a commercial property coverage part.
Commercial Property Endorsements	<p>Explain how each of these documents modifies the Building and Personal Property Coverage Form:</p> <ul style="list-style-type: none"> • Ordinance or Law Coverage endorsement • Flood Coverage endorsement • Earthquake and Volcanic Eruption Coverage endorsement • Peak Season Limit of Insurance endorsement • Value Reporting Form
Factors Affecting Commercial Property Premium	Explain the factors affecting commercial property premiums.
Determine Whether the BPP Covers a Loss	Given a scenario describing a commercial property claim, determine whether the BPP policy would cover the claim, and if so, the amount the insurer would pay for the claim.

Assignment 9: Insurance Ratemaking Basics

MODULE TITLE	LEARNING OBJECTIVES
Ratemaking Requirements Related to Exposure	<p>Describe, analyze, or design the information requirements for ratemaking related to exposures and demonstrate the use of exposures in ratemaking</p> <ul style="list-style-type: none"> • Definition of exposure base • Aggregation of exposures • Organization of data: calendar year, policy year, accident year • Changes in exposure • Basic insurance measures

Learning Objectives: Catastrophe Risk Management and Insurance Fundamentals Exam 1

Ratemaking Exposure Data	<p>Explain how exposure data is used in ratemaking.</p> <ul style="list-style-type: none"> • Internal data • Risk data • Accounting information • Data aggregation <ul style="list-style-type: none"> ○ Calendar year ○ Accident year ○ Policy year ○ Report year • External data
Ratemaking Requirements Related to Premium	<p>Describe the types of premium-related information required for ratemaking .</p> <ul style="list-style-type: none"> • Premium aggregation • Adjustments to premium
Ratemaking Premium Data	<p>Using the loss ratio approach, explain how premiums are used in ratemaking analysis.</p> <ul style="list-style-type: none"> • Loss Ratio Indication • Current Rate Level • Premium Trend • Loss Development • Loss Trend
Ratemaking Requirements Related to Loss and Loss Adjustment Expenses	<ul style="list-style-type: none"> • Loss definitions policy year, accident year, report year • Loss data aggregation methods • Common ratios involving loss statistics • Adjustment to losses • Loss adjustment expense (allocated and unallocated expenses)
Rating Differentials for Increased Limits and Deductibles	<p>Develop rating differentials and relativities for deductibles and increased limits.</p> <ul style="list-style-type: none"> • Increased limits ratemaking • Deductible pricing •
Pricing Solutions to Achieve an Organization's Goals	<p>Assess the considerations for implementing rates to achieve an organization's goals.</p> <ul style="list-style-type: none"> • Rating algorithms • Rating variables and differentials • Expense calculation • Other considerations

Assignment 10: Underwriting Property & Casualty Insurance

MODULE TITLE	LEARNING OBJECTIVES
Purpose of Underwriting	Describe the purpose of underwriting.
Underwriting Activities	Describe the underwriting activities typically performed by line and staff underwriters.
Underwriting Authority	Describe the importance of compliance with underwriting authority in individual account selection.

Learning Objectives: Catastrophe Risk Management and Insurance Fundamentals

Exam 1

Constraints in Establishing Underwriting Policy	Describe the constraining factors considered in the establishment of underwriting policy.
Implementing Underwriting Policy	Describe the purposes that underwriting guidelines and underwriting audits serve.
Steps in the Underwriting Process	Summarize the steps in the underwriting process and the purpose of each.
Measuring Underwriting Results	Explain how an insurer's underwriting results are measured and how financial measures can be distorted.
Underwriting Property Insurance Using the COPE Model	Describe in detail each of the COPE factors used to evaluate property loss exposures.
Property Policy Provision Underwriting Considerations	Explain how insurable interest, policy provisions for valuing losses, and insurance to value affect a loss payment amount under property insurance.
Measures of Potential Loss Severity	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.
Underwriting Business Income and Extra Expense Coverage	Describe the underwriting considerations for business income and extra expense coverage.

Assignment 11: Underwriting Cat-type Loss Exposures

MODULE TITLE	LEARNING OBJECTIVES
Underwriting Windstorm and Hail	Compare the loss potential and key underwriting considerations associated with each of the major types of windstorms (hurricanes and tornado) and hail for property insurance.
Underwriting Flood Loss Exposures	Explain how an underwriter can use the following to manage flood loss exposures: <ul style="list-style-type: none"> • Risk assessment tools • Risk control measures • Coverage and pricing tools
Underwriting Earthquake Loss Exposures	Determine the key underwriting considerations relevant to the evaluation of a property account with respect to earthquake loss exposures.
Underwriting Wildfire Loss Exposures	Describe the loss potential and the key underwriting considerations associated with wildfire loss exposures.

Assignment 12: Property Claims

MODULE TITLE	LEARNING OBJECTIVES
Overview of the Claim Function	Identify the goals of the claim function; the users of claim information, and the parties with whom claim personnel interact.

Learning Objectives: Catastrophe Risk Management and Insurance Fundamentals

Exam 1

Overview of Basic Claims Terminology	Understand the basic terminology used in estimating unpaid claims liability including: <ul style="list-style-type: none"> • Insurer • Reserves • Claims, Losses and Claim Count • Reported Claims • Ultimate Claims • Claims Related Expense • Experience period • Emergence
Claim Department Structure, Personnel, and Performance	Describe the claim departments in terms of the following: <ul style="list-style-type: none"> • How they are structured • The types and functions of claim personnel • How their performance can be measured
Measures Used to Ensure Regulatory Compliance	Explain how the following measures are used to ensure regulatory compliance: <ul style="list-style-type: none"> • Claim guidelines, policies, and procedures • Controls • Supervisor and manager reviews • Claim audits
Activities in the Claim Handling Process	Summarize the activities performed in the claim handling process and the purpose of each.
Framework for Coverage Analysis	Describe the coverage analysis process that is used to determine if the policy provides coverage
Applying the Claim Handling Process and the Framework for Coverage Analysis	Given a claim scenario, demonstrate how a claim representative can use the claim handling process and framework for coverage analysis to resolve a claim.
Property Claim Handling Process	Explain how and why the activities in the framework for handling property claims are accomplished.
Special Considerations for Property Catastrophe Claims	Identify the special considerations for property catastrophe claims.
Handling Catastrophe Issues and Specialty Property Claims	Summarize catastrophe claims handling issues and the coverages and claims considerations for the following specialty areas: crop insurance, inland marine insurance, ocean marine insurance, and crime insurance.

Assignment 13: Reinsurance Principles and Programs

MODULE TITLE	LEARNING OBJECTIVES
Reinsurance and Its Functions	Describe reinsurance and its principal functions.
Reinsurance Sources	Describe the three sources of reinsurance.
Reinsurance Transactions	Describe treaty reinsurance and facultative reinsurance.

Learning Objectives: Catastrophe Risk Management and Insurance Fundamentals

Exam 1

Types of Pro Rata and Excess of Loss Reinsurance	Summarize the types of pro rata reinsurance and excess of loss reinsurance and their uses.
Alternatives to Traditional Reinsurance	Describe finite risk reinsurance and other methods that rely on capital markets as alternatives to traditional and non-traditional reinsurance.
Reinsurance Program Design	Describe the factors that should be considered in the design of a reinsurance program.
Clauses Designed or Adapted for Catastrophe Treaties	Describe the purpose of each of the clauses designed or adapted for catastrophe treaties
Catastrophe Treaty Pricing	Explain how catastrophe treaty pricing is affected by attachment points, layers and limits, underlying insurance analysis, inuring reinsurance, and payback of prior losses.
Reinsurance Program Design Case Studies	Given a case, identify the reinsurance needs of an insurer and recommend an appropriate reinsurance program to meet those needs.

Assignment 14: Capital Market Solutions and Government Programs

MODULE TITLE	LEARNING OBJECTIVES
Using Capital Market Solutions	Explain how these capital market solutions operate and how effectively they meet risk financing goals: <ul style="list-style-type: none"> • Securitization • Hedging • Contingent capital arrangements
Insurance-Linked Securities	Explain how insurance-linked securities operate in terms of the following: <ul style="list-style-type: none"> • The use of catastrophe bonds • The benefits to investors • The advantages and disadvantages
Government Insurance Programs	Explain how state and federal governments are involved in the insurance market and the rationale for, and level of, their involvement.
Terrorism Insurance	Describe these aspects of terrorism insurance: <ul style="list-style-type: none"> • Losses and lines of insurance covered by TRIPRA 2015 • How TRIPRA 2015 affects insurers • Categories and purposes of TRIPRA 2015 endorsements • Stand-alone terrorism policies

Assignment 15: Insurance Regulations

MODULE TITLE	LEARNING OBJECTIVES
Economic Impact of the Insurance Industry	Explain the economic impact of the insurance industry.

Learning Objectives: Catastrophe Risk Management and Insurance Fundamentals

Exam 1

The Objectives of Insurance Regulation	Describe the objectives of insurance regulation.
The Sources of Insurance Regulation	Describe the three sources from which insurance regulatory powers originate: <ul style="list-style-type: none"> • Legislation • Judicial review • Administrative agencies
The Structure of Insurance Regulations	Describe the structure of insurance regulations.
Elements of Rate Regulation and Ratemaking	Describe the following elements of rate regulation and ratemaking: <ul style="list-style-type: none"> • Purpose and unique qualities of the insurance industry • Actuarial ratemaking principles and considerations in rate regulation • Insurance advisory organizations
Types of Rate Regulations	Compare the following types of rate regulation: <ul style="list-style-type: none"> • Prior approval • File and use • Use and file • Open competition • Flex rating • Government-mandated rates
Effects of Rate Regulation on Insurers	Summarize the effects of rate regulation on these aspects of insurance: <ul style="list-style-type: none"> • Resources required for complying with rate regulations • The underwriting cycle • Insurers' decision making regarding where to operate